

Kenyan Hall Farm **A**irstrip **S**afety **D**ocument **U**pdate **KASDU**

This Safety document has been constructed primarily in the interests of safeguarding the General Public who put their trust in Network Rail to transport them safely along the Liverpool to Manchester mainline Railway.

The train service is Northern Rail and trains can run every **8 minutes** along this straight stretch of line ... with speeds of up to **75 mph**.

Due to prevailing winds, about **80%** of all aircraft Landing at KHF land in this direction, over the Railway. Landing aircraft clear the trees on the embankment of the Railway by between **20-55 feet**. Any loss of engine power or significant turbulence experienced by flying close to these high trees would possibly result landing aircraft striking the trees and tumbling down the embankment ... creating '*contamination*' on both of the tracks.

There appears to be a **40m danger zone** (20% of the final approach path) acting like a '*Venus Fly-Trap*' where an aircraft can not execute a safe landing & will clearly endanger Northern Rail trains on this railway line.

30 seconds after this this photo frame was taken, the engine on this Single Engine Cessna **stopped** and had to be manually re-started.



For the urgent attention of:

Sir David Higgins	Chief Executive of Network Rail
Robin Gisby	Managing Director, Network Operations
Risk Assessment Dept Manager	Network Rail, Head Office, London N1 9AG
Julian Lindfield	Director, safety & Compliance, Network Rail
Sarah McArdle	Community Relations Manager, Network Rail
Ian Bevan	Managing Director, Northern Rail, York YO1 6HZ

Contents

Page 1	... Title Page
Page 2	... Contents and Distribution List
Page 3	... Flight Path over Railway Line concerning “incident” aircraft.
Page 4	... Comparison of Standard & Non-standard Flight Paths (tree clearance heights).
Page 5	... Effect of wind, creating hazardous down-drafts over Railway embankment trees .
Page 6	... Safety aspects for Light Aircraft operating at Unlicensed Airfields.
Page 7	... Hazards of contamination on Railway tracks Selby Rail Disaster 2001
Page 8	... Summary ... and ... Recommendations for Network Rail & Lancashire Aero Club

NB: This document has been constructed in the sole interest of promoting Flight Safety and with regard to enhancing safety for the fare paying passengers on Northern Rail Liverpool-Manchester line. Every attempt has been made to provide an accurate & unbiased document, without the intent to criticise any individual or any organisation.

Document constructed by: Stephen Billington. **Release date:** 23 Nov 2012

Distribution List

Any person or organisation on this list is directly affected by this document.

Any name in **Bold & Red** will also receive a printed version.

Primary recipients

- * Sir David Higgins, Chief Executive of Network Rail
- * Robin Gisby, Managing Director, Network Operations
- * Risk Assessment department Manager, Network Rail
- * **Sarah McArdle** (Community Relations Manager, Network Rail)
- * Ian Bevan, Managing Director of Northern Rail
- * **Graham Dickman** Wigan Borough Council (Development Control Manager)
- * **Emma Breheny** Planning Officer, Wigan Borough Council
- * **James Grundy** Councillor for Lowton East
- * Edward Thwaite Chairman of the Lowton East Development Forum (LENDF)
- * **C&A Waddington** KHF Airfield Watch Group
- * **J Moulden** KHF Airfield Watch Group
- * **B Lobell**KHF Airfield watch Group

