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**MORNINGSTAR**  
FLYING CLUB

Newsletter of the  
Morningstar Flying Club

Morningstar Airfield



**AROUND THE PATCH**  
**AUTUMN 2017**

Tiger Moth taxis in at Morningstar.  
Image: Etienne Becker.

# CHAIRMAN'S NATTER



© Irene McOullagh 2017

## ROSS LEIGHTON: Chairman

**I**T is great to see the newsletter once again but even better that I do not have to edit and publish it. This is all due to the good-natured spirit of a new member, Guy Leitch, who as you will all know already publishes and edits a magazine of his own. Guy has agreed to edit the newsletter for a term and we wish him all the best in that endeavour. However, he cannot do this on his own so let's all pitch in by contributing articles, photos, jokes or whatever.

The Club continues to grow in strength and it is pleasing to note that we currently have 300 paid up members with another 31 members awaiting confirmation of their membership. This healthy membership is testament to the demand out there for an airfield where people can partake in sport aviation.

It is interesting to note that Morningstar Airfield has 102 hangar sites of which 87 are allocated and occupied. A further 11 are allocated but not occupied because of the suspension of plan approvals by the City authorities. There are just 3 sites unallocated and a long waiting list for these.

These numbers are both a blessing and a curse. The upside is we have a healthy, vibrant

club that caters to a diverse group of aviators pursuing several different branches of sport aviation but all joined by the common love of flying. Perversely, this very success has made the City sit up and take notice and have decided that the Club is a ready source of future income. So whereas the Club in the past has paid what is called a "tariff rental" usually very low and applicable to non-profit sports and recreation clubs, the City in its wisdom now claims we are a "commercial enterprise" and must pay a commercial rental of R80,000 per month plus rates of R25,000 per month. The City's reasoning for classifying us as commercial is there are two flight schools operating on the airfield and the AMO. They maintain this view despite our pointing out that we have permission in writing to house these organisations on the leased area. This, notwithstanding that our neighbours Zone 7, currently pay less than R1000 per month. Clearly something is not right.

Your committee is fighting this obviously skewed logic vociferously and we hope to report in the near future a successful reduction in the new rental for Morningstar.

On a positive flying note, it is great to see that even in these days of tough economic times

Ross keeps a wing down into the wind getting airborne.

and State capture, that Club members still get out there and flying. Most Saturdays the airfield is busy and the recent Robertson Fly-In Breakfast was well attended. In fact, I feel it is safe to say that Morningstar flyers were in the majority. Let's keep it up.

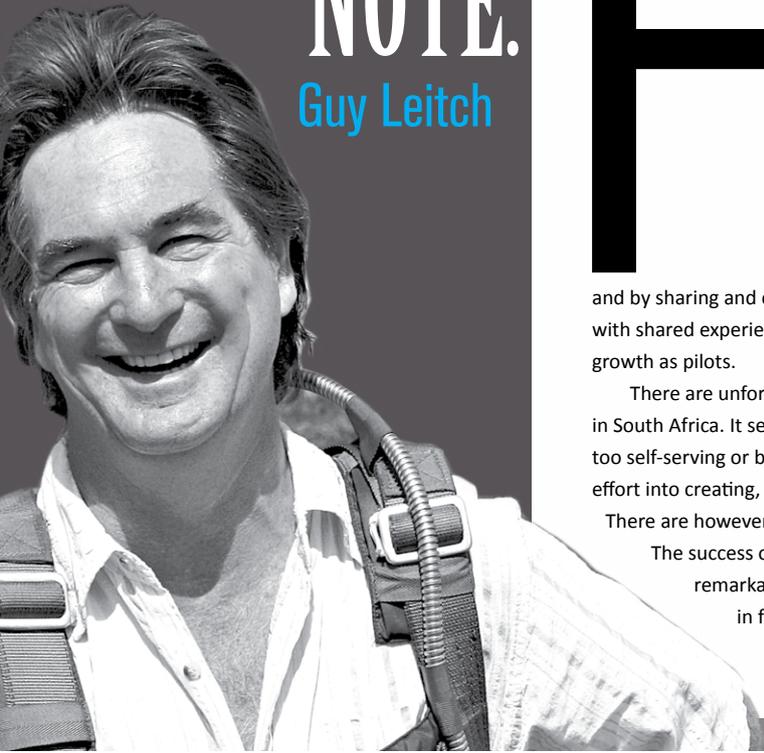
Finally I am pleased to report that our social responsibility program is alive and well. We currently have six development student members. Two have passed their PPL's and are now studying for their CPL. The others are PPL students. In addition, the bi-annual "The Sky's the Limit" aviation fun charity day will take place October 14, 2017. There will be lots of planning for this one because it will be an opportune time to show City officials and local politicians that we are indeed a socially responsible club. It is hoped that all members will pitch in for this one.

