

SYDNEY RADIO CONTROL SOCIETY - incorporated CLUB NEWS

ASTRO HOG DAY 2003



FIELD REPORT

As you are now aware we have had some vandalism at the field, the container was raided and some items stolen including keys to the container. In the Presidents letter Mike Close gives a full report of what happened.

Because of the risk of the mower being stolen we had to change the lock on the container to limit access to certain members. It seems most likely that the person who did this was a current member or past member of the club.

This meant that the boat was not available to those who use the field mid-week. We have now installed a roller door inside the container and the original lock has been put back on. The boat and the first aid kit will now be available and the mower and other items will be secured behind the roller door.

We apologise for any inconvenience that this has occurred and hope the steps we have taken will prevent further theft.

If any member knows who might be responsible for this incident please advise the committee as we would dearly like to discuss the matter with them and provide some form of counseling, if you know what I mean

Stormin Normin

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THE 2002 – 2003 COMMITTEE

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**Annual General Meeting
& Election of committee**

**Castle Hill RSL
Gallery Room**

**Friday 12 September 2003
2000 Hours (8PM)
All Members Welcome**

**Please note: venue is inside
The RSL Club Dress Rules Apply**

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PRESIDENTS LETTER

This month I have to address a new topic, which hopefully will only be for the once. Some clubs over the years report continuing vandalism at their flying field. We have been fortunate up to now that this has not been a problem. We did lose our mower some ten years ago but this was a theft from the off site location where it was being stored. The only problem we have had at the field was the occasional motorcycle donuts on the runway and two associated with the rescue boats before we changed the key on the container to be rigorously members only.

However, the day before the Scale Rally we found that someone had been in the main container and taken cartoons of soft drinks, new material for the safety fence, the glider winch and smashed the cash box that contained a receipt book and the membership applications. Unfortunately we have to observe that the key was changed two years ago and that only members have been given it. The only other alternative is that it was accidentally left unlocked and then later locked. It does of course need a key to lock it and it was found locked. The following weekend the toilet was overturned, the signs were pulled off the new transmitter pound and who ever did it had tried to overturn it but, although slightly damaged, it was anchored well enough to the slabs. The car club toilet had also been overturned.

As a result the Committee decided to change to lock again and to be Committee only until alternative arrangements could be made. We obviously apologise if anyone could not get access to the boat but in the short term we really had no choice. Alternative measures have now been taken so the original lock has been returned.

Obviously the club has reasonable investments at the field, which belong to us all. We have always urged everyone to report any problems that they see whether associated with the land or livestock or our area. This is obviously even more important now in view of the problems. Also if anyone has any information that would help us trace what actually happened, and when, we would like to know even if it is only a small part of the story.

As everyone knows by now, unfortunately there was a fairly large increase in the insurance cost, which is of course reflected in the fees for this year. Hopefully it will not adversely affect our membership numbers. By the time you read this if you have not paid the fees then you are no longer covered by the insurance policy and so cannot fly at SRCS. Whilst we are all concerned about the cost of flying I urge everyone to consider how important good insurance is both to protect you if you cause any damage or if you yourself suffer as a result of an accident. If interested visitors come to the field then we should all emphasize the value that membership brings, the insurance, a maintained field where we can fly legally, the free instruction and advice, and comradeship that comes with membership of SRCS. It is also a fact that all clubs have the same insurance costs but that our total fees are some of the lowest around.

The next events are the Kevin Gray Fun Fly and the AGM, where the structure of the club for the next year is decided. I hope to see as many of you at these as possible.



**HAPPY AND SAFE FLYING
MIKE CLOSE, PRESIDENT**

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MINUTES OF THE MAY QUARTERLY MEETING

The meeting was held at the Castle Hill RSL Club on Friday 23rd May 2003, Mike Close opened the meeting at 8-10 p.m., Ewald Klinkenberg / Paul Toyne recorded the minutes.

