Issue 527

December 2018

Victorian Association of Radio Model Soaring

Search for VARMS on Facebook

Cover Photo

Participants in the latest club soaring competition on the 25th November. See article below.

14th December

Next General Meeting

Wednesday at VARMS Field – The 3 F's night

Fly, Food, Fix

Deadline for the next Aspectivity 25th January 2019

Club Business

President's report

Russ Pearce standing in for Ross Armstrong

These ruminations will be brief although a lot seems to have happened over the last month.

Firstly let the committee extend our best wishes for the forthcoming festive season and we hope that you all have a safe and merry Christmas.

The latest version of the VARMS Rules and Procedures immediately follow this report. These SOP's have been revised primarily to prevent the need to review them every time there is a change to the associated documents from the VMAA and the MAAA. The opportunity was also taken to make small revisions based on member's feedback and thanks go to all those who have contributed.

At the last committee meeting the subject of special interest groups and the management of their particular disciplines was raised. It was resolved that the committee would seek bottom up input from these groups on their safety and proficiency procedures rather than imposing regulations from the top. The current work taking place on winch procedures is a case in point. The ideal situation is that these groups would be self regulating, but overseen and supported by the general committee.

Ron Hickman has reminded me that the club will need to find a new secretary by April next year.

Many thanks to Geoff Hearn for organising the garage sale of his uncle's old stock with the proceeds being passed on to the Club. By the way, the last opportunity to pick over the leavings will be at the December club meeting.

There will be Pizzas for all at the final club meeting at about 9:00 PM. Bring your appetites.

There will also be a family day on Saturday the 8th of December. This is the aerotow day so there will be power flying in the morning; a free BBQ lunch and then the aerotow in the afternoon. We hope that you can attend and that you enjoy yourselves.

Russ

VARMS

Rules and Procedures VARMS Glider Field

1 These Rules and Procedures are in immediate effect and may be amended as situations, or conditions, change. They apply to all VARMS members and to flying visitors

1.1 All flying operations on the VARMS Glider Field site shall be conducted under the provisions of the MAAA Manual of Procedures (MOP) and CASA Civil Aviation Safety Regulations and these Rules and Procedures.

1.2 The VARMS Glider Field is an approved model flying area which has been granted a Permanent Extended Height Clearance by CASA. The VARMS club has set an absolute maximum operating height level of 1000 feet AGL (above ground level).

1.3 All pilots must give absolute right-of-way to, and avoid flying in the proximity of, ALL full size aircraft. In accordance with the provisions detailed in General Safety Matters below, an observer shall be utilized to supervise flying so as to avoid such situations

2 General

2.1 It is a condition of membership that all members read, understand and comply with these Rules and Procedures. Failure to comply with these Rules and Procedures could result in the member being brought before a club disciplinary sub committee

2.2 All persons/members, who by neglect, carelessness, or breach of these Rules and Procedures, causes another member's model to crash, property or equipment to be damaged, are expected to come to an amicable and mutually satisfactory resolution with the person/party concerned.

2.3 No model shall be flown, nor any transmitter operated, whilst under the influence of alcohol, or any other drug or medication that could affect your reactions, eyesight or judgment. MOP 055 refers.

3 Standard Operating Times

3.1 Sunday – Glider and Electric Glider, Dawn till Dusk.

Monday, Wednesday, Friday and Saturday* – Power 8 till 12 noon, then Glider till Dusk. *

See Aerotow Note below.

Tuesday and Thursday, Glider Dawn till 12 Noon, then Power till 5.00 pm AEST, 8.00pm AESDT.

Aerotow: Generally the second Saturday each month, 12.00 Noon till 5.00 pm

3.2 Clubrooms: All days -7.00 am till 11.00 pm

3.3 If the allocated discipline is not using the field, the alternative discipline may either continue or commence flying early. When power operations are underway an electric glider may be flown at the same time providing the pilot follows all normal operating procedures and talks to the other flyers before take-off and landing

3.4 When Glider competitions are being conducted, the competition group will have exclusive use of the site between the hours of 10.00am and 4.30pm (or as otherwise advised in advance).

3.5 Sport glider flying can be conducted, outside the nominated times.

Obviously, any sport flying which employs a winch or bungee, must not cause any obstruction for the competition group.

4 Definition of a glider.

4.1 VARMS considers a glider as a model which is designed and flown for the purpose of soaring. If it has a motor fitted, this is simply a launch system, which is then turned off. Fast flying gliders such as "hot liners" which are flown primarily with the motor on, should be flown in power allocated times

5 Tenancy

5.1 The entrance gate to the VARMS Glider Field must be closed and padlocked at all times when member access to the field is no longer required.

5.2 The key to VARMS Glider Field is available to all members on the express condition that it is not lent or copied to provide non-members unauthorized entry.

5.3 Take Special Note: When padlocking gate, the VARMS padlock should be linked in series with other padlocks such that opening any padlock will allow entry.

5.4 Vehicles should not enter or be parked inside the fenced area of VARMS Glider field. Exceptions: Vehicles needing access to storage containers shall enter the field and drive north along the eastern fence to the northern fence before turning west. Absolutely no vehicles are to drive across the landing strip.

5.5 All vehicles should be parked in the designated main car park, south or north of the clubhouse.

6 Pilot Certification

6.1 All pilots flying at the VARMS Glider Field must be rated at least Bronze Wings Certificate issued by VMAA/MAAA., currently VMAA/MAAA affiliated, and insured for the type of R/C Model Aircraft they are flying.

