



MAR 2018 EDITION
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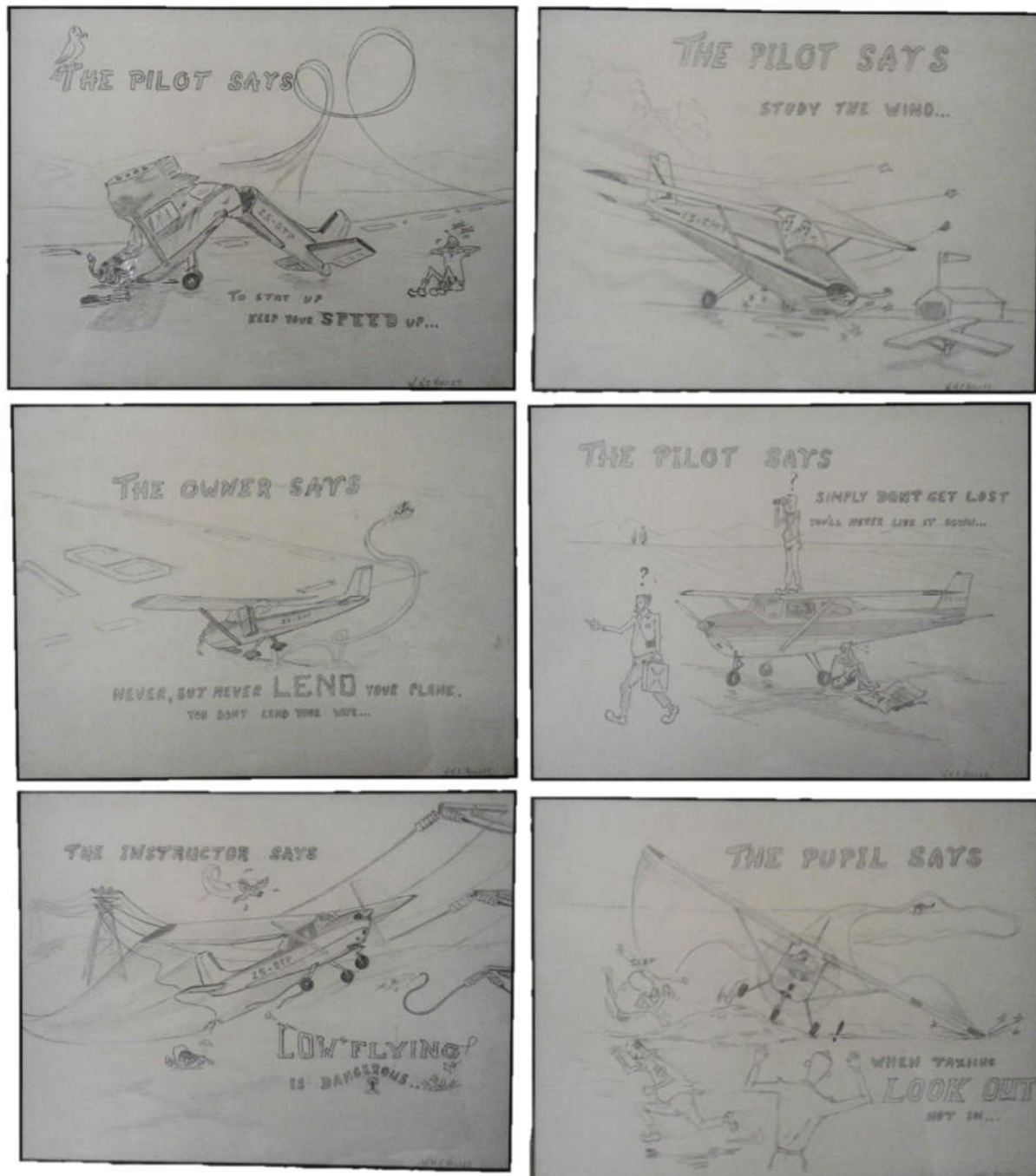
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Pub Talk

What *REALLY* happened?

Source: John Campbell

This month the second story in the series of six pencil drawings by WNC Hulley is about ZS-EMT ...