PRESENT:

Mike Close	Bob Evans
Robert Zyp	Ewald Klinkenberg
John Cahill	Paul Toyne
Bill Barrett	Baldo Polizzi
Adrian Byrnes	Phil Hibble

APOLOGIES:

Norman Bantin	Col Bruce
Phil Chapman	Tony Drover
Phil Norris	

MINUTES OF THE PREVIOUS MEETING

The minutes of the previous QGM held at Castle Hill RSL held on 28-03-03 were amended to reflect the following:

Mike also outlined the decision of MAAA to support the use of 27mhz equipment, in the form of park fliers, at a National level. It is still up to individual clubs to decide if they will permit the use of such equipment. A motion was moved by Bill Barrett and seconded by John Howard that the MAAA policy on the use of 27mhz be adopted by SRCS. A tied vote occurred. Therefore the status of 27mhz at SRCS remains the same.

This amendment to the minutes was moved by Baldo Polizzi and seconded by Bill Barrett. Motion carried.

MATTERS ARISING

The purchase of a metric keyboard to replace the existing frequency keyboard at SRCS field from Silverstone will be completed by July 1st 2003.

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TREASURERS REPORT

Profit & Loss [With Year to Date] March 2003 through April 2003

22/05/03
6:30:53 PM

Year to Date

Income

Donations	\$150.00
Gate Keys	\$160.00
Joining Fees	\$1,410.00
Member Fees	\$13,885.20
Scale Day	\$506.60

Total Income

\$16,111.80

Expenses

Badges	\$112.20
Bank Charges	\$14.29
Competition Prizes	\$344.00
Consumer Affairs	\$56.00
Equipment Hire	\$81.81
Equipment	\$367.20
Field Maintenance	\$212.01
Food & drink	\$34.25
Hall hire	\$700.00
Depreciation	\$220.00
MAS fees	\$10,037.00
Postage & shipping	\$148.50
Printing	\$21.90
Scale Rally	\$183.43
News letter	\$349.84
Field upgrade	\$49.80
Toilet Services	\$110.00
Total Expenses	\$13,248.81

Net Surplus / (Deficit)

\$2,862.99

REGISTRAR'S REPORT

Ewald Klinkenberg informed the meeting that membership now totals 122 consisting of 86 seniors, 8 Pensioners, 9 juniors, 14 Associates, 1 Spouse flying and 4 Life Members.

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SECRETARY'S REPORT

Correspondence In:

*** Nothing to report

Correspondence Out:

OUT086 12 invitations to SRCS Scale Rally

OUT087 Email to MASNSW confirming postponement of Scale Rally to
October 12th 2003

GENERAL BUSINESS

- ⌘⌘ Decided at the meeting that the SRCS component of the 2003/04 fees should remain the same as 2002/03. The remainder will be notified shortly once we know the MASNSW / insurance component. Motion moved by Bill Barrett and seconded by Bob Evans. Motion carried.
- ⌘⌘ Mike mentioned to the gathering that help was required on the Saturday prior to the Scale Rally to ensure all tasks for the field preparation were complete.
- ⌘⌘ Mike also thanked Phil Hibble for his very generous donation to the Club.
- ⌘⌘ Noted that at the recent MASNSW AGM, Mike Close was accepted as a Life Member. Well-done Mike.
- ⌘⌘ Baldo requested that the MAAA Newsletter be published on the SRCS web site. Mike outlined that there is a link on our web site to MAAA and any member can view the Newsletter at the MAAA site www.maaa.org.au
- ⌘⌘ Also members please forward any information / photos that you may want posted on our web site.
- ⌘⌘ Noted by the members that hoof prints were appearing inside the shaded enclosure and we must ensure that we keep the small gate closed particularly if you are the last one at the field on any given day.

No more business the meeting closed at 9.20pm.