6.2 All Visitors must also meet these criteria or be constantly under the supervision of an appropriately rated club member. Visiting spectators should be under supervision at all times.

6.3 Visitors may use the VARMS Glider Field after showing a current MAAA card to a committee member indicating that they are financial members of the VMAA/MAAA and are certified to fly Bronze Wings standard (or be accompanied/supervised by a VARMS club member certified Bronze Wings, in the appropriate discipline (or VARMS Electric Glider Solo), abide by the rules for visiting club members, and fill-in and sign the Visitors' Book. Without committee approval, a Visitor is only allowed 2 flying visits per year.

7 Radio Equipment and Usage

7.1 Only MAAA approved radio equipment may be used at the VARMS Glider Field.

7.2 Where Frequency keys are used they must comply with the MAAA certification sticker on the transmitter. Only the correct (commercial) type of plastic frequency key is acceptable. The full name of the Pilot and frequency number MUST be clearly indicated on all keys.

7.3 Because of possible interference to Computer Radios, the use of Mobile phones on the flight line is PROHIBITED. MOP 045 Refers

8 General Safety Matters

8.1 Every member shall accept responsibility for flying safety and is obliged to request other members and visitors to abide by these rules when dangerous and/or unsafe practices are observed. Failure to abide by such a request is to be reported to the committee

8.2 All aircraft must be in safe flying condition. Any aircraft considered unsafe by a suitably qualified member will not be permitted to fly until its operational condition has been remedied.

8.3 Flying within 30 metres of other people, the car park, spectator areas, the club room, any pit areas and incoming vehicles is STRICTLY prohibited. MOP 014 Refers.

8.4 No aircraft is to be flown over 1000 feet AGL (above ground level). Aircraft may be flown between 400 and 1000 feet AGL provided that an observer is present close by the pilot and the model is continuously clearly visible by the pilot and observer. It is strongly recommended that an observer be present close by the pilot when flying below 400 feet.

8.5 Observers, and all pilots, are to warn of intrusion into "our" airspace by full size aircraft and helicopters. If in any doubt regarding clearance, reduce height, take appropriate avoiding action and/or land as soon as possible.

8.6 No aircraft is to take-off or be launched within a distance of 30 metres from any car park, club room and spectator area.

8.7 Heavy Models, those with a dry mass (less fuel) between 7 Kg and 25 Kg, may be flown at VARMS Glider Field providing all operations are strictly to MAAA MOP 015. VARMS recommends pilots operating heavy models attain a Gold Wings rating for the type of aircraft being flown

8.8 The VARMS Glider Field is deemed unsuitable for Flying giant model aircraft. A Giant model is defined as having a take-off mass greater than 25 kilograms.

8.9 No person, either club member or member of the public, shall be allowed on the field without having been informed of these General Safety Matters i.e. calls to be made informing pilots of actions. Also, when on strip, or field, a proper lookout must be kept for approaching planes whether on take-off, launch or landing.

9 Flying during slashing and mowing operations

9.1 All flying will cease when the runway is being mowed.
When slashing or mowing is going on in other areas flying is ONLY permitted AFTER talking to the person doing the mowing or slashing and then ONLY with their agreement.

9.2 Aircraft will NEVER be flown above or within 50m of the person on the mower or tractor at any time.

10 General Flight Operations

10.1 Members must wear their membership badge at all times when flying

10.2 Power gives way to gliders at all times

10.3 Power (I/C motors) models will be permitted to operate at VARMS Glider Field as per the Operating Times listed above.

10.4 No I/C motor shall be started before 8.00 a.m. Monday to Saturday and shall not operate after 8.00 p.m. AESDT or 5.00p.m. AEST. This is in line with the KNOX CITY COUNCIL bylaws and our site agreement.

10.5 All Internal combustion motors are to be fitted with an effective muffler that limits noise level to 92 Decibels(dba) and below. Test: Model at full power, readings taken when model is held 1 metre above ground, 2 metres from front, back and both sides.

I/C Engines must not be run for extended periods in the pits and never to be run in Car Parks or Club Room areas.

10.6 Aircraft must not be taxied in the pit areas

10.7 All Pilots are to stand in the agreed designated area beside the runway and behind the safety barrier, when flying powered aircraft.

10.8 Flight operations must be conducted such that no model should be flown, further East than the eastern fence line, further north than the northern fence line and over the pits and flight box areas. . All circuits must be to the West of the landing strip. There are no limits to South and West.

10.9 "Take-off" (Launching), "Landing", "Dead Stick" and "On-the-field" calls are to be clearly announced by the pilot.

10.10 Helicopters and any other rotary wing aircraft are to be flown in the designated area. Helicopters are not to take-off or land in the pits. Helicopters and any other rotary wing aircraft may only fly in other areas by arrangement with other flyers using the field.

10.11 I/C and Electric aircraft which are being started and run up in the pits should use effective restraints.

11 Aerotow glider operations

11.1 When organised Aerotow activities being undertaken there must be a nominated safety officer in charge before flight operations commence and for the duration of the activity. The safety officer has full responsibility for all flying operations on the site between 12.00noon and 5.00pm.

11.2 Electric Power-assisted Scale Gliders may be operated at this time in conjunction with aerotow after consultation and with the agreement of the nominated safety officer.

