

# ROTOR TORQUE

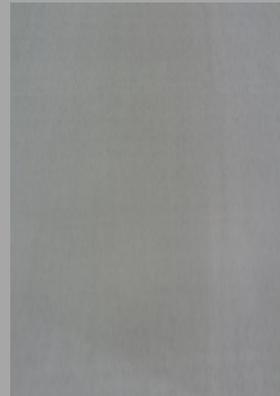
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Official Newsletter of the Melbourne Radio Control Helicopter Club Inc. Inc. no. A0014397D

#### *2012/2013 Committee*

President	Jeff Sussman
Vice President/ Contest Director	Ben Boldeman
Treasurer/ Registrar	Paul Turton
Secretary	Peter Dalglish
Editor	Jason Griffin
Public Relations	Roger Chapman
Safety Officers	Jason Rowe
VMAA Rep.	Carl Bizon
Events Officer	Rob Hopkins



#### Coming events

October 7/10/13	General Meeting	MRCHC St Leonards. BBQ Dinner
October 13/10/13	funfly #5	MRCHC St Leonards. BBQ Lunch
December 10/12/13	Xmas BBQ Fun Day	MRCHC St Leonards. BBQ Lunch

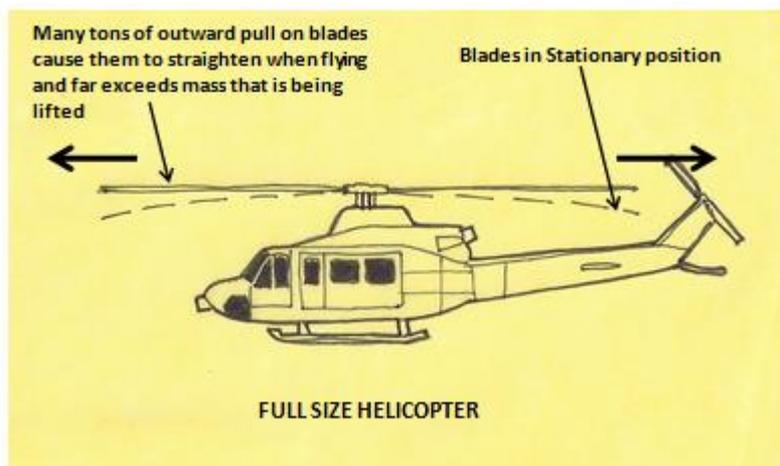
## FOOD FOR THOUGHT

We all share a passion for our hobby, which is fabulous on so many levels now. We are in exciting times in terms of the mechanical capabilities and advanced designs of our Helicopters and the on board electronics.

Something I used to publish in the Newsletter from time to time and is probably timely to update and republish here and is a reminder of the forces that are involved with our Helis and why they deserve our respect.

### Full Size Helicopters

With the full size, if you attempted to lift a Heli by its blades they would fail – the outward pull from the blades when rotating is many tons and far exceeds the mass of the fuselage which is being lifted. The centrifugal force straightens the blade from the drooping position and provides the 'strength' for 'lift'. It is for this reason in areas of extreme weather, parked helicopters have their blades tethered to the ground or back to the fuselage to avoid the wind lifting the blade and causing damage.

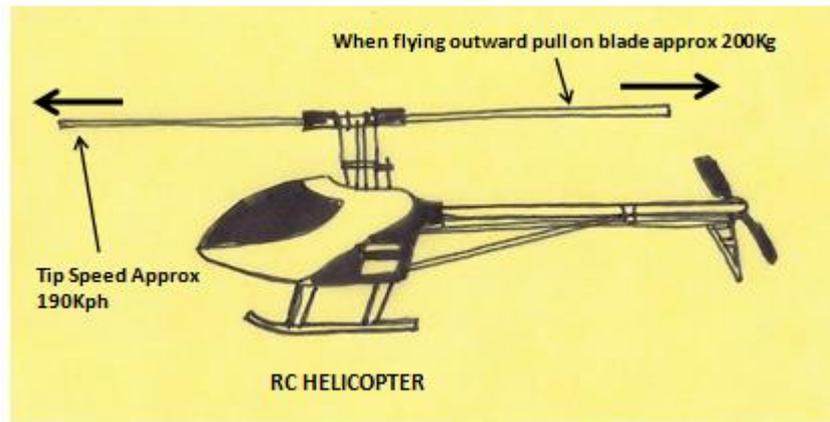


### RC Model Helicopters

The description above for full size Helis equally applies to our models. With the blades stationary and even though rare these days, if you lifted a Heli with timber blades they would most certainly break. Carbon or fibreglass blades if you were silly enough to try would most likely cause delamination within the blade.