Election of The Committee

As per the rules of Sydney Radio Control Society Incorporated the Committee is re-elected at the Annual General Meeting held every year. The Committee consists of the office bearers and two ordinary members. The office bearers are the of The President, Vice President, Secretary, Treasurer, News Letter Editor.

The president presides over and chairs all meetings of the association and is assisted by the vice president

The secretary is responsible to keep minutes of all appointments of office bearers and members of the committee, the names of members of the committee present at a committee meeting or a general meeting and all proceedings at committee meetings and general meetings.

The treasurer is responsible to ensure all monies due to the association are collected and received and that all payments authorized by the association are made and correct books and accounts are kept showing the financial affairs of the association. This includes full details of all receipts and expenditures connected with activities of the association. That all requirements of Corporate Affairs are complied with, and all information and affiliation fees required by MARS and MAAA are forwarded as required. The Treasurer is also the public officer.

The newsletter editor ensures that the information determined by the committee is included in the associations Newsletter, is collated and published to the timescales required.

Nominations for candidates for election to the committee must be made in writing, signed by two members of the association and accompanied by the written consent of the candidate. The nominations must be delivered to the secretary of the association not less than 28 days before the date fixed for the annual general meeting at which the election is to take place. If no nominations are received then nominations are called from the floor.

The ordinary members assist in the general running of the club

STORMIN NORMIN

Astro Hog Day report 2003

The Astro-Hog day was held on Sunday 22nd June 2003 sponsored by Castle Hill Hobbies and conducted by SRCS. Chris Herbard from Narrabeen Wings and Things (Dee Why) also arrived with some goodies. There were two categories that were eligible; category 1 was for models built to the design as marketed by the SIG Mfg Co as an Astro Hog and category 2 for models built to a different scale and derivatives of the original including the Hog-Bipe. The day was flying for entrants only with a couple of low-key events, which did not affect the general flying.

The weather for the day was good with no rain predicted and little wind. Thanks again to our new mower the pig playpen looked a real picture so the great pig or sow in the sky really smiled on us. There were only eleven entries this year, which is down on previous years where we have attracted up to thirty-two Grunters.

Mike Close briefed the entrants at 9-30 am to explain the rules and procedures for the day and regulations regarding the piggy pound.

The paddock rules were as per last year as follows: (As supplied by Mike Close)

- ?? Control clips had to be kept in the stable at all times unless the ear clip was on the rack.
- ?? Grunting was allowed to start in the sty.
- ?? There was no trotting in the sty and only allowed on the access track to the mud.
- ?? Due to most pigs being similar only five pigs or sows were allowed to wallow in the mud at any one time.
- ?? Farmers were required to holler loudly when their pigs entered or left the mud.
- ?? Farmers were required to have the assistance of a farm hand to keep an eye out for wallowing pigs starting to fly.
- ?? Flying pigs were not allowed over or behind the sty.
- ?? Pigs being social animals were required to fly in the same direction (who said pigs can't fly).
- ?? Judged classes were entirely optional for pigs that were tired of just wallowing.
- ?? Big pigs were not allowed to pick on the piglets.
- ?? There was strictly no fraternization between sows and pigs especially the Bi Hog.

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At around noon the pigs were sent to their sty for some swill and the farmers devoured beef sausages (pork sausages were forbidden) and onions on a roll. This was prepared by Derek Slevin and yours truly (what a pair of animals). The bacon was taken by yours truly and shoved in a silk purse, as a pig's ear was not available. There was no food poisoning reported after so it must have been OK.

After lunch many photos were taken to record what a fun day it had been and how popular these 1957 machines still are and judging carried out by Mike Close.

