



# BIGGIN HILL AIRPORT BUGLE

*News from our Airport at Biggin Hill - established 2005*

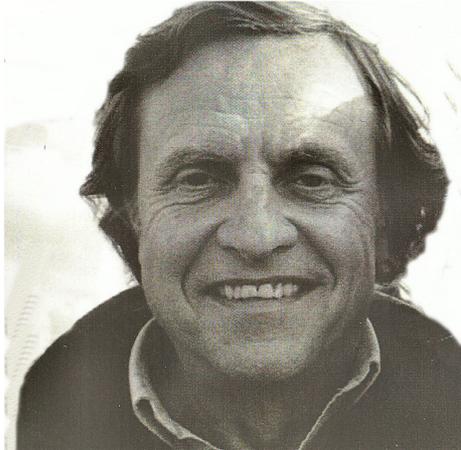


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## AIRFIELD PERSONALITIES



### MICHAEL WENNINK:

A truly great shock to the flying fraternity of Biggin Hill was the death of Michael Leendert Wennink on the 13<sup>th</sup> November 2010 following a sudden devastating illness.

Michael appeared at Biggin Hill in the early 70's, a truly great charismatic individual with a huge smile and a very pleasant manner. He always greeted everyone as if they were a long lost friend.

Prior to his arrival at Biggin Hill Michael was involved in acting and TV film advertising.

He actually starred in several films from Enid Blyton's 'Famous Five' to a TV series of 'Wuthering Heights' and many others.

Michael learned to fly at the South London Aero Club.

He gained his PPL, then his Instructors Rating, progressing to his CPL and Instrument Rating.

Michael was also one of the first people to own one of those new fangled 'Mobile Phones' of the day. Basically a huge heavy battery, and a life size car phone fitted on the top.

He carried it everywhere "Hello, I'm calling on my mobile" - everyone around at that time was enthralled by this device - it was the first one ever on the airfield in those far off days.

Michael did a lot of his own personal flying training at the Oxford Air training College, and subsequently became, at that time, the UK's youngest Type Rating Examiner and Instrument Rating Examiner.

Michael's energetic character never wavered. He taught several well known personalities to fly, amongst them David Gilmour and Nick Mason, lead guitar and drummer of Pink Floyd. They later bought two aircraft - a twin engine Cessna Golden Eagle and a Robin aircraft.

Another old Biggin Hill'ite, Ian Hay, came to Biggin Hill in those early days, where he met and was taught to fly by Michael, and the two became great friends. Ian eventually bought his own aircraft,

a Cessna 310. Between them they decided to operate this aircraft commercially, forming a company which was named, 'Michian Aviation Ltd' A combination of their Christian names (Michael & Ian), Michian Aviation would go from strength to strength and the business moved to offices at Gatwick. The company still continues to operate to this day, specialising in many different aspects of Aviation, including aircraft sales and management, and charter brokerage, etc.

Michael also flew many different aircraft types both commercially

and privately, working for many different companies, latterly as Chief Pilot for Interflight on the HS125's, which he continued to fly until just 5 weeks before his untimely death.

Michael celebrated his 60<sup>th</sup> birthday just in April this year, and it will take a very, very long time for his memory to fade, such was his endearing manner.

## CHRISTMAS DECORATIONS

Christmas lights through Biggin Hill were erected in October this year. At this rate Easter & Christmas will become as one.



Household decorations are well underway around the village.



Including, the many businesses, which get into the spirit of Christmas.



## THE BUGLE'S SIXTH YEAR

Hopefully this is the beginning of a new era of publication. However we do have some privileged information for the 2011 promised one day air event. A team of Alpine dogs offered to display at the show with their low level aviation skills absolving the airport authority from repercussions should they inadvertently crash (i.e. come a cropper) they simply roll over a few times and rejoin the sequence. This agile team are looking for sponsorship; kennels for the night, and a few tins of good dog food.



Another advantage of their individual show is that they are able to perform their gymnastics across the crowd-line fence from one end to the other thereby allowing everyone to have a good viewing point.

