

# T R A N S M I T T E R



## MANAGEMENT COMMITTEE

### President.

Peter Stevenson 0401 700 675 President@tmac.asn.au

### Secretary.

Phil Gartshore 0407 070 263 TMAC Secretary PO Box 2108  
Tingalpa QLD 4173

### Treasurer

Jim Viles 0413 876 531 jmv\_bao@fairpricetelecom.com.au

### Registrar

Phil Gartshore 0407 070 263 registrar@tmac.asn.au

### Committee Members.

Committee member (Liaison Officer).	Will Sipma	3901 2208
Committee member (Editor)	Peter Biddle	0402 403 469, tmaceditor@bigpond.com
Committee member (Web Master)	Adam O'Callaghan	WebAdmin@tmac.asn.au
Committee member	Glenn Crossley	
Committee member (Field maintenance)	Gregor Kruberg	3397 5697
Committee member	Allen Danvers	
Committee member	Michael Hobson	
Plan Library.	Ted Hacker	3355 4714

### TMAC Life Members

Doug Kent, Will Sipma

### TMAC Life Member's Trophy.

Gregor Kruberg

### Flight instructors.

Tony Gliddon (07) 3899 0885  
0408 648 379

Noel Wilson (07) 3890 2520

### Heavy model inspectors.

Chris Howarth, Richard Symes,  
Ian Howard, Doug McIlwraith. **Heavy & giant models** Kevin Dodd.

### Turbine model inspectors

Kevin Dodd, Phil Collins.

### On The Cover

Seen at the recent biplane and warbird day, Chris Howarth's Canadian Navy Seafury. A very scale aircraft both on the ground and in the air.

### From the Editor.

As usual I don't believe it. It's the end of the year again and I'm a year older.

It's good to see the club so active and the field looking so good despite the dry weather.

Got a bit of a mixture of articles in this edition, including the continuing series of Wobbly Wings, this time looking at takeoff (optional) and landing (mandatory). We also take a look at the insurance cover supplied via the MAAA. (Brochures on this are available from the Secretary).

Searching the internet recently brought to light a couple of articles on glow plugs which I have reproduced here.

Recently I imported some stuff from the USA and had to do a bit of research on Customs Duty and GST. See the article on page 9.

Anyway Merry Christmas to all and hope to see you down at the field for a Christmas BBQ on Sunday 23rd.

Peter Biddle

All pictures in the Transmitter are taken by the editor unless otherwise noted.





## From the President

### Presidents Report Dec 07

On behalf of the Management Committee, I would like to wish everyone a Merry Christmas and a safe and happy New Year.

The field has been open and flyable all year, even with the drought, thanks to the efforts of a number of people, and some very fortunate rain just when we needed it.

In particular, I would like to thank Dave Walker, Gregor Kruberg and Will Sipma for all the efforts and organisational skills, for ensuring the field and plant maintenance are all in first class condition.

#### Development Plan

As part of our lease requirement, the management committee will be looking at the 2008 development plan in the new year.

As part of our lease's 5 year development plan, a Club House has been proposed. The Club house is a long term proposal and is at its very earliest stages of investigation.

#### Aircraft Restraints

The Club has just purchased 10 metal aircraft restraints. These are intended as an alternative to using rope and a screw driver as a restraint.

They are available to members at cost price of \$25 each. All you need to do is add some foam. Please see one of the committee members if you wish to purchase one.

In the interest of safety to new and existing members, we will also be leaving these at the field for all members to use, once painted and foam added to the vertical poles.

Good Flying to All  
Peter Stevenson

downloaded by you for review. The Minutes will be posted to the web site at least two weeks prior to the meeting. Members can still raise any issues with the Minutes at the meeting

2 Reports will presented as per the current format:

- Correspondence
- Treasurers Report
- Registrars Report
- Field Maintenance
- Events Reports

3 A modelling related presentation will be sort for each meeting lasting 30-45 minutes. This might include things like

- Video's including warbirds, modelling events on general interest, full scale air shows, etc.
- Presentations by Subject Matter Experts. These might include Radios, batteries, aerodynamics, construction, a pet modelling project
- Product presentations. This might include simulators, radio's, engines, ARF kits, etc.