But when the blades are rotating, the same physics are involved as with the full size. The outward pull of a single blade on the bolt holding it to the rotor head can be as high as 200Kg (more than enough to lift any one of you) and the tip speed is in the order of 190Kph. Now while the maths may vary depending on model size and rotor speed etc – you get the drift.

Without wanting to scare anyone or meaning to put you off our hobby all together, it really is like flying a chain saw!



**So What Does this all Mean**

Our Club has always prided itself in terms of observing and implementing safety protocols which has served us well but a recent tragic death in the USA is a reminder of potentially how lethal our hobby can be. As far as I know there have been three deaths – three deaths too many and from all skill levels – so the risk is not just in the realm of the novice who might lose control.

Having established why our Helis should deserve our respect and without knowing the details of the tragic accidents that have occurred, the most fundamental safety protocol we need to all observe is a safe separation between us and our models. In the full size realm it is referred to as keeping outside the 'Deadman's Curve' or 'Coffin Corner'. That is, to avoid flying within the parameters that don't allow for error. For full size the obvious example is airspeed and proximity to the ground. Often at airshows stunt pilots are flying within the 'Deadman's Curve' – meaning there is no room for error or mechanical failure.

In our context arguably the 'Deadman's Curve' is being too close to the model. While rare these days, unexpected radio or mechanical failure and even dumb thumbs, if you are too close to your Heli regardless of what mode of flying you are performing, potentially places you at risk of personal injury or worse.

There are others safety protocols of course that you should all be familiar with and which are covered in our Club rules printed at the end of every Newsletter.

The above is not meant to be a 'downer' but as stated at the beginning – we all enjoy a fabulous hobby but having said that it does deserve our respect when it comes to safety.

Roger Chapman



Chairing our Club Meetings Jeff, Peter and Paul



Our new Club House is great for Meetings - looking a bit serious but they are fun.

With the approach of spring – the weather should start to settle and hopefully we will see more of you at the club

Please try to support the Club Events

- Fun fly – Sunday 6<sup>th</sup>

General Meeting held at our Club House on Monday 7<sup>th</sup>

The Fun Fly is for all our members and we are still waiting for the 3D pilots to put together something! Anything! Or even the Multi Rotor pilots – use your FPV goggles and see how long it takes to locate a hidden item?

We will be trialling a Night Fly at our General Meeting. With Day Light saving kicking in Sunday – we will have to wait till it is dark enough to fly

As a result of our Treasurer, Paul, being relocated to Tassie, we need to find a replacement. Paul has done a fantastic job and we will be looking for someone to join the committee to take over this important role. I have been looking at a hosted Club System. TidyClub which will provide membership functions and renewals – the only cost is a commission at renewal times and they will provide an extract to match the VMAA renewal format. More info will be provided at the meeting

On a personal note, I have had the pleasure of restoring a 60 size Scale Hirobo Huey kindly given to me by Roger (see pictures). It is from the 1980's and follows the original flat bed style of mechanics – no side frames, just a slab of aluminium to hold the horizontal engine and an oil filled gearbox. Just to show how far we have progressed since then, I have extracted some of the instructions for the initial flight from the Instruction Manual – hope you enjoy reading!

Jeff

Flight (in case of beginner)

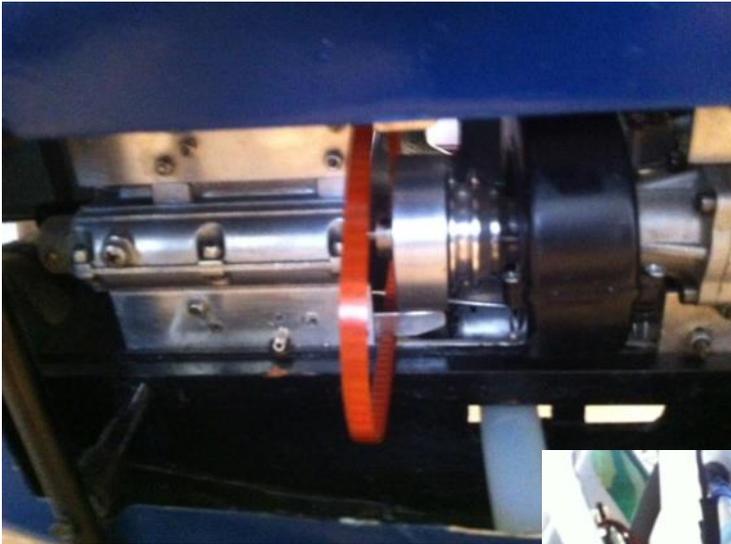
Fill the tank with fuel after the trim adjustment is completed, in order to ready for landing off. But wait a moment, breathe deeply and set your mind at ease. Pay a great attention to the neighbours, children or the surroundings. After the safety of surroundings is confirmed, start the helicopter and turn the head of the helicopter windward.

