



s.w.a.r.m.s.

South West Associated Radio Modelers Society

Propwash

September 2017

From the President.



We are now into the third month of the flying year for 2017/18 and it seems that time is flying faster than any of the members planes.

With the completion of the generator enclosure now it will certainly make it better for tasks that require power with it being in a fixed location at the field requiring very little time to obtain access to 240 volt power. I would like to think that many more tasks will be completed with less fuss due to the changes which means for better facilities for members and visitors.

It has been a busy month with the organisation of the Fun Flyin which is now behind us, what can I say apart from vent my shear frustration, All was in readiness for the weekend when the weatherman decided to through a spanner in the works. With strong winds and rains predicted over the weekend the outlook was looking pretty bleak.

Then the cancellations started to roll in as well as he bad weather, by mid morning on Friday we had received 15 messages that due to the weather these people would not be attending the event, after confirming this with committee members it was almost decided to cancel the weekend, however, with concern raised that we would not reach all who might still be attending it would go ahead but on a smaller scale.

The catering for the Saturday evening meal would be cancelled and a BBQ would be held for anyone who was here and was staying at the field for a meal.

I contacted Trevor and Erica to advise them of our decision and he was not happy that I has told him I was giving them the sack and we were not going ahead with his scheduled banquet but all ended well.

The few pilots who did attend to participate said they did enjoy the weekend and the hospitality, I would like to say thank you them for supporting the event and hopefully next one will be much better. With 52 weekends in any one year it can't be too much to ask for one of them to be reasonable for our annual event, maybe next year.

Thank you to the club members who attended over the weekend to assist and for your contributions towards the evening BBQ, the food was greatly appreciated

The condition of the main runway surface has been causing concern for a long time now with it's deteriorating condition, now steps have been taken to eliminate the problem. The more conventional methods of hot seal bitumen, turf surface or concrete is financially not viable for us as a club to achieve.

A little bird whispered (or maybe a big bird) that the Capel Bowling Club was replacing one of their greens and the old one which is in good condition would be sold off at \$5 square metre.

Dennis and myself checked this out and found that this would be an ideal surface for the runway upgrade and more financially achievable, it is very similar to what we currently have but in much better condition,

A letter has been drafted to MAAA & AWA putting forward our intentions and asking what financial assistance might be available through those channels to make it a reality. We were advised to submit an AWA grant application requesting funds to complete the up grade and this will be addressed on 16th October.

In the mean time we have had to act on obtaining the synthetic turf to ensure it remained available as it was being removed on the 23rd October so the club has purchased it in the interim pending the outcome of the grant application. Watch this space for further news relating to this project.

A couple of thank you's this month,

Thanks to Scott and DLE engines for sponsoring the SWARMS web site again this year, I get many comments on the quality of the web page from viewers and it is a great way to promote the club.

Thank you to Steve Green for spraying the field for weeds, I believe the cocktail he used will eliminate the need for us to do this on a regular basis in the future.

Welcome:

Welcome to the two new members to the club this year. Bill Darnell and Dave Shearer I hope you both enjoy your time with us and enjoy the challenge of flying those little things that buzz around the sky and raise your adrenaline, happy flying.

Bill is currently in training and getting close to going solo Dave has been a regular flyer.

Maybe a suggestion for the clubs new hat design.



Cub J3 restoration.

The partially completed Cub J3 that Dennis Milligan took on from well respected past member Roger Veen's hanger has been completed and test flown but not without a considerable amount of drama. On the first flight there was a major aileron malfunction when the pushrod linkage from the servo arm to the aileron came adrift causing gravity to take over.

The plane ducked and dived around the sky as every effort was made to gain control but all to no avail, it eventually crashed into a fence post on the road side of the field braking the post from the ground. This did cause extensive damage and in most cases the extent of the damage would have been deemed to be terminal, however, a decision was made by Dennis to rebuilt the wreck.

After an extended period in the workshop the plane came out the other end in mint condition with a modification to the aileron system, changing from one central unit to one in each wing. The next test flight went to plan with a good outcome and the cub has now had several successful flights.

The identification letters and numbers on the wing has some real significance to the original owner of the plane RV 28016 which signifies obviously RV Roger Veen and the numbers 28016 signifies his birth year 1928 and the year he passed away 2016 it now will fly around the sky with dignity carrying with it some real history thanks to Dennis.





Interesting article !