12 Glider Operations – Bungee and Winch Launching

12.1 Any person/s proceeding upwind of the flight line must ensure that the pilots on the flight line are advised of this movement. A clear announcement of "On Field" or similar is required.

12.2 Winches and bungees must not be mixed on the flight12 line. Bungees must be on one end of the flight line such that a drifting line and parachute does not fall across winch lines. It is strongly recommended that a landing corridor be left between winches and bungees. Winches, where practicable, should be wound down after launch.

12.3 Landings, wherever possible, must be in clear areas i.e. behind the flight line or in a landing corridor. If a landing over winch or bungee lines cannot be avoided, the pilot must land as soon as possible and must not attempt to fly past any person on the field.

12.4 Regardless of launch direction, no glider shall be flown, at any height, further East than the eastern fence line, further north than the northern fence line and over the pits and flight box areas.

13 Incident Reporting

13.1 Any incident that causes, or could possibly have caused ('near miss') , injury to people, damage to property, models or equipment or other adverse outcome must be reported to the committee and recorded in an Incident Form (Available from the website). This includes: -

(a) Any incident that causes actual damage to property, models or equipment (including single model incidents)

(b) Any landing that is outside the confines of the nominated field boundaries, even if it did not cause damage.

(c) Any flight path considered close to people or property. Any dangerous, reckless or out of control flying must be reported and recorded.

(d) Loss of control, for any reason, which causes a breach of any Club Rules or Operating Disciplines.

(e) Incidents also include events at the field not involving flying or aircraft

13.2 An Incident Form should be completed by the person or persons involved in an incident. Instructions for completing and submitting the Form are on the Form

13.3 In addition to completing and submitting an Incident Form the President or Secretary should be contacted ASAP when a serious incident occurs.

13.4 Completed forms should be handed to the Secretary, President or placed in the mail box at the clubrooms

14 Child Safe Policy

14.1 When working with or around children, the requirements of the VARMS Child Safe Policy (separate document) shall be adhered to.

15 MAAA – Manual of Procedure

The MAAA Manual of Procedure documents can all be downloaded from the MAAA website. www.maaa.asn.au A full listing is on www.maaa.asn.au and all members should be aware of the information available on/from this website.
MAAA010 – Incident Report
MOP 014 General Model Rules
MOP 015 Heavy Models
MOP 045 Mobile Phones
MOP 055 Alcohol, Drugs and Illness
MOP 056 Safe Flying Code – Attached to your MAAA card, when received.
MOP 057 Insurance Conditions
MOP 058 2.4 GHz Equipment Policy

Victorian Association of Radio Model Soaring Incorporated
Registration Number A0001504U updated and rewritten 14/12/2018 (Updated and rewritten mainly to include operating times and to "refer" to external documentation rather that reprint it and to make changes as suggested by submissions from members)

November General Meeting minutes

Ron Hickman

Minutes of the general meeting of VARMS held at the clubrooms 9/11/2018
Vice President Keith Schneider in the chair

Meeting opened 0800 Members present 36

Apologies R.Armstrong D Anderson John Gottschalk M Best

Minutes of previous meeting

Moved R Kassell Seconded Mick Barlow That the minutes of the previous meeting as printed in Aspectivity be accepted carried

Business Arising Nil

Correspondence in

Institute Drone tech	re drone trg
Daniel Scander	re drone trg
KCC	re equality workshop
Nicole Seymour	re relocation
Melbourne Steam Traction Club	re march event

Correspondence out

J Mortimer	re 50th and relocation
VMAA	re height exemption

Treasurers report

Moved R Pearce Seconded Thomas Rawlings that the treasurers report be received carried

Reports

Geoff reported that there had been a good turnout at training last time and that training is on again this Sunday 11th Nov

General Business

Keith opened the discussion on the final meeting for the year, - Resolved to hold the meeting as normal and to order pizzas for delivery at 9pm

Ross has proposed to hold a family day sometime in December. Discussion ensured around a Saturday or Sunday and it was resolved to hold the event on a Saturday on a date to be fixed.

Lindsay questioned the need for the extensive SOPS review being undertaken, given that they were only reformatted in 2016. Ron replied that the existing SOPS included obsolete documentation and the main purpose of the review was to separate the constitution from the SOPS and future proof the SOPS by referencing relevant organizations and data rather than printing out clauses (from the MAAA, CASA etc) that are subject to review by those organisations.

Lou commented that we have run out of anniversary gear however other clothing is still available for those members interested

Geoff discussed the upcoming garage sale advertised in Aspectivity next weekend indicating that all prices are negotiable and that all the proceeds go to VARMS.

Neil Roschier spoke about the High Flyer program and that most of the participants are currently in exams that conclude about the 14th of this month. He is hoping that the participants will show up at training after this and that as an encouragement he is going to supply magnums at $2.50 ea with the aim of building up a bank to assist with their model building. Neil commented on problems associated with the Sunnysky motors and that the factory are producing new shafts specifically to address the problem

Bruce Clapperton commented on the recent ALES competition that was won by A Mahew with himself second. He also mentioned that a member from another club was impressed by the event and is considering joining VARMS. The next event is specifically for models of 2m wingspan

Dave displayed the latest version of the century 4 battery tester including discharge facility $40

A number of members commented on the upcoming event a Pakenham this weekend where a number of models will be displayed and flown

Danny advised that the next aerotow would be held on the 24th of this month and commented on the upcoming large aerotow event to be held at Bordertown early in December

Meeting Closed 8.30pm

R.Hickman Secretary

The next general meeting of VARMS is to be held at the clubrooms on Friday 14th December 2018 commencing at 8.00 pm

The Victorian section of the Association now meets at the VARMS Clubroom on the 4th Thursday in every month, except December when there is no meeting. Starting time is around 8.00 pm. Supper is provided and friendly discussion follows. Attendance fee $3.00 to cover costs.