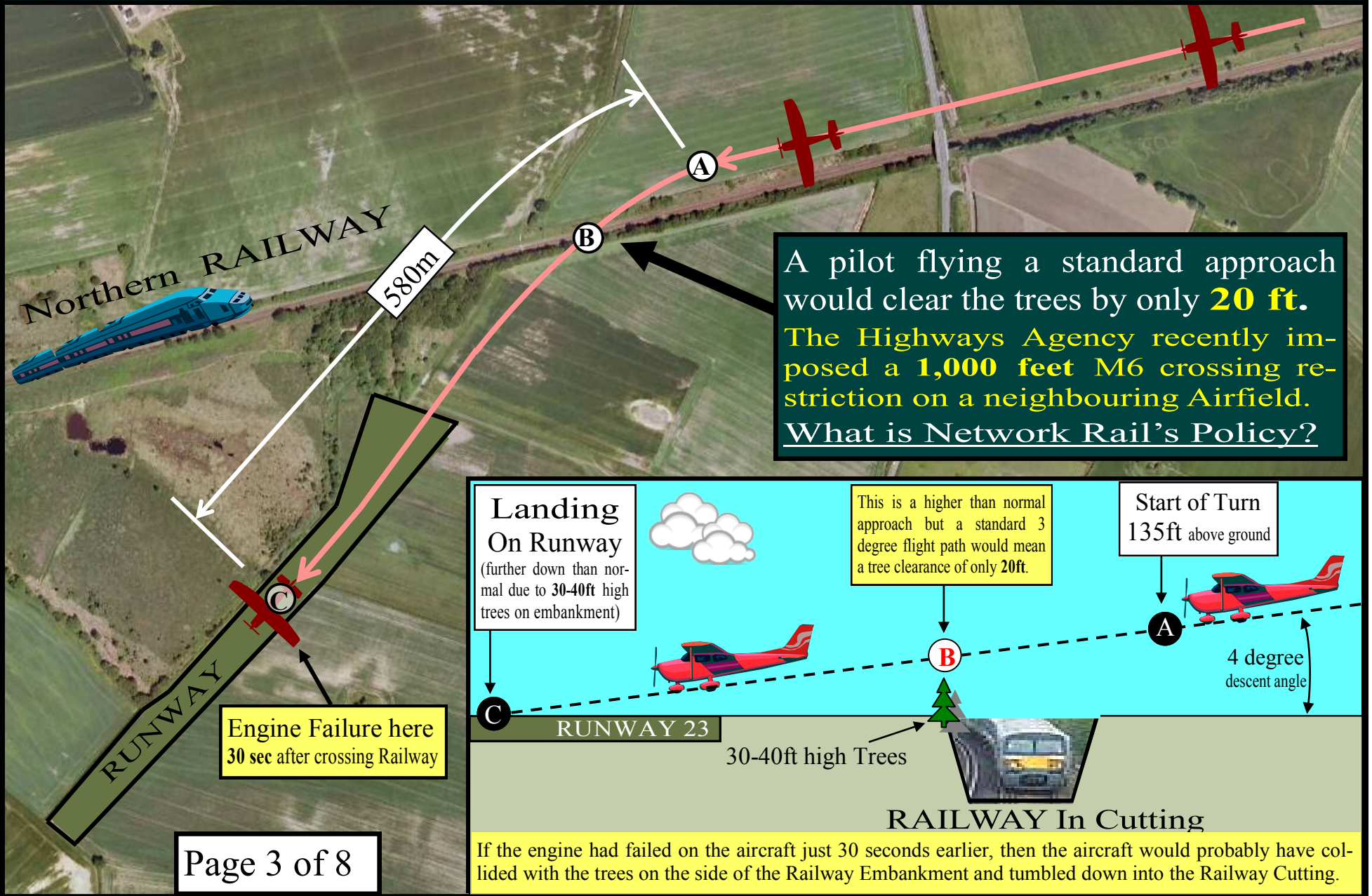
Secondary recipients (involved with Flight Operations at KHF Airfield **)

- * Tod Bulmer, Lessor of KHF Airfield Kenyon Hall Farm, Warrington
- * Clifford Mort, Chairman of the Lancashire Aero Club
- * Christopher Barham, Communications Officerof the Lancashire Aero Club
- * John Coxon, Safety Officer of the Lancashire Aero Club

(** This document has been pre-released to all Secondary Recipients but they have declined to comment)

Over 40 Safety concerns have been raised with the operators of KHF Airfield but they have declined to comment

A Cessna experiencing Engine failure on Landing at KHF Airfield (just 30sec after crossing Railway) (Arriving aircraft at KHF airfield clear the Railway Embankment trees by 20-55 feet ** only) ** Pilots flying a standard flight path would clear the trees by only 20 feet (see page 4)



