



# BIGGIN HILL AIRPORT BUGLE

News from our Airport at Biggin Hill - established 2005



CLUB AND AIRPORT NEWS  
ISSUE No. 46

BIGGIN HILL AIRPORT SOCIAL CLUB LTD  
[www.bigginhillclub.co.uk](http://www.bigginhillclub.co.uk)

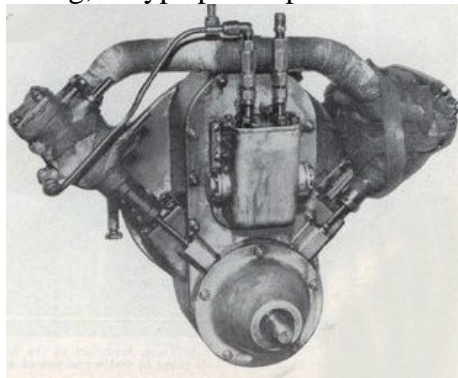
In Ass. with BigginHillReunited.co.uk  
1<sup>st</sup> December 2008

## BURNS A BIT OF OIL MAN



No way! It's a steam powered aeroplane! Very little has been written about this development by the Besler brothers (*George and William*) way back in the 1930's. Their steam engine weighed 180 lb and produced 150 HP and was installed in a Travel Air Bi-plane. The culmination of this engine was created from 3 years of secretive experiment, in a machine shop at Emeryville CA. On its maiden flight with William Besler at the controls it sped down the runway and climbed into the air without a sound except for the low whine of the propeller and the hum of wind through the wing wires. Swinging back over the field at 200 ft, the pilot shouted 'Hello' and heard the answering calls from the spectators below. Apparently conversation within the aircraft during flight was as easy as conversation in an open automobile. The exhaust emitted a small vapour trail, evaporating in the air as fast as it appeared. Think about this:- Steam engines are very silent, apart from the chuff, chuff of the exhaust. There is no explosion as with the internal

combustion engine. If you have had the pleasure to ride on the foot plate of a steam train, it is incredibly quiet. Next time you visit a steam engine rally, take note of the lack of noise apart from the clanking of metal parts of the unit. The actual engine is very quiet. We digress a little. Another unique feature of the steam engine is that it could be reversed on landing to shorten the landing roll. The engine for this flying machine was a 2-cylinder, compound, double-acting, V-type power plant.

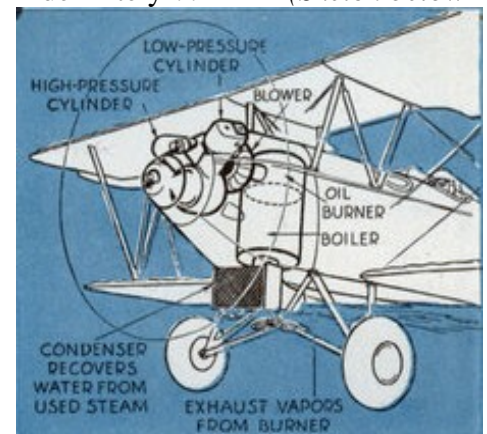


The high pressure cylinder has a 3-inch bore and a 3-inch stroke: its low pressure cylinder has a 5-inch bore and a 3-inch stroke. (*this peculiarity is due to lowering temperature of steam as it is passed to the next cylinder enabling the power to remain constant in both cylinders*) If you don't understand the technicalities, read on. It will take too long to explain. (*A bit like trying to pull a pint of Guinness in one foul stroke, the glass becomes full, overflows and three pints spill onto the floor*). Their boiler design was quite clever with a coil of pipe-work housed within measuring 500 ft in length. The water supply to the coiled pipe is thermostatically

controlled to keep the temperature constant regardless of pressure. The operation of this power plant once started was practically automatic. Once in the cockpit the pilot would flip a switch. Instantly an electric blower goes into action, driving air mixed with oil spray through the burner which is ignited by a spark sending a blow torch of flame downward around the coils of pipe. A few moments later steam pressure is high enough for flight.



