

**Ashcroft Airfield, Winsford Road, Wettenhall**  
**Winsford, Cheshire CW7 4DQ**  
**Tel: 07977-065780 Email: ashcroftair@btinternet.com**  
**Airfield Owner: Stephen Billington Web: [www.ashcroftair.co.uk](http://www.ashcroftair.co.uk)**

**Addressees:**

- (1) Directorate of Airspace Policy (Mark Swan) CAA
- (2) Network Rail (Mathew Clements, RSSB)
- (3) Highways Agency (Area 10, Piccadilly Gate, store Street, Manchester, M1 2WD)
- (4) Kenyon Hall Farm Airstrip Owner (Tod Bulmer)
- (5) Peel Holdings (Nick Duriez, Manchester City Airport)
- (6) Graham Dickman, Development Control Manager, Wigan Council,
- (7) John Coxon, Lancashire Aero Club Safety Officer.

**Version 7 (20 May)**

**RE: Concerns about hazards associated with new Airstrip at **Kenyon Hall Farm****

**Reason for Report**

After discussions with the **Lancashire Aero Club** ([www.lancsaeroclub.co.uk](http://www.lancsaeroclub.co.uk)) concerning safety issues, I was alarmed to discover that the proximity of the **LAC**'s new airstrip (originally a farmers field & currently rented from T Bulmer at Kenyon Hall Farm, WA3 7ED) appears dangerously close not only to the **M6** Motorway but also to mainline rail link between **Liverpool Lime Street & Manchester Victoria** (see pages 2 to 7). It is my opinion that you should be aware of these issues. Please remember **details** of the L-39 crash on the **M11**, 02 June 2002 and Selby Rail crash, 28 Feb 2001.

As an experienced aerodrome operator for nearly eleven years, I am acutely aware of the safety aspects of Airfield operations and I am extremely concerned that it is the **LAC**'s intention to '*develop*' this farmers field into an Aerodrome for the use of Group 'A' aircraft (ie ...aircraft heavier than microlight aircraft, which are more commonly seen at smaller airstrips like this).

In my opinion the use of the heavier Group 'A' aircraft operating from this farmers field, could potentially endanger not only the drivers on one of the busiest motorways in Europe but also the passengers on a high speed railway (**the most likely time for an aircraft engine to fail is on take-off**)

The reason for this is, unlike microlight aircraft .... Group 'A' aircraft are not always able to make a turn immediately after take-off, due to the fact that '*turning*' reduces the '*lift*' (and hence their rate of climb). Inevitably the pilot will have to climb straight ahead for several hundred metres (whilst the more '*nimble*' microlights can turn to avoid the **M6** and the railway). I have expressed my concerns to the Chairman of the **Lancashire Aero Club** and his communications Officer in an email (21 April 2011) but so far, I have received no constructive reply.

**Contents of Report**

Page **2** gives you an accurate overhead view of the **LAC**'s airstrip, showing quite clearly, not only the close proximity of the **M6** and the mainline railway but also several unfenced public footpaths adjacent to the new Airstrip (see Chap 5 Para 10 ... **CAP 793**)

Page **3** clearly shows the risks of having two airfields so close together in busy Airspace.

Page **4** clearly shows the risk of conflicting westerly departures from both adjacent Airfields

Page **5** also shows the equally alarming risk of a developing Group 'A' aerodrome in the busy LLC

Page **6** shows the hazards (represented in the vertical profile) in the congested airspace of the LLC

Page **7** clearly shows how close Group 'A' aircraft would come to overflying the **M6** and

Page **8** shows the close proximity to a mainline LPL-MAN Railway link on the other runway.

Please see section 6.6.1 of **CAP793** concerning safety issues related to aligning runways

Page **9** Summary for this report. Recommendation max weight of **650kg** for KHF aircraft ops.

Annex **A** Clearly shows the impact that Group 'A' aircraft would have on the local residents.

Annex **B-D** Additional safety concerns of aircraft operating at **KHF** weighing more than **650kg**

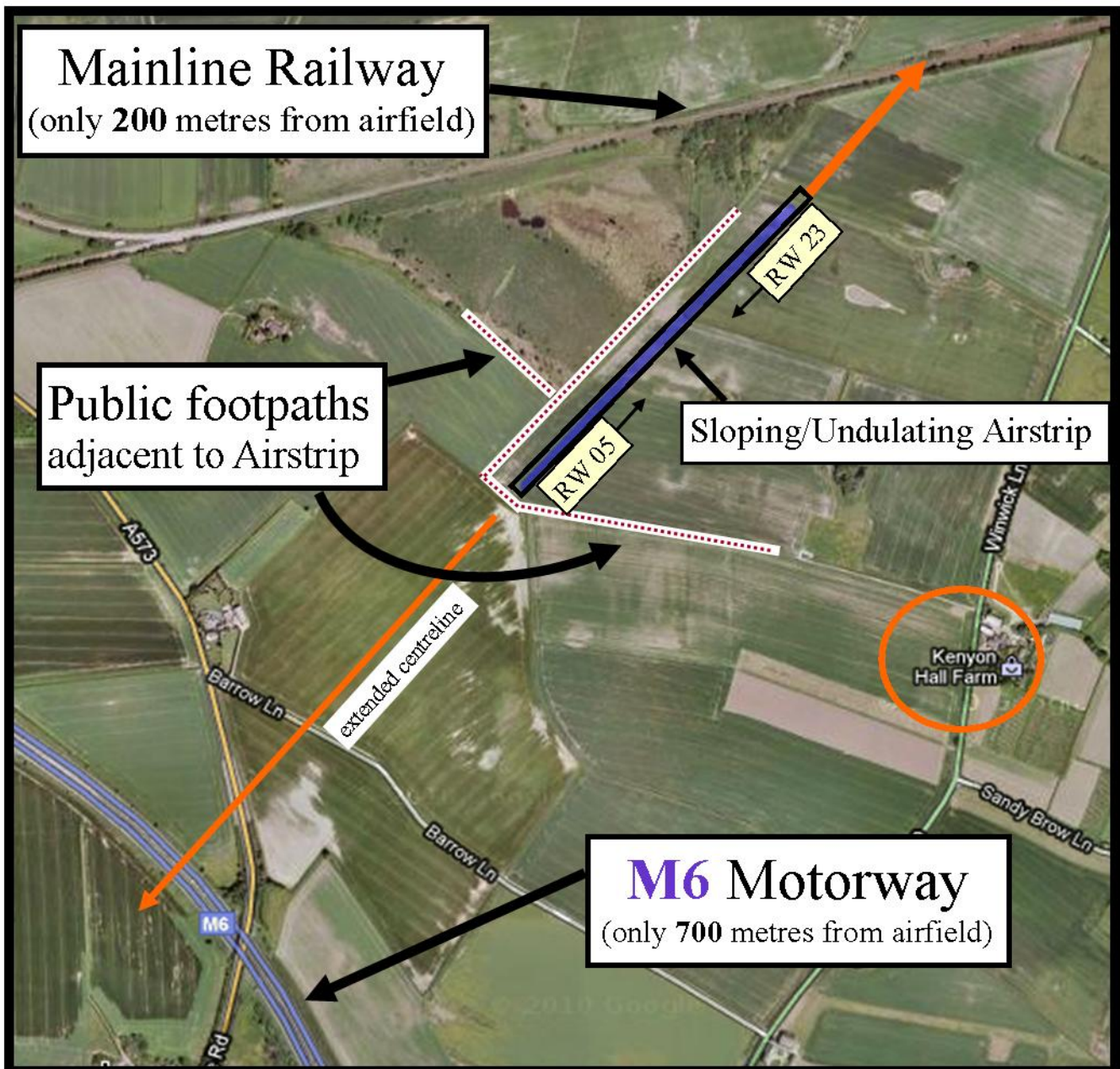
Annex **E** An aerial photo, clearly showing the proximity of the **M6** and the mainline railway

Annex **F** Shows how much space a Group 'A' Circuit pattern takes up

Annex **G** Shows fatal accident statistics relevant to this report

Annex **H** Shows why the heavier Group 'A' aircraft are unsuitable for this Airfield.