The meeting takes the form of a “show and tell” with members, and others, bringing along their projects to present to the gathering. Also there may be discussion on technical matters related to electric models. There is normally a lot of experience amongst those present, so it is a good time to sort out any problems. Max Haysom 9801 3899

Events and competitions

ALES and Timed motor run Competitions — Bruce Clapperton

Congratulations to Alan Mayhew for winning both recent club competitions at the field. Both events were well attended despite some iffy weather. The first was the regular ALES competition with 9 pilots. A certain person who shall remain nameless managed to come second due to actually finishing all the rounds with the same model. David Pratley was unlucky to get hit by a gust of wind on take off and sustained some cuts along his arm from the pusher prop on his Plus.

ALES - Overall Results

[VARMS 20/10/2018]

www.GliderScore.com

Rank	Name	Score	Pcnt	Raw Score	Rnd1	Rnd2	Rnd3	Rnd4	Rnd5	Rnd6
1	MAYHEW, Alan	5669.1	*100.00*	5669.1	1000.0	993.6	1000.0	945.3	730.2	1000.0
2	CLAPPERTON, Bruce	5565.9	*98.18*	5565.9	841.9	1000.0	996.8	997.0	730.2	1000.0
3	GREENWOOD, John	5540.9	*97.74*	5540.9	875.4	1000.0	923.1	787.1	1000.0	955.3
4	WILSON, Bob	5124.9	*90.40*	5124.9	841.9	935.8	910.8	1000.0	548.6	887.8
5	BUSEK, Zdenek	5058.0	*89.22*	5058.0	981.8	808.3	625.8	1000.0	722.2	919.9
6	BATTERSBY, Andrew	3942.0	*69.53*	3942.0	899.7	526.0	587.1	751.6	503.5	674.1
7	PRATLEY, David	3806.2	*67.14*	3806.2	1000.0	801.2	1000.0	905.8	99.2	0.0
8	PEARCE, Russ	3695.2	*65.18*	3695.2	486.3	603.8	840.0	435.5	576.4	753.2
9	TAN, Tom	3566.9	*62.92*	3566.9	535.0	456.9	461.3	589.7	1000.0	524.0

The second event was run with different rules. Models limited in size to 2 meter (ish) and multiple motor runs allowed – motor run time subtracted from your flying time. A lot of fun was had working out the tactics of motor runs, heights and landings. An unfortunate mid-air knocked one model out of the competition but carnage was pretty minimal due to most models being well tried and tested. Final scores were pretty tight with the top 4 pretty close. Well done to Gary Ryan for coming third with his radian. Also well done to Zdenek for coming a well deserved second.

Next competition at VARMS is an RCGA F5J on the 9th of December. This is a training day, so the first flight will be somewhere between 12.30 and 1pm. Next ALES is the 10th of February then VMAA practice day (Glider and Electric Glider) on the 24th of March.

VARMS 2M - Overall Results

[VARMS 25/11/2018]

www.GliderScore.com

Rank	Name	Score	Pcnt	Raw Score	Rnd1	Rnd2	Rnd3	Rnd4	Rnd5	Rnd6
1	MAYHEW, Alan	5951.5	*100.00*	5951.5	1000.0	951.5	1000.0	1000.0	1000.0	1000.0
2	BUSEK, Zdenek	5823.1	*97.84*	5823.1	974.1	1000.0	929.3	996.8	929.5	993.4
3	RYAN, Gary	5822.5	*97.83*	5822.5	1000.0	941.7	1000.0	1000.0	1000.0	880.8
4	PRATLEY, David	5796.0	*97.39*	5796.0	996.6	990.3	932.9	983.9	932.0	960.3
5	RAWLINS, Thomas	5769.6	*96.94*	5769.6	958.8	954.7	954.1	965.8	936.2	1000.0
6	HEARN, Geoff	5659.6	*95.10*	5659.6	928.8	958.3	975.3	989.7	880.3	927.2
7	SHAPIRO, Henry	5421.6	*91.10*	5421.6	917.5	899.3	886.9	912.9	818.8	986.2
8	MURRAY, Nigel	5319.8	*89.39*	5319.8	965.6	982.6	579.5	969.2	909.4	913.5
9	CLAPPERTON, Bruce	5279.1	*88.70*	5279.1	928.8	954.7	589.4	1000.0	935.3	870.9
10	TRONE, Geoff	5065.5	*85.11*	5065.5	614.9	1000.0	519.9	961.3	983.2	986.2
11	WILSON, Bob	4867.0	*81.78*	4867.0	0.0	986.1	937.1	977.4	966.4	1000.0

Further and future Competitions

Bruce Clapperton

Sunday 9th December 2018. RCGA F5J#5
Sunday 10th February 2019 ALES
Saturday 16 March 2019 ALES
Weekend 6-7th April 2019 VMAA trophy Weekend (Venue: Darraweit Guim)
Sunday 24th of March 2019 VMAA Practice Winch Glider (morning)/Electric Glider(afternoon)