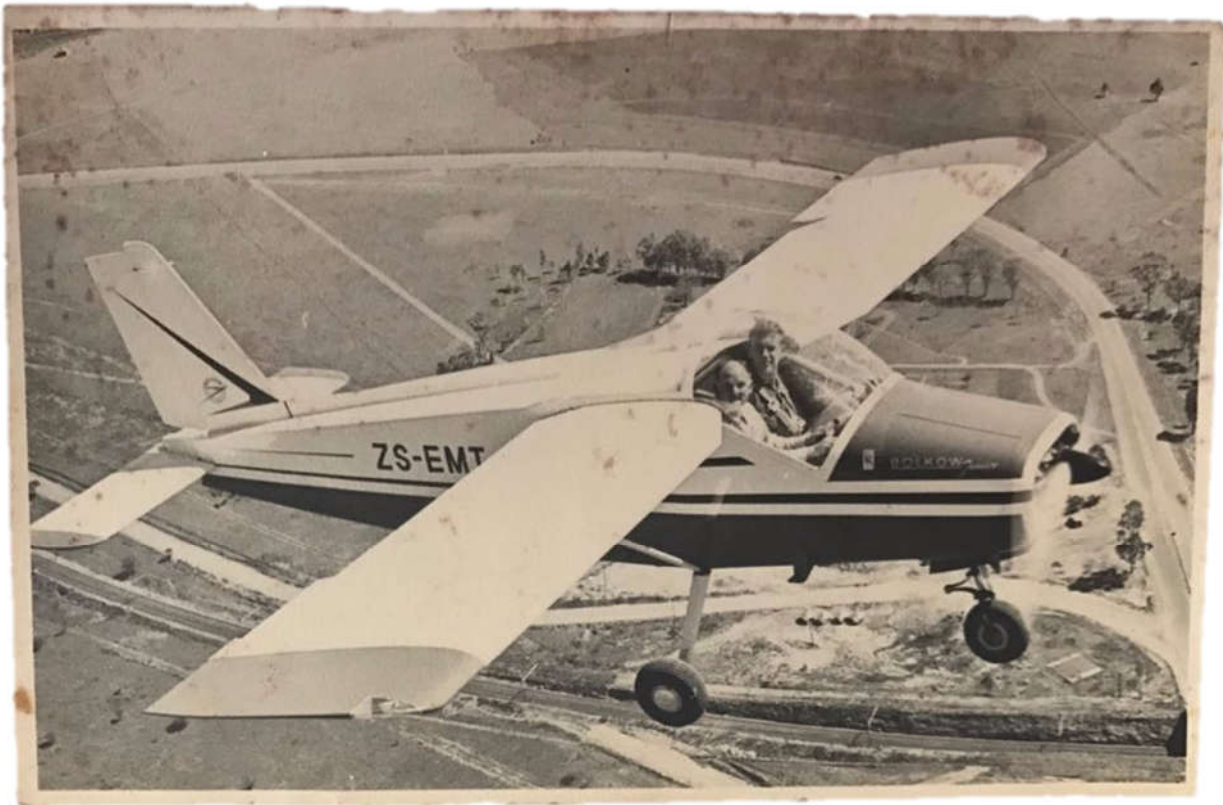
Here's what happened:

ZS-EMT's bent propeller...

Last month you were informed that ZS-DTP, the Club's omni-vision C150, had its back broken by an enthusiastic PPL demonstrating a short-field take-off with insufficient speed for lift in 1965.

...Correction... turns out that happened in 1967.

It appears ZD-DTP was then replaced by a Bölkow, ZS-EMT, which you can see in the photo below:

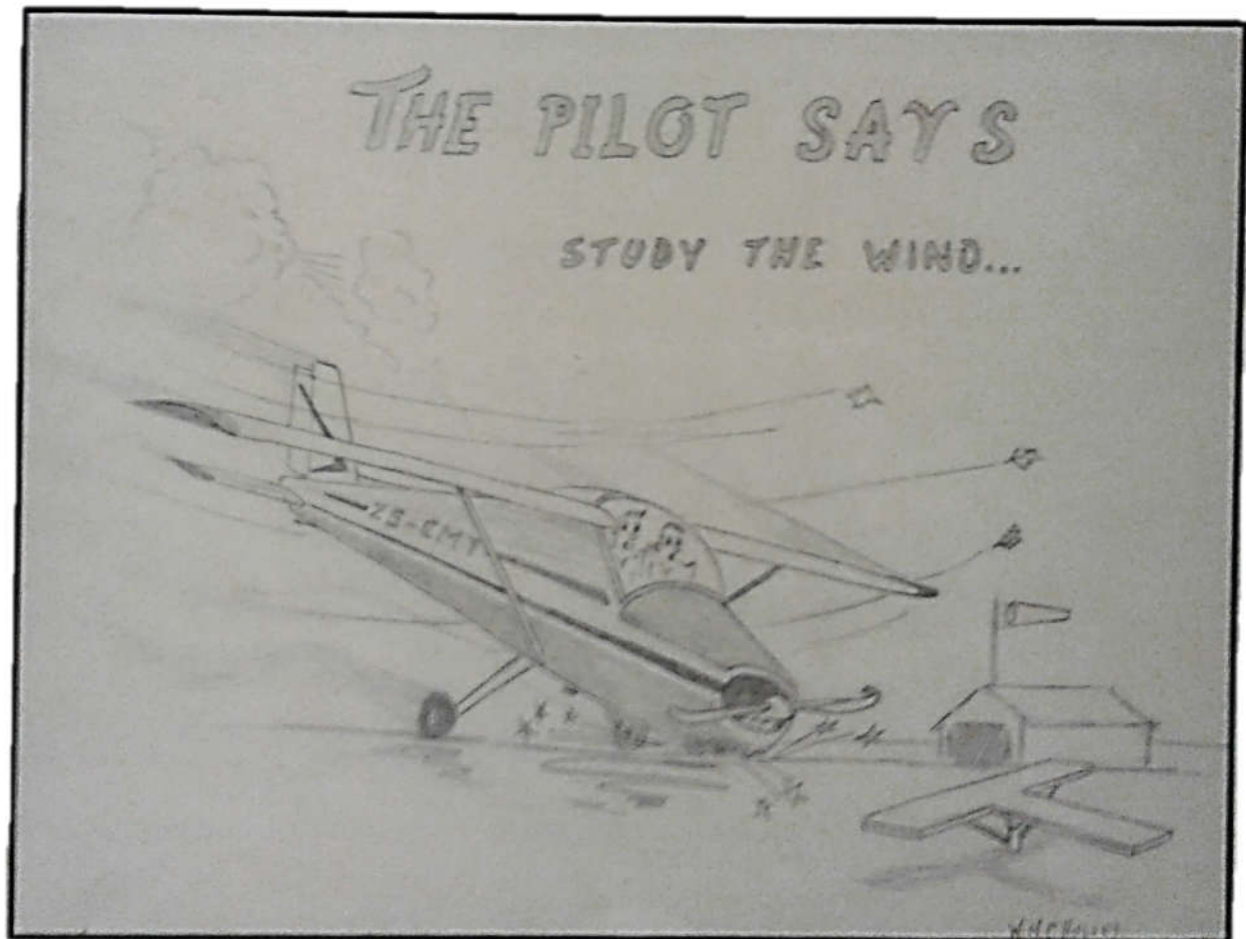


In this photo Ollie Tennant and Kim Wills are in the cockpit, and ZS-EMT was on early left downwind of runway 16 – note the fields and lack of buildings! Left downwind 16 looks a whole lot different today!

The Committee felt that the German built Bölkow would be more versatile than a C150 as it was aerobatic and had glider towing hook. In 1967 the Gliding Club and Parachute Club were affiliated to the Pmb Aero Club. The Teledyne Continental 100hp engine, (same engine as the C150), made under license in England by Rolls Royce, was housed in an airframe made by Messerschmitt Bölkow-Blohm, who used to manufacture Military Aircraft during the war. Only 20 odd years after WWII the two previously opposing sides collaborated to produce this little aeroplane!

As it turns out, the Bölkow wasn't a success in Maritzburg . It was short coupled and twitchy, glided like a brick on its short stubby wings and didn't respond well to density altitude as it was conceived in much colder climates.

One fine day, a Club Member, a flamboyant French Catholic Priest, (who, incidentally, had survived a Nazi Concentration Camp), either ignored or did not take notice of the windsock and T-bar, and landed with a tailwind. As is customary behaviour for aircraft under these conditions, ZS-EMT was reluctant to settle down. Our Catholic Priest, possibly alarmed at the speedy approach of the end of the short grass runway, chose, not to go around, but to push the nose forward to encourage the reluctant aircraft to settle down. As a landing technique this is always a bad idea, and the sketch below of the result illustrates exactly why.



The occupants were unharmed, although the aircraft wasn't so lucky. The Bolkow was repaired after this accident, but the prop was replaced, and the damaged prop is displayed in the Aero Club Pub to this day.