This is an accurate overhead view which clearly shows the new Airstrip that the **LAC** are looking to develop to accommodate heavier Group 'A' Aircraft. This farmers field is owned by T. Bulmer at Kenyon Hall Farm (**circled**)

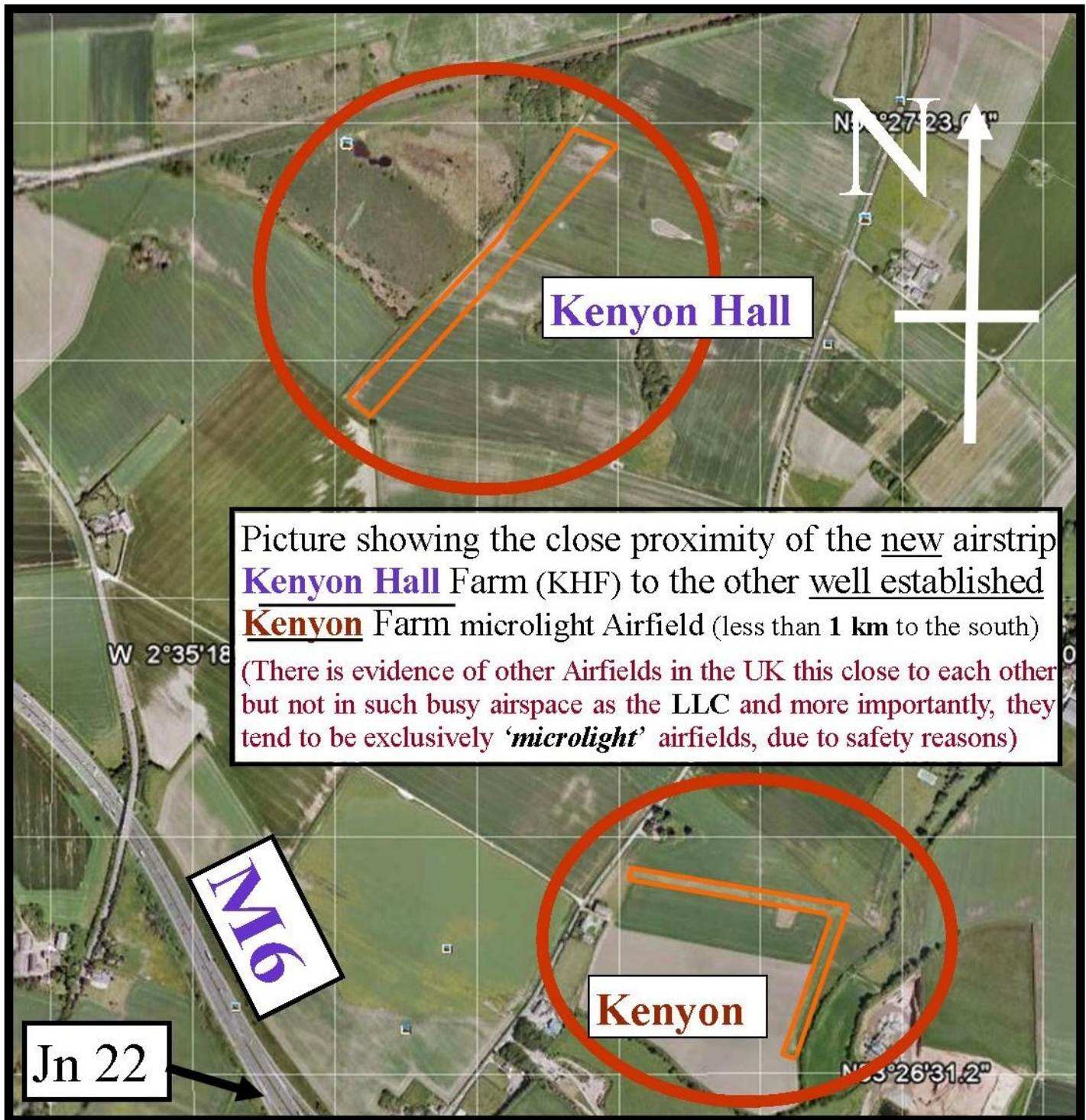


Kenyon Hall Farm Airfield's unsuitability for Group 'A' Aircraft

- (1) M6 motorway just 700m on extended centreline to south west
- (2) Mainline LPL - MAN railway link just 200m to north east
- (3) Multiple (unfenced) public footpaths surrounding airfield.
- (4) Significant undulating slope on a single runway.

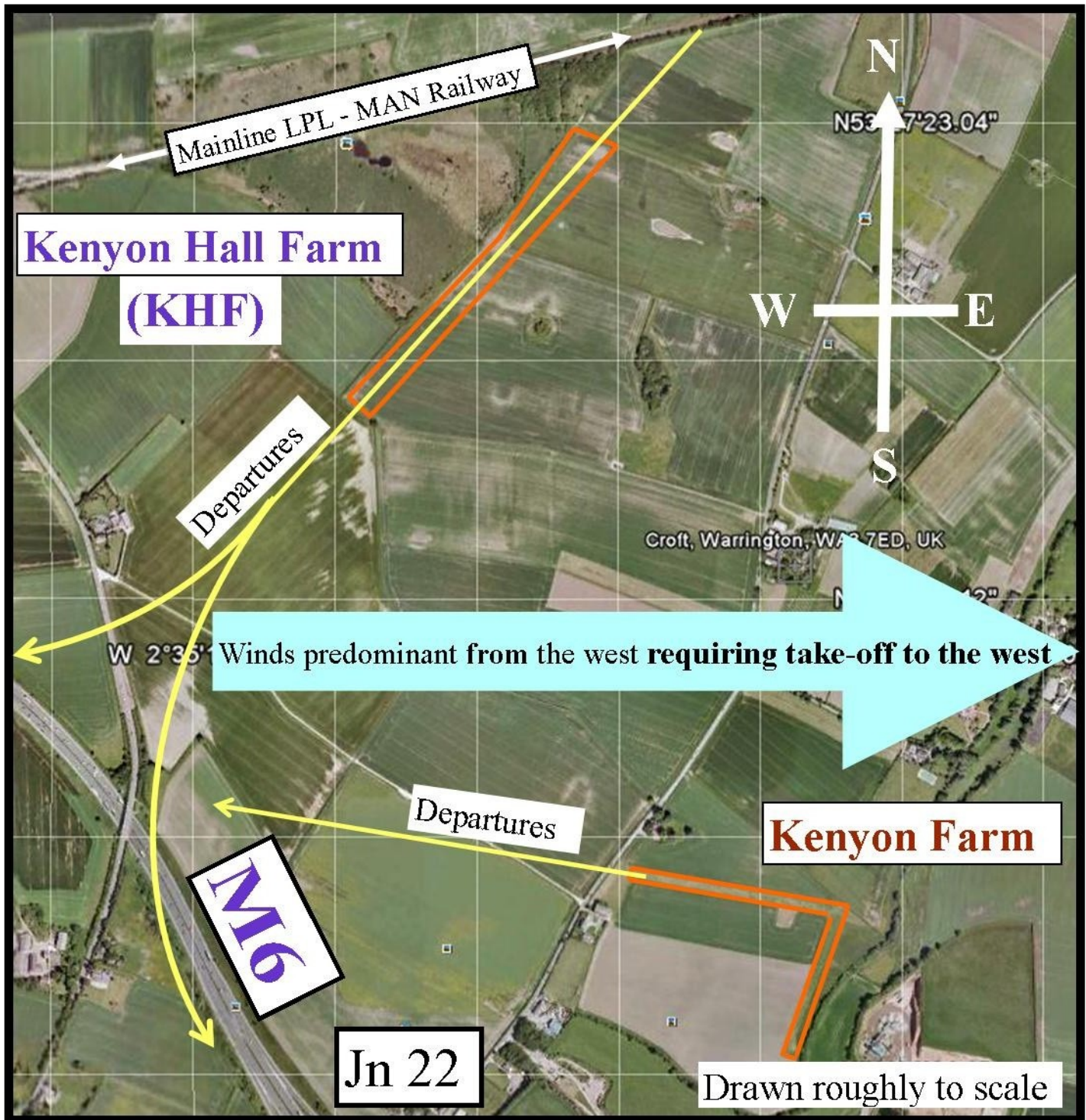
Please bear in mind, that an aircraft engine is most likely to fail when it is under the greatest stress (ie .... during maximum power on take-off)

## Risk of Collision from a neighbouring Airfield



**Safety Concerns** (related to (an already well established) neighbouring Airfield)  
The picture above shows how alarmingly close the new airstrip (a farmers field rented from T Bulmer at **Kenyon Hall** farm) is from the well established Microlight Airfield at **Kenyon** farm ..... less than 1km to the south.  
What is even more alarming is that the Lancashire Aero Club want to '*develop*' this Airstrip (at **Kenyon Hall** Farm) for the use of heavier Group 'A' aircraft.  
Considering the proximity of one of the busiest motorways in Europe, only a few hundred metres to the west, the risk of '*contamination*' from an airbourne collision from neighbouring airfields in a busy flight corridor is clearly unacceptable.