At the end Mike Close presented the trophies and prizes. The results are as follows:

EVENT	WINNER	CLUB
Concours-d'elegance (standard) – 1 st Prize	Malcolm Alford	
Concours-d'elegance (standard) – 2nd Prize	Stormin Normin	SRCS
Concours-d'elegance (special) – 1 st Prize	Col Bruce	SRCS
Concours-d'elegance (special) – 2nd Prize	Robert Zyp	SRCS
SRCS Trophy	Stormin Normin	SRCS
Spot Landing	Bill Bollard	SRCS
Two minute flight	Alistair (2min, 0.87 sec)	SRCS

Many thanks to all who helped to make this a very successful ASTRO- HOG day, especially to Castle-Hill Hobbies and Wings and Things (Dee Why) for their presence and the prizes they donated and to all those who had to travel a fair way to join in the fun. Lets hope we can have an even better one next year.



STORMIN NORMIN

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The Boys from SRCS

27 July at Maroubra saw SRCS well represented in the NSW PRA Sports Pylon Competition. Out of the 22 competitors from all over Sydney, 9 were from SRCS.

The final results were.

2 nd	Brent Gausel	(lucky Mike Close wasn't the cut judge)
3 rd	Peter Hassett	(clipped the pylon)
5 th	Col James	(team Turtle)
7 th	Mike Medlock	(time keeper extraordinaire)
11 th	Mark Laycock	(team Turtle)
14 th	Peter Laycock	(team Turtle)
16 th	Steve Hassett	(attacked by a hive of angry bees)
18 th	Paul Verheyen	(landed a bit hard)
20 th	Paul Robertson	(plagued with engine problems)

All the guys had a great time, regardless of where they placed. Flying outside your usual club site is an experience in itself and definitely takes you out of your comfort zone. Even the landings are a challenge in an unfamiliar environment. As anyone can testify who has done it, competition of any sort, improves your flying skills. All in all a very enjoyable day was had by all.

Thanks
Steve Hassett



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COVERING

Although most plans are detailed about the type of wood, sizes etc, to be used for each component, they are often vague about the type of covering to be used. Yet the covering should be matched to the structure, to the type of model and to the size of the model. This is why Solarfilm make a range of covering materials, which vary in weight, strength and appearance. For each model there will be one or maybe two coverings that are most suitable. There are three films, which have a smooth glossy surface, two fabrics, which show the textured surface of a woven fabric, and the two lightweight materials. Their main features are as follows:-

SOLARFILM: Iron-on film with a high gloss surface in a huge range of solid, transparent, metallic and fluorescent colours. Very easy to apply and can be contoured around shapes, like wing tips, just by heating and stretching. Weight about 55 g.s.m. (grammes per square metre), 2 ounces per square yard. The most widely used coverings for sport and fly-for-fun models.

SOLARSPAN: A stronger, thicker version of Solarfilm. Especially good on veneered foam wings. 12 colours including glittery metal flakes. About 70 g.s.m. Should not be used on diesel or petrol powered models.

SOLARKOTE: A polyester iron-on film. Has extra hardness, stiffness and heat resistance, but not as easy to apply as Solarfilm. Resists diesel and petrol as well as glow fuel. About 75 g.s.m.

SOLARTEX: An iron-on fabric. Strong and tough covering – has even been used to cover a commercial single seat microlight. Very easy to apply. The fabric surface is protected by a coat of two-pack resin so it is resistant to all fuels. Has a matt finish, 13 solid colours, 2 fluorescent, and 5 'Vintage colours that are transparent like coloured silks. Weight about 90 g.s.m., 3 1/2 oz per sq. yd.

GLOSSTEX: The ultimate iron-on fabric. Made from the same fabric as Solartex but given a coat of high gloss two pack paint at the factory. It is fully fuel proof and can be trimmed by itself, with Solartrim or paint. More economical than painting Solartex yourself – and a gloss finish to beat the experts, 125 g.s.m., and 4 1/2 oz. per sq. yd.

SOLARTRIM: A self adhesive film for cutting to shape and applying to any smooth glossy surface to produce designs, insignia, lettering etc. Colours are same as iron-on films. Just cut and smooth on – does not need heat to apply.