They are required to be leash free, during the day's activity...Ah...! that could create a health and safety problem. (Another let out clause). Their future looks bleak..!

## CARBURETTOR HEAT AND MIXTURE CONTROL .....

Understanding the operation of these two devices is quite important and should not be ignored at any time or, in any weather conditions. Each has its own control lever. Mis-use of either has led to some instant panic during flight, or just after

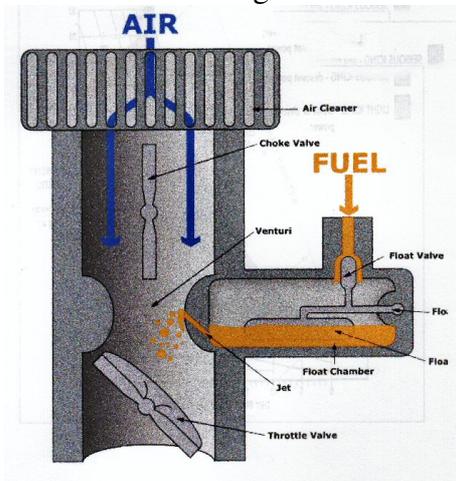
take-off, the misinterpretation of a rough running engine, transmitting an equally incoherent radio call to ATC without considering what may have happened, and how to deal with the situation rationally and furthermore controlling the aircraft during these vital moments. (*Minding the shop*).

Let us deal with the mixture control. With most piston engines the fuel / air ratio is about 15:1 which has been determined by the engine and fuel injection manufacturers. If you study the Pilots Operating Handbook of most aircraft builders, it will say. *lean at any altitude*. Whilst the engine manufacturer handbook will say, *do not lean below 5'000ft*. Now who do you believe?

The aircraft manufacturer is trying to enhance the performance of their product, whilst the engine manufacturer is trying to protect the reliability of their propulsion unit and of course their warranty clauses.

The normal carburetor has a float chamber to maintain a level of fuel available to supply the metering system through a jet which supplies the correct amount of fuel to the venturi whereupon it is atomized to approximately 15:1 for good combustion at sea level in most land vehicles.

Aircraft piston engines operate from sea level to high altitude.



Fuel injected engines are slightly different in that the fuel is injected directly into the cylinder and the correct amount of air is administered via an air intake.

This system makes for a better burn performance.

The aircraft piston engine operates from *sea level* to *high altitude* which requires a continual change of setting to the fuel mixture. (*1013mb at sea level to 650mb at 10'000ft*) although the fuel air mixture remains the same, it is on a sliding scale as altitude is increased and full throttle produces about 65% compared to 100% at sea level (+15C./1013mb) based on the standard atmosphere e.g.

*Density Altitude* (+30C at sea level) is equivalent to 3,000ft altitude and in a *High & Hot Country* such as Africa. (Johannesburg) which is 6'000ft amsl +30C equates to 9'000ft density altitude. Therefore

*maximum power obtainable* under these conditions is probably around 65% as quoted above. *Leaning the mixture* becomes important at these high altitude, high temperature airfields 30C plus, *as take-off performance is drastically reduced*.

The 'Pilots Notes' should be studied prior to attempting a take-off from minor airfields under these conditions. Full power should be applied and the mixture control moved toward the lean position to achieve maximum EGT on the cool side for best take-off power. (Remember the take-off run will be longer).

For long distance performance the engine can be leaned at any altitude and during a long climb keeping the EGT on the cool side of peak using a fuel flow meter if fitted to adjust flow rate. When settled in level flight, at the best possible speed, re-adjust mixture setting.

*During descent* – the mixture control will need to be constantly adjusted to the rich setting as manifold pressure increases. At high altitude airfields, make a note of the mixture setting on landing as this will be the approximate setting for the next take-off.

High and hot airfields require a good understanding of engine

performance and operating technique.

### **Carburettor Heat-Hot Air Control**

This is a difficult subject requiring infinite knowledge of meteorology understanding how humidity and temperature can lead to carb-icing.