# Risk of Collision from a neighbouring Airfield



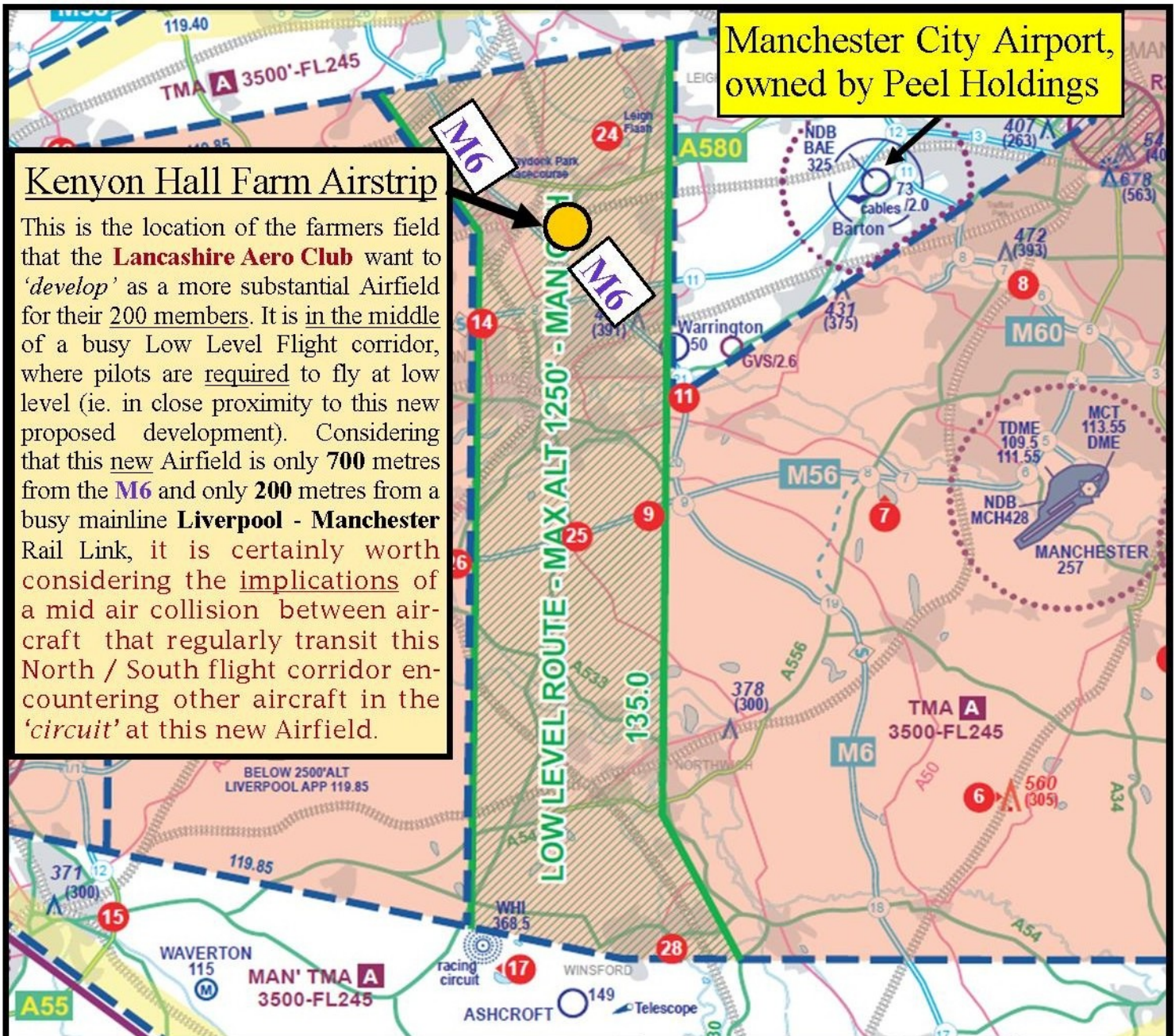
## Safety Concerns (related to (an already well established) neighbouring Airfield)

The yellow curves (to the left and right) after take-off (or after an aborted approach) show (1) The clear conflicts between departures at KHF and the M6 and (2) The clear conflicts between departures from both airfields.

(a) Winds are predominantly from the west in the UK. Since aircraft tend to take-off into wind (for safety reasons) this means that simultaneous operations from these two adjacent Airfields would considerably increase the risk of collision.

(b) The radius of the turns shown above are 'Rate 1'. This is a factor of Airspeed (80kt in this example). Tighter turns are possible but would erode safety margins.

## Risk of Collision from Aircraft transiting a busy Flight Corridor



### Kenyon Hall Farm Airstrip

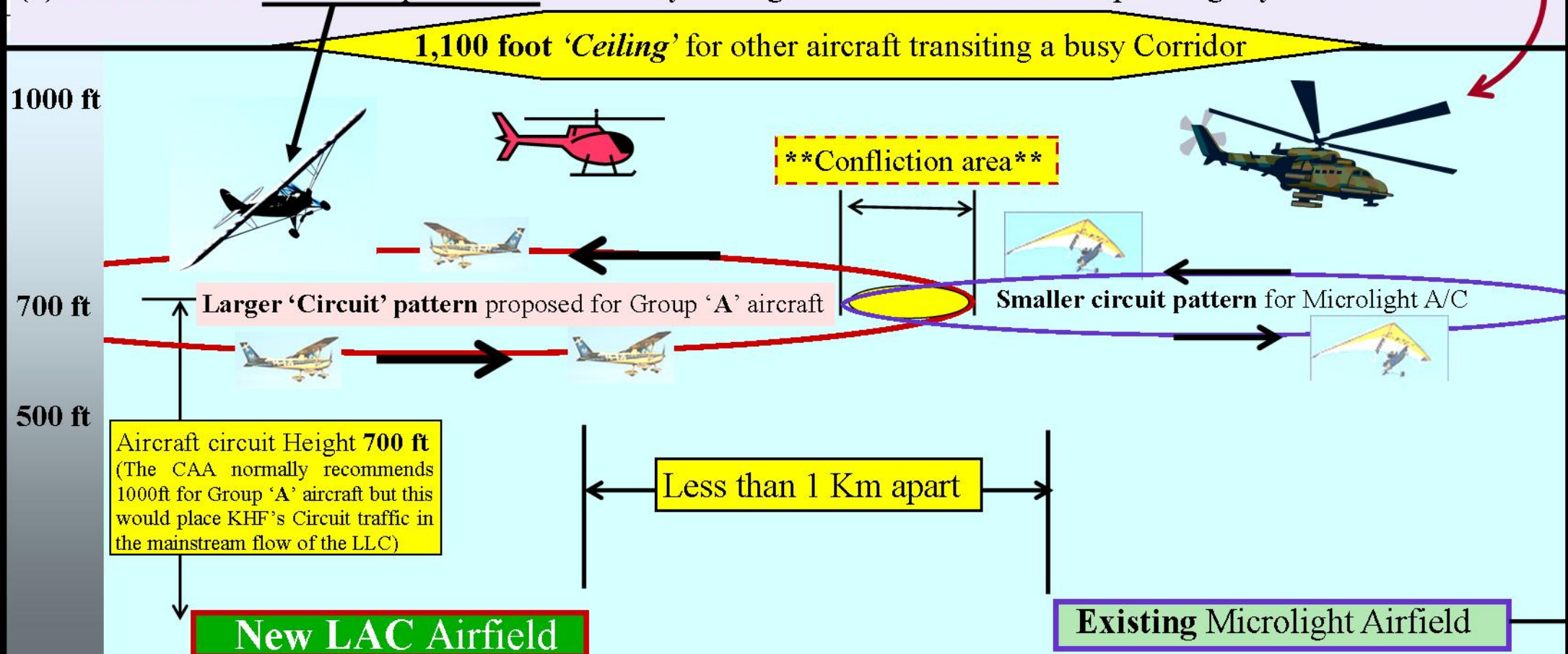
This is the location of the farmers field that the **Lancashire Aero Club** want to 'develop' as a more substantial Airfield for their 200 members. It is in the middle of a busy Low Level Flight corridor, where pilots are required to fly at low level (ie. in close proximity to this new proposed development). Considering that this new Airfield is only 700 metres from the M6 and only 200 metres from a busy mainline Liverpool - Manchester Rail Link, it is certainly worth considering the implications of a mid air collision between aircraft that regularly transit this North / South flight corridor encountering other aircraft in the 'circuit' at this new Airfield.

The picture above clearly highlights the concerns, that the **Lancashire Aero Club's** new location (a rented farmers field) is clearly unsuitable for Group 'A' operations in a very busy Low Level Flight Corridor. No doubt the Directorate of Airspace Policy (**DAP**) department of the Civil Aviation Authority (**CAA**) will need to be consulted before such 'development' is sanctioned. The risks associated with the new location of this aerodrome are exacerbated by the close proximity of another well established Airfield less than a kilometre away ..... (in aviation terms that is less than 15 seconds)

This risk is further exacerbated by Aircraft arriving and departing from the very busy Manchester City Airport (see [www.cityairportltd.com](http://www.cityairportltd.com)) ..... formerly Barton. It is quite clear that the new proposed development of this farmers field is subject to confliction from, not only a busy **Low Level Flight Corridor** but also a equally busy and well established Airfield owned by **Peel Holdings**.