Thanks and safe flying!

Ross

# EDITOR'S NOTE:

Guy Leitch



**F**LYING clubs are the foundation stones of flying. Not just light sport flying and general aviation but arguably all aviation. Their key role is to harness the natural passion for flying and literally give it wings – by running flight schools

and by sharing and caring about their members with shared experiences all contributing to our growth as pilots.

There are unfortunately few flying clubs left in South Africa. It seems people have become too self-serving or busy to put the necessary effort into creating, managing and running a club. There are however some notable exceptions.

The success of Morningstar is all the more remarkable given the general decline in flying clubs.

One of the biggest driving forces for any industry is the

communities, small and large, that support it. Flying clubs are the types of small communities that can help the aviation industry grow, and management is the common thread that helps or hinders its success. Strong leadership, active community involvement are all necessary to promote the growth of flying clubs and a digital online presence with engaging content.

Clubs require excellent management skills, a sustainable revenue stream, and above all, great commitment to manage and grow. Some flying activities such as gliding have traditionally only survived with non-profit clubs and instructors giving their time and skills for free. However, in the age of video games, instant gratification, video on demand and the myriad other intense competitors for our time, gliding clubs are also on the decline. Kicking and screaming they are having to reluctantly deal with the need that they too must become commercial to survive.

Fortunately Morningstar has been blessed with an extraordinarily good talent pool, particularly in Chair Ross Leighton and treasurer Alan Fergus. These two and the rest of the committee put in many thankless hours to keep your club thriving and deserve our thanks and all the support they can get.

## START THEM YOUNG



# BOET'S Pan FLY In 2017



Kai Neckel looking intently for a sign of a tree. The pan remained thankfully dry.



Returning past the crowded Afrika Burn.

A view of the campsite as a Rans S7 gives a fly by.



On Friday 28 April a number of teams from Morningstar flew into the much anticipated 'Boets Pan Fly-in'.

Ross Leighton writes; here are a couple of photos from the pan trip attended by Mark Becker, Kai Neckel, Sean Curran, Gunter Klampfl, Cyril Shand, Tyrone McIntosh, Don Bekker, Gerard Van Rooyen and Charl Starke.

The north wind was howling when we left Friday, at times touching on 40 knots above FL075 but lower down it was more manageable so we cruised up hugging the ground.

Warm weather on the pan led to a very enjoyable evening braai and a light show from Mark Becker.

The journey home was quick with the same north wind providing assistance - the RV8 was seeing GS of 202K while Sean reported his highest GS ever of 165K. A quick pass by AfrikaBurn and we were all home in time for breakfast at the Club.

Camping with your plane.



Sundowners



Boet Loubscher makes music on the Pan.



Ross Leighton's RV-8 waits at Calvinia for the other arrivals to battle the wind and join him for lunch.

# THE BUMBLE BEE

## PARADOX SOLVED



**T**he enduring puzzle of why bees and other insects are so good at flying has been solved, paving the way for a new generation of robot insects measuring just a few inches to be built.

Flying insects have plagued the worlds of science and engineering ever since the first calculation of bumble-bee aeronautics was attempted at Gottingen University in the 1930s.

Conventional aerodynamics seemed to suggest that the insect should not generate enough lift to fly. The bees stayed resolutely airborne and the sums caused consternation.