Saturday 27th of April 2019 ALES
Sunday 2nd June 2019 ALES

Flying Event Calendar			
Name	**Date/s**	**Location**	**Further Info**
Open Thermal Glider (winch)	**2/12/18**	**Diggers Rest**	Tom Dupuche
F5J Electric Glider	**9/12/18**	**VARMS Glider Field**	Jim Houdalakis
VARMS Training	**9/12/18**	**VARMS Glider Field**	VARMS.org.au
Foamy Duration	**14/12/18**	**VARMS Glider Field**	evening before meeting - Geoff Hearn
General Meeting	**14/12/18**	**VARMS Cubrooms**	VARMS.org.au
Scale Aerotow	**15/12/18**	**VARMS Glider Field**	VARMS.org.au
Next General Meeting	**8/2/18**	**VARMS Cubrooms**	VARMS.org.au

VARMS Level 2 Thermal Duration Task

This task is designed for you to fly with only a timer and no other assistance.

1. Launch glider to approximately 100 metres altitude using bungee, winch or electric motor. If using electric launch, then switch off motor.
2. A stopwatch is then started by an adult observer. Fly for 10 minutes. No restarting of the motor is allowed and the use of a variometer is not allowed.
3. After 10 minutes, land within 30 sec. The nose of the model must finish within a rectangle 15x4 metres. The 15 m dimension is in line with the wind direction. The VARMS landing ropes are easiest to use for this.
4. The task is to be completed on 2 different dates. Any number of attempts can be made to achieve the task. 1, 2 and 3 must all be achieved in the same flight.
5. Complete this form and send it to the VARMS secretary for recording.

Address : PO Box 4096 Knox City 3152

Pilot's Name and address	
Date	**Observer's Name and signature**
Date	**Observer's Name and signature**

News and Articles

Tutorial on Getting Started with Autodesk Fusion 360

with Paul Van Tongeren

Fusion 360 is a sophisticated cloud-based Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) software package that is free for hobbyists. For aeromodellers, it can be used to design ribs and formers for laser cutting, pitot tubes for 3D printing, and canopy and cowl blanks using milling.

Its sophistication means that there is a steep learning curve and a commitment to learning the product, but you will be rewarded with the capability of accurately designing whatever you need.
To help you avoid all the mistakes that I made by learning the product by myself while designing my SubSonex model, I will be holding two sessions at the club to get people started with using Fusion 360. As I am using Fusion 360 to design the wing and fuselage of this 2.3m model, the emphasis will be on how I went about this design and the cutting of laser cut components. I do not pretend to be an expert, but I have learnt the key functionality of this program and will show you how to get started.

Session 1

Describe the overall design approach
Walkthrough the main screen of Fusion 360
Walkthrough navigation of a design, using the SubSonex as an example
Describe planes, origins, sketches, bodies, features, components and sub-assemblies
Demonstrate the design of a simple 2 rib wing with lightening holes and 2 spruce spars
a) Parameters
b) Sketching
c) Projecting
d) Extruding
e) Copying components
Describe how to nest your parts
Describe how to produce a .DXF file of your parts suitable for a laser cutter
Describe management of design files in the cloud and off-line
Describe add-ins for wing foils and laser cutting
Describe the lofting process
Reference resources
Session 2
Hands-on tutorial in designing the 2 rib wing. You will need to bring your laptop so that you can do the design yourself while following me.

Preparation
If you can, visit https://www.autodesk.com/campaigns/fusion-360-for-hobbyists and follow the process to download the software onto your laptop. It will be needed for the tutorial in Session 2.

Times
Session 1 – VARMS Club Room Mon 18 Feb 6:30pm to 8:30pm
Session 2– VARMS Club Room Mon 25 Feb 6:30pm to 9:00pm

The Ultimate Throttle Cut

Russ Pearce

When I started to put this together it was intended to be a learning exercise for the High-Flyers group however I thought it might have wider appeal to anyone using a transmitter with the Open Tx operating system. It should be noted that Open Tx is not the exclusive domain of Fr Sky as it is also used as the operating system in the latest multi-protocol Jumper transmitters. The following description does assume some knowledge of how to navigate around and use the “special functions” plus “logic switches” screens; my original intention was to work-shop this exercise.

The Taranis radios can be used as basic, simple transmitters however one of the most powerful features of the Open Tx operating system is its’ ability to configure `“logic” switches; which may be used in addition to the actual physical switches. What follows is intended to demonstrate the technique as a learning exercise which has a practical outcome of what to me is the ultimate throttle safety cut. We probably all know how to use a two position switch to provide the motor cut, but what I want to do is make sure that, if I arm the motor using this switch, the motor will still not start until the throttle is in its’ off position.

In Open Tx the simplest way to set the motor safety switch is to use a “special function” which applies minus 100 to the throttle control, and it looks like this. This shows that when switch SF is in the down position, Channel 1 (which is my throttle channel) is overridden with the value -100. The tic in the box at the far right means that this special function has been enabled. If you don’t tic the box it won’t work.

Now what I want to do is use a logic switch in place of switch SF.

All that I have done here is to replace SF with logic switch L 05↓

Now I guess you need to know why it is logic switch number 5.

There are four states of the throttle and safety switch that need to be detected.


Throttle off


Motor running


Motor armed


Throttle cut

These states, or the various combinations of them, are detected using the first four logic switches.

