



# TINGALPA TRANSMITTER

TINGALPA MODEL AERO CLUB NEWSLETTER

April 2022

## GLIDER DAY 2022

The weather report looked reasonable with light winds and probably no rain. We had a great BBQ run by Lyn and Pat with pleasant weather. Why was this event not supported by as many as one would expect?

Well despite some disappointment here those that did make it had a really great time. So much flying air space and a jolly bunch of pilots just enjoying the camaraderie and friendly banter.

A bunch of items for prizes has been kept over for another day. The items just mentioned, and an attractive Multiplex Fun Ray Glider Kit were donated by Michael from Wired RC.

The glider kit was run as a raffle to support the canteen however with not enough tickets sold on the day to justify the glider kit it was decided to carry it over for the next event. As we all know rain and more rain put an end to that so we will continue to hold the raffle on a coming event day. The canteen with such dedicated effort from Lyn, Pat and Russel deserves a bit of a fund raiser as a token for the effort put into running such a necessary amenity every time.

Look forward to seeing a better turnout next year.

Gregor K



**MANAGEMENT COMMITTEE****President – Phil Gartshore**

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Pat Wilson

Lyn Wilson

**TMAC LIFE MEMBERS**

Kevin Dodd

Noel Wilson

Will Sipma

**EXCELLENCE AWARD TROPHY HOLDER  
2021**

Phil Collings

**BUSTER DANVERS TROPHY HOLDER  
2021**

Col Jones

**HEAVY MODEL INSPECTORS (FW25)**

Ian Howard

Andrew Tisdall

Gary McCoy

Chris Paterson

**HEAVY & GIANT MODEL  
INSPECTORS (FW25/FW50)**

Kevin Dodd

Noel Stewart

Phil Collings

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George Atkinson

**MAAA INSTRUCTORS****Commercial Flight Instructors**

Noel Stewart 0412 525 127

Will Sipma 0409 852 694

George Atkinson 0414 972 118

**Rotary and Fixed Wing**

Dennis Greenfield 0424 005 820

George Atkinson 0414 972 118

**Fixed Wing**

Nicholas Leahy

Peter Spink

Dave Morrison

Randall Mowlam

Aaron O'Neil

# PRESIDENT'S REPORT

## Transmitter April 2022

### Heavy Weather

A big thank you to the grounds keeping volunteers for getting the field back into tip top condition again. It took a couple of weeks for the strip to dry out enough to get the mowers on without damaging the surface.

Thanks also to members for their patience while it was just too wet to fly off the surface. I did notice some hand launching, and some balloon tyres aircraft operating during this period. Some members just need an RC fix each week!

### Hobby Expo Pilots

This year we are running our Hobby Expo Event on Sunday 14<sup>th</sup> August. Each year we run this event we struggle to get enough TMAC pilots to participate. Please consider participating this year, and contact Pat Wilson or George Atkinson to discuss.

Requirements are:

1. **Pilots.** MAAA Gold Wings standard competence.
2. **Aircraft.** Any aircraft is acceptable. We need as many aircraft in the air as possible. Pat and the team will organise you into an appropriate category.
3. **On the Day.** Turn up and register. Have a fun day flying.

Please see more detail elsewhere in this newsletter.

### TMAC Projects

We have two projects in progress.

1. **Western Pits, Pilot's Position, and disabled access upgrade.** The Grant application has been submitted and closed on 31<sup>st</sup> March. Thanks Project Manager to Will Sipma.
2. **Weather Station and Video feed.** This has been prices and a grant application submitted. Thanks to Project Manager Richard Symes.

More on these once we know the outcome of the grants process.

### TMAC General Meetings

General meetings are held on the first Wednesday of each month (Except January) at the Carina Leagues Club.

General Meetings upcoming will be held as follows:

- **April.** 7:30pm Wednesday 6<sup>th</sup>.
- **May.** 7:30pm Wednesday 4<sup>th</sup>.
- **June.** 7:30pm Wednesday 1<sup>st</sup>.

Please refer to the 2022 Events Calendar for further General Meeting dates.



## Heavy Model & Turbine Certification

Just a reminder that all models over seven kilograms dry weight are required to have a heavy model certification to comply with our insurance requirements. The certification needs to be renewed periodically, or when the aircraft has had significant repair.

If you have a model in either of these categories that does not have a heavy model certificate, please contact the secretary for a list of Heavy Model Inspectors.

**Remember, if you heavy model or Turbine model is not certified, a claim against the MAAA insurance claim may be declined.**

## Event Calendar 2022

Upcoming events for 2022 are as follows:

1. **April.** Sunday 17<sup>th</sup> Multi-Engine Day.
2. **May.** Sunday 15<sup>th</sup> EDF Day.
3. **June.** Sunday. Scale Day/ Peter Cutler Trophy.

MONTH	DATE	EVENT TYPE	EVENT DETAILS	CO-ORDINATOR
<b>April 2022</b>	Wed 6	Meeting	<b>General Meeting</b> (7.30pm, Carina Leagues Club)	<b>Secretary</b> m: 0412 525 127
	Sat 9	Non-Flying Event	<b>BRISBANE ASTRONOMICAL SOCIETY</b> (Porter Field 6.30pm - 9.00pm)	<b>Gregor Kruberg</b> p: 3847 7797
	Fri 15	Public Holiday	<b>Good Friday.</b> Normal Flying Hours Apply.	<b>Secretary</b> m: 0412 525 127
	Sun 17	Event	<b>MULTI-ENGINE DAY</b> (Porter Field 8:00am - 2:00pm)	<b>Aaron O'Neill</b> m: 0447 774 070
	Mon 25	Public Holiday	<b>Anzac Day.</b> Porter Field <b>CLOSED until 1.30pm</b> .	<b>Secretary</b> m: 0412 525 127
<b>May 2022</b>	Wed 4	Meeting	<b>General Meeting</b> (7.30pm, Carina Leagues Club)	<b>Secretary</b> m: 0412 525 127
	Sat 7	Non-Flying Event	<b>BRISBANE ASTRONOMICAL SOCIETY</b> (Porter Field 6.30pm - 9.00pm)	<b>Gregor Kruberg</b> p: 3847 7797
	Sun 8	Non-flying Event	<b>Mother's Day!</b>	<b>Secretary</b> m: 0412 525 127
	Sun 15	Event	<b>EDF Day</b> (Porter Field 8.00am - 2.00pm).	<b>Mark Kruse</b> m: 0403 815 701
	Tue 24	MAAQ	<b>MAAQ General Meeting</b> (Conference Call 7:00pm)	<b>MAAQ Secretary</b> e: secretary@maaq.org
	Tue 31	Newsletter	<b>June Newsletter Published.</b> (NOTE: Contributions close one week prior)	<b>Mark Kruse.</b> e: editor@tmac.asn.au
<b>June 2022</b>	Wed 1	Meeting	<b>General Meeting</b> (7.30pm, Carina Leagues Club)	<b>Secretary</b> m: 0412 525 127
	Sat 4	Non-Flying Event	<b>BRISBANE ASTRONOMICAL SOCIETY</b> (Porter Field 6.30pm - 9.00pm)	<b>Gregor Kruberg</b> p: 3847 7797
	Sun 19	Event	<b>SCALE DAY/ PETER CUTLER TROPHY</b> (Porter Field 8.00am - 2.00pm) [Camping Allowed]	<b>Phil Gartshore</b> Richard Symes (Peter Cutler)
	Sat 18	Non-Flying Event	<b>BRISBANE ASTRONOMICAL SOCIETY</b> (Porter Field 6.30pm - 9.00pm)	<b>Gregor Kruberg</b> p: 3847 7797