If you are game to get up in front of your fellow modellers to present and answer questions on a topic of your choice, please give me a call, send an email, or use the suggestion box. We can generally provide audio visual equipment like DVD player, data projector, or laptop if you are hi tech.

#### New Members

Just to show that I have no life, I did a quick comparison of membership data between this year and last. It showed that the total number of members who did not renew in 2007-2008 was 61. Of these, just over 20 joined in 2006-2007, and just over 10 joined in 2005-2006. The remainder are scattered back over the years.

Now, this appears to indicate that there may be a number of new members whose needs may not be being met by the club in the first two years. I do understand that members circumstances change, that aero-modelling may turn out to be more expensive than expected, or perhaps it's just plain too scary, however if you have joined TMAC recently and feel there are areas the club can improve, please contact the committee, or put a suggestion in the suggestion box on the web site. It may be as simple as some information you feel the club should provide on joining, but which you had to discover yourself. It's all useful in improving the club and supporting new members.

#### Xmas BBQ – 23rd December

We have had mixed success with end of year break-ups over the years with low attendance at times. This year, we will be holding an informal BBQ on Sunday morning 23rd December. Come



## From the Secretary

#### Format for Club Meetings

The committee is investigating some improvements to the Club Meeting format. Basically, we want to take out the boring bits, and substitute some informative activities, whilst maintaining the accountability of the Committee to the membership. The following will be trialed in the new year, starting in February:

1 The Club Meeting Minutes will no longer be read at the meeting. Instead, they will be posted on the web site in the members area, where they can be

along in a Santa Hat and get a free sausage and drink (joking guys!). Gregor Kruger has volunteered to run the BBQ, but as always, he would love some help with the cooking and serving. So come along and share the Christmas spirit with fellow modellers before we drift off for the summer. Thanks Gregor.

Merry Christmas everyone  
Phil Gartshore.

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## Meet the Committee

With the election of the new committee at the last annual general meeting I thought it a good idea if we introduced the committee to the members. Over the next few issues I will let the committee members introduce themselves.

### Gregor Kruberg — Chief in charge of field maintenance



I have been a member of TMAC since the early 80's and have always been an aero modeler since childhood days. Back then I flew single channel R/C balsa and tissue models with rubber band powered escapements and no throttle control on the diesel engine. In pre transistor days the Tx and Rx had the old style glass vacuum valves to run the radio system with a simple press button to send a single radio signal.

The fascination with aviation is experienced through aero modeling and I enjoy the camaraderie with other club members as well.

The building and flying of WWII Warbirds is a passion of mine however I am also very keen on agricultural and general aviation as well. In the future it would be satisfying to build a large scale Nakajima (Kate) B5N2. This aircraft is complimentary to the

Zero fighter having been substantially involved in the air attack on Pearl Harbor in 1941 and I can not recall or find any flying model of this type of aircraft.

Joining the committee was by default as I just got involved in helping out other club members when there was an opportunity or a need. I would encourage others to get involved as the exchange of ideas and available talent in different areas is not only beneficial to the club but is the catalyst for good friendships as well. Organizations like ours benefit and thrive from a little input from many. It is unfortunate that sometimes it appears that it is a lot from a few that keeps things going. Please don't be afraid to put your hand up if you are able to assist even in a small way.

I look forward to continuing involvement with TMAC and remind myself of the precious asset we have in our club grounds and flying facilities right in the middle of suburbia.

### Adam O'Callaghan — Webmaster

How long you have been in the club and involved with model aircraft?

- First involvement with model aircraft was when purchasing a Hobbico NexStar trainer in Nov 2005. I wasn't allowed to touch it until Christmas day but learnt with Noel in the meantime. I think I was up at 4am on Christmas day saying "Can we open the presents yet??!"

What attracts you to this hobby?

- Have always loved aircraft and this is cheaper than the real thing (depending on who you talk to!). It's a good mix of flying, electronics and grease.

What sort of model do you fly now?

- I have a OS.91 4-stroke Decathlon and a brand new OS200 4-stroke Edge 330

What would you like to fly if you could?

- Full size planes.

What would you like to achieve while on the committee?

- To help fellow modelers and to spread the word about how great this hobby is.



Michelle O'Callaghan



Information, tips and tricks on wings manoeuvres.