1) Logic switch 1 detects when the throttle is fully off as follows;

L01 a<x Thr -95

This shorthand statement says that L01 is **ON** when “a” is less than “x”. That is when the Input stick for the throttle is less than -95.
As soon as the throttle stick is more than -95 this switch turns off.

2) Logic switch 2 is the first of the combinations that we need to detect.

L02 AND L01 SF↓

This means that L02 is ON when both L01 is ON (throttle les than -95) AND SF is down (throttle safe - not armed)

3) Logic switch 3 is the second combination (using the AND function again)

L03 AND L01 SF↑

Same as L02 except that SF is up this time (throttle armed)

4) Logic switch 4 is what I am going to use to “arm” the motor (make it possible for it to be turned on) and to do this I am going to use a “toggle” switch. This logic switch toggles ON for one set of conditions and is turned OFF by a second set of conditions. This is a very useful function for when you want something to happen and stay happening. For some reason in the shorthand used in Open Tx this function is called the Sticky switch. I guess it is because it sticks (or stays) on when triggered. So L04 looks like the following.

L04 Stky L03 L02

This means that L04 is turned ON by L03 and turned OFF by L02.

Substituting words for the logic switch numbers; this switch is ON when the throttle is less than -95 and SF is in the armed position (therefore the motor can run) and goes off when the mechanical safety switch is in the safe position.
The photograph on the right shows how this looks in the transmitter.

The bold characters show which logic switches are “on” so L01, L03 and L04 are all on which means that the throttle will function; L04 has in fact been turned on by L03. It will be turned off when I throw switch SF into the throttle cut position which will activate L02.

On the left we see that L02 is now ON, which both turns off L04 (motor armed) and turns on L05. Remember L05; it is the switch that activates the special function to cut the throttle.

L05 needs a little more explanation as it introduces a couple of other functions. OR means that L05 is on if EITHER L04 is not on (the exclamation mark ! means not) **OR** switch SF is in the safe position.

The above screen shot shows that even though the throttle is fully down (L01 is on) the motor is not armed because SF is in the safe position which has turned on L02 and more importantly L05.

Now if the throttle is not fully down L01 turns off as shown on the right. The motor won’t turn on even if SF is in the armed position because L03 won’t be on and therefore L04 will not be turned on either.

This “Sticky” switch has more uses as It can be used for interesting stuff like a motor cut in an ALES competition; that is when the model has reached 100 meters OR has completed a 30 second motor run the motor is shut down. In this extra example it is advisable to have a mechanical switch as an “un-set” so that if needed you can turn the motor back on in an emergency. This bit of trickery does require some method to measure height such as a variometer. (however in a competition the other functions of the vario should not be used) For example if you have one of the new FrSky receivers with the built in vario you do not have to purchase a separate height limiter.

When I look beyond the Open Tx transmitters and at the latest Spektrum offerings I note that the ability to program beyond basic model set-up is perhaps becoming the way of the future; I quote the advertising *“because the interface is a fully functional Android system with a dedicated quad-core processor, it will work with an evolving list of apps from the Google Play store.”* This appears to mean that advanced users will be developing “apps” which will probably perform similar functions to what I have described above. Old guys like me will have plenty of opportunities to dust the cobwebs off the brains if we want to keep up with the likes of the high flyers as I expect that this sort of stuff will be second nature to them.

My Foamy Fleet (part 2) Geoff Hearn

Model number 4

Glider type;	Hot Liner (name Blaze)
Manufacturer;	ST Models
Length;	1010 mm (39.76 in)
Wing span;	1560 mm (61.42 in)
Flying weight;	900 g (31.8 oz.)
Wing Loading;	42.9 g/dm^2
Power system;	Brushless motor, 1800mh 11.1v LiPo battery (supplied with charger)
Propeller;	10x6 folding
Radio;	4 channel; model supplied RTF

This is another model from the ST Models stable. Whilst it doesn't relate to any full size glider design, it has been designed to cater for a specific demographic. Its' envelope covers the full spectrum of aerobatic manoeuvres; flick rolls, inverted spins and outside loops. This model has proved to be a good all round performer and I have at times been able to soar it in good conditions when thermals are strong. I consider the models strong point is being able to cope with strong wind conditions. I have been able to have a fly when other models have been grounded. All control surfaces are super sensitive, the V tail configuration works well with elevons and ruddervators. The ailerons have fences on the inboard section which enhance response times due to air movement over the wing. It has proved to be exceptionally reliable and requires constant concentration to fly it well.

I have found only one negative when flying it in blue sky conditions the model will completely disappear at certain angles of flight, which has proved to be a challenge.

Total flight time is approximately 12 hours. I rate this model 9 out of 10. The model was purchased new from a local retailer.

I haven't flown it off the slope enough in good light conditions to make a judgement on its' flight sustainability with the motor off.

Model Number 5

Glider type;	ASW 17 (semi-scale powered glider)
Manufacturer;	ST Models
Length;	990 mm (39 in)
Wing span;	2100 mm (82.7 in)
Wing area;	28.6 dm^2 (443.1 sq in)
Wing Loading;	27.6 g/dm^2
Flying weight;	790 g (27.86 oz.)
Radio;	4 channel 2.4 GHz

Supplied with the model RTF.
Functions; elevator, rudder, ailerons and motor control. The motor is mounted in the nose of the model with a folding propeller and a motor brake function.