## Obligations under Porter Field Area Approval

Just a reminder about your obligations under the Porter Field Area Approval. Please assume that non-members may be around at any time. Just like making threats to aviation at airports, **do not make jokes about these requirements at any time**:

- **Radio Range Check.** Pilots shall successfully complete a range check as per the manufacturer's recommendation prior to the first flight of the day.
- **Fail-safe Check.** Pilots shall test the radio fail-safe function (where fitted) for correct operation prior to the first flight of the day.
- **Pre-flight Air-worthiness Check.** Pilots shall conduct a pre-flight check of aircraft prior to every flight to ensure airworthiness. All control surfaces are to be checked to ensure they are not binding and are operating correctly.
- **Height Limit.** The maximum height limit is 400ft AGL at Porter Field.

## Reporting Crashes outside Porter Field Boundary

Finally, a reminder that you must provide a written report to the Secretary if you crash an aircraft outside the Porter Field boundary. Remember, never admit liability; leave it to our insurers.

**Providing a report is not a reflection on the pilot but provides a record should the club be served with a claim against the MAAA insurance policy.**

## For Safety – Restrain your aircraft!

If you have any questions or issues, please contact me ([president@tmac.asn.au](mailto:president@tmac.asn.au)).

Regards,

**Phil Gartshore**

President.

# Administrative By-Law 16 - Code of Conduct

## **Objective:**

The objective of this By-Law is:

1. To define the Code of Conduct;
2. To provide guidance for members behaviour at the Club.

## **By-Law.**

Introduction.

The Code of Conduct comprises key areas of our rules, bi-laws, MOP's and Commonwealth Government legislation. It is central to the constitution of this club and how we engage with and treat each other as members.

### **Code of Conduct Elements**

1. **To encourage and foster friendship between aero modellers.** (TMAC Rules)
2. **Develop a spirit of co-operation and reciprocity in all matters of mutual interest.** (TMAC Rules)
3. **Respect the rights, dignity and worth of others.** (Com Gov legislation and MAAA M.O.P. 041)
4. **Be ethical, fair and honest in all dealings with others.** (Com Gov legislation and MAAA M.O.P. 041)
5. **Be responsible and accountable for our conduct.** (Com Gov legislation and MAAA M.O.P. 041)
6. **To encourage a Harassment and Bullying free environment.** (Com Gov legislation and MAAA M.O.P. 041)
7. **Always place the safety and welfare of children above other considerations.** (Com Gov legislation and MAAA M.O.P. 041)

**End Administrative By-Law 16 - Code of Conduct.**

# REDUCE YOUR RISK OF **COVID-19** INFECTION



## WASH HANDS

Wash your hands with soap or use a hand sanitiser when you arrive at the field



## COVER A COUGH OR SNEEZE

Cover your cough or sneeze with your sleeves or tissues. Dispose the tissue and wash hands afterwards



## SOCIAL DISTANCING

Keep a distance of around 1.5 meters away from others in public



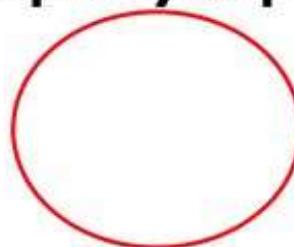
## ATTENTION!

If you have experienced a fever, cough, sore throat, shortness of breath or travelled overseas in the past month, please do not enter this area

**The maximum capacity of people in this area is:**



[www.maaa.asn.au](http://www.maaa.asn.au)



Australian Government

[www.australia.gov.au](http://www.australia.gov.au)

# Secretary's Report

**Transmitter April 2022**

## Rain

Wow it just doesn't rain it pours and to the point most club in SEQld had to shut down due to flooding and damages, let's hope they can recover soon. I would also like to thank our volunteers for helping us get back to flying condition before we predicted it. For the clubs who are still closed I'm sure that help is on our agenda for the April GM. I hope that members did take this time to get into the workshops and repair those models that were in the queue. For those members who did come down for a fly they had a bit of cleaning to do after each flight.

## Events

With Covid and the lack of events for the past two years, the club has not been able to add the extra funds that we need so we could start some of the projects we would like to do. Of course there are grants that can help however those funds are limited especially since the latest floods. So having said that, on event days, if you have some spare time, come to the field buy a meal or two and help support your club. Even though you may not have a plane to fly on that day, come down and socialise.

## MAAQ

I attended the online March GM for the MAAQ the following items were brought up in the meeting:

1. There are gazebos available to share amongst the clubs, the MAAQ has one in hand
2. There are funds available for socializing for new member encouragement
3. Flood grants from MAAQ maybe \$10k for all affected clubs which was agreed and approved for up to \$1k to assist clubs to help with flood damage
4. \$500 to help with events per calendar year
5. The new Safety officer Mitch Manic for MAAA
6. The Bundaberg Flying Club may come back to MAAA, after they clean up house

## Membership and Renewals

I will be working the Committee to get this year's application for memberships underway, fees will be a very important discussion especially with the price of fuel and the mowing we need to do to have a fantastic strip and field. Please come to the meetings or send me an email with your thoughts about this years memberships fees, remembering that the committee is here to help the members.