Why pilots are banned from talking under 10,000 feet

An airline tragedy that occurred in 1974 is the reason why pilots are no longer allowed to talk amongst themselves while flying under 10,000 feet.

The Eastern Air Lines flight arriving at the Charlotte Douglas International in California missed the short runway in heavy fog and 72 people lost their lives.

During crash investigations, it was found that the incident was caused in part by “the flight crew’s lack of altitude awareness at critical points during the approach.”

Even though there was poor visibility due to the weather conditions, it was found that the pilots had become distracted and as a result hadn’t checked their instruments correctly.

Seven years after the incident occurred the Sterile Cockpit Rule was introduced as there was growing concerns pilots were becoming distracted during takeoff and landing.

"Sterile flight deck procedures are meant to increase the flight crew members' attention to their essential operational activities when their focused alert is needed," the code says.

All forms of communication are forbidden except those that are needed to undertake the safe operation of the aircraft.

Pilots are also banned from "eating meals, engaging in nonessential conversations... and nonessentials communications between the cabin and cockpit crews, and reading publications not related to the proper conduct of the flight.”

The rule has caused some confusion, though, with flight attendants unsure of whether or not they can break the rule in urgent situations.

In an attempt to curb the confusion, Japan Airlines released a list of reasons why it is ok to break the Sterile Cockpit Rule, and they include:

- In case of a fire
- Smoke in the cabin
- Abnormality during landing and takeoff
- Abnormal noise and vibration
- Fuel or other liquid leakages

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The aging process is something we can not avoid, some will age gracefully and some not so.

What category do you fit into at the moment ??



Those members who were present at the field on Sunday 2nd July witnessed the best aerobic display seen over the field in a long time.

A PC9 taxied to the main runway cleared for take off, the speed was increased and the plane slipped down the runway heading for lift off, the wheels cleared the runway and a slight right turn was made whilst climbing away from the strip.

Then the display commenced, the pilot was heard to say, "Houston we have a problem" no surface controls were responding to radio input as the plane went into auto pilot. With the motor on full throttle the plane continued to put on an awesome display of loops, rolls and dives never previously seen in the skies over the SWARMS field.

Eventually gravity took over and the planes last manoeuvre was a perfect nose dive straight into the ground, thankfully we had received a bit of rain a few days previously and the ground was a bit softer than normal, it was a perfect landing on the spinner with the plane disintegrating around the front end with the photo showing the end result.

Fuselage much shorter than when it took off only



The force of the impact with the ground can be shown clearly here with the shape of the back plate of the spinner being severely distorted, however, it appears the motor did not sustain any damage. This will not be confirmed until an attempt is made to fire it up again.



Breaking news

Toilet stolen from local Police Station.

Cops have nothing to go on !!

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A baby mosquito went for its first solo flight.

When the baby came back home, the father was relieved.

"How was your journey?" he asked.

"It was great!" the baby mosquito replied.

"Everyone was clapping for me!"

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I have never seen a pilot get so much satisfaction out of a model plane, this was obtained at a very reasonable price (and not at an auction) it has flown continually over the field almost every weekend for the past 18 months and each flight still puts a smile on his face.

Continue to enjoy Troy.



A young lady was walking through the park when she saw an old woman sitting on a bench, crying quietly.

“What’s wrong?” the young lady asked.

“I’m 83 years old and I have a 30-year-old husband at home,” said the woman. “He makes love to me every morning, then cooks breakfast. Pancakes, sausages, and freshly-squeezed orange juice.”

“What’s so bad about that?” the young lady asked.

The old woman continued, “He cooks lunch for me every day, and then we make love again.”

“I see,” said the young lady.

“For dinner, he makes a gourmet meal and my favourite dessert. Then we make love again until midnight.”

“He sounds perfect,” said the young lady. “Why are you crying?”

The old woman looked at her. “I can’t remember where I live.”

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Unable to afford a honeymoon, Peter and Madeline return to Peter’s parents’ house.

In the morning, Stevie, Peter’s little brother, is having breakfast.

“Are Peter and Madeline up yet?” he asks his mother.

“No.”

“I think I know why,” says Stevie.

“Don’t you start,” says his mother. “Go to school.”

At lunch, Stevie comes home and asks again whether Peter and Madeline are up.

“No.”

“I think I know why,” says Stevie again.

“Never mind what you think you know. Take your lunch and get back to school,” his mother says.

After school, Stevie asks again whether Peter and Madeline have emerged.

“No.”

“I think I know why,” Stevie says.