FIBAFILM: A fibre reinforced polyester film. A lightweight but stiff covering for sail planes,

Vintage models. Looks like heavy tissue with a glossy finish. Very good for stiffening flexible framework without adding too much weight. 5 colours and Aluminium that is just like polished alloy sheet 42 g.s.m.

LITESPAN: A strong tissue made from polyester fibres. Has been factory doped with a fuel proof resin so does not need doping. Much stronger and more puncture resistant than normal tissue/dope. Also used on balsa instead of tissue/dope/sanding sealer as a base for paint. 4 tissue colours and 5 scale colours including silver, 30 g.s.m. 1oz. per sq. yd.

SCALE COVERINGS: Some Solarfilm materials are especially useful to scale modellers because they represent the appearance of the full size aircraft in colour and surface appearance.

SILVER SOLARTEX: A superb reproduction of the silver doped fabric used on many aircraft in the 1930's e.g. R A F biplanes such as Hawker Hart, Gloster Gladiator etc. The material should be just ironed on, it must not be varnished or fuel proofed.

DARKGREEN (PC10) SOLARTEX: This colour is made to a 1915 recipe for PC10 dope so it is very authentic. It has a matt surface like the dope made to the PC 10 recipe. For a matching paint consult the SOLARLAC recipe sheet, which provides recipes for other Military and Camouflage colours.

LINEN SOLARTEX: A creamy beige iron-on fabric to simulate the doped linen used on the under surfaces of many World War 1 aircraft. It is practically opaque so the structure cannot be seen through the fabric. Complements the Dark Green PC 10.

ANTIQUÉ SOLARTEX: A creamy beige translucent fabric for use on models of veteran aircraft such as Bleriot, Antoinette, Avro Triplane, where the structure can be seen beneath the covering.

ALUMINIUM FIBAFILM: An aluminised film with fibre reinforcement. An excellent reproduction for the polished metal sheet used on engine cowlings of fabric covered biplanes, and the alloy skinning on Mustangs, Thunderbolts, etc, during W.W. 2.

FLYING HELICOPTERS

From "Tips from Barry's Radio Control Model Aircraft Page

www.bmaps.net/

Welcome to the world of R/C Helicopters. The helicopter is probably the most challenging form of radio control model, being mechanically complex in nature, and requiring 100% concentration while operating. Flying a model chopper is not unlike balancing a metal bearing or a marble on a piece of glass. If the mechanics of the chopper have been adjusted and aligned very well, it is similar to having a flat piece of glass. If the chopper is not set up just right, it is like having a convex piece of glass where the bearing wants to keep rolling off to one side. The first thing the budding helicopter pilot must realize is that the model works on the very same principles as the full-size and controlling the chopper is just as difficult, if not more-so due to size and orientation. It is not simply a matter of pushing one button for up, and another for forward flight, etc. Flying a helicopter, just like flying a model aircraft, is a skill that must be learned and that can only happen with practice . . . now that I have you thoroughly discouraged! Although building and flying a model chopper can be complex, it is also extremely satisfying. Being able to accurately control a vehicle, which you can hover, fly forward, backward, sideways, and do all kinds of interesting maneuvers and aerobatics, as well as land at your feet, is very exciting. Unlike learning to fly a model airplane where flying with an instructor is a must, you basically learn to fly helicopters by yourself. Before you start flying, however, some time with an experienced helicopter pilot will be invaluable. He can help you set up your helicopter (it is extremely important to have the mechanics set up accurately for safe and easy flying) as well as give you some tips on flying; what to expect from your model and how to operate the controls.

How does a Chopper Work?

There are basically two different types of helicopters, those that have collective pitch and those that do not. Collective pitch is where the pitch of the main rotor blades may be simultaneously increased or decreased to change the amount of lift. This gives a quicker response to changes in vertical thrust as controlled by the pilot. On helicopters without collective pitch, the amount of lift is controlled

entirely by the speed of the rotor blades or in other words the speed of the engine (throttle control). The reaction time is longer and thus the control is less responsive.