I first became aware of this glider in the ST Model range whilst visiting a hobby shop in Singapore. The model along with a number of other ST Models was hanging from roof in a fully rigged condition.

On my return home to Melbourne I made enquiries through my local model provider, Dave's Toys for Big Boys, who said he would try to obtain the model for me. I hadn't seen it advertised in any local magazines so my hope wasn't high of obtaining one. A friend of mine also showed interest in the model so the order was increased to two.

Dave Pratley came through and my friend and I became owners of new ASW 17 models. The model's overall likeness to the full size ASW 17 is good in general although the wing plan layout is not accurate, but probably designed more for better performance in the model form.

The model is semi-aerobatic and I have executed rolls, loops and inverted flight, but the model has proved impossible to spin. It has good soaring characteristics and will keep up with the best of them on soaring days and it soars well off the slope. The model handles windy conditions well and has proved to have good overall operability.

One flight of note comes to mind and which surprised me, it involved a landing which, while to model was rolling out on the ground at some speed, had me input some up elevator returning the model to flight. At this time I re-applied power and flew away for another circuit. This could be considered a Touch and Go which under the circumstances is unusual for a glider with a nose mounted motor and propeller. It certainly impressed me for a model of this nature.

I have owned and operated this model for a good number of years and have accumulated approximately 10 hours of air time. My overall rating is 8 out of 10.

Model Number 6 Parkzone Radian

Glider type;	Soaring/training
Manufacturer;	Various
Length;	1140 mm (45 in)
Wing span;	2000 mm (78.5 in)
Flying weight;	830g

Radio; 4 channel 2.4 GHz supplied with the model RTF. Functions elevator, rudder, ailerons and motor control. The motor is mounted in the nose of the model with a folding propeller and a motor brake function.

The general specifications for this model, and shown above, are what can be found on the net as I didn't obtain any instruction literature because I purchased it from a deceased estate; however I am sure all members will be familiar with its' type, general specifications and characteristics.

From the outset I can say that this is my favourite model for the following reasons: Easy to transport in my car, no time required to rig and fly, exceptional climb capability, soars extremely well with a good speed range, easy to see at height on a blue day, stable in flight, light weight, excellent wing section which allows it to fly at a low speed, replacement parts available locally at affordable prices, holds its' own in ALES and the VARMS run foamy competitions.

What else could you wish for in a model glider? This model in my opinion has proved to be a winner.

The model is mildly aerobatic, loops and rolls and capable of inverted flight. The only negative, if you could call it that, is that the model struggles to penetrate in windy conditions; perhaps that is the price you have to pay for a model that well handles all other weather conditions.

I have had a couple of incidents with the airframe which bear mentioning. The first occurred after approximately 20 hours of operation. The model on an initial climb out started to produce an unusual sound so I discontinued the climb and landed the model immediately. On close inspection I found that half of one of the propeller blades was missing. When I got home I had a close look at the remaining part of the broken blade which revealed a manufacturing fault had been present since new (an internal air bubble) which I could not have seen at any daily pre-flight inspection.

The second incident after about another 10 hours of operation. I was climbing the model away after having done a number of climbs back to height when, all of a sudden the model exploded, spreading bits of foam all over the place. After I had picked up all of the bits I then took them home and started the reconstruction process. The cause of the incident became clear when I observed the broken propeller blade boss. It had broken in the area where the retaining pin locates the blade to the boss. It was interesting to note that the opposite blade holder had a fatigue crack and also have failed in due course. It is difficult to check for this cracking as the boss is hidden within the spinner.

I have not replaced any of the foam parts of this model which I estimate has in excess of 75 hours of air time. Perhaps I can expect some further fatigue problems as I believe the manufacturer didn't count on the model lasting this number of hours of operation.

My rating for this model is 10 out of 10.

Update 14/11/2018

Whilst finding myself at the club field late on the 10th of November and wishing to run down a couple of Li-Po batteries which I had intended to use the evening before, I moved to the flight box, readied the model, and launched same with about ¼ throttle, I then moved back into the flight box and sat down. At this point I slowly opened the throttle to full power and started to climb to height. Some two seconds after this input the model exploded which then had my immediate attention. I closed the throttle. and managed to land successfully back on the strip with the nose section incorporating the motor, propeller, boss and spinner hanging some distance below the model. After a closer look at home I found that both blades had departed the propeller boss however there was no evidence of any fatigue cracking.

As this is the third time I have experienced a propeller/boss failure, it appears to me that the design of this component is only engineered to last a limited operational life span. Of course there is a fix for the problem; buy an aftermarket stronger unit, however I want to keep the model as original as possible.

A habit I have developed and adopted when launching these models is to launch them at low power settings, holding the model well away from one's person, and after launch, then power up once the model is well underway. This method reduces the substantial risk factor of a blade departure whilst the moving parts are close to your body.

Latest Slope Soaring Happenings at Kilcunda

Report by Ian Cole

The North and Northwest Slopes

Some of the regular fliers who venture to Kilcunda may be aware that the north and possibly the northwest slopes are now off limits. In 2012 the previous owner died and subsequently this and other properties he owned in the area were divided into smaller lots and sold. This includes the north side where we currently fly to right around the other side of the hill, heading towards Woolamai.