## Tables

A huge thank you for the members who had cleaned their setup tables after use however we still need to be diligent as lately those oily tables have been popping up again.

## Rules and safety

So let me remind members again, every year when we renew our membership we sign a section that states "I agree to comply with the Rules and By-Laws, and subsequent variations as may be promulgated from time to time, of the Tingalpa Model Aero Club Inc. and its Insurers." So I am still lost for words when I see or hear about breaches to these rules and by-laws. They are there to serve a few purposes:

1. The longevity of our club
2. A safe environment to fly
3. A friendly place to gather and socialize

**Therefore** the following are reminders that need to be followed **without exceptions**:

1. The height limit of **400 feet**, it's a big sign in front of the pilot's box.
2. Turn early on the eastern end of the field, **DO NOT** fly close or over the freeway.
3. Do your safety checks before you fly models, **CASA** could be watching.
4. Call your intentions **LOUD & CLEAR** to other pilots in the pilot's box when **entering, flying and leaving** the strip.
5. Be sure to fly in the **SAME DIRECTION** as other pilots who are already in the circuit, if the wind changes then the pilots need to discuss the circuit direction change
6. Be polite and courteous to all members, remembering that all members are safety officers.

## Reminders

Members are reminded that aircraft that crash outside of the club's boundary fencing needs to be reported to the secretary in writing as soon as possible, regardless if you retrieve the model. This is so that the club can be ahead of any issue that may arise from the incident early rather than later. Most of the time these incidents are not an issue but occasionally as in the case of a fly away if injury of damage or injury occurs and a claim ensures we have prior knowledge of the details and so I can get the paperwork rolling asap.

Remember safety first and safe flying,

Mark Kruse  
Secretary

**HEIGHT LIMIT  
400 FEET**

(Civil Aviation **Safety** Regulations 1998 – Part 101)

**NO FLYING THIS SIDE OF THE FLIGHT STRIP**

# Corporal Peter Cutler Memorial Trophy

## Objective:

The objective of this By-Law is:

1. To award a member for presenting the best scale model in static display at the Peter Cutler Memorial Scale Day, as determined by a panel of judges.

## By-Law

### History

On 11 March 1987, Peter John Cutler, a former member of the Club (6 September 1983 to 30 April 1986), was killed during an army exercise. He was 29 years of age. At the time of his death he was a member of No. 1 Signal Regiment, stationed at Enoggera Army Base, and was transmitting a message from the enclosed rear compartment of a Landrover when the driver misjudged a turn, and the vehicle rolled upside down into a ditch. The driver and another passenger escaped uninjured.

Peter was, for a number of years, a keen scale modeller and a member of the Wagga Model Aero Club before his posting to Brisbane. To perpetuate his memory his wife Brenda, children Rebecca and Matthew, parents Athol and Marie, and brothers Stephen and Gregory donated trophies to the Wagga and Tingalpa Clubs to be contested in scale competition.

The title of the award is the "CPL PETER CUTLER MEMORIAL TROPHY" (hereinafter referred to as the "Trophy").

The first contest for the "Trophy" was at the Club's annual Scale Rally, held on 21 June 1987. The name of the event was subsequently changed to the Peter Cutler Memorial Scale Day and conducted under that title on 3 July 1988.

It is the wish of the donors that the "Trophy" remain in the custody of the Club at all times. Each year the donors will provide a replica of the "Trophy" for presentation to and retention by its winner.

It is envisaged that when the Club has a Club House, the "Trophy" will be kept therein together with suitably framed photographs of the winners' models.

### Contest for the "Trophy"

1. The contest for the "Trophy" shall be between TMAC members registered to participate at the Peter Cutler Memorial Scale Day, and presented to the member who achieves the highest score for a scale model in static display as determined by a panel of judges.
2. Winning shall be conditional upon the demonstrated ability of the model to remain airborne in controlled flight for not less than one minute on the day of the event.
3. The "Trophy" cannot be won twice with the same model.
4. The winner of the "Trophy" will not be eligible to receive any other trophy awarded for static display in any other section of the event.

**Peter Cutler Memorial Scale Day**

1. The Peter Cutler Memorial Scale Day shall:
  - a) be held once in each calendar year,
  - b) not be held on any weekend adjoined by any public holiday,
  - c) be MAAQ sanctioned and governed by all of the conditions applicable to sanctioned events,
  - d) be controlled by the member of the Management Committee appointed as Event Co-ordinator for this event.
  - e) be open to any person in possession of a current FAI Class F Aeromodels Licence,
  - f) be contested in a suitable format for scale models as determined by the Management Committee. Provided that the contest for the "Trophy" shall be conducted in accordance with the conditions prescribed herein.
  - g) not be bound by any of the generally accepted rules for scale competition. For example; scale documentation, engine capacity, source of construction materials, dummy pilot, precision manoeuvres or any other condition which will detract from the concept of a "low key" event.

**Judging**

1. The Event Co-ordinator, or a member nominated by the Event Co-ordinator, shall invite suitably qualified persons to be judges.
2. The panel of judges shall be comprised of not less than three or more than five persons.
3. TMAC members who are contestants for the "Trophy" shall not be invited to be judges.
4. Judging shall be based on the standard of construction and realism, and scored to a maximum of 100 points.
5. Models to be judged may be subjected to close scrutiny provided they are not handled by the judges.
6. Judges shall not discuss any aspect of the construction of a model with its owner.
7. Members of the panel shall judge independently of each other.
8. The judges' scores shall be averaged and collated by the Event Co-ordinator, or a member or members nominated by the Event Co-ordinator.
9. If two or more models are judged to be equal, the panel shall rejudge those models to determine an outright winner. The panel members may conduct this process independently or by consultation between themselves.

## EDITOR'S NOTE

On Monday 28<sup>th</sup> February, this was the condition of the service road into the parklands, then on the following Thursday after another downpour covered the road again however it was drivable.