Unfortunately during your early instructional training the use of carb-heat was probably never fully explained, as it is quite complex, and Carb-Ice can form at any time, quite suddenly and unexpectedly.

The drop in temperature within the carburetor venturi is around -13C.

The critical range of venturi icing is between -5C and +15C.

Therefore operating this one control can bring the temperature into to the icing range, or a rich mixture cut.

Next time you are about to check carb-heat downwind, ask the question *why?*

Zero temperature and clear blue skies is probably ideal for carburation as humidity is often low, but an injection of warm air will absorb moisture (fuel / air mixture) ideal for the formation of ice within the carburetor venturi. What a dilemma..!

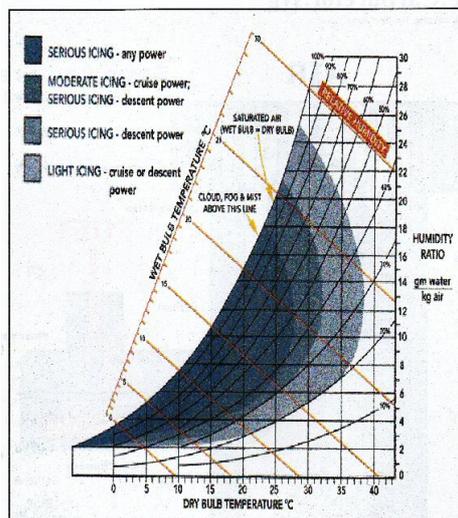
**Carburettor heat and Mixture** tend to go hand in hand as they are both affected by density, temperature and humidity. The older British engine manufacturers tended to draw intake air from within the cowling (warm air) which usually prevented carb-icing, but increased fuel consumption. Efficiency is increased with **Fuel Injected Engines** using a **Ram Air System** enhancing engine performance. **Impact Icing** may occur in the induction system or on the air filter which is protected by a spring balanced flap or manual control to allow warm air to be drawn from within the engine cowling.

Some adjustment to the mixture control may be required to re-balance the smooth running of the engine. Many graphs have been designed to emphasize of the areas of

carburetor icing .... But you will have little time to study these graphs when it matters...!!

A very good rule of thumb is – you the pilot, is the only person who has it in mind to close the throttle – **SELECT HOT AIR FIRST** before reducing power.

On a go around – overshoot, **OPEN THE THROTTLE FIRST** then return carb-heat control to cold.



*Don't overlook the electric fuel pump – to be published later*

### **THIEVES ON THE AIRFIELD**

There have been various thefts and attempted break-ins over recent months on the Southern and eastern side of the airport.

These attempted robberies or whatever - have played into the hands of the airport authority as another reason for removing the Private owners who quite obviously are a bunch of rogues and should be banned from mixing with jet traffic which is reported to be bringing in loads of 'wonga.' Most of these activities have taken place at night under cover of darkness which could be quite dangerous as the thief may trip over a load of scrap metal and suffer an injury and end up suing the airport.

The airport latest proposal is to have a manned gate (24hrs) at the Old Armoury. (Make a note Miss Jones: Must join Cherry Lodge Golf Club – which would give unlimited access to the airfield after dark). This is probably a

good time to involve 'Green Peace' if this proposed security barrier is implemented.

They are a wonderful organisation for disrupting normal life and achieving a no advantage result.

It seems that the airport is going down the same road instead of first understanding the core of the problem.

Here is a true story:- several years ago during the cooler months, a group of airfield technicians were having morning tea (*in a building behind closed doors*) huddled around an electric heater which was powered by an electric generator, running outside.

Here is the cool bit – thieves lift the running generator onto a truck They unplug the cables, the generator splutters and stops. The tea sipping bunch within discuss whose turn it is to replenish the fuel tank. The thieves are long gone in broad daylight.

What chance a very expensive 24hr barrier miles from the action??



*The Bugle would like to take this opportunity to wish all its readers a very Merry Christmas and hope you have enjoyed our monthly news items as we enter our sixth year.*

*With Sincere Wishes: from JB and JW.*