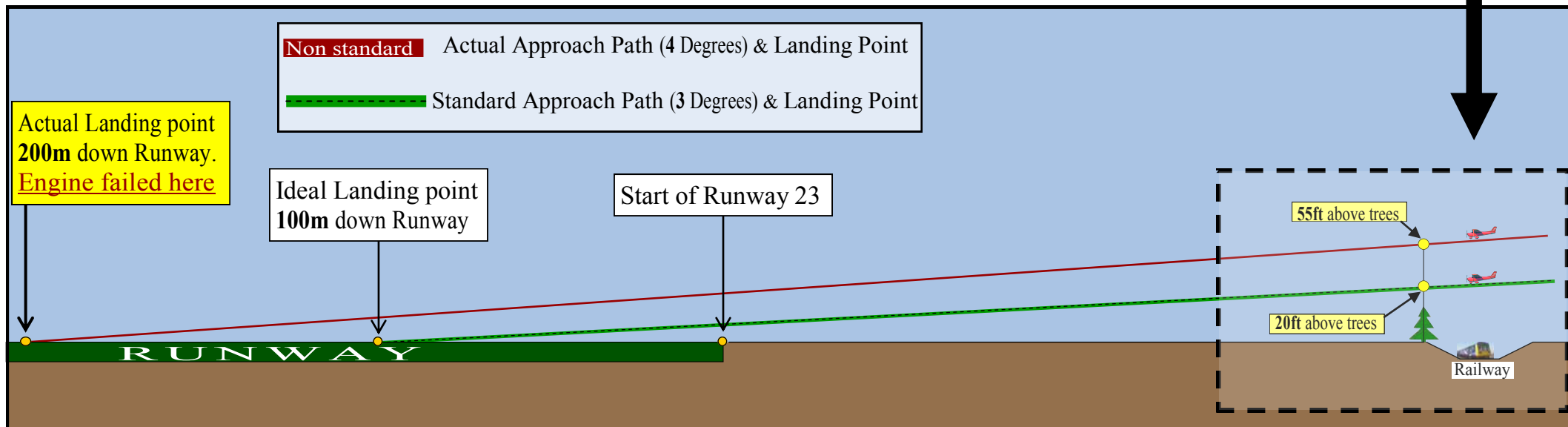
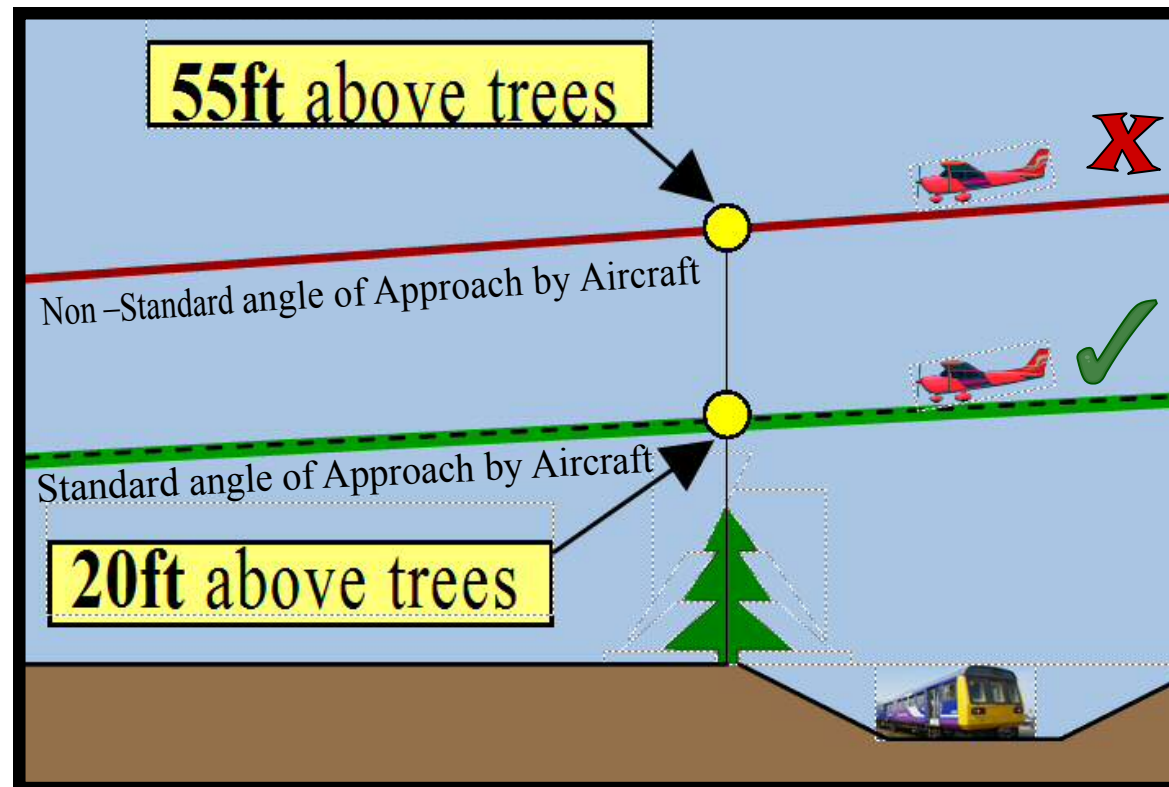
Tree Clearance by Railway Line