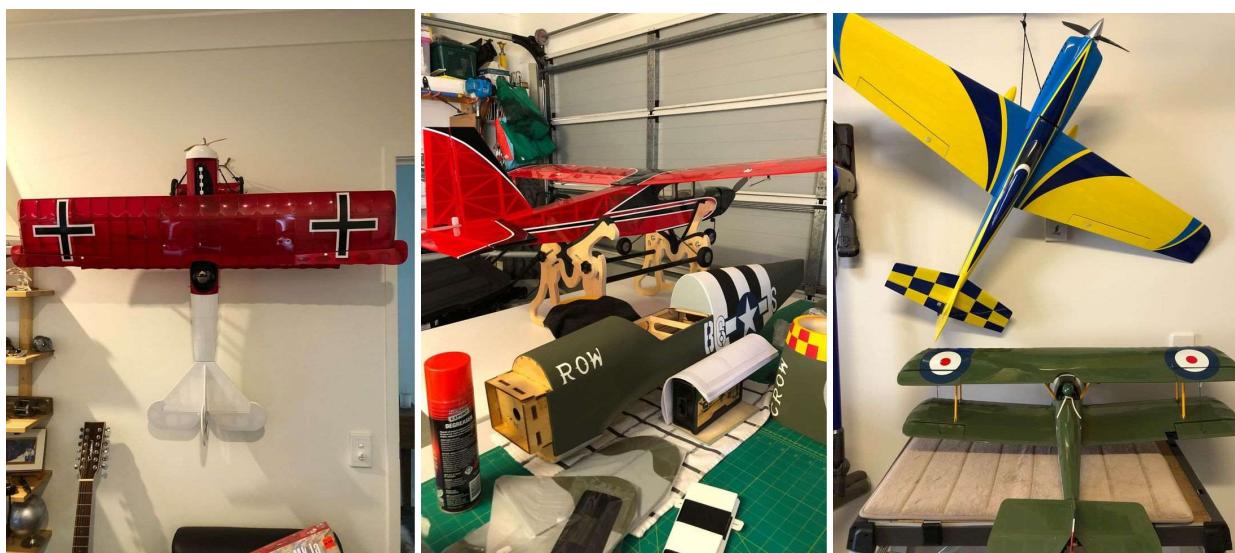
With very careful monitoring the maintenance crew have managed to get our field back to flying condition. Thanks guys for doing a great job.

## Wanted / For Sale

Wanting to buy or sell aircraft, parts or plans through the newsletter, send the details to [editor@tmac.asn.au](mailto:editor@tmac.asn.au)

## RC Aircraft Builder

Hi my name is Gerard I am also a professional carpenter who has osteoarthritis in both knees so putting my skills to RC model building which I have been doing on and off for some time now. Please call 0411883735 or email [gerard20@bigpond.com](mailto:gerard20@bigpond.com)



## Fund Raising

Hey how about helping the club out with your recyclable cans and bottles, bring them into the club and place them in the bin in the canteen.

## Flash Backs & Tips

Looking for old or new photos of planes, helicopters or members and aircraft tips for the newsletter. Please forward them to me at [editor@tmac.asn.au](mailto:editor@tmac.asn.au)

## MEMBERS' PRIDE & JOY

[Next issue](#)

Job No. 

Company Name Tingalpa Model Aero Club Inc.