If you stand back of the helicopter, you cannot observe the posture of the of the helicopter in the elevator direction, causing the control to become impossible, Therefore please stand at the side of the helicopter.

Confirm the safety of the of the surroundings again, Gradually increase the rotation speed of engine, Here if the helicopter moves backwards, set the elevator trim to a little forward side, so the helicopter lands off as moving forward.

At first, please don't float the helicopter more than 30cm high. If it is too high, lower the engine control stick to land helicopter. The float it again and walk together with the helicopter. After you reach the end of the yard as repeating the floating and landing of the helicopter, bring it back to the starting point, If the control is affected only in one side of the engine, a vice may be caused to be present. Exercise at both sides of the helicopter, Lateral inclination is caused by aileron, forward backward inclination by the elevator and direction control by rudder, If you master these controls, you may perform hovering and fly it high in the air

No wonder we struggled to learn to fly!!!!





## Treasurer's Report

This report covers the period from 1 July 2013 to the end of September 2013.

This has been a very quiet period, so a short report this time.

### Membership

We have one late membership renewal – Max Slusarczyk – welcome back Max! and no new members this year, so our current membership stands at 49.

### Finances

Overall the club finances continue to look healthy. Our overall assets are just \$3,877.72 lower than this time last year, despite our investment in the new club house.

The Withholding Tax Credits is the area for me to work on – this is to do with fixing up our ABN number with the ATO so that we can show the bank that we do not have to put in a tax return, or pay tax, each year. Hopefully we will put this one to bed soon. Thanks to Roger for his efforts to understand all this and fix up our ABN status.

### Balance Sheet

Here is the September 2013 balance sheet position:

Account	This Year	Last Year	Difference
<b>Assets:</b>			
Cheque	\$5,673.71	\$7,106.55	-\$1,432.84
Undeposited Funds	\$0.00	\$0.00	\$0.00
Investment	\$23,502.65	\$26,105.58	-\$2,602.93
Petty Cash	\$481.40	\$287.35	\$194.05
PayPal	\$184.00	\$184.00	\$0.00
Withholding Tax Credits	\$416.00	\$87.00	\$329.00
Trade Debtors	-\$65.00	\$300.00	-\$365.00
<b>Total Assets</b>	<b>\$30,192.76</b>	<b>\$34,070.48</b>	<b>-\$3,877.72</b>
<b>Liabilities:</b>			
VMAA & MAAA + Insurance	\$0.00	\$0.00	\$0.00
<b>Total Liabilities</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Net Assets</b>	<b>\$30,192.76</b>	<b>\$34,070.48</b>	<b>-\$3,877.72</b>

### Year to Date Income & Expenditure

#### **Income**

The Club income comes from membership fees (the bulk of which come in at the end of our year at annual renewal time), sale of club apparel, events, sale of drinks and BBQs at the club house (which forms the bulk of Other Income) and bank interest.

Income	This Year	Last Year	Difference
<b>Sale of Stocked Items</b>	\$0.00	\$0.00	\$0.00
<b>Membership</b>	\$216.00	\$775.00	-\$559.00
<b>Events</b>	\$100.00	\$0.00	\$100.00
<b>Food and drink</b>	\$149.15	\$153.25	-\$4.10
<b>Other Income</b>	\$0.00	\$0.00	\$0.00
<b>Bank Interest</b>	\$159.84	\$194.96	-\$35.12
<b>Total</b>	<b>\$624.99</b>	<b>\$1,123.21</b>	<b>-\$498.22</b>

Exciting isn't it!

We do have some smart club polo shirts for sale – you can find them in the storeroom in the new club house. Since we didn't sell a whole lot of winter clothes I'm hoping that this will change with warmer weather coming.

The \$100 for Events is the sign-up money for 4 pilots to take part in the upcoming State Champs.