Welcome to the seventh in a series of Transmitter columns 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.

**Take Off**

The take off is generally straight forward. The object is to take off and join the flight circuit safely. With the aircraft stationary on the centre line of the strip (1), power should be applied gradually while keeping the aircraft straight using the rudder.

Once flight speed is achieved, a little elevator should be applied to lift off (2). Maintain runway heading with the wings level until the circuit height is reached (3). Turn onto the upwind cross leg of the circuit to complete the take off (4).

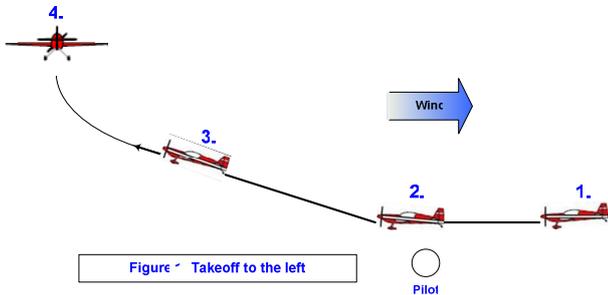


Figure 1 Takeoff to the left

**Rectangular Landing Circuit**

A landing approach is required from both the left and the right for Gold Wings. This means that on the day, one approach will include a downwind final.

The model is flown in for 30 metres from position (1) at a constant altitude chosen by the pilot. At (2), make a turn to cross wind. All turns of the rectangular approach should be of equal radius. Fly far enough cross wind (3) to allow for the descent on the base leg (5). At (4) on the downwind leg, the power is reduced. Where exactly depends on the individual model's characteristics (heavy/fast, or light/slow etc.). The turn to (5) can be a slightly descending turn, since it's safer to have the nose down a little when the power is down.

The base leg (5) is the descending leg, where height is reduced sufficiently for a final descending turn onto final (6), leaving enough height for a controlled

descending trajectory for landing.

Once in a position to land, apply power, overshoot, and continue on to the next Wings manoeuvre.

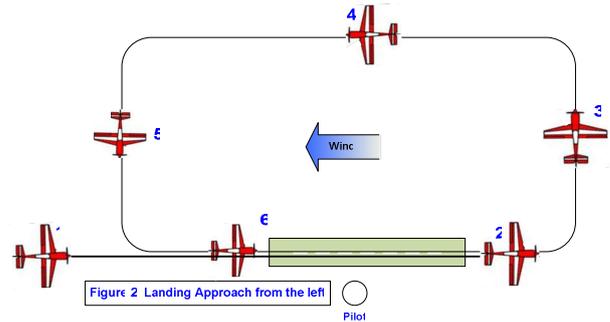


Figure 2 Landing Approach from the left

**Landing, Rollout and Stop**

From the final turn, the model is flown on a descending line that is aimed to contact the runway at a point that is about one-third the way up the runway. The model should be flying quite slowly at this time.

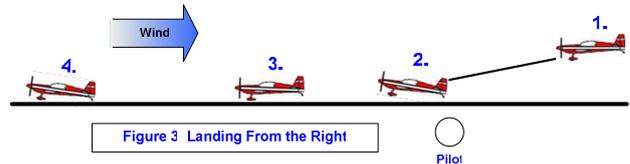


Figure 3 Landing From the Right

Ideally, the model should be kept in a flat attitude (1) horizontal with the runway. If just a 'click or three' of power is left on during this approach, the descending path shown should be achieved.

If it looks like the model is going to land short, add a click or two more power to 'drag' the model a little further along the strip. The model's attitude should not alter at all. If the model looks like it's going to overshoot, then back off the power, and let it slow down some more.

When the model is about half a metre above the runway, the 'flare' (2) should be started to slow it down more. This means simply adding and maintaining a touch more elevator to lift the nose, which will cause more drag. Be careful to not add too much though, or you might force a stall. The model is then 'held off', maintaining the slightly nose-high attitude. This causes drag, and the model keeps slowing down until it loses enough lift that it settles to the runway by itself (3).

The power can then be set to idle, and the model is allowed to roll to a stop (4) still parallel with the runway.

**Tips for Takeoff and Landing:**

- Take off – maintain runway heading.
- Landing Circuit – Remember to fly a rectangular approach.
- Landing – Use the throttle to control the descent.