“Fine,” says his mother. “What do you think is going on?”

“Last night Peter came to my room for the Vaseline and I gave him my airplane glue.”

Two men were talking about how much society has changed.

Brian said, “I didn’t sleep with my wife before we got married. Did you?”

“Not sure,” Stan said, shrugging. “What was her maiden name?”

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A

Man in his forties bought a new convertible car and was out on the highway for a nice evening drive. The top was down, the breeze was blowing through what was left of his hair, and he decided to open her up.

As the needle jumped up to 100km/h, he suddenly saw flashing red and blue lights behind him.

“There’s no way they can catch a convertible,” he thought to himself and opened her up further. The needle hit 110, then 130. Then the reality of the situation hit him. “What in hell am I doing?” he thought and pulled over.

The cop came up to him, took his license without a word, and examined it and the car. “It’s been a long day, this is the end of my shift, it’s Friday the 13th, and I don’t want to do any paperwork. If you can give me an excuse for your driving that I haven’t heard before, you can go.”

The guy thinks for a second and says, “Last week my wife ran off with a cop. I was afraid you were trying to give her back.”

“Have a nice weekend,” said the officer.

Think you are having a bad day, how is it compared

This could be the reason that I prefer flying to fishing, a finger in a prop might hurt just a little bit !!



Control Tower !! Cancel that request for take off.



Please remain seated with seat belt fastened until we reach the terminal.

Little Johnny turned to his father one day and asked, "Dad, how are babies born?"

Johnny's dad said, "Adam and Eve made babies, then their babies became adults and made more babies, and so on."

The next day, Johnny asked his mother the same question.

"We were monkeys, then we evolved to become the way we are now," said Johnny's mum.

Johnny ran to his father. "You lied to me! Mum said we came from monkeys!"

Johnny's father shook his head. "She's just talking about her side of the family."

Bill Darnell a new member with the club is currently undergoing training and has been a very keen student throughout his training period, so far he has done "Almost" everything I have requested of him and with only one task left for him to master, landing, it will not be long before we see him solo over the field.

He is a keen builder and currently has a laser cut kit model well under construction which will be fitted with an electric motor, however, he just happened to recently visit HobbyTech as most keen modellers do and purchased an Eflight Cessna model which has turned out to be a very well designed and built plane.

The maiden flight was very successful with it proving to be very stable in flight and this will be a great first model for him to progress his skills far into the future when he completes his training on the Boomerang,



Fun Flyin weekend photos:

Something that did not get used over the weekend was the newly installed flag poles

This is what they would have looked like if the weather had been better.



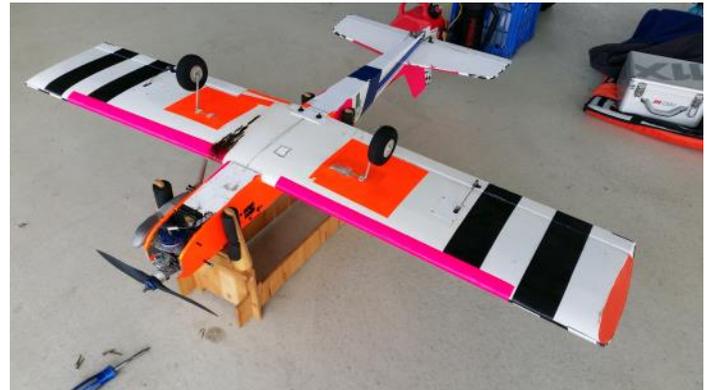
This is the state of the windsock on Friday 22nd the wind was so strong there was not a crease in the sock at all.



This stick owned and flown by local club member, Ian



Not everything went to plan, major work being performed on the nose wheel of this tiger 60.



It was good to see both Brady, Humphro and Anthony out at the weekend, shows they still have an interest in the sport and maybe be in the air in the not too distant future.

Two visiting planes that did a lot of flying over the two day event.



Arie Hutts mobile hanger, you need it he has it and all on wheels.



This is not as bad as it looks as it is partially disabled here, main damage is to motor mounts.



Cub J3 20cc petrol motor



Three wise men enjoying the action.





Adrian Byrnes faithful Cub was a talking point as always and flew the windy condition with ease but like all flights the landings were a little bit challenging.

Ian's electric model that did not appear to be too worried with the wind gusts or was it the skill of the pilot ?



The Agwagon had it's annual exposure to the air waves over the weekend but does not handle the strong wind landings too well but it is all in one piece ready for next year.