**TINGALPA MODEL AERO CLUB  
ORDER FORM  
2021 CLUB POLO SHIRTS**

**NAME.....**

**CONTACT NUMBER.....**

**POLO SHIRT SIZE.....**

**QTY.....**

**SHORT SLEEVE (\$45.00EA) YES/NO**

**LONG SLEEVE (\$50.00EA) YES/NO**

**CROSS OUT WHICHEVER IS NOT APPLICABLE**

**(SHORT SLEEVE SHIRT/S WILL BE ORDERED IF NOT CROSSED OUT).**

**AMOUNT PAID \$.....**

**RECIEPT NUMBER.....**

**DATE.....**

**LYN WILSON**

## WOBBY WINGS

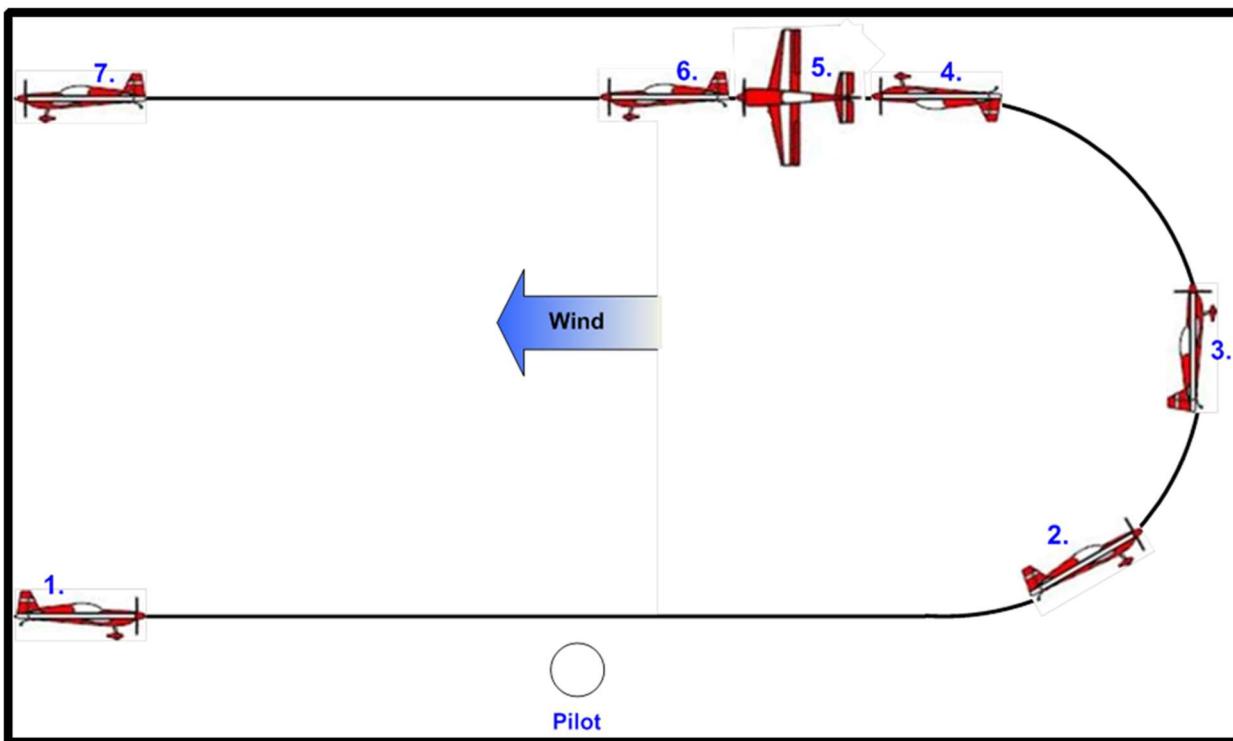


### Information, tips and tricks on wings manoeuvres.

Welcome back to a series of Transmitter columns that is aimed at taking the mystery out of performing Fixed Wing Bronze/Gold Wings manoeuvres. The author doesn't claim to be the font of all knowledge and has drawn on all sorts of information from other flyers, publications, and the Internet. The so called tips & tricks are just that; useful to some pilots but perhaps not to others. Hopefully, they may cause a light bulb to go on in your head for that manoeuvre you are struggling with.

#### Immelman Turn

The Immelman turn is an aerobatic move named for its inventor, WWI German Ace Max Immelmann. Immelmann was known for his successful hit-and-run attacks. He was a master of the surprise attack, often coming out of the sun or from underneath his opponent and then using aerobatic manoeuvres to get away. His name lives on in modern aerobatics in the form of the Immelman Turn. Although here is controversy, as to whether this manoeuvre could have been flown in Immelmann's wing-warping Fokker monoplane, he is still given credit for using this manoeuvre to attack from beneath an opponent on the way up, then reverse course and get away. Historical experts generally believe that this manoeuvre would actually not have been a practical proposition in the primitive, underpowered fighters of 1915-16, and what was called an "Immelman turn" during the first world war was a sharp rudder turn off a vertical zoom following a steep dive - resembling what is nowadays called a "wingover". This manoeuvre is performed in front of the pilot's position and is required to be performed from both left and right. It is advisable to have mastered loops before attempting this manoeuvre. Remember to allow for wind as you would for loops.



1. This manoeuvre must be flown parallel to the strip, and far enough out from the Pilots position so that the shape, which is in the vertical plane, is easily seen. Begin at (1) with a 30 metre straight and level entry line, and keep flying past the centreline to (2).
2. Fly at maximum speed at (2) applying just enough elevator to begin a graceful half loop. Allow for the effect of gravity during the loops. Remember to have the wings level before pulling up.
3. Reduce power a little as you approach the top of the half loop (4). There must be no line of inverted flight between the half-loop and roll. The roll should be commenced immediately the aircraft reaches the top of the half loop.
4. At (4) apply aileron for a half roll (5) to upright (6).
5. Fly an exit line of 30 metres to (7).

Tips for the Immelman:

1. Adjust for the wind as you do for loops;
2. The roll should be commenced immediately at the top of the half loop;
3. Reduce throttle as you come over the top.

Remember to end up with the canopy pointing to the sky, and the wheels to the ground.

## RC PLANE MAINTENANCE: Easy Foam Plane Repair Tips



Now that we have had a short break from flying I thought I would introduce these repair tips, just in case we have an accident and they are bound to happen because it is the nature of our hobby/sport. Go to most members in the club and ask them how to repair balsa or composite planes and they will line up to give you advise however there may not be many members around who could advise you how to repair foam planes. So instead of going to the Hobby Shop or online to source new parts how about giving a repair job a crack.

So the following tips have been borrowed from Model Airplane News and they suggest the following:

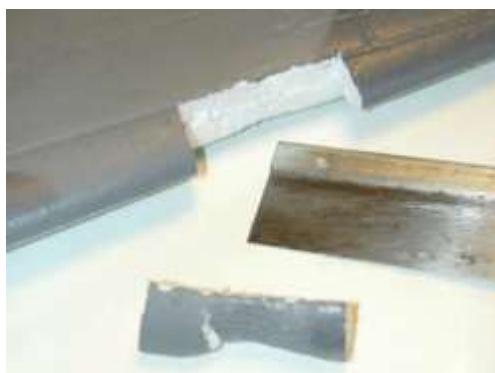
### What's Needed

The supplies needed for any model repair are a hobby knife with sharp replacement blades, some masking tape, a sanding bar with medium sandpaper (100 to 150 grit), and some fine 220-grit sandpaper. The glue needed is 15-minute two-part epoxy, foam-safe CA adhesive, and foam-safe accelerator. Denatured alcohol is good for cleaning the surface of the foam and for cleaning up excess epoxy from repairs.

### Removing Dents



**Step 1:** The leading edge of a foam wing can really take a beating, but dents are really only cosmetic issues. If you have a minor dent, simply apply a wet paper towel to it and heat with a covering iron. Most of the time, the steam will expand the foam and your dent will disappear.



**Step 2:** If the dent is more pronounced, you can quickly cut away a section of the damaged material with a razor saw and glue in some new foam.



**Step 3:** Cut some new foam to length, and glue it in place with foam-safe CA. The best way to do this is to cut the foam a bit oversize, and spray foam-safe accelerator to the new material. Apply the CA glue to the cutout area, and insert the repair piece. Hold it in place until the glue sets. Use your saw to remove most of the unwanted material, then use a sanding block to smooth the replacement piece.



**Step 4:** Apply a little hobby filler around the edges to fill in any gaps (I used Fill, Sand and Go white filler with a drop of water).



**Step 5:** Once the filler has dried, use fine sandpaper to smooth the repair. If you need to, apply more filler around the repair area to feather out the repair area.



**Step 6:** Apply some matching foam-safe paint to complete the leading-edge wing repair. The hardest part of this repair really is finding matching paint. acrylic foam-safe paints. You'll be able to match the color chips and then lighten or darken the colours slightly to match. In real life, warbird repairs seldom matched the rest of the airframe, so welcome to scale weathering!

**Mending Broken Wings**

**Step 1:** In extreme cases, you might break a foam wing in two (or more!) pieces. A great trait of foam is that it is usually very easy to piece back together. Mix up a small batch of 15-minute epoxy on a plastic can lid. Run two or three lengths of each part as shown and then mix together.