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



**Warbird & Biplane Day  
Sunday 18th November 2007**



## Insurance cover

Did you know that part of your annual fees go towards providing insurance cover. This is arranged each year by the MAAA.

This is a summary of the cover provided, the benefits available and the actions you need to take to make a claim. The policies and full conditions are available by contacting the MAAA.

### Introduction

This cover applies when members are involved in activities that are sanctioned by the MAAA. These activities include training, competition, social functions, committee meetings and travel to and from these activities.

### Who is insured

This insurance covers all members, employees, instructors, inspectors and voluntary workers.

### What is covered

This program incorporates three covers

1. Public Liability
2. Professional Indemnity
3. Personal Accident

#### 1) Public Liability

##### Scope of Cover

This policy provides indemnity for members who are held liable for a negligent act whilst involved in sanctioned activities as per the MAAA Manual of Procedures (<http://www.maaa.asn.au/mop.html>), and result in property damage or bodily injury anywhere in the world excluding the USA and Canada.

##### Limit of Liability

Up to a maximum of \$20,000,000

##### Excess

There is a \$5,000 excess payable for all claims. The defending party is responsible for the excess in agreement with the MAAA. (The MAAA may pay a significant portion of the excess).

#### 2) Professional Indemnity

##### Scope of Cover

Provides indemnity for an instructor, official or inspector if they are held liable for an error or incorrect advice which results in injury or property damage to a third party.

##### Limit of Liability

Up to a maximum of \$5,000,000

##### Excess

There is a \$5,000 excess payable for all claims. The defending party is responsible for the excess in agreement with the MAAA. (The MAAA may pay a

significant portion of the excess).

#### 3) Personal Accident

##### Scope of Cover

Coverage applies whilst members are involved in sanctioned activities as per the MAAA Manual of Procedures (<http://www.maaa.asn.au/mop.html>). These activities include competitions, training, meetings, fundraising activities and travel to and from these activities.

Coverage is provided for members aged between 2 and 90 years of age that are injured anywhere in the world.

##### Benefits

###### Death and permanent injuries

A lump sum benefit is payable in the event of a death or Permanent Disability. The scale of benefits is defined in the Policy, with a maximum payment of \$175,000.

###### Non –Medicare Medical Expenses

This covers insured persons for NON-MEDICARE MEDICAL Expenses. The policy covers reimbursement only. That is, the member must pay the account and then claim reimbursement under this insurance cover.

NOTE: Only NON-MEDICARE items are claimable. (i.e. The Medicare gap is not claimable due to Government legislation)

##### Benefit

Reimbursement up to %100 of non-Medicare medical costs, up to a maximum of \$2,500 per injury.

##### Excess

\$50 excess applies to each injury. There is no excess if you are a member of a private health fund.

##### Conditions

- If a member belongs to a private health fund, they must claim from that fund first.
- Non Medicare medical costs are only reimbursed by this policy if incurred within 52 weeks from the date of injury.

##### **Loss of Income**

This benefit provides cover for insured persons who are disabled from an injury relating to events covered and are unable to work

##### Benefit

80% of your net weekly income up to a maximum of \$500 per week, whichever is the lesser.

##### Excess

7 days

##### Benefit Period

104 weeks from date of injury.

## Student Assistance Benefit

Reimburses 100% of actual costs up to a maximum of \$500 per week for costs actually incurred for tutoring, travel costs etc to assist the full time student.

### Excess

7 days

### Benefit period

52 weeks from the date of injury.

## Other benefits available

- Home modification benefit
- Funeral expense benefit
- Parents inconvenience benefit
- Domestic home help benefit to non income earners
- Broken bones benefit.

## How to make a claim

### Personal Accident

- A claim form must be completed and submitted as soon as possible. Claim forms are available from the MAAA (phone 07 32079067)
- The declaration on the claim form must be signed by the club (contact the Secretary) and then sent to the MAAA.

The MAAA will forward the claim form to the insurer along with all original receipts (unless retained by your health fund).

### Professional Indemnity and Public Liability

In the event of a liability claim, do not admit liability under any circumstances. Contact the MAAA immediately 07 32079067.

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## Glows Plugs—How they work and some of the problems.