The underlying problem turned out to be treating a wing as if it was fixed, like in an aeroplane and, thanks to studies over the past few years, including the construction of robotic bees, this “bumble-bee paradox” has been solved: extra lift comes when flexible insect wings slice through

the air at a high angle of attack, creating a large swirling vortex at their leading edge.

In this way, insect wings produce the vortices – spinning masses of air – which generate lift and help them move. Prof Ismet Gursul of the University of Bath uses this new knowledge as another step on the way for engineers to make UAVs smaller than a human hand that can be used for detecting chemicals leaks and reconnaissance. His research was carried out as part of a programme to develop tiny aircraft with cameras and sensors which could be used in traffic monitoring, border surveillance, fire and rescue operations. As aircraft are made smaller, resistance due to the viscous effects of air increases proportionately, and new ways have to be found to overcome this.

The Bath engineers found that a wing which is rigid at the front but more flexible and bendy at the rear is the most efficient way for a small wing

to generate optimum vortices and to move in air. In doing so, they were following a path set by nature 100-350 million years ago, when bees and other insects with similar flexible wings evolved. Some birds have similar wings too.

“This is a very important step forward in understanding how we can create tiny aircraft,” said Prof Gursul. “Large aircraft like the ones we fly in, don’t have to produce vortices for propulsion, so they can have fixed wings and engines, but we have found that smaller ones will have to take a leaf out of nature’s book if they are to work efficiently. Our work will make the goal of tiny aircraft, perhaps eventually the size of bees, a step closer.”

Professor Gursul said that small aircraft a few inches across had already been built in America and flown, but these could only stay airborne for a few minutes. His team’s work will allow them to stay in flight for longer, but more work is needed to find ways to power them more efficiently.



Gerrit Van der Merwe's very visible Bushbaby.

# ROBERTSON FLY-IN

All images courtesy Irene McCullagh



© Irene McCullagh 2017

Gunter Klampfl was one of the early arrivals as the morning mist was rolling away.

Jonathan Starke's Sling 2.



© Irene McCullagh 2017



Paul Grobler's RV-7.

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# VINTAGE AIR RALLY

Crete2Cape participants arriving at Morningstar



Bucker Jungmann.



The second TravelAir arrives.



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# EVENTS CALENDAR

## MAY

**Battlefields' Sports Resorts' Annual fly in Dundee KZN**  
Date: 6 May 2017  
Location: Klerksdorp  
Contact : Dave O' Halloran  
gm@battlefieldslodge.co.za

**SAPFA President's Trophy Air Race**  
Date: 26 May 2017  
Location: Springs Aero Club  
Race@sapfa.org.za  
www.sapfa.org.za

**SAC KZN regionals Ladysmith**  
Date: 6 May | 2017  
Contact : Annie Boon  
chunge@mweb.co.za

**JUNE**  
Newcastle Airshow  
Date 3 June 2017  
Contact : Johan Pieters  
082 923 0078  
johan@champ.co.za

**Middleburg Aero Club Airshow**  
Date: 24 June 2017  
Contact : Richard Lovett  
082 771 8775

**Lowveld Airshow**  
Date: 13 May 2017  
Location: Nelspruit  
013 741 6412  
willemien.hodgkinson@kishugu.com

**Zimbabwe Air Rally**  
Date: 7-11 June 2017  
**Wonderboom Adrenaline Show**  
Date: 10 June 2017  
Location: Wonderboom  
082 568 7988  
chris@briersgroup.com

**Race for Rhinos**  
Date: 29 June 2017  
Location: Kubu Island Botswana  
Contact : Chris Briers  
082 568 7988  
chris@briersgroup.com

**Botswana International Airshow**  
26 May 2017  
Location: Matsieng  
Contact: Guillaume Knipe  
+267 71300646  
Gknipe@work.co.bw

**NAC Fly Away**  
Date: 15 – 18 June 2017  
Contact: Deneys Potgieter  
082 891 4354  
deneys.potgieter@nac.co.za

**Air Venture, Oshkosh USA**  
Date: 24-30 July 2017

**The Sky's the Limit - Sakhikamva Foundation Youth Day - Morningstar**  
Date: 14 October 2017

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- Hangarkeepers Liability • Premises Liability • Products Liability • Airport Liability • Personal Accident
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