## Risk Factors affecting the new Airstrip at KHF (vertical profile)

- (1) Because the LAC have chosen to site their airstrip **in the middle** of the busy Low Level Corridor, there is significant risk of collision between north/south transiting aircraft (& adjacent *flow* of air traffic from nearby Manchester City Airport)
- (2) This shows how close other aircraft (a/c) get to **KHF** a/c arriving & departing at **KHF** (**just a few hundred feet**)
- (3) The proposed development of **KHF** for the use of Group 'A' aircraft would conflict with **Kenyon Airfield**
- (4) This Low Level Corridor is also frequented by low flying Military Helicopters weighing several tonnes.
- (5) **Please Note:** This example aircraft could fly through the 'Circuit' at **KHF** quite legally and create *'havoc'*



The new Farmers field at **Kenyon Hall Fm (KHF)**

The well established Microlight Airfield at **Kenyon Fm**

## Hazards concerning departures from Runway 23 at Kenyon Hall Farm (KHF) Airstrip

**Example Aircraft:** Cessna 150, 2 Pilots loaded with 3/4 Fuel Tanks. Engine 1500 Hrs SMOH, Pilots based at LPL.

**Example Conditions:** 25 degrees centigrade, Wind westerly at 5kt, Pressure 1000Mb, Runway grass length 40mm

**Example Pilot Experience:** More familiar with Tarmac Runways & Grass Runways in excess of 800m (not 580 metres)

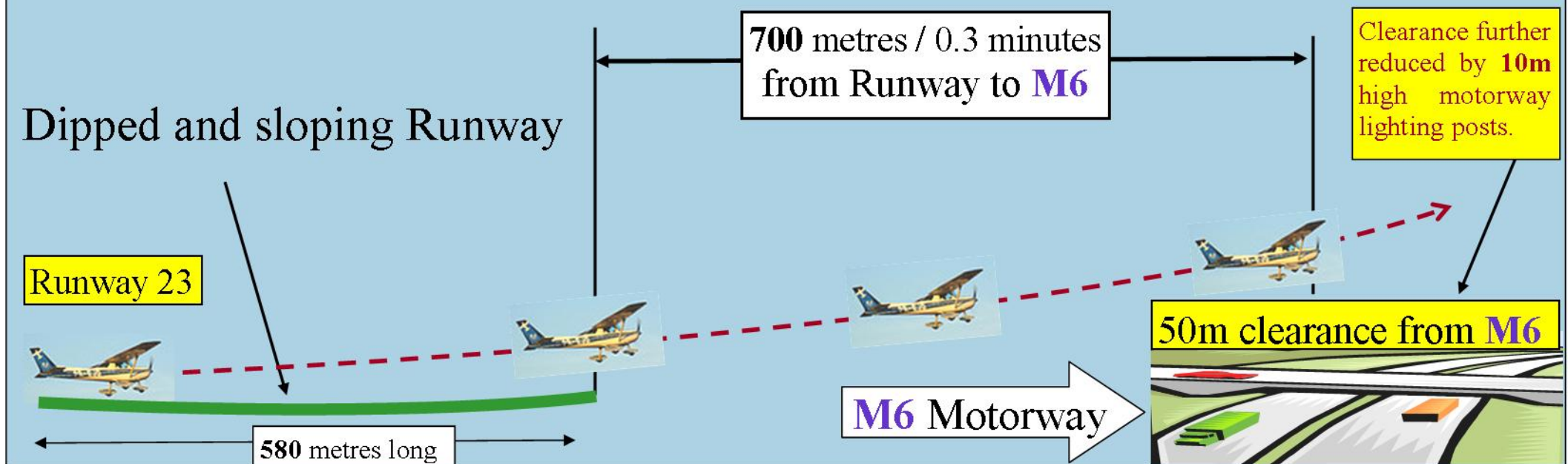
**Take Off Performance:** Slow due to warm conditions and upslope towards end of Runway. Pilot reluctant to make an early turn to avoid Motorway due to wind direction and reduction in climb performance in the turn (less lift on wings).

**Climb Performance:** Lucky to get **500 feet per minute** due to temperature / engine age / pilot experience.

**Approx Clearance of Vehicular Traffic on M6:** Based on a ground speed of 140 kmh (75 Kt) it would take about 0.3 min

**This gives a clearance of vehicular traffic over the M6 Motorway of only 150 ft (approx 50 m)**

### Runway 23 Departures from KHF Airstrip (drawn roughly to scale)



## Hazards concerning departures from Runway 05 at Kenyon Hall Farm (KHF) Airstrip

**Example Aircraft:** Cherokee 140, 3 occupants loaded at 90% MTOW. PIC 100 Hrs on type based at Blackpool Airport

**Example Conditions:** 20 degrees centigrade, Wind northerly at 10kt, Pressure 1010Mb, Runway grass length 20mm

**Example Pilot Experience:** More familiar with Tarmac Runways & Grass Runways in excess of 1000m (not 580 metres)

**Take Off Performance:** Initially good due to downslope but subsequent upslope at end of runway is cause for concern.

**Climb Performance:** normally 620 fpm (clean) but due to flap configuration more like 550fpm (see PA-28 140 POH)

**Approx Clearance of LPL-MAN Railway:** Based on a ground speed of 140 kmh (75 Kt) it would take about 5 seconds

**This gives a clearance over the Liverpool / Manchester Railway fence of only 50 ft (approx 15 m)**

### Runway 05 Departures from KHF Airstrip (drawn roughly to scale)

This clearance below is further reduced by trees along the fence.

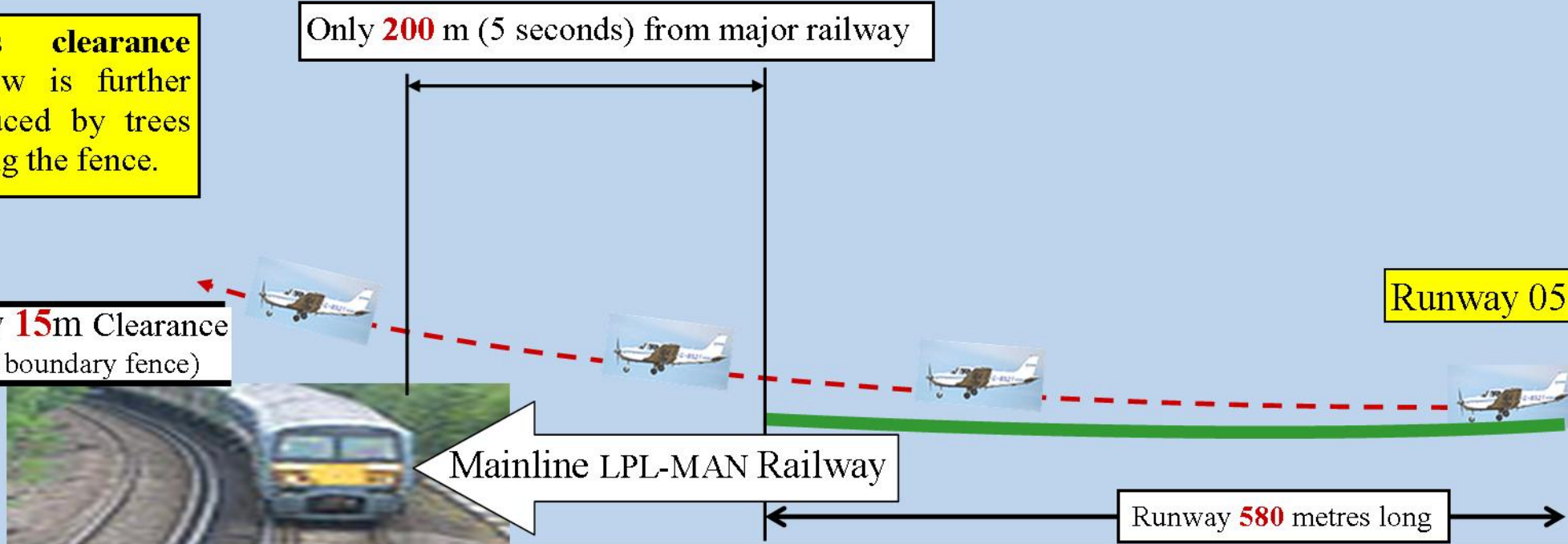
Only 200 m (5 seconds) from major railway

Only 15m Clearance (of boundary fence)