Aries Porter Palatus waiting for some wings to be fitted prior to getting airborne but this did not happen.



The B29 was scheduled to do some flying over the weekend, however, with the unsettled weather it was decided not to proceed with this arrangement. Woody brought it to the field on Sunday and ran up the motors and did some taxi runs before coming back to the startup line to run the motors up to full revs and what a lovely sound with all four motors harmonising.



It was good to see Anthony Amadio out for a look discussing the proceedings with Secretary Dennis.



A couple of drone images from high above the field.



One of the helicopters that Chris Saxton flew over the weekend.



7 Cylinder radial motor fitted to a corsair, no, it was not there over the weekend.

But it looks nice and would sound nice in flight.



Some interesting details relating to servo selection:**Construction:**

Servos consist of the following main parts held within their case.

Electric amplifier, this receives the signal from the receiver and translates it into a command to send to the servo motor. The motor will run, turning the gear-box until the output shaft reaches the position dictated by the position of the relevant control on the transmitter.

Motor, A small DC motor that turns in response to a voltage that is applied to it from the servos electric amplifier.

Gearbox, This multiplies the relatively small torque available from the motor to a more useful figure. The final output gear connects to the output arm of the servo which moves in a 60 degree arc and allows the connected pushrod to transmit the motion to the item being controlled.

Output shaft/bearing, Small cheap servos often run the output shaft in the plastic material of the servo case. In larger or more powerful servos the output shaft is usually supported in a single or twin ball race bearing to help resist the sideways loads that result in transmitting the operating force to the control surface.

Analogue or digital, This simply refers to the way the signal to the servo is processed. A digital servo will tend to process the input information faster and more often than an analogue servo, which gives several advantages:

- 1) Increased holding power, here the servo position data refreshes more often so the servo will hold position more accurately.
- 2) Faster response, Because the data is processed more quickly the servo output arm will respond to the transmitter commands faster.
- 3) Smaller deadband, this is where the transmitted stick must be moved a small amount before servo will respond.

Although these features are desirable, like most things in life nothing is for free. The trade offs come in the increased power digital servos normally require.

**Servo selection:**

Whilst we're never had it so good in terms of the sheer number and variety of servos available this can bring some problems in trying to decide which to use. For most models simple analogue servos will be more than adequate, however, there are a few things to consider.

Torque, The amount of torque required to move a surface can be difficult to establish, what we do know is that larger, faster models with large control surfaces require more torque from a servo than smaller, slower types. Always up-rate the servos if there's any doubt about their ability to cope, it is not possible to have too much torque, but it is possible to have not enough.

Size, Whilst the micro servo might have enough torque to operate a control surface it might not be physically tough enough. Fitting a slightly larger servo might add a few grams but the larger gears etc will mean that the unit is better able to handle the rough and tumble.

Servo speed, High speed servos are more suited to specialist applications like 3D type flying where the ability of the servo to move extremely rapidly from one end of its travel to the other can be very useful in certain maneuvers. High speed servos are often quite expensive and only worth that extra cost if the model warrants it.

Metal or nylon, Many servos are now available with metal gears, the obvious advantage is that they are less likely to strip teeth if the servo arm is knocked however:

- There is little to choose either way between nylon or metal gears when selecting servos for a standard sports model. As the output torque requirements of a standard servo increase so metal gears become more desirable.
- In smaller servo sizes the main penalty for choosing metal gears is weight, a typical 9 gram servo might weigh over half as much again.
- Whilst a 9 gram servos have sufficient torque to drive the surfaces in small models, the extra vibration can be detrimental to nylon gears, the teeth are really very small.



Servo size, Servos come in all shapes and sizes and are often defined by a weight figure, the weight might be representative of the general physical size of servo under consideration but it can vary considerably.

Sub-micro (5g), Micro (9g), Mini and standard.

A standard servo is around 40x40x20 and weigh anything from 30g to over 60g. Torque output can vary enormously from around 3.5kg to well over 21kg. Gears are usually nylon in the lower end of the torque range with metal even titanium gears being available as the torque output increases.

There are many types of servos available for more specialised applications such as indoor models tiny lightweight units of 2g or less are available as are ultra thin high torque digital models that are designed for slender moulded glider wings.

Torque and speed, Torque is a measure of a servo's power and tells us what load it will drive. Usually measured in kilograms / centimetres it is a function of force and distance. The force is the load the servo will drive and the distance is how far the pivot point is from the load.