The Priest's flight instructor, Dave Campbell, reports that his favourite saying was that there was no need for a pre-flight because he had the faith and the instructor had the ability. Looks like faith does not replace good judgement or situational awareness... at least not in flight.

The ninth Commandment of “The Ten Commandments for safe flying” – which are traditionally read to every solo student at their party, states:

“Thou shalt not believe in the “T” implicitly but allow the sock to be thy guide”. This confused me because I had no idea what a “T” was. If you look at the sketch above, you will see a “T”. In the sketch, both the “T” and the windsock indicate the pilot is landing with a tailwind. The reason this “Commandment” says don’t trust the “T” is because the “T” at Pietermaritzburg had to be adjusted manually to indicate wind direction. Some of them were set on a bearing and would weathercock appropriately in the wind, but not so the “T” at FAPM.

* * *

Recent Events

100’s CLUB & Safety Meeting

The 100 Club met for the first time on Friday 9 March after the Safety Meeting presented by Chris Higgins from Professional Aviation Services. A big thank you to Steve Svendsen for arranging both events.

100 Club – There was no winner for the first draw as the number drawn had not been sold. The “pot” therefore rolls over to April’s draw.



Safety Meeting – Chris Higgins, who visited us from Johannesburg, representing Professional Aviation Services, reported on the various parts of legislation regarding access to the airfield and rules and regulations. In summary their organisation offers courses for Compliance, and in essence because we have Scheduled Flights at FAPM it means that there is not as much freedom of movement on the airside for pedestrians or vehicles as there used to be. Aircraft movement on the airside, however, is business as usual.

An interesting point he made is that statistics show over 40% of theft and petty crime at airports originates from the Security Staff. I am quite sure that is not the case here at FAPM!!

* * *

Fly-in at Howick Airfield

24th March there was a breakfast fly-in at Howick Airfield. I think the pictures say it all...



Kearsney College Careers Day

As with last year, the Kearsney College Careers Day held on Wednesday 14 March was busy! Schools from all around the region attended. There were very many career possibilities for study overseas on display, including Hungary trying to draw BYM's (bright young minds) with full Stipendium Scholarship. Their course even includes an A320 type rating!



There was a fair amount of interest shown in our stand, with the most genuine interest from the 13 to 14-year-old range.

* * *



KVW visits Queenstown

Upcoming Events

100's CLUB – 1st FRIDAY every month

Come and meet at the Club, put a hundred bucks in the POT to take part.... And at the during the evening there is a DRAW and the WINNER walks away with minimum R1000 or the full POT, whichever is more!!



You gotta be IN it to WIN it! And if you are not there, you MISS OUT!!

Get a new number each month or pick one and stick to it, the choice is *yours*.

When: **Friday 13 April 2018**

Where: **Pmb Aero Club**

Time: **6pm**

Aloe Festival Fly-in



A lot of work has been done on the two strips and they will be nicely prepped.

The fly-in will be run in conjunction with the Aloe Festival, (steam trains, hot air balloons and festival), so will be a fun filled weekend.

Breakfast and Lunch available.

When: **7-8 July 2018**

Where: **Creighton Air Strip**

Contact: **Ian Crouch 084-580-5933**

Fuel Price

incl VAT	Previous Rate	Current Rate
AVGAS	R20.70	R19.30
JET A1	R12.60	R12.30



Fleet Hours & Hire Rates

	Aug 2017	Sept 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018
C150	1.0	0	0	0	0	0.9	1.1	0	
per hr hire rate	R1480	R1480	R1180	R1180	R1180	R1180	R1180	R1180	R1190
C172	8.6	10.4	8.6	26.9	12.7	41	13.4	28	
per hr hire rate	R1850	R1850	R1850	R1850	R1850	R1850	R1850	R1850	R1870
Sling 2	60.3	65.7	24.5	38.3	37.2	6.5	30.2	43.9	
per hr hire rate	R1000	R1400	R1400 → R1000	R1000	R1000	R1000	R1000	R1000	R1010
Arrow (dual ph only)		R3580	R3580	R3580	R3580	R3580	R3580	R3580	R3580
Instructor rate	R402.50 per hour flying R273.70 per hour briefing.								

All prices are VAT inclusive.

* * *

New Members

A warm welcome to: Henri Rousseau, Sinali Singh, Siya Mngadi, Mohammed Khan, Howard Gray and Bruce Corder who have joined us for Flight Training.