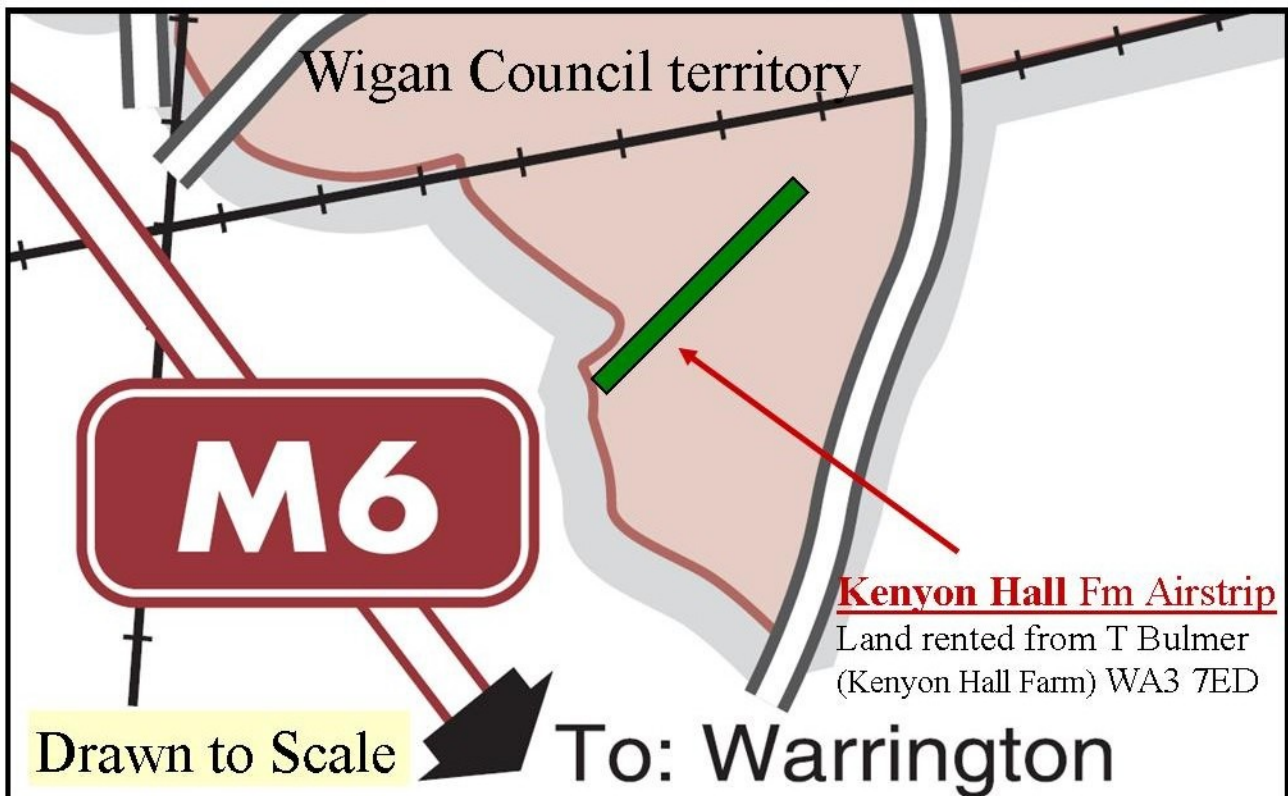
Runway 05

Mainline LPL-MAN Railway

Runway 580 metres long







### Glossary

CAP428 / 793.....	A Civil Aviation Authority publication concerning unlicensed airfields
Circuit .....	A flight path req'd to execute a safe landing (normally at least 700 ft above the Airfld)
Extended centreline..	the flight-path taken by the pilot if the aircraft was climbing straight ahead.
fpm .....	feet per minute (associated in this case as 'rate of climb' of the aircraft)
Group 'A' aircraft ...	Heavier aircraft (eg: Cessna's) normally twice the weight of microlights.
LLC .....	Low Level Corridor.
Microlight .....	Lightweight Aircraft limited to a maximum weight of 450kg
MTOW .....	Maximum Take Off Weight
Permit Aircraft .....	Heavier than Microlights but lighter than Group 'A' aircraft (ie. Cessna, Pipers)
PIC .....	Pilot in Command
POH .....	Pilots operating Handbook (including performance graphs)
Rate 1 Turn .....	A safe turning flight manoeuvre (particularly important on take-off & landing)
SMOH .....	Since major overhaul (of aircraft engine).

### Reasons for Unsuitability Aircraft weighing more than **650kg\*\*** at KHF Airfield

(1) In my opinion, this farmers field is only suitable for the occasional use of Microlight aircraft and for 'Permit' Aircraft weighing no more than **650kg**. Not recommended for the heavier and less nimble Group 'A' Aircraft which are less likely to be able to avoid the **M6** & Railway\*

**Please note:** this mainline railway has trains running (in both directions) approx every 4 minutes. (according to para 7, Chap 5 Flying Ops CAP793 ... a significant 'overrun' is required (there is clearly not enough overrun available to prevent Group 'A' aircraft from striking the boundary fence of a mainline **Manchester to Liverpool** Railway link)

(2) Due to the unusually close proximity of no less than two major arterial transport networks\*

(3) The close proximity to another (well established) airfield ... **Kenyon** farm Microlight Airfield.

(4) The new Airfield at **Kenyon Hall** Farm is situated **in the middle** of a busy Low Level Corridor.

(5) The new Airfield at **Kenyon Hall** Farm is only 7nm from the busy Manchester City Airport.

(6) Several unfenced public footpaths adjacent to the runway.

\*\* NOTE: Max weight figure of 650kg is based on the max weight of a Jodel 120 aircraft, which in my opinion would be suitable to operate from KHF on an occasional basis. Anything heavier than this would be cause for concern.

# Annex A to KHF report

M6 Jn 22

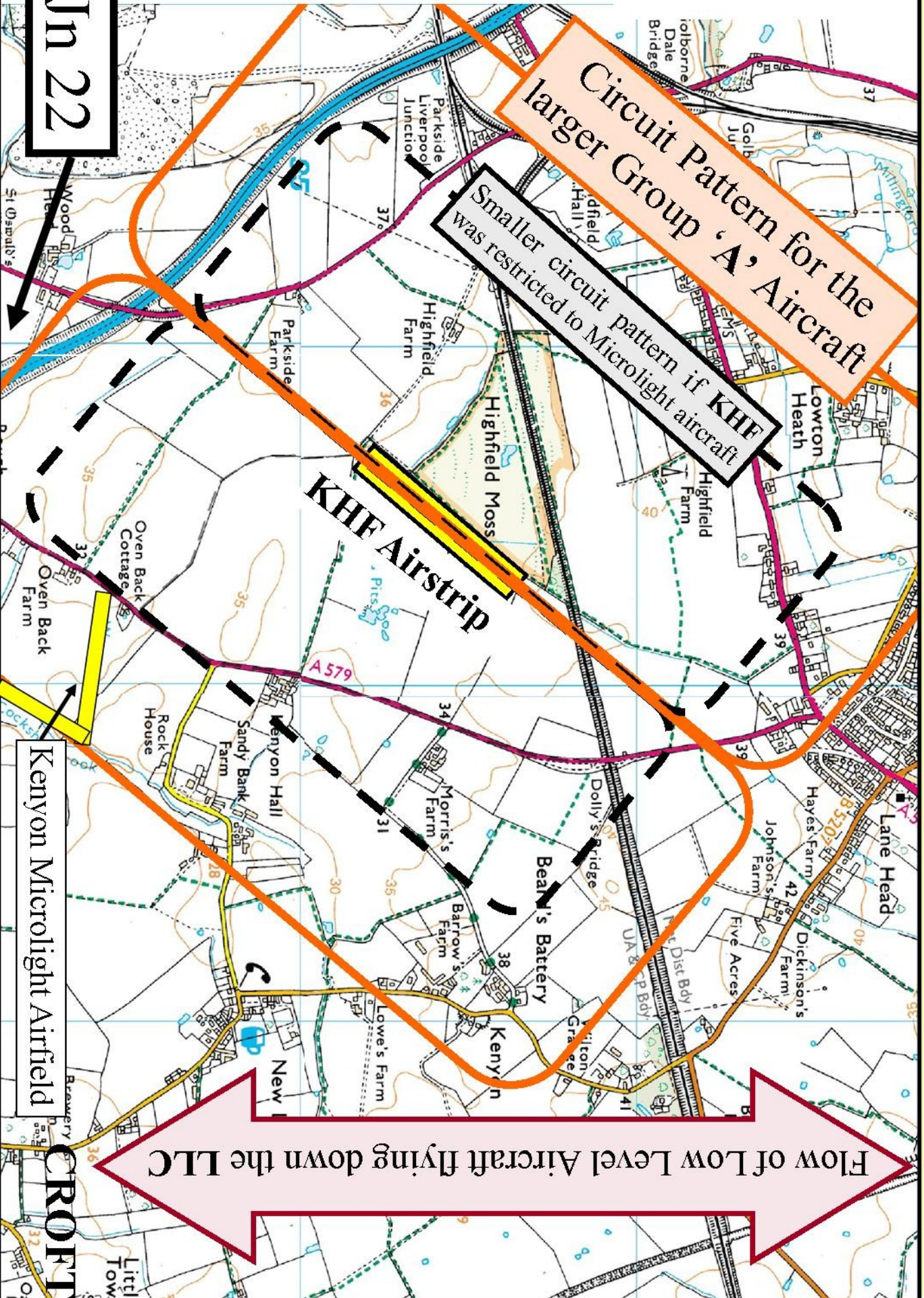
Circuit Pattern for the larger Group 'A' Aircraft

Smaller circuit pattern if KHF was restricted to Microlight aircraft

KHF Airstrip

Flow of Low Level Aircraft flying down the LLC

Kenyon Microlight Airfield



This diagram clearly shows how the larger Group 'A' aircraft would 'dominate the skies' to a greater extent than if KHF was restricted to Microlight operations only. More homes would be overflowed if Group 'A' aircraft numbers grew at KHF & there would be an increased hazard to local residents as a result of aircraft collision in the LLC.