The concept is best illustrated by a practical example, if we imagine a servo with a torque rating of 1kg this means it will lift a 1kg bag of sugar by means of an arm 1cm long, if we double the length of the arm to 2cm the available force will halve to 0.5kg

The speed of the servo is defined as the time it takes for the servo to rotate through 60 degrees but this will vary depending on the specification but will usually range from 0.25sec in low cost standard servos down to around 0.06sec / 60 degrees in a high spec unit.

Battery requirements, 4 cell rechargeable batteries with a normal voltage of 4.8 volts have been used to power onboard radios and servos for a long time and are still very popular for many sports models, however, servos have become more powerful over the years with greater torque output and this coupled with the larger number of servos often used in a model means a higher current draw from the battery.

As already mentioned digital servos use more current than analogue units so where digital servos are being used the battery voltage should be considered.

Remember the current for all servos on board must travel through the switch and switch harness so make sure this component can cope.

This is a nicely fabricated seat could be something to incorporate at the field, or better still any plane bodies that could be transformed.



Three couples are interested in joining a religious society. After spending months studying the texts and discussing theology, their final task is to be celibate for one month.

When the month is up, they meet with their sponsor and he asks if they were able to complete the task.

The first couple had no problems with the task. The second couple admit they were tempted, but they managed not to give in to temptation.

The third couple are newly-weds, and they look quite embarrassed.

“Well,” says the husband, “we were painting our house, and when my wife bent over to pick up a can of paint, I just couldn’t restrain myself.”

Their sponsor looks disappointed. “I’m sorry, but you can’t join our society if you failed this task.”

The husband sighs. “I know. We’re not welcome at Bunnings anymore, either.”



A man knocked on his boss's door.

The boss invited him to come in and have a seat.

"What can I do for you today?"

"Well, sir," said the man, "Can I have a day off next week to visit my mother-in-law?"

"Certainly not!" said the boss. "It's our busiest week of the year."

"Thank you so much, sir," said the man. "I knew you'd understand."

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A couple of photos here of Adrian's new Rascal fitter with an OS 20 petrol motor prior to maiden flight. It performed very well in the sky and proved to be a very docile flyer, however, several weeks after the maiden flight during a normal flight radio communications were interrupted and eventually gravity took over. It is well under way to being repaired and will grace the skies over SWARMS again in the not too distant future.

OCTOBER 2017: AUSTRALIAN MODEL FLYING MONTH

Participate in October's Australian Model Flying Month, in support of the Royal Flying Doctor Service Australia, (RFDS).

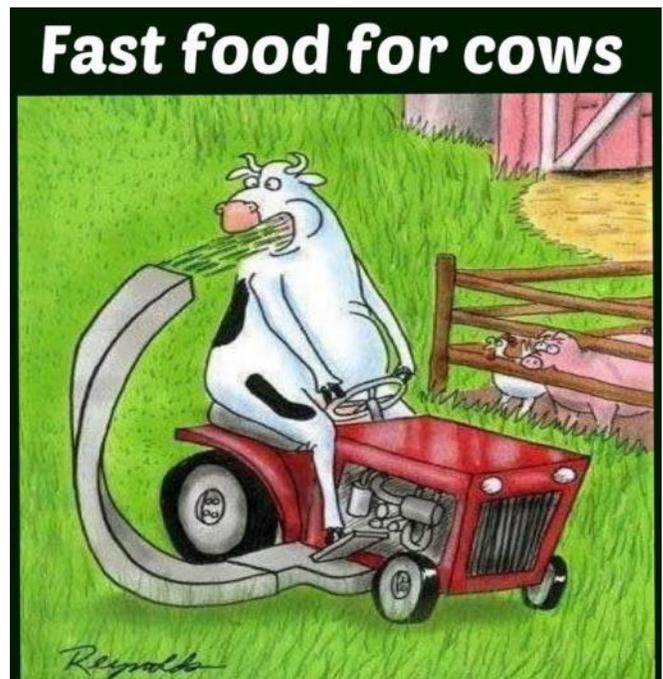
After the success of the 2016 Australian Model Flying Day, we have decided to expand the duration of the 'Have a Go' event to cover the entire month of October.

Once again, the fundraising from this event will help support the Royal Flying Doctor Service, who deliver extensive primary health care and 24-hour emergency service to those who live, work and travel throughout Australia.