The first section below on glow plugs can be found in various places on the internet and has been used in several other clubs' newsletters. The second part on glow plug problems is reprinted from 'The AMA Insider' the national newsletter of the American Academy of Model Aeronautics, November 2007.

### How a glow plug works

The plug is initially heated by applying a voltage (typically 1.5 volts) to it. This is to cause it to glow so as to ignite the fuel at compression and start the internal combustion cycle.

Once the cycle has started the power source can be disconnected as with the heat generated at combustion the catalytic reaction generated between the methanol and platinum in the plugs coil becomes sufficient to keep the process going. The catalytic reaction is a reaction whereby platinum will glow in the presence of methyl alcohol vapour. This will happen without any external power source being applied!

### How do you select the correct plug for your application and why?

To do this you need to understand a little more of the theory behind the process. In glow fuel the catalytic reaction is generated between the methanol and platinum only. Castor oil, synthetic oil, nitro methane etc do not generate a catalytic reaction with the platinum.

Next you need to understand that a certain surface area of platinum is required to generate a sufficient catalytic reaction to keep the internal combustion process going.

Also it is necessary to allow extra surface area for the reaction to be great enough when it diminishes with the available methanol dropping as in the case at motor idle.

Simply put, cold plugs are manufactured using a thicker wire to give greater surface area to facilitate a greater glow and thus the required catalytic reaction where less methanol is present in the fuel mixture.

So! More nitro means less methanol which in turn means a greater surface area of platinum will be required to generate the required catalytic reaction. Correspondingly a lesser oil content can mean more available methanol and lesser surface area of platinum would be required to generate a sufficient catalytic reaction.

Suddenly it all makes sense! To work out which temperature plug to use you need to know how much methanol is in your fuel not how much nitro or oil.

As a rough rule of thumb

- 80% methanol or above use a hot plug
- 70% ~ 75% use a medium plug
- 60% ~ 75% use a cold plug.
- 65% or less use a very cold plug.

### Glow Plug Problems

Today's glow plugs are well made products and they should give you good service. Although the life of a glow plug is unpredictable, you should reasonably expect a dozen or more flights out of one. It's always best to follow the manufacturer's specific glow plug recommendations, but if you have an engine that seems to eat glow plugs, the probability is

that it is suffering from one of the following three causes:

**Overheating:** A glow plug coil will melt if it gets too hot. Reasons why this happens vary. Sometimes the combination of running an engine wide open with a lean setting before you take the glow plug heater off is too much for the element. Quite often people use a power panel which has a built-in surge feature, which sometimes results in a momentary over-voltage to the plug when the power is first switched on. When a glow plug fails because of overheating, the end of the element wire has a tear drop shape at the break. Sometimes a microscope is needed to see this affect.

**Vibration:** If the engine is soft mounted the element is shaken from side to side with tremendous force. This literally fatigues the metal until it breaks. When you look at the end of the element wire break through a microscope it has a jagged, rough type appearance. The only solution is to increase the rigidity of your engine mount.

**Shockwave:** Most model engines use a steel or brass liner mounted on top of a cast aluminum case. As the engine gets older, the liner flange works its way down into the case and lowers the head with it. When the piston clearance gets too low the increase in compression forces air out of the squish band area with supersonic velocity and the action on the glow plug elements is like when a jet plane zooms over your house and knocks out the windows. The cure here is to raise the head with another head gasket.

Some of the less often reasons why glow plugs sometime fail are:

Cranking the engine when it's flooded sprays raw fuel onto the plug and the droplets beat the element over to the side of the housing where is shorts out.

Another problem that occasionally occurs is that engines sometimes wear abnormally, causing a crankshaft to crack, bearings to fail, or a connecting rod to chew metal off the crank pin. Of course, when this metal goes up and deposits on the plug element, the plug burns out.

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## Importing goods from overseas.

With the current strength of the Australian Dollar it has become more viable to bring RC kits etc in from the USA. However there are some traps for the unwary in the form of customs and import duties. The following information from the Australian Customs

Website may help. (<http://www.customs.gov.au/site/page.cfm?u=4368>).

If you arrange for goods to be brought into Australia, you are regarded by Customs as the importer of those goods. This includes purchases made over the Internet, regardless of whether or not you intend to sell or distribute those goods, own a business and if the goods are for your personal use or a gift for someone else.