## Annex B to KHF report

### Additional Safety Factors concerning Aircraft Ops at KHF

This picture from the **LAC** website clearly indicates:

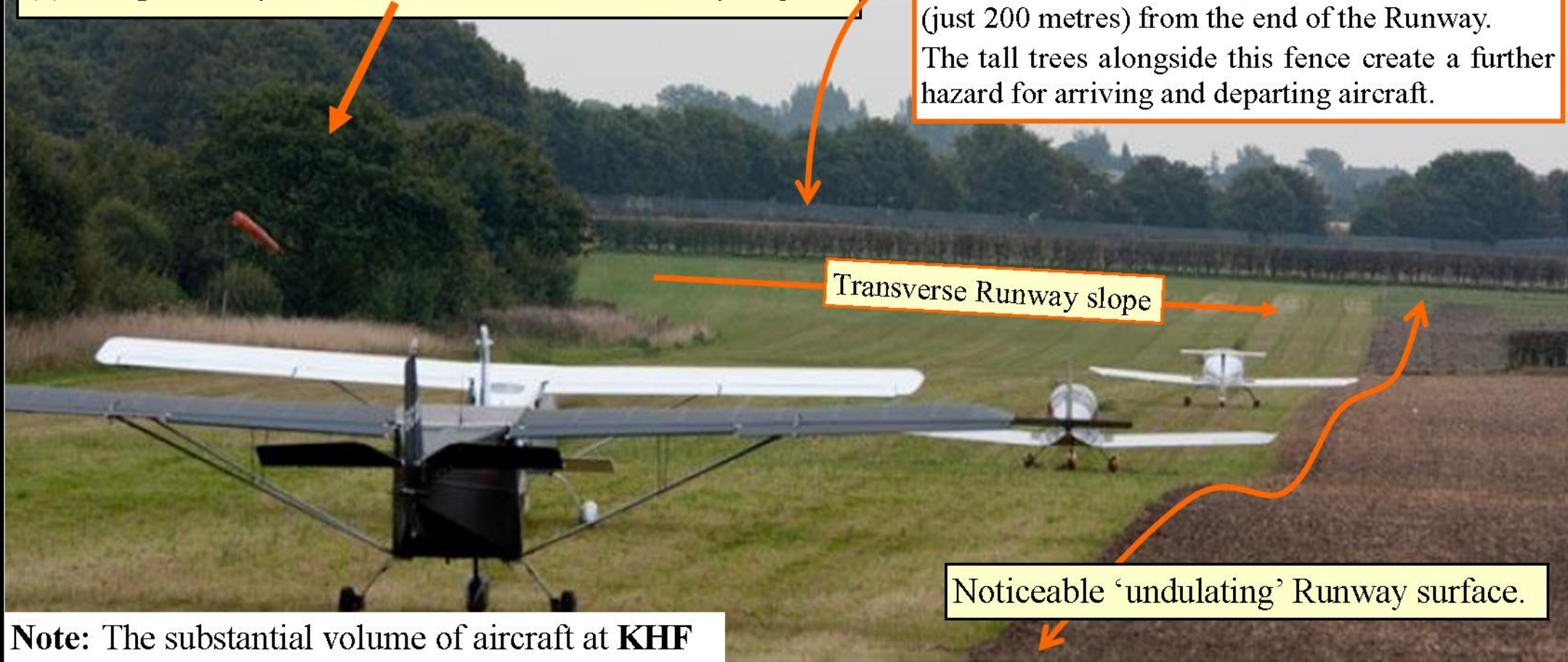
- (1) The undulating surface of the single Runway
- (2) The volume of air-traffic at KHF (4 aircraft + 1 Helicopter)
- (3) The proximity of tall trees on the extended centreline
- (4) Significant '*transverse*' slope across the Runway
- (5) The proximity of tall trees close to the Runway edge

### Proximity of Railway fence to airfield Boundary

In this picture you can see how close the mainline (LPL-MAN) railway is from the KHF airstrip.

The grey railway boundary fence is a stones-throw (just 200 metres) from the end of the Runway.

The tall trees alongside this fence create a further hazard for arriving and departing aircraft.



Transverse Runway slope

Noticeable 'undulating' Runway surface.

**Note:** The substantial volume of aircraft at **KHF**

## Annex C to KHF report

### Additional safety concerns for Group 'A' Aircraft operations at KHF

This picture shows a Group 'A' aircraft (Cessna) preparing to take-off on Runway 05 Note:

- (1) The grey mainline railway fence, clearly visible near the end of the runway.
- (2) The tall trees at the left side of the runway and close to the end of the rwy.
- (3) The undulating sloping nature of the single Runway at KHF.
- (4) The unfenced boundaries allowing animals to enter onto runway (see below)
- (5) The '*mechanism*' for downdrafts created by wind over tall trees (see below)
- (6) The danger to the public due to multiple footpaths adjacent to boundary (see below)



Railway Fence

Undulating Slope

View along Runway 05

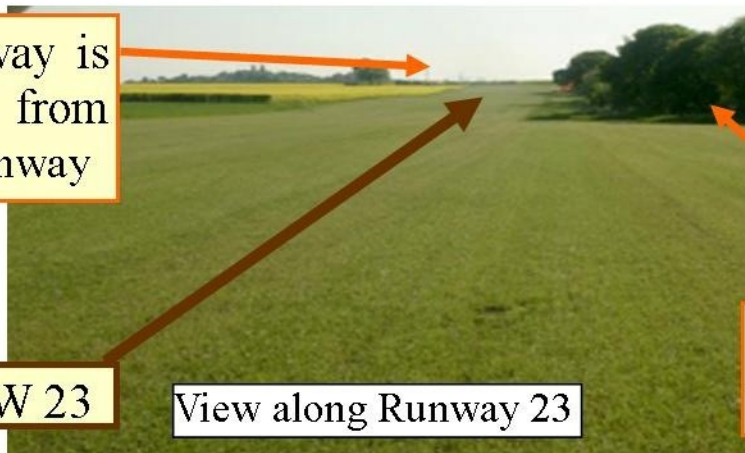
**Approach and landing** Comments by Cliff Whitwell (LAC newsletter June 2010)

What about live stock? Some farmers use their fields for cattle or sheep; but if pigs are in the field avoid it like the plague as they tend to dig up the ground looking for food making for a rough landing. Another consideration regarding live stock is they are inquisitive beasts and once you've shut down they may come over and have a look at your aircraft causing damage.

What are the under shoot and over shoot options? In the likelihood of things going wrong it is not ideal to leave it until you have to decide where to go in the event of a problem. As the Boy Scouts say "Be Prepared". Visualise where to go in the possible event of an under shoot due to engine failure or excessive downdrafts. Are there any obstacles on the approach you need to be aware of? If you land too long down the strip what obstacles are in front to prevent landing in the next field?

Kenyon Hall Farm is very close to a local footpath, so be prepared to abort your landing or take off if someone steps out from the regular route – it is your responsibility as pilot in charge! We have taken precautions to avoid this by placing notices along the path; but humans being humans they are unpredictable and dogs are another story.

The **M6** Motorway is just **700** metres from the end of this Runway



Tall trees close to Runway edge

Upslope on RW 23

View along Runway 23

Always consider where you will go if the engine stops [remember your self brief earlier on the over-shoot area]. Always follow the departure procedures as laid down by the strip owners, again this stops upsetting

## Annex D to KHF report

### Additional concerns for Group 'A' operations at KHF Airfield

The editorials below are excerpts of LAC Newsletters relevant to this report. Please note in particular the following .....