Getting behind Australian Model Flying Month is pivotal toward increasing aeromodelling participation and helping to encourage more Australians to learn and become interested in our fun sport.

The entry fee is a \$5 badge, the funds of which go directly to the Royal Flying Doctor Service, (RFDS).

With the winter rains the grass at the field has really taken off which means more time mowing, this could be an option, the committee is investigating if we could get one of Clappy's cows to assist here it would save a lot of raking.



An old man visited a doctor for a regular check-up. Partway through the appointment, the old man let out a loud fart.

“Well, that sounded very healthy,” said the doctor. “But I actually asked if I could listen to

My Grandad was a WWII veteran. In just one day during the Battle of Britain, he destroyed 8 German aircraft killing 32 Nazi aviators.

Easily the worst mechanic the Luftwaffe ever had.



As an airplane is about to crash, a female passenger jumps up frantically and announces, “If I’m going to die, I want to die feeling like a woman.”

She removes all her clothing and asks, “Is there someone on this plane who is man enough to make me feel like a woman?”

A man stands up, removes his shirt and says, “Here, iron this!”.



Cruising altitude for most commercial jet aircraft is between 10,600 and 12,800 metres, although that higher altitude is not common.

This is the sweet spot in terms of factors such as lift, drag, fuel burn, cabin pressurisation and time taken to reach cruising altitude.

Another factor is weather.

The troposphere, which extends from the surface of the Earth to about 10,000m, is where most of our planet's weather happens.

Flying above the troposphere in the stratosphere allows aircraft to operate in more stable weather and offer a smoother flight.

Although drag lessens with altitude, allowing aircraft to fly faster and consume less fuel, other factors kick in that require design modifications, rendering them less cost effective to operate.

One example is the Anglo-French Concorde, which flew at much higher altitudes, between 15,000-18,000m, since the designers were prepared to trade off the minus-es – less lift, more pressure differential and greater metal fatigue for each pressurisation cycle – in exchange for less drag.

This allowed Concorde to cruise at the phenomenal speed of more than 2000km/h and cover the 5585 kilometres between New York and London in 3.5 hours.

At lower altitudes, Concorde could not maintain its high speed due to drag, and also skin heating from air friction and excessive fuel consumption.

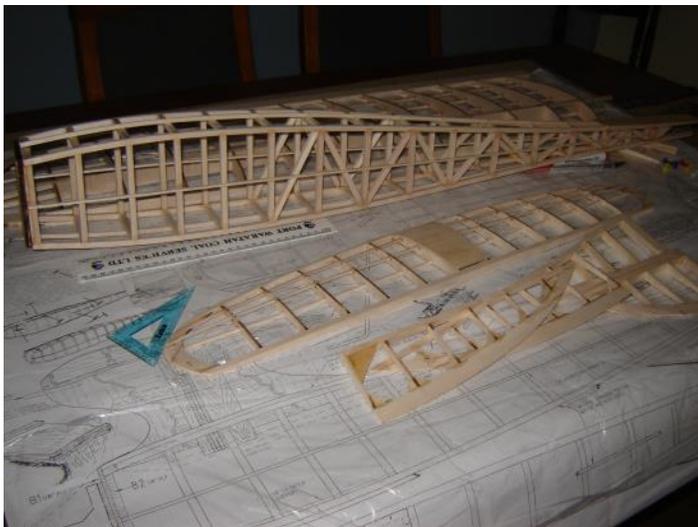
Were you aware of the reason?

As modellers we can get carried away with a scratch built model and spend hours, weeks, months and sometime years to complete. It is all about the satisfaction derived from achieving the end product from a pile of balsa to something that we hope will fly straight from the building board.

It all comes down to that maiden flight and as we all know it does not always go to plan, there are so many variables when those wheels leave the ground that you may have to deal with from radio interference, weather, mechanical failure, structural failure, oh, and pilot error.

There is a great sense of achievement when the first flight is complete and the plane is back on the ground without incident, makes you want to start another project.

I wonder if these workers in a model factory workshop derive the same satisfaction that we as modelers do at the end of their day, as mentioned above we build the entire plane, however, on the assembly line they work on only one part of the plane.



I think it would be safe to say that very few if any of these employees ever get to experience a maiden flight or even own a plane.

When you next buy an ARF or ARC spare a thought for those who have painfully put the plane together so that you can enjoy the thrills associated with flying radio control planes.

Happy flying !!

Catch you when we fly into the next edition.