## Expense

Generally our expenses fall into the categories listed below:

Expense	This Year	Last Year	Difference
Cost of Stocked Items	0.00	0.00	0.00
Field Expenses	0.00	0.00	0.00
Club House	271.70	0.00	271.70
Meeting Expenses	0.00	0.00	0.00
Club Training Helicopters	0.00	0.00	0.00
Events	0.00	0.00	0.00
Food, Drink etc.	256.75	255.10	1.65
Other	51.40	8.40	43.00
<b>Total</b>	<b>579.85</b>	<b>263.50</b>	<b>316.35</b>
<b>Net Profit / -Loss</b>	<b>\$45.14</b>	<b>\$859.71</b>	<b>-\$814.57</b>

So nothing to get worked up over in the expense area either. Apart from ongoing food and drink in and out, we are still expecting to spend on floor covering for the club house. Pete will tell us whether it will be vinyl or carpet, and how much, when he has finished his market survey.

As always, if you have any questions about the club finances please contact me.

Oh! And if you haven't heard, I am probably moving to Tassie in November so have reluctantly resigned as Treasurer and Registrar. It's been fun and hopefully I can find a club in the Hobart area with as good a bunch of members as we have at MRCHC.



Close up of the SAB important bits



Jason prepping his beautifully engineered SAB



Jason having fun in the Club House with a mini quad.

Minutes of committee meeting September 23<sup>rd</sup> 2013

At Dingley sports bar 8.00pm.

Present, Peter, Jeff, Ben, Paul, Jason G, Matty,

Apologies, Roger.

Meeting started Approx 8.00.

Agenda,

State championships.

School fair.

Treasurers take over plan.

Issues Eg: Flightlines.

**Flightline**

Issue stemming from flyers taking multiple battery packs on to flightline, waiting flyers not realizing multipacks are being used.

On busy days resume use of board also include placing helis in queue in pits.

Night time flying allowed on night of general meeting.

**Magazine/Newsletter**

Keep newsletter as is, editor to source past stories to include in newsletter.

Sponsorships in newsletter to remain as is.

**State Championships**

To date only a few entrants so far, advertising already on Facebook and VMAA.

Calender of events updated.

Matty to extend advertising.

**Treasurers Replacement**

Jeff to email members calling for offers.

Matty to obtain details to use outside account / registrar source. Eg; Tidy clubs.com.au.

**General Business.**

Scale day at MRCHC 2<sup>nd</sup> March 2014.

Induction manual to be updated by Matty

Meeting closed 8.45 PM.

Melbourne RC Helicopter Club Inc. Flying Rules) **updated Feb 2011**

The MRCHC has an outstanding safety record. The safety of our members and our visitors is foremost to the Club and so the following rules are in place to help maintain a safe flying environment. Please observe the following rules at all times.

1. No member shall fly or operate their **helicopter equipment**, which has not been tested and checked prior to first flight, is obviously faulty or is obviously in need of repair.
2. No member shall fly or operate **equipment** to the danger of others or in a manner as to present the likelihood of harm or injury to person's or person's property.
3. The **Frequency Keyboard** shall be used at all times where possible for 36Mhz . NO person shall fly or operate any equipment unless the appropriate frequency key is in position on the keyboard. No person shall **remove a Frequency Key** from the Fre-quency board apart from the owner thereof.
4. **Frequency Keys** are not required for 24Ghz Spread Spectrum but transmitters must be on the approved list Refer [MOP 058](#)
5. Any member or visitor found to have **caused loss or damage** to any other member's Helicopter, property or equipment through unauthorized operation of their own equipment or by dangerous or irresponsible behavior shall be liable for such dam-age or loss.
6. NO pilot shall take off or land in the **pit area**, fly over the pit area or the Car Parking area. Flying is permitted in Authorised flight areas only (ref. map in the Club House).
- 7 All pilots shall maintain 9 meter separation form their helicopters at all times
8. No member is permitted to fly unless they can be identified by **wearing a current Membership Identification**.
9. **Visitors** flying at the field must sign the visitor's book prior to flying: - Visitor Rules apply. A Current member must sponsor the visitor and brief the visitor of the club's Flying Rules.
10. A directive from a club **Safety Officer** or a Committee member shall be complied with immediately. Any dispute settled later by the committee.
11. Hovering in the **hovering area** shall not exceed 5 meters in altitude. Pilot must not hover the helicopter between the Pilot and the Pits.
12. The **hovering area** is for hovering, the model must not exceed walking pace.
13. **Mobile Phones** are not allowed on at the flight line at any time, Mobile Phones are allowed in the pits and in cars.
14. **There is to be no flying on Fire Ban days**.
15. All members who wish to fly on the **main flight** lines will require to have their Helicopter Bronze wings or greater endorse-ment. Visitors wishing to fly on the main flight lines will be required to have a member accompany them whilst on the main flight lines until such time as they have obtained their endorsement.