This diagram shows that Aircraft Landing at KHF Airfield should follow the Green line (3 degree Approach Path and land 100m down Airstrip) but by doing so, the aircraft would only clear the Railway embankment trees by **20feet**.

The aircraft shown following the steeper **Red Line** (non-standard) 4 degree Approach Path lands 200m down the Airstrip, eroding safety margins for the pilot.

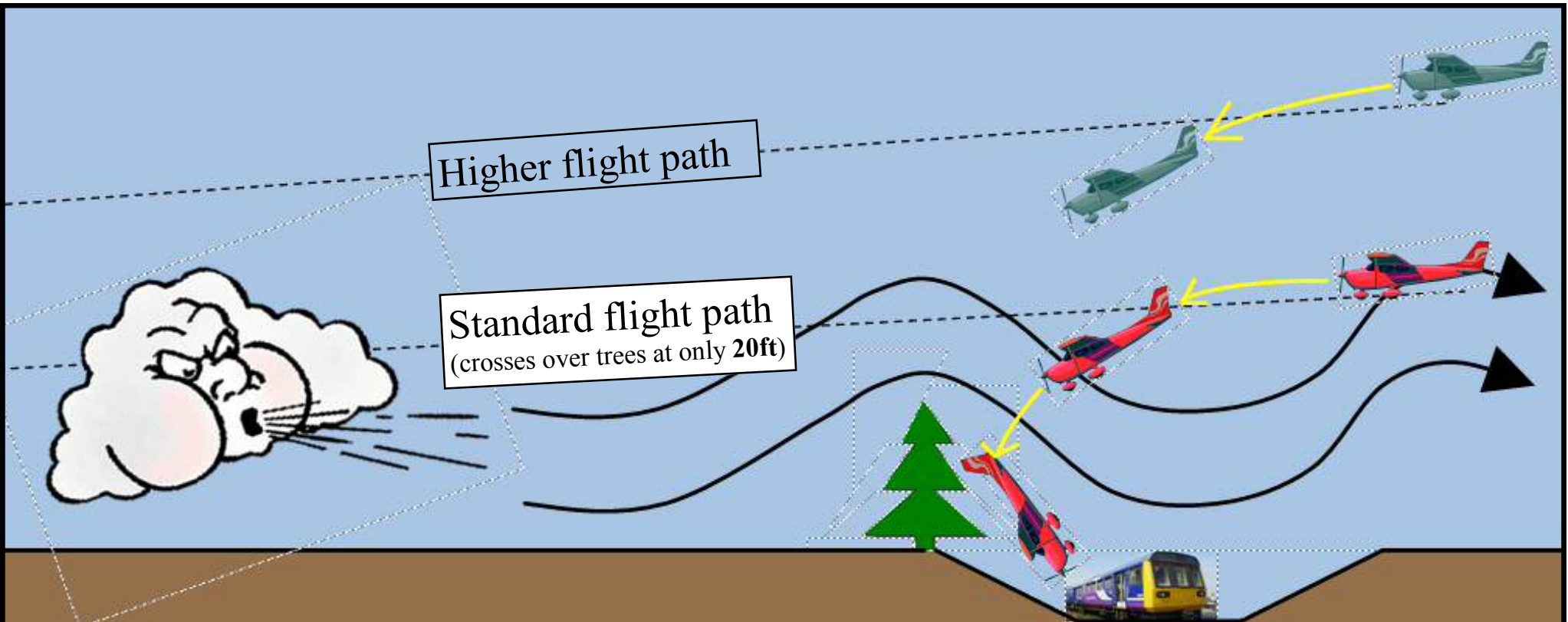
The point is that Pilots require *reasonable clearance* from obstacles (ie. trees) and fly a higher than normal flight-path. As you can see from Page 5, even this extra 35 feet clearance, can still create a hazard for Northern Rail.