**Step 2:** Place some waxed paper or food wrap under the wing pieces and then apply just enough mixed epoxy to cover the exposed ends of the break. Use some masking tape to hold the parts together while they rest flat against your work surface. Be sure to wipe away any excess epoxy that oozes from the repair using a paper towel and some denatured alcohol.



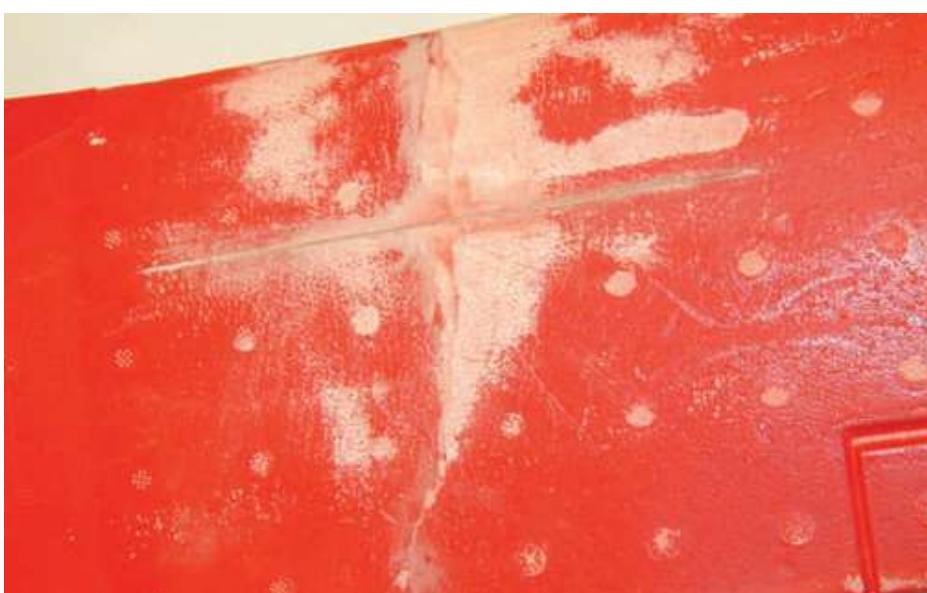
**Step 3:** After the epoxy has set, remove the tape. Using a sanding bar, smooth out the repair area.



**Step 4:** If your wing is more than 900mm in span, use a piece of thin plywood that is 100 to 150mm long and 12mm wide as an internal brace. Using a hobby knife and a razor saw, cut a straight line all the way through the wing, as shown. Test-fit the plywood, then apply foam-safe CA and insert it into the wing. Apply some accelerator and let the glue set.



**Step 5:** After the glue sets, apply model filler to the repair and let the filler dry.



**Step 6:** Using fine sandpaper, sand the filler smooth and flush with the rest of the wing surface.



**Step 7:** Apply matching foam-safe paint and let it dry. The repair is complete however you can also apply some decals over the repair area, if you like, to completely cover the mended area.

#### Repairing Foam Hinges



**Step 1:** It is not possible to repair a live-foam hinge, where the hinge is molded in as part of the control surface. It is best to install new hinges in the damaged surfaces. Before removing the surface, mark the locations for the new hinges. For this rudder, three 3mm (1/8 inch) Robart Hinge Points will be installed.



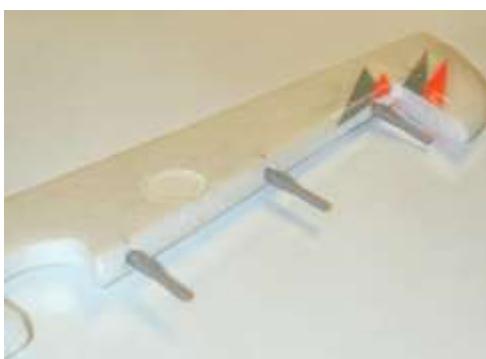
**Step 2:** After marking the hinge locations, take a sharp hobby knife and slice through the moulded hinge to separate the rudder from the fin. Use some sandpaper to smooth the mating surfaces.



**Step 3:** Sharpen the end of a 3mm brass tube and use it as a drill to produce the holes for the Hinge Points. This produces much neater holes than a wood drill bit.



**Step 4:** Mix up some 15-minute epoxy and use a toothpick to apply the adhesive into each of the holes in the rudder.



**Step 5:** Insert the Hinge Points into the holes and set aside until the epoxy cures. Make sure that no epoxy gets into the pivot pins. If it does, quickly remove the hinge and install a new one. You have about 20 minutes before the epoxy starts to thicken and set.



**Step 6:** Apply more glue inside the holes in the vertical fin, and slide the hinges in the rudder into place. Again, wipe away any adhesive that oozes out of the holes with paper towels and alcohol. Set aside until the epoxy sets.

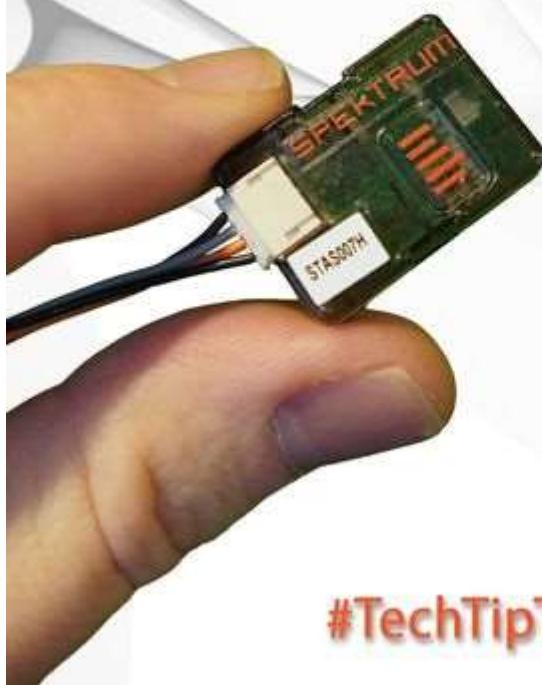
I also use a stream gun to straighten out bent or compressed fuses and other parts then sand and paint.

# Where do I install these “Antenna-less” Remote Receivers?

- Orientation?

- Distance?