**George & William Besler** pose with their installation showing the compact boiler system. It was calculated that just 10 gallons of water would be sufficient for a flight of 400 miles. According to these two experimenters by increasing the size and efficiency of the condenser, they believe they can make this amount of water last indefinitely ?? (*Sketch below*)

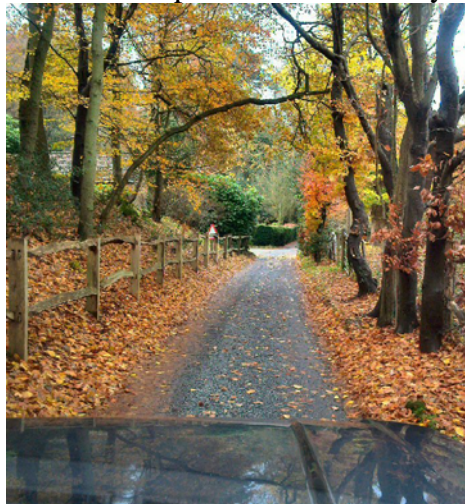




showing detail of the power plant installed in a light aircraft) However there must be a slight loss due to some evaporation. Is this engine the answer for light aviation. Above 1,000 ft, flying could be as silent as the birds enabling one to sneak about low level without disturbing anyone.

Most spectacular of all are the possibilities of steam on the airways of the stratosphere. In the thin atmosphere of this region, 10 miles or more above the surface of the earth, experts agree, the high-speed transport ships of the future will fly. Here there are no clouds, no storms, and steady trade winds of the upper blue will increase the speed of long distance passenger, mail, and freight machines. Where did those big Jumbo Jet thingammies come from ?? Are they responsible for the loss of steam powered airliners, which would be silent and could have operated from large airports all night long without disturbing the local populace. If you want to read more on this invention, go to: [www.rexresearch.com/besler/beslerst.htm](http://www.rexresearch.com/besler/beslerst.htm)

It makes interesting reading (Ed).  
**COLOURFUL NOVEMBER**  
 Normally this time of year is often plagued by fogs making flying quite miserable. This year has seen the leaves clinging to the trees in an ever changing myriad of colour adding to the beauty of the country lanes in deepest Kent & Surrey.



Always carry your camera, even the mobile phones of today have the capability of producing a good quality picture, such as these two



colourful country scenes.

## RENEWAL APPLICATION



The present owners of the RAF Officers Mess (opposite the Spitfire and Hurricane memorial,) have posted their renewal notice for converting this historic building into a 31 roomed hotel. It could be one way of resurrecting a little of Biggin Hill's historic value.

## DISCOVERING AVIATION

Here follows a rough guide to a spiraling aviation career...!!

The applicant should be healthy, preferably married with a family, hefty mortgage, living in a much sort after area in the country, e.g. Cowden, Edenbridge with a direct rail link to the city, and the owner of two large vehicles on the *never, never system*.

The next stage is to find out over a casual drink with a business acquaintance that he is a pilot !

*You are entranced !* "Let me top you up." Over the next few drinks you find out that he (Syd) is a key member of the Flying Club at the local aerodrome – *You are enthralled*. Your boyhood dreams of becoming a pilot seem to be a possibility as the airfield is just down the road. Syd, had promised to take you flying *'no problem'*. You decide to take him up on his offer. Anyway he owes you, as you did buy him quite a few drinks previously. The weekend arrives and you make an excuse to visit the DIY store for some materials to repair the back fence. (*You wont be missed for a while*).

You of course divert to the airfield and locate Syd's flying club. An old dilapidated building in need of some desperate repairs and hand me down collapsed furnishings. You hesitantly ask for Syd ? the quizzical response is *Syd !! (Your heart sinks), Oh him!* He had a couple of lessons, but we haven't seen him since. You have ventured too far into the club to back out! *BUT, WAIT A MOMENT*, this could be your chance to really top Syd up! Without hesitation you find yourself strapped into a rather uncomfortable aircraft with the instructor beside you, occupying far more space than deemed necessary. The Joystick is firmly wedged between your legs and the many clock like dials are bewildering, *and nowhere, but nowhere, to put your feet*. A man outside the aircraft shouts *'contact'* He swings the propeller, the engine roars into life – the noise and vibration from within, is akin to a Sherman Tank going into battle.

You find yourself (*alone with the instructor*) at the beginning of a grass runway, whereupon, he asks you to follow through on the controls during take-off. *How the hell !* can we control anything, let alone the aircraft from such a cramped position – we are roaring down the runway the instructor pushes the foot pedals left and right jamming your knees behind the instrument panel. *Oh hell..! this is dangerous*.

The next memorable moment that you recall is back at Syd's Club writing a cheque, and over a cup of coffee agreeing to come back next week for another flight. You can't wait to tell Syd, but dare not mention the event to the wife.