All these drawings are to Scale



Effects of Wind on Aircraft Landing on Runway 23 at KHF Airfield

The predominant winds in the UK are south westerly. Aircraft nearly always land “into wind” and so Runway 23 at **KHF** is used most of the time for landings. As the wind blows over the trees on the Railway embankment near KHF’s Runway, aircraft experience “down-drafts” that can create loss of height and sometimes loss of control of the aircraft ... resulting in a crash. This “*loss of control*” of an aircraft (whilst in flight) happened only a few months ago (30 June 2012) at KHF, resulting in the aircraft crashing into the trees, by the side of the Runway.



Eastbound & Westbound Northern Line trains can pass KHF airfield every **8 minutes**
The Highway agency recently imposed a **1,000 foot** vertical restriction (for a neighbouring Airfield) on aircraft overflying the M6 Motorway.
Network Rail has so far no policy related to aircraft overflying this twin track mainline Rail-link.



SAFETYSENSE LEAFLET 12 STRIP FLYING

An Unlicensed airstrip similar to KHF, featured in a CAA publication



This CAA document warns pilots and airstrip owners of the hazards of operating from an Unlicensed airstrip such as KHF. Please note the poignant comments below. As you can see from the photo on the right ... The one thing KHF does not have is “*clear approaches*”. Tall trees are a hazard for pilots.

1 INTRODUCTION

a) Unlicensed aerodromes and private strips are often used by pilots and private owners. They may be more convenient or cheaper than licensed aerodromes; however, they do require special consideration.

Approximately one third of GA Reportable Accidents in the UK occur during take-off or landing at unlicensed aerodromes. The

2 ASSESSING THE STRIP

a) It is important to realise that the CAA criteria for the licensing of an aerodrome, e.g. clear approaches without power or other cables, no trees or obstructions close to the runway and so on, are unlikely to have been applied to the strip. Since in almost all cases **Prior Permission is Required (PPR) before landing**, your phone call should also include

These are the tall trees on the Railway embankment



Aircraft landing on Runway 23 at KHF Airstrip

Clearing the trees and landing at KHF

The photo above is of an aircraft landing on Runway 23 at KHF having just cleared the 30-40ft trees (visible in the background) that exist on the embankment of the Northern Line twin track Railway.

Any turbulence (caused by wind passing over the trees) would have a detrimental effect on the aircraft's capability of maintaining a stable approach path, in what could already be described as a “*close shave*” in aviation terms for the pilot of the aircraft.

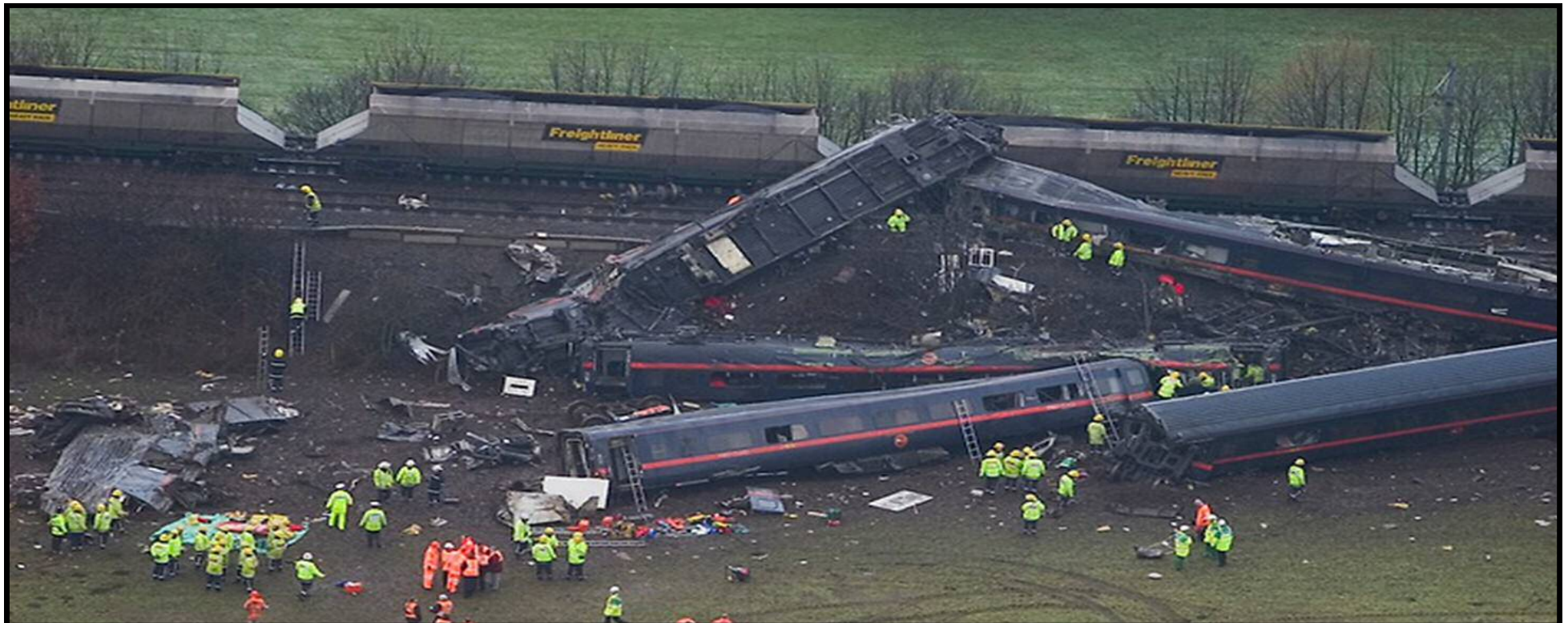
This is not an ideal environment for landing aircraft.