- Carbon Fiber?



#TechTipTuesday



For this week's #TechTip we want to delve into the mysterious "Antenna-less" Receiver and educate our users on the best practices for installing these types of receivers into your model aircraft. So, grab a cup of coffee and get ready to learn something!

A bit of backstory - So what is an "Antenna-less" receiver? This is a term we coined for a receiver that has an internal PCB antenna. There is no whip or wire antenna to get damaged and to specifically route, like traditional receivers. The antenna is essentially a tracer on the receivers Printed Computer Board (PCB). Up to this point we have designed these antennas as a Meandering IFA (Inverted F Antenna), which are excellent in terms of durability and function. These types of antenna are extremely common on GPS, WiFi and Cellular devices, because they are easy to design for tight spaces and are relatively more cost effective than the alternative. There are some tradeoffs when using these antenna (which we will outline below) but throughout our extensive lab and field testing, we have found these to be an excellent option for Radio Control receivers, and in many cases perform even better than "whip style" feeder antennas!

Currently these are found on the SR2100 Micro Racing receiver, AR410, AR620 and AR630 receivers for air, and the SPM9747 SRXL2 Remote receiver.

**Orientation** - One of the beauties of PCB antennas is that they are essentially omni-directional. This means they have the relatively same radiation pattern all around the antenna, with the exception of the Y plane. So, when installing these into a plane that has a main receiver with 1 or 2 main whip style antennas, it is not critical that they are oriented in a certain direction to those antennas in particular. If only using one of these types of receivers with no additional receivers or antenna, then it is best to place it flat in the model with the face of the receiver facing the sky. If you are installing 2 or more "antenna-less" receivers in your model, it is best to place them on different planes for max reception coverage. Such as one on the X plane (label up or down in relation to the ground/sky), another on the Y or Z plane (label sideways towards the wings or nose/tail).

**Distance** – The distance that the antenna is from certain objects in your airframe is one of, if not the most critical aspect to keep in mind. As with whip style antennas, it is important that the antenna tip be at least 3 inches (roughly 8cm) away from other antennas, batteries fuel tanks and engines, as well as electronic devices such as ESCs, motors, servos etc. Essentially if it is metal, has fuel or liquid inside or has power going to it, the more distance away the better. Electronic devices can be noisy and can interfere with the signal when close to your receiver antenna, and batteries/engines/fuel tanks can effectively block the signal if it is in the direct line between your transmitter and the receiver in the aircraft. One of the trade offs with a PCB antenna is that the device itself is effectively the antenna, so placement of the receiver is KEY. whereas with whip style antenna equipped receivers, you have more freedom with receiver placement because you could route the longer whip style antennas away from these potential problem areas. Do keep in mind that if using these as a remote receiver, the extension between the main and remote receiver cannot exceed 36 inches.

**Carbon Fibre** – Much like the metal of your motors and engines, carbon fibre can block the signal from your receiver. This mostly pertains to sailplane and glider models that have a completely carbon fiber laminated outer shell or fuselage. In these cases, it is not recommended to use these types of receivers. Instead, you will need whip style antennas that are long enough to be routed outside of the fuselage. Also, on models with carbon fibre frames such as most multirotor and helicopter models, it is not recommended to use these because the thick sheets of carbon will likely block the signal at some point in flight depending on the orientation of the model in the sky. So, it is best to use a whip style antenna there as well. One exception is models with balsa that is laminated with thin layers of carbon fiber to help reduce weight and add rigidity. These models use very thin and small amounts of carbon fibre and in most cases do not negatively affect the range and reception of PCB antenna receivers.

As with any receiver antenna installation and setup, it is very important to perform a range test before flight to confirm all is working as it should. AND to keep an eye on your transmitters flight log data so you can better evaluate the performance of your receiver(s) after each flight.



# Electric Ducted Fan Fun Fly

**SUNDAY 15TH MAY 2022**

**Sport, Scale, Military, Foam and Composite  
All EDF powered planes welcome**

\*All Pilots must hold a Current MAAA License

Pilots Prize Draw, Raffles and Fun Flying Competitions

Hot BBQ Breakfast and Drinks available all morning

Proudly Sponsored By

Registration from	7:30am
Pilots Breifing	8:00am
Prize Draw	11:30am



Electric Model Aircraft Specialist

(07) 3300 3616

[www.wiredrc.com.au](http://www.wiredrc.com.au)

In case of uncertain weather, a decision will be made 5pm Saturday 14th May and if the event will not go ahead on the 15th of May, a message will be posted on the TMAC Facebook page and members will be emailed.

Contact: Mark Kruse 0403 815 701

Location: UBD Ref 162  
Take Graystone Street to Parklands



Tingalpa Model Aero Club Inc.

## Scale Day

Sunday 19<sup>th</sup> June 2022



Come and have a relaxed day flying any reasonable rendition of a full scale aircraft. Judging will focus of scale flight; so no 200kmph Cubs!

No documentation required – Electric, IC, Gas, Turbine or Glider.

**Pilots registration from 7:30am.**

MAAA Licence and overweight certificates required.

## YOU BE THE JUDGE!

Registered Pilots judge the best scale flights.

Pilot briefing 8:00am.

Catering: Breakfast from 7:30am, Snacks and Drinks

Trophies: Best Junior Pilot & Pilots' Choice 1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup>

**Come along and have a fun day!**

**Fly as often as you like.**

Convenor: Phil Gartshore m: 0407 070 263 e: [president@tmac.asn.au](mailto:president@tmac.asn.au)

Location: Porter Field, Stanton Road West, Tingalpa QLD 4173,  
turn into Graystone Street from Wynnum Road, then to Minnippi Parklands.