There is a trade-off, however, and that is the cost and complexity of the rotor head. There are a great deal more moving parts in a collective pitch rotor head and thus, they are more expensive. Most current choppers are of the collective pitch variety.

On a standard, collective pitch helicopter there are four controls and five channels of your radio system operate these. These controls are the collective pitch, the fore and aft cyclic pitch, the side-to-side cyclic pitch, and the tail rotor pitch. The collective pitch must also be coupled with the throttle of the engine so that when more load is put on the main rotor blades by increasing the pitch, more throttle is applied to help overcome the additional drag.

The left stick of your radio transmitter controls the collective and throttle in the vertical direction and the tail rotor pitch in the side-to-side direction. Your right stick controls both cyclic operations; up and down for fore and aft control and side to side for the cyclic side to side control. There are also mixing functions, which mix the throttle and collective functions, and the throttle/collective and tail rotor functions.

Operation

The engine of a helicopter drives both the main rotor shaft and the tail rotor via a series of gears and a clutch. As the motor comes to speed, the clutch engages and begins to turn both rotor systems. Generally, at this point, there is no pitch on the main rotor blades and thus no lift. The throttle is increased until the main rotor blades are brought up to speed. To lift the helicopter collective pitch is applied.

Because, for every action there is an equal and opposite reaction, when the engine is forcing the rotor blades to turn in one direction, the body of the helicopter will want to rotate in the opposite direction. The function of the tail rotor is to correct this tendency. The tail rotor blades provide enough thrust to the side to keep the helicopter pointing in one direction. By increasing or decreasing the pitch of the tail rotor blades the direction the helicopter is pointing can be changed.

The cyclic control permits the main rotor blades to be varied independently making the helicopter move in a horizontal direction. If one of the rotor blades increases pitch as it approaches the rear while the opposite blade

decreases in pitch while approaching the front during its rotation, more lift will be produced in the rear, tilting the helicopter forward, and thus moving the helicopter in a forward direction. The

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same principle applies for side-to-side and rearward, allowing the helicopter to fly in any direction.

The control of the cyclic and collective pitch is transferred from the radio servos to the rotor blades via the swash plate. Part of the swash plate is stationary while the other part is allowed to rotate with the rotor head. Control linkage is connected from the servos to the stationary part of the swash plate as well as from the rotating part of the swash plate to the rotor head.

When flying a chopper, small control inputs are continually required by the pilot to correct for deviations in the flight path. That is why 100% concentration is required in chopper operation. The more accurately the chopper is set-up, the fewer the number of corrections that are required by the pilot.

What Happens if the Engine Stops?

Auto-rotation is a way for helicopters to land successfully after a loss of power from the engine to the rotor drive systems. This is accomplished with the aid of a special device known as an auto-rotation clutch, which allows the rotor blades to free wheel. As soon as power has been cut, the throttle/collective control is brought back all the way. This will usually bring the main rotor blades to have slightly negative pitch. As the helicopter starts to descend, the air moving through the blades will keep them spinning. The spinning blades will act like a parachute in reducing the helicopters decent. When the helicopter nears the ground, the pilot increases the collective pitch making the pitch of the blades again positive. The momentum of the blades is converted to lift, slowing the descent of the helicopter down further, enabling it to land softly.

What Will I Need?

The following is a description of the items you will require to start flying a radio controlled model helicopter.

The Helicopter

When choosing your first helicopter you first have to decide which type of chopper you wish to purchase, a collective pitch machine, or a non-collective pitch machine. If you are starting the R/C hobby from scratch and must buy everything, I would strongly suggest the collective pitch machine. Although it is a bit more expensive initially, it is by far the more versatile of the two and will help you enjoy more advanced stages of the hobby after you have learned to fly. You will also find the learning process easier with a collective pitch machine.