Your imported goods may arrive in Australia either by airfreight, express courier, sea cargo or via the post office. The method of delivery will determine the Customs clearance formalities and charges. Customs advises people purchasing goods over the Internet to be aware that, when those goods arrive in Australia, they will be subject to Customs controls.

All goods (except for tobacco products and alcoholic beverages) may be imported duty and tax free if their value is \$1,000 or less.

Note: However, where there are multiple packages to the same addressee in Australia from a single consignor overseas that arrive at about the same time, then the value of all packages will be combined for duty and tax assessment purposes.

**Example 1:** Import of multiple low value packages of goods (for example, six packages each valued at \$200). Note: This includes multiple items in the same package

Customs value (6*\$200)	\$1200
Customs duty @ 5%	\$60
International Freight , insurance & packaging	\$150
Value of taxable import (Customs value +duty+ freight)	\$1410
GST @ 10%	\$141
Total duty + GST payable	\$201

**Example 2:** Import of goods (other than tobacco products or alcoholic beverages) valued above \$1000

Customs value	\$2000
Customs duty @ 5%	\$100
International Freight , insurance & packaging	\$150
Value of taxable import (Customs value +duty+ freight)	\$2250
GST @ 10%	\$225
Total duty + GST payable	\$325

Note: This is presented as a guide only and you should not rely on this advice.

Seen around the field recently.  
From low and slow to racing fast.



# 2008 TMAC Events Calendar



Event Date	Event Type	Event Details	Convenor
4 <sup>th</sup> February Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
3 <sup>rd</sup> March Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
16 <sup>th</sup> March Sunday	Event	<b>WARBIRDS DAY</b> Southern Cross Air Force (9.00 AM – 12.00PM Porter Field)	Gregor Kruberg
7 <sup>th</sup> April Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
20 <sup>th</sup> April Sunday	Event	<b>WOBBLY WINGS DAY</b> (9.00 AM – 12.00 PM Porter Field)	Phil Gartshore
5 <sup>th</sup> May Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
18 <sup>th</sup> May Sunday	Event	<b>FUN FLY</b> (9.00 AM – 12.00 PM Porter Field)	Ron Dobbie
2 <sup>nd</sup> June Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
15 <sup>th</sup> June Sunday	Event	<b>PETER CUTLER MEMORIAL SCALE DAY</b> (9.00 AM – 12.00 PM Porter Field)	Peter Stevenson
7 <sup>th</sup> July Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
20 <sup>th</sup> July Sunday	Event	<b>WINGS TESTING DAY</b> (9.00 AM -12.00 PM Porter Field)	Phil Gartshore
4 <sup>th</sup> August Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
17 <sup>th</sup> August Sunday	Event	<b>ELECTRIC DAY</b> (9.00 AM – 12.00 PM Porter Field)	Roy Syntageros
1 <sup>st</sup> September Monday	AGM	<b>Club Annual General Meeting Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
14 <sup>th</sup> September Sunday	Event	<b>HELICOPTER DAY</b> (9.00 AM – 12.00 PM Porter Field)	Dave Walker
6 <sup>th</sup> October Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
19 <sup>th</sup> October Sunday	Event	<b>TMAC 40<sup>th</sup> Anniversary Celebration</b> (9.00 AM – 12.00 PM Porter Field)	Peter Stevenson
3 <sup>rd</sup> November Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President
16 <sup>th</sup> November Sunday	Event	<b>BI-PLANES &amp; WARBIRDS DAY</b> Swap & Sell (9.00 AM – 12.00 PM Porter Field)	Gregor Kruger
1 <sup>st</sup> December Monday	Meeting	<b>Club General Meeting</b> ( 7.30 PM at Moreton Bay Sports Club)	President

## Upcoming Events at TMAC

Monday 4th February	Meeting	Club General Meeting
Monday 3rd March	Meeting	Club General Meeting
Sunday 16th March	Event	Warbirds Day

### Christmas Bar-B-Que



Sunday 23rd December.  
Come along enjoy a burger with other members. (Free sausage to the first member to bring along a flying sleigh)

If undeliverable, please return to:

The Secretary,  
Tingalpa Model Aero Club Inc  
PO Box 2108  
Tingalpa QLD 4173

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