- (1) The plans to '*develop*' the Airstrip at KHF
- (2) Clearly misleading comments: '*isn't too close to major roads*' (the M6 is just 700m away)
- (3) Group 'A' aircraft weighing well over a ton allowed into this new Airstrip

### September 2009

I have seen and heard some negative comments on forums and from members about Kenyon Hall Farm and I would like to respond to these. Whilst I am sure that the whole Committee wishes it had a magic wand with which to spirit up a fully functional, all singing, all dancing airfield, this was not to be. We bid, unsuccessfully, for Stretton and are looking closely at Woodford too, although I am sure that the site will be sold for residential development. There is no infrastructure at Kenyon Hall just yet but there will be. Its location is ideal; it's in Lancashire and it isn't too close to any built up areas or major roads. It is surrounded by fields and open space. We have a supportive and enthusiastic

### May 2010

The main news this month is the re-opening of Kenyon Hall Farm and our Fly In on 1 May. We established a new movement record for LAC activities at KHF and the final figure for Saturday showed that there had been a total of 25 different aircraft visiting.

I was personally delighted to meet Don Graham and Jeff Dodd who arrived from Sleaford in a Cessna 206; Don was my first flying instructor way back in 1989 so we had a good trip down memory lane!



This Group A aircraft weighs well over a ton .. **is it suitable to operate from KHF?**

Other Newsletter comments clearly show the Chairman's desire to '*develop*' KHF

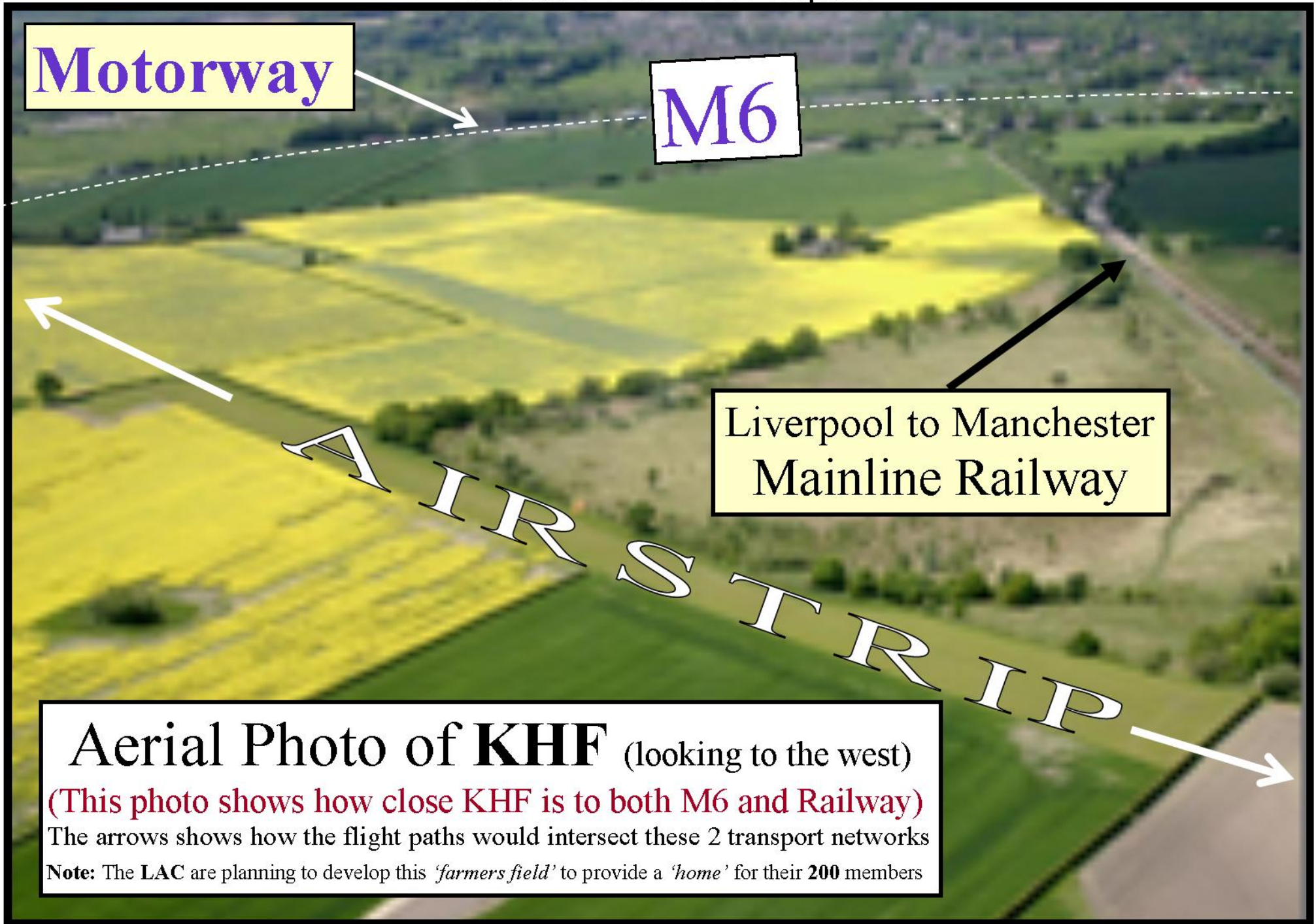
Dec 2010

until then we shall pursue the development of Kenyon Hall Farm to get the best we can. Even so, I still feel that KHF will give us everything we want, Clubhouse, hangars, parking and a decent place to meet. After that it is up to

Jan 2011

This year I am very hopeful that we make the necessary developments to Kenyon Hall Strip that are required. The one aspect that I was very pleased

Annex E to **KHF** report



**Motorway**

**M6**

Liverpool to Manchester  
Mainline Railway

AIR STRIP

**Aerial Photo of KHF** (looking to the west)  
(This photo shows how close KHF is to both M6 and Railway)  
The arrows shows how the flight paths would intersect these 2 transport networks  
**Note:** The LAC are planning to develop this *'farmers field'* to provide a *'home'* for their **200** members

# Annex F to KHF Safety Report

## Circuit procedures

The UK Airprox Board have received a number of reports concerning pilots flying or joining circuit traffic patterns in a manner which places them in positions which others who are following standard procedures do not expect, with a consequent risk of collision.

Indeed, collisions have actually occurred in the traffic pattern, and some of these have been fatal.

The Rules of the Air are internationally agreed for the specific purpose of avoiding aerial collisions. Contravening them in a situation where a collision is possible is not only illegal but downright stupid. Those who feel uncertain of what they are, or just wish to remind themselves, should refer to section 2 of CAP [393](#), available from The Stationery Office

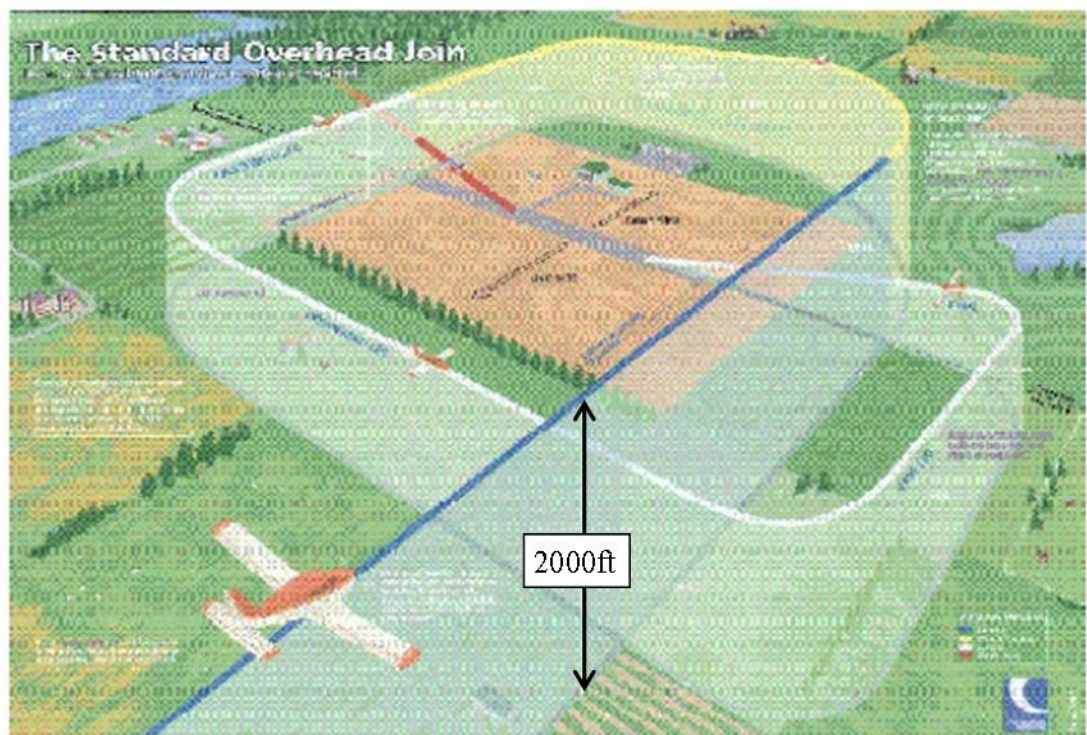
or free for download from the CAA's web site [www.caa.co.uk/publications](http://www.caa.co.uk/publications).