On the other hand, if you are already into radio controlled aircraft and have an aircraft radio, and an aircraft engine in the range that would fit a non-collective machine, this route may be desired to drastically reduce the start-up cost and to get

you involved in the sport with less money. Once hooked however, you are bound to want to move up to a collective pitch machine. I am going to assume you are starting from scratch and will continue with the idea of starting with a collective pitch helicopter.

Unlike aircraft where there is specific trainer models geared solely for the first time kit, the differences between helicopters is more subtle with the major difference being size and precision. The larger and more precision a machine is, the better it will fly. These machines would make great training helicopters but they are usually a lot more expensive, with high precision parts, and would be very costly to repair in the case of a crash. They are better suited toward competition and the experienced modeler where accidents are usually minimal.

Keep in mind, when learning to fly a helicopter you are bound to have a crash or two and parts are going to have to be replaced. Replacing parts on a precision machine could really run you a bill! A good place to start would be a machine designed for a .30 size engine, a stable flyer with collective pitch, and one with a good availability of parts.

The Radio

As mentioned earlier in this introduction, a proper helicopter radio differs from a standard aircraft radio. There are certain functions that must be mixed electronically and these are found only in radios designed for this purpose. More and more often, one is able to find radio systems that have functions suitable to both aircraft and helicopters. If higher you think you may be involved in both aspects of the hobby, you may wish to choose one of these for your system.

Other things to think about when purchasing a helicopter system are the servos and the battery pack. It is desirable to choose servos that have output shafts that are ball bearing supported. Since the pressure and vibration on the servos in a helicopter is usually greater than in a plane, bushing servos tend to wear out very quickly and lose their precision which is extremely important in the controlling of a helicopter. Because you are using a minimum of five servos and a gyro (to be discussed later) in a helicopter, and the frequency of control input, it is very desirable to have a larger battery pack than

The standard 600-maH pack that comes with most aircraft radios. A pack in the range of 1000 to 1200 maH is a better pack to consider. Many helicopter radios take both of these concerns into consideration and come packaged with five BB servos and a large batter pack.

The Gyroscope

A gyroscope, or gyro, is an electro-mechanical device used in a helicopter to help semi-

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automate the response of the tail rotor. In the case of an R/C chopper, the device fits electrically between the receiver and the servo that controls the pitch of the tail rotor blades. A sensor measures any unwanted change in yaw of the aircraft and will correct the situation by increasing or decreasing the tail rotor pitch to stabilize the movement.

Although not absolutely necessary, it is strongly recommended that a gyro be used in every helicopter. Controlling an overly sensitive tail of a helicopter is most frustrating and the gyro can help make the flying much easier and more pleasurable. Gyros are made by most radio manufacturers for operation compatible with their systems.

The helicopter engine is similar to a 2-cycle aircraft glow engine except that it has a larger heat sink head for better cooling, and a carburetor with improved mid-range adjustment. When purchasing the helicopter engine, the muffler is not included. Usually the muffler comes with the helicopter kit.

Different motors facilitate different starting methods. Some come with a pull start system for very simple starting. Others use a cone start where an electric starter is used in a manner similar to starting an aircraft. Still others use an electric starter and a belt for starting. Please refer to our section "Introduction to Model Engines" to learn more about the operation of the engine.

Tools

Since the helicopter is purely a mechanical device, tools for assembly usually include items such as screwdrivers, ball drivers, nut drivers, wrenches, pliers, etc. In addition to these there are a couple of specialty tools that come in handy when assembling and setting up the mechanics of your helicopter.

One tool you may want to consider to assist in assembly is a set of ball link pliers. The ball link is the most popular linkage piece on a helicopter and virtually all choppers use them. The ball link pliers greatly assist in the removing and adjusting of these links. A second tool that is extremely valuable during set-up is the rotor blade pitch gauge. This device can help you line up your rotor blades so that your pitch is correct. A blade pitch gauge can go along way to helping avoid costly crashes and frustration down the road as so much of your chopper's well being depends on how well it is set up initially and maintained throughout its lifetime.