Club Comms

Aircraft news...

ZS-KNI

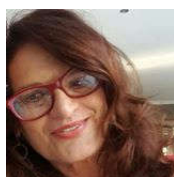
Is ready to fly... BUT... we are waiting on CAA for the C of A (still). As soon as the paperwork is all in order we will send out a message on WhatsApp. Till then, it's still hurry up and wait...

THE AGM

Please plan to be at this year's AGM, which will be held on 30 May 2018, which is also the Pmb Aero Club's 80th Birthday!!!

The Committee as it presently stands:

President:
Michele Cameron



Chairman:
Anthony Grant



Vice-Chair:
Cameron Mackenzie



Treasurer:
Martin Hellberg



Committee Members:

Steve Svendsen



Gary Keyser



Gary Hughes



Calendar

Although not all dates are confirmed, here is a rough idea of when things will be happening around here in 2018:

January	February	March	April	May	June
gone	done and dusted	finito	Fri 13 th 100's Club	Fri 4 th 100's Club Spot Landing Competition at FAPM AGM 80 th Celebration Battlefields Fly- away	Fri 1 st 100's Club Safety Meeting – Compulsory for Students Fly away or Nav Rally
July	August	September	October	November	December
Fri 6 th 100's Club Flour Bombing Competition Aloe Festival	Fri 3 rd 100's Club	Fri 7 th 100's Club Safety Meeting – Compulsory for Students	Fri 5 th 100's Club Halloween Party	Fri 2 nd 100's Club Christmas Wings Party & Trophy giving	Fri 7 th 100's Club

Don Carlos Restaurant

Friday night Pub Menu always available.

Saturday and Sunday lunch please book.

Carlos cell: 079-784-2056

Don Carlos is available for private & corporate functions too!



* * *

Aero Club Shop



Soft, comfortable

100% Cotton Polo shirts

&

Peak caps



Branded Clothes:

Pmb Aero Club Polo T- Shirts	R 252	In stock
Pmb Aero Club Peak Caps	R 76	In stock
Pmb Aero Club ties	R 35	In stock
Pmb Aero Club Jersey	R 260	Out of stock
Pilot Logbook (large)	R 318	In stock
Fuel Tester	R 177	In stock
Pmb Aero Club Wings	R 222	In stock
Epaulettes	R 290	Out of stock
Headsets	R2,760	In stock
Headset bag	R 364	Out of stock

Durban Maps – laminated one side for easy folding: 1:500 000 & 1:1 000 000	R 50	In stock
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Books:

PPL – by Jim Davis	R 130	In stock
The Air Pilot's Manual – by	R 705	In stock

Avex Study Notes for PPL:

Principles of Flight	R 209	In stock
Navigation	R 216	In stock
Meteorology	R 250	In stock
Human Performance	R 200	In stock
Flight Performance	R 186	In stock
Aircraft General	R 256	In stock
Airlaw	R 172	In stock
Radio Handbook – Dietlend Lemp	R 232	In stock
Aero Club PPL Bag	R 272	In stock

Nav Tools:

Square Protractor	R 217	In stock
Ruler	R 202	In stock
E6B Whizz Wheel	R 323	In stock
CX2 Pathfinder	R1,412	In stock
Aircraft Checklist	R 35	In stock
Kneeboard	R 383	In stock
First Lesson Brief	R 35	In stock
Bumper Stickers	R 10	In stock

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Instructors Input

Variable Pitch vs. Constant Speed Propeller

We get fixed pitch propellers, ground-adjustable propellers, variable pitch propellers and constant speed propellers.

Fixed pitch propellers are a compromise between climb and cruise performance. Changing this type of propeller can change an aircraft's performance from one pilots avoid flying, to one they are happy to fly, or visa versa. In other words, the propeller has a very significant impact on the performance of your aircraft.

Ground-adjustable propellers can make this exercise a little less costly as they can be adjusted on the ground with the correct tools and experience to change the blade pitch for the required aircraft performance.

The *variable pitch propeller* was introduced so that the pilot could experience the best performance from a particular aircraft for take-off performance, in the climb and in the cruise. For take-off and initial climb, the pitch is made full-fine, which means the aircraft will demonstrate its best take-off and climb performance under the particular weight and atmospheric conditions. As the pilot levels off and wants to speed up, the fine pitch of the propeller will act a bit like an airbrake because of the large rotating disk presented to the airflow. To improve aircraft performance, the variable pitch can now be wound back, coarsening the blade, and a bit like taking larger strokes with a paddle, the airspeed can now increase as propeller efficiency is improved for this phase of flight.