Selby Rail Crash 2001

This crash was caused by a Land Rover on the tracks.
Any contamination on any Railway could be catastrophic.

Risk of Contamination on the Northern Rail Track

KHF Aircraft clear the embankment trees by **20ft** (on a standard approach)
In aviation terms, this **20ft** clearance over trees is ... very close.
Any significant wind could erode even this slim margin of safety.



Summary

- **KHF (Unlicensed) Airstrip is 200 metres from the Northern Line Railway**
- There are **30-40 foot** high trees on the Railway embankment to fly over.
- Aircraft on a standard approach path clear these trees by about **20 feet**.
- In aviation terms this clearance is unusually small for pilots.
- Any significant wind blowing over these trees can cause downdrafts.
- These Downdrafts can cause the Pilot to lose control of the aircraft.
- Losing control of aircraft accounts for about 1/3 of light aircraft crashes
- The aircraft in the background crashed due to this at KHF on 30/06/2012.
- **The operators of KHF have failed to respond to over 40 safety concerns**
- Restrictions have already been put in place on a similar Airstrip (**Rixton**)
- The Highways Agency demanded a **1,000ft** high **No fly Zone** over the M6 there
- Sarah McArdle was assured that no aircraft overfly the Railway at **Rixton**.
- Network Rail has established **no policy** concerning **KHF** aircraft.
- This is despite 2 Safety documents sent to Network Rail (May 2011, Oct 2012)
- Trains can pass **KHF** Airfield every **8 minutes** on the Northern Rail line.
- This is not enough time to warn Network Rail of an aircraft crash.
- This was the problem experienced in 2001, resulting in the Selby crash.
- The aim of this document is to avoid repetition of a crash of this nature.

Recommendations for ...

1. Network Rail / Northern Line

- Try to establish communications with the operators of KHF.
- This can be achieved: info@lancaeroclub.co.uk 0793-4444130
- Contact Chairman of the LAC, Cliff Mort (no response so far).
- **Suggest: an immediate stop to all KHF aircraft landing on RW23**
- **Suggest:** a Risk Assessment on all KHF aircraft crossing the Railway.
- **Suggest:** a no fly zone of at least **200 feet** high over the Railway.
- Liaise with **Graham Dickman** at Wigan Council (Development Control)
- Provide feedback to S Billington ashcroftair@btinternet.com

2. Operators of KHF (Lancashire Aero Club)

- **Discontinue all Landings on RW 23 KHF with immediate effect.**
- Consider warning Pilots on LAC website of RW23 Hazards.
- If RW23 landings required, introduce **300m** Displaced Threshold
- Restrict RW23 landings to Ultra-lights, turning inside the Railway.
- Ensure that all departing aircraft on RW05 avoid the Railway.
- Provide feedback to S Billington ashcroftair@btinternet.com
- **Be more responsive to Safety Concerns in the future.**