Limited Camping Available – Contact Secretary

# TINGALPA MODEL AERO CLUB

invites you to

## PETER CUTLER MEMORIAL SCALE DAY

SUNDAY JUNE 19TH 2022

(FROM 8AM)

STANTON RD W, TINGALPA QLD 4173

**FREE ENTRY**



Free Onsite Camping  
Toilet & Shower Facilities available  
Full Canteen on the day

Open to all current TMAC members

Must be MAAA member

Heavy model permits apply

### CATEGORIES

Peter Cutler Winner  
Peter Cutler Runner Up  
Encouragement Award

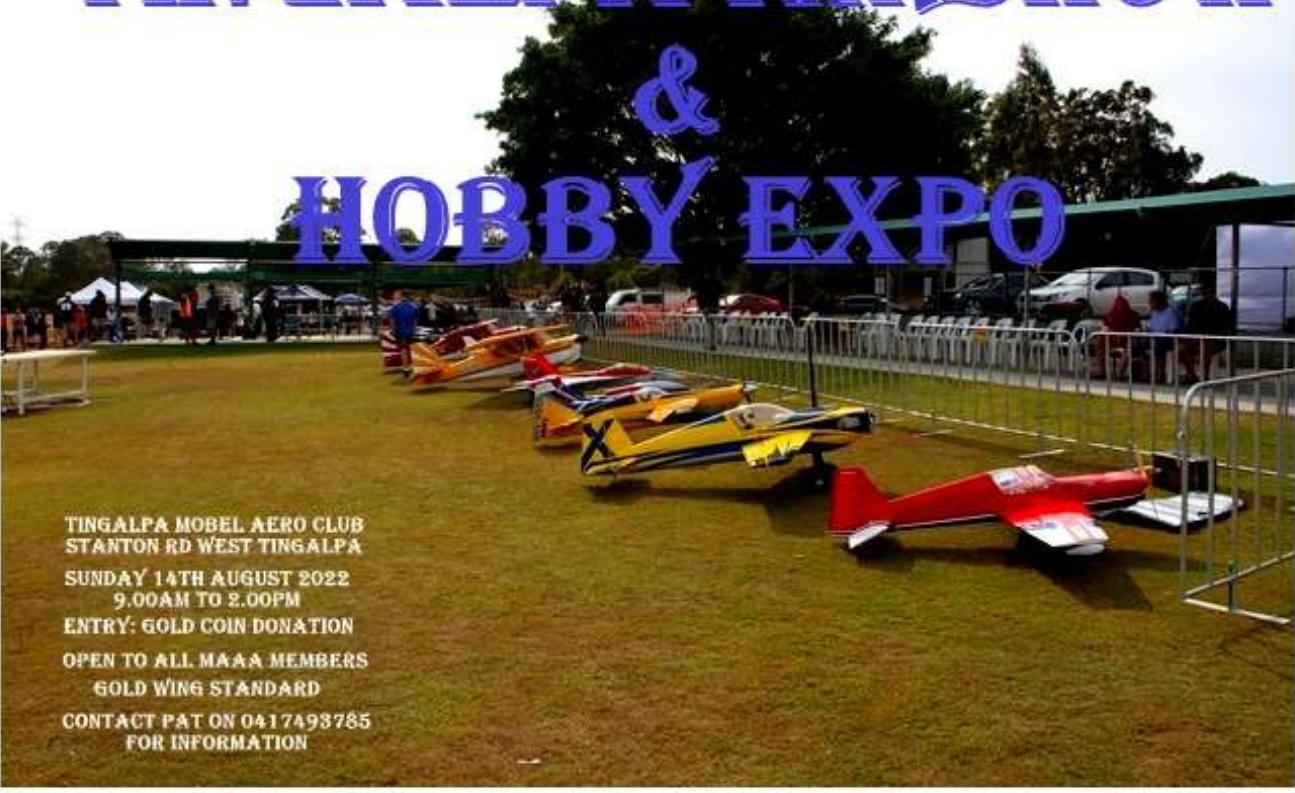


**HOBBYRAMA**



# TINGALPA AIRSHOW & HOBBY EXPO

TINGALPA MOBEL AERO CLUB  
STANTON RD WEST TINGALPA  
SUNDAY 14TH AUGUST 2022  
9.00AM TO 2.00PM  
ENTRY: GOLD COIN DONATION  
OPEN TO ALL MAAA MEMBERS  
GOLD WING STANDARD  
CONTACT PAT ON 0417493785  
FOR INFORMATION



Once again, I have volunteered to be the Co-Ordinator of the Tingalpa Model Aero Club's "**2022 TINGALPA AIRSHOW & HOBBY EXPO**"

I am looking for pilots from this club and other clubs to participate in this year's **TINGALPA AIRSHOW & HOBBY EXPO** on **Sunday 14<sup>th</sup> August 2022**. Pilots must have the equivalent of **GOLD WING STANDARD** before being permitted to fly. **CALLERS** must have the equivalent of **BRONZE WING** standard.

I am looking for helicopter pilots, World War I, World War II, Turbine jets, EDF jets, gliders and everyday planes. I am also looking for pilots to participate in a fly past at the official opening, learner pilot, streamer chasing pilots and everything in between. Size of your model is not relevant. You **MUST** have a current **MAAA** licence.

Should you not wish to fly but you have great model/s sitting at home, please, bring them along for the static display.

I will also be looking for people to assist with the setting up/down of the field on Saturday 13<sup>th</sup> and Sunday 14<sup>th</sup>. Further I will require 2 people as flight-line controllers for the flight line, persons for the Public Address work and many others for general assistance on the Sunday. Also required is people to assist Lyn & Russell in the canteen.

Nomination form is available at [www.tmac.asn.au](http://www.tmac.asn.au).

Please talk to me at the field should you wish to participate or contact me on 0417493785.

Thanks in advance

Pat Wilson



## 2022 TINGALPA AIRSHOW & HOBBY EXPO

### ENTRY FORM

Name.....

Home Club..... AUS.....

Heavy Weight Certificate Current.....

Heavy Weight Certificate Current.....

Heavy Weight Certificate Current.....

Contact Number ..... Email.....

Small description of your aircraft.

AIRCRAFT 1.....

AIRCRAFT 2.....

AIRCRAFT 3.....

Minimum standard for pilot's in this event is **GOLD WING** standard

Minimum standard for pilot's caller in this event is **BRONZE WING** standard

**Pilots and caller** are only permitted at flight-line 10 minutes prior to and during their flights. Must return to the pits area directly after flight.

**FLIGHT-LINE CONTROLLER** has the final say as to persons permitted at flight line.

.....  
Signature

.....  
Date

Please return entry form to Pat Wilson (Event Co-ordinator) at [discosarge1@bigpond.com](mailto:discosarge1@bigpond.com)  
prior to event.

Pat Wilson (M) 0417493785