

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Piper PA-28-236 Dakota, G-BGXS	
<b>No &amp; Type of Engines:</b>	1 Lycoming O-540-J3A5D piston engine	
<b>Year of Manufacture:</b>	1979 (Serial no: 28-7911198)	
<b>Date &amp; Time (UTC):</b>	26 May 2012 at 1415 hrs	
<b>Location:</b>	Rufforth East Airfield, Yorkshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Damage to propeller blades, wing fuel drain valve, spats and engine compartment	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	50 years	
<b>Commander's Flying Experience:</b>	308 hours (of which 10 were on type) Last 90 days - 6 hours Last 28 days - 3 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The aircraft ran off the end of the runway whilst landing at Rufforth East Airfield, on a runway intended to be used by microlight aircraft and gyroplanes. The pilot had misidentified the correct airfield for light aircraft to use at Rufforth.

**History of the flight**

The pilot intended to fly from Gamston Airfield, near Retford, to Rufforth, near York. As he had not flown there before, he checked the airfield's website and found that this WWII heavy bomber airfield had essentially been divided into two and named Rufforth East and Rufforth West; the former is operated by a microlight club and the latter by a gliding club.

However, the website the pilot had found was for the eastern part of the airfield and in web pages labelled 'Rufforth Airfield East Flying Order Book' there were cautions concerning the need to avoid the western area, including an aerial photograph with this area shaded out and the words 'AVOID THIS AREA - GLIDING AIRFIELD', reproduced in Figure 1.

Further pages outlined circuit patterns to be used, with emphasis on noise-sensitive areas close to the airfield for each runway, including an instruction not to overfly a farmhouse on base leg for Runway 06 (Runway 05E in Pooley's Flight Guide - Figure 2). The pilot of G-BGXS considered that to comply with this he would

need to fly the right-hand base leg very close to the runway threshold, since flying on the other side of the farmhouse would mean infringing the 'precluded' shaded area of Rufforth West.

The website carried further information that the circuit height was 500 ft for all runways, that the aerodrome was 'Strict PPR' (Prior permission required) and that there was a 'safetycom' frequency which pilots were encouraged to use by 'calling blind'. Having noted this information, the pilot checked the weather and NOTAMS and then sought advice about Rufforth from other pilots before departing. He asked a friend, who was also a pilot, to obtain the required PPR for him to land at Rufforth; this was obtained but without mentioning the type of aircraft in use.

Because he had not flown G-BGXS for some time, the pilot performed two touch-and-go circuits at Gamston before setting course for his destination. During the transit, he was aware of areas of intense glider activity, which he avoided before arriving at Rufforth. Upon arriving, he noted that Runway 36 (Runway 35 in Pooley's Flight Guide) at Rufforth West seemed ideal for his PA-28 Dakota but he believed that this area was reserved for gliders only, so instead he made blind calls on the Rufforth East Safetycom frequency, stating that he intended to land on Runway 06. A pilot responded, stating he was in an aircraft at the hold for that runway "if that helped him" to identify the active runway and reiterated the need to avoid the farmhouse.

The pilot in G-BGXS joined the right-hand circuit on the downwind leg at 500 ft and avoided the farmhouse, even though he realised that the turn onto finals was



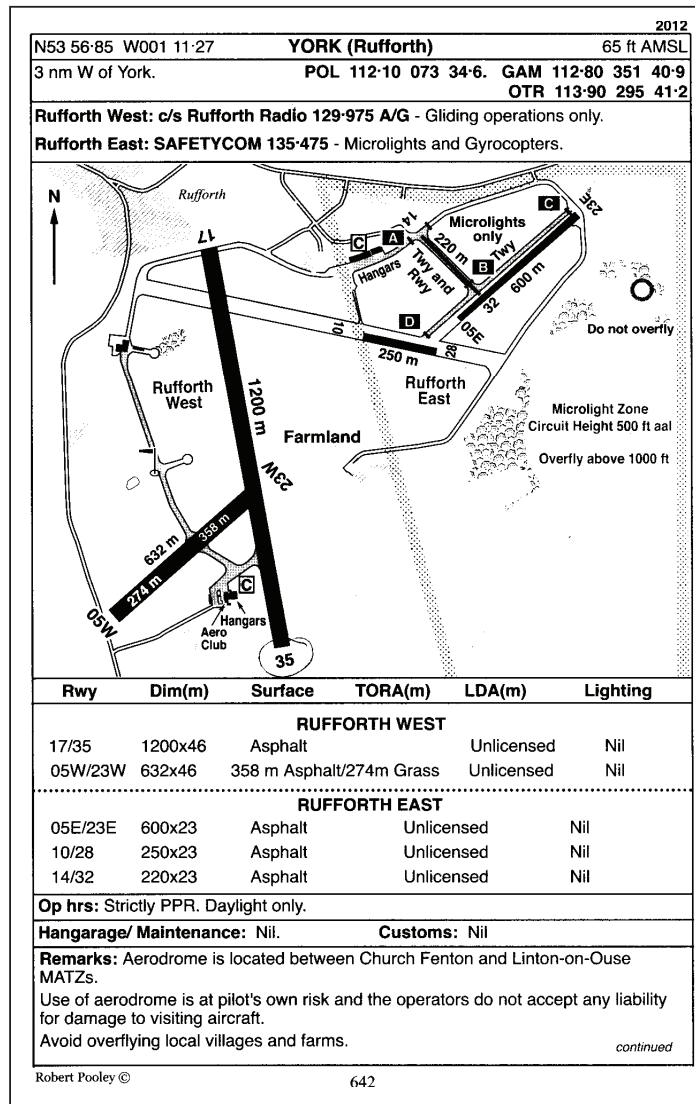
**Figure 1**

Reproduction of web image from 'Rufforth Airfield East Flying Order Book Rev 1.1', including farmhouse area

going to be difficult. Applying full flap, fine propeller pitch and closing the throttle fully he brought the aircraft over the runway centreline but realised that far too much runway had been used to get to this point. He considered going around but decided to continue with the landing and, despite shutting down the engine and full braking, was unable to prevent the aircraft from running off the end of the runway, through a barrier, across the perimeter road and coming to a halt in rough grass and shrubs. He shut down all systems and vacated the aircraft normally.

### Analysis

In addition to supplying a full and frank narrative of the events, the pilot of G-BGXS provided a critical appraisal of the chain of errors and assumptions he had made which resulted in attempting to land on an unsuitable runway having flown an unsuitable circuit.



Courtesy: 'Pooley's Flight Guide'

Figure 2

Extract from Pooley's Flight Guide showing details for Rufforth East and West

He considered that the first link in the chain was his misidentification of Rufforth East as being appropriate to the type of aircraft he was flying. Having consulted the Rufforth East website, with its strict warnings on circuit patterns, he had assumed that these instructions were also intended for light aircraft such as his. The pilot considers that, had he consulted more authoritative documents, such as Pooley's Flight Guide (Figure 2), he would have seen that the runway at Rufforth East was designated 'Microlights only'.

The pilot identified that the next link in the chain of events was that he had not personally telephoned for PPR at Rufforth East. It is possible that if he had, the type of aircraft he intended to use might have been discussed. The conversations he had with other club members had not resolved the misapprehension and, arriving at Rufforth, the brief exchange with the aircraft on the ground might also have betrayed that he was flying a higher performance light aircraft. The pilot later learned that the aircraft on the ground was a gyroplane.

Finally, the pilot considers that he was mistaken in allowing the circuit restrictions to override his judgement that he could not, in his aircraft, safely fly the circuit and approach. He considers that he should have flown a circuit which was reasonable and safe for the type of aircraft he was flying.