Unless specific procedures are published by individual aerodromes or permitted by an Air Traffic Controller (not a FISO or a/g radio operator), arriving pilots should comply with the standard overhead joining procedures described in CAP [413](#) "The Radiotelephony Manual", and on

the [poster](#) below, which is

**collisions have actually occurred in the traffic pattern**

available from the CAA's web site through "General Aviation" and "SafetySense leaflets".



This is an excerpt from the CAA's General Aviation Safety Information Leaflet

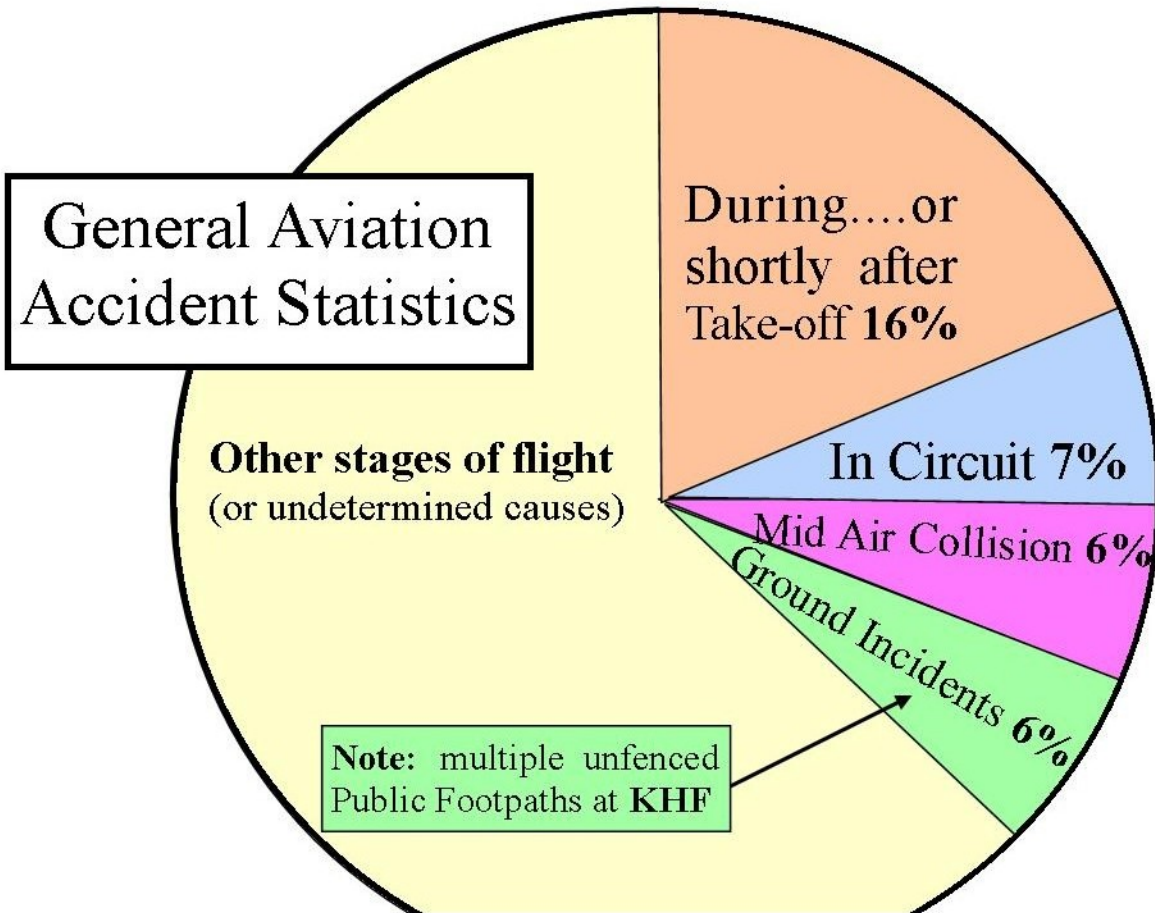
Some relevant issues from this Dec 2006 edition of GASIL are .....

- (1) The normal joining height for Group 'A' aircraft is **2000ft Above Airfield Level (AAL)**
- (2) This is impossible at **KHF** since the 'ceiling' of the LLC restricts an aircraft to **below 1100ft**
- (3) This diagram gives you some idea of the space required for a circuit pattern on one runway
- (4) This diagram is for one Runway. Landing in the other direction, takes up even more space.
- (5) Any Group 'A' Circuit traffic at **KHF** would 'soak up' about 20% of the LLC's width.

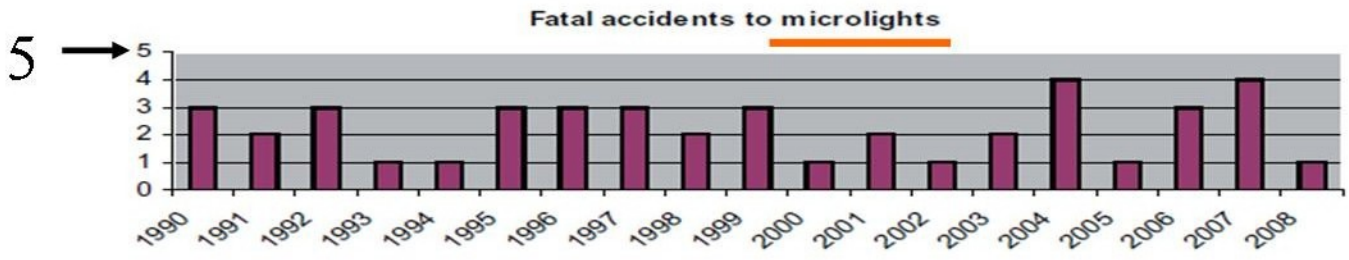
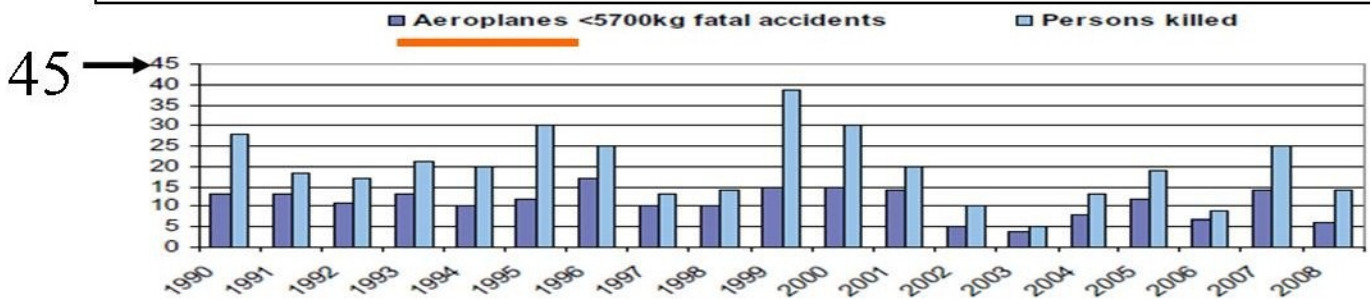
**CAP393** section 4.8(2) states.... 'an aircraft shall not be flow in such proximity to another aircraft as to create a danger of collision' .....

**Increasing the aircraft movements at KHF** (particularly for the larger and heavier Group 'A' aircraft) **would significantly increase the risk of collision between legitimate LLC air traffic and legitimate existing Microlight operations at the adjacent Kenyon Airfield.**

# Annex G to KHF report



The Chart above shows the relevant statistics for Group 'A' operations at **KHF** (aviation **fatality figures** taken from the last eleven years from **CAA GASIL** publications) What is noticeable is that **35%** of these incidents are relevant to **KHF** Airfield Ops with the added risk of mid air collisions from an adjacent airfield and the **LLC**. A significant proportion of incidents are Take-Off related which clearly causes concern since **KHF** is located so close to the **M6** motorway and a mainline railway.



The tables above (also from GASIL) clearly shows how much safer **KHF** would be if it's use was restricted to Microlight operations or permit aircraft with a low max take-off weight (ie. Jodel 120, **650kg**)



# Annex H to KHF safety Report

## Reasons for the unsuitability of heavier aircraft operating from KHF

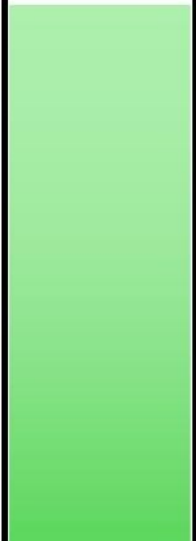
- (1) Single short, sloping and undulating runway, adjacent to high trees and public footpaths.
- (2) Close proximity of the airstrip to the M6 motorway and the mainline LPL-MAN railway.
- (3) Close proximity to an existing Microlight Airfield (that has been operating for many years)
- (4) Location in the middle of a busy low level flight corridor (increasing the risk of a mid-air collision)



Greater than  
1000kg



650kg



450kg