A few weeks pass with several decoy trips to the DIY store, your new found talents are beginning to indicate a future in aviation, things couldn't be better. *How to tell the wife !* The right moment is about to present itself. Whilst out shopping with the wife and kids, *a sudden rush of blood to your*



brain, finds you veering off the road onto the airfield. There is a look of extreme anxiety on her face, wait until she learns about your prowess and new found friends at the flying club, she will be delighted ! ***This is your biggest mistake, she is totally resentful....***

**Why ?** Your good health and a clear mental attitude is about to stand you in good stead, for the next unforeseen crisis in aviation.

**-Divorce!** - This whole affair creates a slight financial setback. Your cars are re-possessed, you are forced to provide the wife with a cheap car whilst you end up with a Mini Van with a mattress in the back. Your aviation career will have to take a back seat for a while. Having more free time in the evenings, you are now able to spend more time at the club bar reminiscing about your flying skills (*of which you have little*). It isn't long before an ***unsuspecting new student*** offers you a drink in exchange for your infinite knowledge of aerodynamics, he is a willing listener and in turn continues to ply you with drink...

***The night is young.*** You become something of a legend and the ***'centre of attraction'*** at the evening sessions around the bar. The Flying Instructors have long since departed to their loved ones and you alone are left to impress the young fledglings, with your ***'less than academic flying skills'***. This is a side of the aviation fraternity which seems to have been overlooked. ***'The bar pilot'***, you are its champion..!!

Your newly acquired fleecy lined Leather Jacket adorned with a set of gold braided wings, your name emblazoned on the right side for all to see, a ***'Red Arrows'*** logo sewn onto the left sleeve. ***You are a well established authority***, within the confines of the airfield. Your expertise is second to none of various types of aircraft on the airfield. Any ***'Plane Spotter'*** that happens by at the weekend will spot you immediately as one of the

airfield bums, and will endeavour to avoid you. But, you are not to be outwitted by his ***'look the other way tactics'*** you will corner him between the mainplane and the tailplane as he bends down to spot the serial number. He will be enthralled as you quote verb and verse, *of the many different types of aircraft visible to his gaze*. He will show an ***'uncanny interest'*** in your exquisite knowledge of the difficult flying characteristics of these aircraft. – ***Amazing...!!***

**Finally...** this casual spotter is about to floor you with his ***'off the cuff response'*** as he heads for his car. ***He was an Instructor on most of these aircraft in Canada during World War II*** and he doesn't recall any difficulty or unusual characteristics with any of the aircraft that you claim to have unequivocal knowledge. Aaah...!! ***Must be a little more selective with my aviation proclamations...!!!***



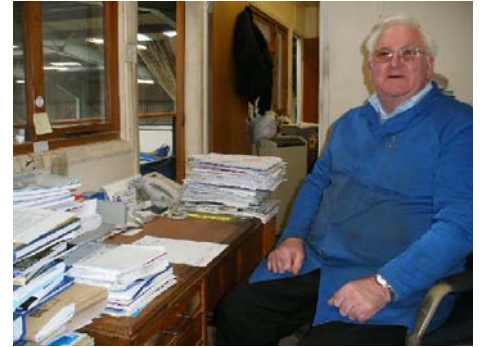
***Pilot memorabilia for sale, good condition, surplus to requirement.*** Any names used in this article are purely fictional, whilst a reflection in a mirror may portray an uncanny lifelike resemblance....!!

**\$10,000 WORTH OF LIGHTS**



This Boston (USA) owner starts his decorative Christmas in October.

## **AIRFIELD PERSONALITIES**



Chris Bond is an aircraft engineer holding A & E Licences. Chris has everything at his fingertips as depicted in this picture. Chris has a filing system which is very simple, every item in the pile goes from top to bottom and he knows precisely the relevant position for any piece of paper in the pile.

Chris came to Biggin Hill in 1960 working for a company called Air Couriers, who like various others around this time were ex Croydon. He then moved to a company called Aviation Communications. In 1970 he would move to Gatwick Airport working for Airtime. 1973 saw his return to Biggin Hill, joining Express Aviation, who were the main dealers for Piper Aircraft. In 1987, Chris became Chief Engineer for a new company at Biggin Hill called Shipping and Airlines, and is still with the firm to this day. Chris has always retained a keen interest in aircraft and is able to quote verb and verse on many different types. He has several reference books lying around from which he can look up specifications of any aircraft you may wish to know about. He is a careful listener to any problems you may have with your aircraft, and will rectify the problem with infinite precision, whether in the hangar or in the field. Chris has a thoroughness with his work which is very reassuring for the aircraft owner. He has been on the airfield for 40 years or more and is always on time. He likes flying, given the opportunity, but has never taken the option for a flight in a helicopter ....!!