A *constant speed propeller* is a variable pitch propeller with a constant speed unit. The constant speed unit will do its best to keep the RPM at a constant setting, even when the throttle is moved. The blade can only rotate as far as it can rotate, so if the throttle is retarded too much, the constant speed unit will be unable to maintain the set RPM.

With fixed pitch and ground adjustable propellers, and variable pitch or constant speed propellers set to fully fine, the throttle will control the aircraft's RPM. An increase in the throttle will increase the aircraft's RPM and a retardation of the throttle will cause the RPM to reduce. With variable pitch and constant speed propellers, once the throttle is coarsened, the propeller setting controls the RPM, and the throttle setting controls the Manifold Pressure (MP). An increase in the throttle will increase the Manifold Pressure and a retardation of the throttle will cause the MP to reduce, however the RPM will remain more or less constant. The constant speed unit is a little more accurate in maintaining constant RPM as it adjusts the prop pitch as required to maintain RPM when

the throttle is adjusted. The standard variable pitch propeller allows the pilot to select a coarser blade angle which is related to an RPM setting which is dependent on the throttle setting.

When taking off, the pitch is set full fine and (sans turbo), we usually take off with full throttle. At 300ft AGL the norm is to reduce the throttle to 25", wind the sensitive prop back to 2500RPM and reduce the fuel flow as specified in the POH for a constant climb. In the level off, the power is once again adjusted followed by the pitch setting and fuel flow.

When returning to land, the norm is to do the same in the opposite direction. Mixture rich first, then adjust the prop as required followed by the power setting.

Safety Culture

Here are the checks every pilot should know by heart:

ARROWS

I'm SAFE

FREDA

HASELL

WTDLFM

Aircraft Documentation:

A – Airworthiness Certificate

R – Registration Certificate

R – Radio License (ICASA)

O – Operating Handbook (POH)

W – Weight & Balance

S – Service Release (Release to Service)

Self-analysis before flight:

I – Illness

M – Medication

S – Stress

A – Alcohol

F – Fatigue

E – Eaten?

MPH	•	Description	Effects
0-1	0	calm	smoke rises straight up; water like mirror
1-3	1	light air	smoke drifts slowly; ripples on the water
4-7	2	slight breeze	leaves rustle; small wavelets
8-12	3	gentle breeze	leaves & twigs in motion; large wavelets
13-18	4	moderate breeze	small branches move; small waves 2-4 feet tall
19-24	5	fresh breeze	small trees sway; whitecaps 4-8 feet tall
25-31	6	strong breeze	large branches sway; whitecaps 8-13 feet tall
32-38	7	near gale	whole trees in motion; waves 13 feet tall
39-46	8	gale	twigs break off trees; waves up to 16 feet tall
47-54	9	strong gale	branches break; waves up to 21 feet
55-63	10	whole gale	trees blown over; waves up to 26 feet
64-73	11	storm	widespread damage; waves up to 35 feet tall
74-up	12	hurricane	widespread damage; large ships sink

• Beaufort Number

Before steep turns, stalls or spins:

H – Height (sufficient to recover by 2000' agl)

A – Airframe (as required)

S – Security (strapped in, extinguisher etc secure)

E – Engine (T's & P's in the green)

L – Location (not over a built-up area)

L – Lookout (other aircraft, high ground etc)

Every 10 mins or so in flight:

F – Fuel (monitor - correct tank)
R – Radio (set correctly, next freq. set)
E – Engine (T's & P's in the green)
D – DI to Compass
A – Altitude (Pressure set, altitude correct)

Before take-off checks – What To Do Last For Me:

W – Wind direction
T – Transponder on ALT
D – DI within rwy heading spec
L – Landing light ON
F – Fuel pump ON
M – Mixture Set for take-off

Members Submissions

No articles were submitted this month.

Please feel free to contribute if you find something interesting, an article, a joke, a recommended book, or, even better, a personal experience to telani@pmbaeroclub.co.za

Please also feel free to contribute flying related content on the Members Only Facebook Group: Pietermaritzburg Aero Club (PAC).

Once again, thank you to Julia de Klerk who always helps with reading over the Telstar and checking for accuracy before it's sent out. Much appreciated!

Until next time, happy flying!



Telani Lithgow

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