Field Equipment

The field equipment you require will depend largely on the type of motor you have chosen for your helicopter. If you have a glow motor with a recoil pull-starter, you will only require the basics of a fuel can & pump for carrying and pumping fuel to your chopper, and a glow plug igniter to supply current to the glow plug during starting. If you do not have a pull start, in addition you will undoubtedly need an electric starter powered by a 12-volt battery to turn the engine over. Please refer to the "Introduction to R/C Aircraft" section for more information on field support equipment required. It is virtually identical.

CLUB SCALE DAY

The Club Scale Day was held on Saturday 26 July, 2003 on fine but very windy day. Despite the wind all competitors completed two rounds of aerobatics without loss of life (Planes and Pilots).

1st place was Robert Zyp, 2nd Mike Close, 3rd Matt Holloway with Adrian Byrnes scoring the additional award following by the Club BBQ with the mandatory few beers

STORMIN NORMIN

**SYDNEY RADIO CONTROL SOCIETY - incorporated
CLUB NEWS**

FOR SALE

**Fully built ASTR-HOG in Balmain colours with new Magnum 61
XL 2 stroke
\$300.00 ONO**

**1 Futaba 4 channel AM radio with 6 servos
\$60.00**

Contact Paul (Have a chat) Hawkins

0404 943 708

PINNING HINGES

From "Tips from Barry's Radio Control Model Aircraft Page www.bmaps.net/

How many times have you seen a model with pins in to stop the hinges pulling out that have been done after covering. Many people have asked me why I don't pin my hinges, well, I do pin them, but before I cover the model, heres the way to do it.

Here's How

1. First fit the hinges into the elevator and then pin them (I use cocktail sticks)
2. Cover the elevator
3. Cover the rear face of the tailplane where the hinges fit wrapping over to the top and bottom of the tailplane by about 5mm
4. Fit the elevator to the tailplane and pin the hinges.
5. Cover the tailplane, (bottom first and then the top).

All done hinges hidden under covering, this also applies to ailerons and rudder.

SYDNEY RADIO CONTROL SOCIETY - incorporated CLUB NEWS

NSWPRA Sports Pylon Race at Wollongong Sunday 10/8/03 - STEVE HASSETT

SRCS strikes pay-dirt again!! (must be something in the Eastern Creek Water)

Fine and sunny skies and the hospitality of the Illawarra club provided the backdrop for another excellent day of racing.

Your club had 7 competitors out of a field of 22. Here are the results.....

1st Place Brent Gausel ("Mr Natural" in his second race!)
2nd Place Mike Medlock (consistency, sometimes)
3rd Place Steve Hassett (wearing 'em down)
6th Place Peter Hassett (5 Min epoxy major shareholder)
8th Place Peter Laycock (Team Turtle) who doesnt practice :)
15th Place Mark Laycock (Team Turtle) if you aint breaking 'em , then you aint trying
16 th Place Col James (Team Turtle) the most controlled crash of the day, up Col, up ,up, grrrrrr

Its fun, at times a bit stressy, but always fun! No sheep stations at stake here.

<u>CLUB EVENTS</u>	<u>Date</u>	<u>Alternate Date</u>
Kevin Gray Memorial Fun Fly	30/08/03 (Sat)	13/9/03
SRCS Scale Rally	12/10/03 (Sun)	
Pattern Day	29/11/03 (Sat)	3/12/03

These items can be purchased from the Club Treasurer:-

Club metal badges	\$5 ea.
Club cloth badges	\$5 ea.
SRCS stickers	50c ea.
Club Tee shirt	\$25 ea.

Please note that any article, technical or historical fact or fiction other than the published minutes of general meetings of the club, express the opinions of the writer of such articles and do not necessarily become fact. The club accepts no responsibility for any outcome of any incident that may or may not be attributed to any matter printed in the club newsletters.