The North Slope

I have recently spoken to the owner of the north slope who is very concerned about the likelihood of people coming onto his property. Peter, the new owner, who intends to raise cattle, by law has had to put into effect a farm biosecurity program. Biosecurity is a critical part of the Australian Government's efforts to prevent, respond to and recover from pests and diseases that threaten the economy and environment. Regrettably, this means that no-one is allowed on the property for the foreseeable future. As a public relations exercise, I've made a special sign to complement the original sign to further explain the situation to other fliers who come to Kilcunda, expecting to fly on a slope that's been available for over 50 years. There is a glimmer of hope that Peter may let us on his land again once the biosecurity program has finished - but don't hold your breath.

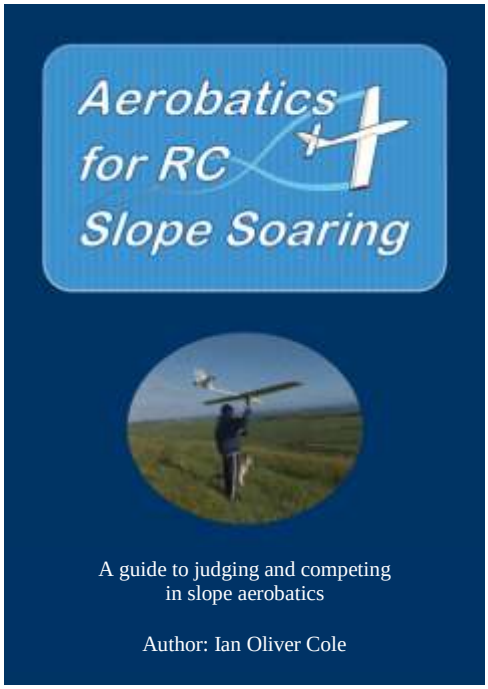
The Northwest Slope

Until otherwise told, the northwest slope is also off limits. If flying on the southern side, do not land inside the property to the rear, as it is all part of the northwest property.

Prickles removed from the South Slope

In the past few years the nasty prickle bushes have grown out of control all around the southern side of the slope. I am in the process of removing as many bushes as practical, so that we can land our models without shredding them. The prickles themselves I might add, well let's say you could sew your pants with them. So far I have removed over 30 bushes and there are still dozens to go.

Advertisements



Aerobatics for RC Slope Soaring is a follow-on from my first book called Aerobatics Plus, which I first published in 1998. This latest edition has double the number of pages and many new features. The book includes 25 picturesque manoeuvres, new contest formats and judging guides unique to aircraft aerobatics in general. Everything one needs to know about slope aerobatics has been covered in this 60 page edition. I believe my book is unique to slope aerobatics and I am proud to announce it.

My first aerobatics contest was at Mt Hollowback in 1984, where I flew an r/e Ricochet, which I eventually converted to add ailerons and flaps - and that's when I caught the bug. I rarely missed an opportunity to compete, until I bowed out of the sport in 2011 to pursue other interests. But I am now ready to return with renewed enthusiasm and keen to pass on my knowledge to other fliers.

Slope competitions in Victoria were popular in the 1970s, 1980s and 1990s but slowly tapered off in the 2000s. Sadly, in 2014 we may have witnessed the last open slope contest in Victoria. While the baby boomers have been the predominant figures in the sport for several decades, they are now fading away and the younger generation does not seem to share the same enthusiasm. I am certainly mindful that I could be publishing my work for posterity and I am comfortable with that. At the same time, I am optimistic that there will be a revival. But if competition slope soaring of any kind is to make a comeback, the regular cancellations need addressing.

Aerobatics for RC Slope Soaring is currently online for viewing and any positive feedback is welcome. I hope the book will become a Manual Of Procedures (MOP) to be added to the MAAA's website. I believe that the book will attract worldwide interest because it describes aerobatics in a way that will have pilots and judges rethinking how they fly and judge aerobatics, respectively - and not just aeromodellers.

I will officially launch my book at an organised slope day to be held on Sunday 20 January 2019 at Mt Hollowback, Bald Hills. Stay updated via the website. The book will also be available in hard copies, presented in individual plastic sleeves for updating in the future. For more info visit the website: mountainglidingaustralia.com.au/MAAA-Rules-Changes-2021

Below are three examples of the 25 manoeuvres in the book. Many other diagrams and photos are also included in this latest edition.

Topics in the slope aerobatics book



Roger Stephenson, an immediate past member of our club, has decided give up the sport and has a number of models and some equipment for sale. details of these have been posted on the “For Sale” notice board in the club or may be seen on RC Trader however the summary is as follows.

Planes		
Southern Sailplanes MF “T BIRD. With 2 wing sets:		$325
Luniak (Colin Smith Designed & constructed)		$175
Top Bird- V tail		$125
Albatross- 2 m. built up flight surfaces-epoxy fuz.		$125
Pipistrelle V tail aileron wings slope soarer		$125
Vortex - 2.8m		$300
Multiplex Cularis – 2.6m” foamie”		$300
Greensleeve.-2m aileron wings plus rudder/elev.		$200
Winddancer – High performance electric soarer		$275
Sig Tri Star-1.8m Pusher config.		$275
Hobby Squadron Magpie (Samurai)-1.6m brand new		$295
HobbyB King “Uglider” – 1.6 m. park flyer “Foamie”		$125
E Flyte “Mystique . – 2.9 m	Cost over $1400 – sell for	$850
Kits.		
SAS (UK) Star jet.		$150
ST Models “Blaze”-Elec” warmliner”		$185
Multiplex CumulusXXL		$275
Radio gear		
JR 3810 – 36 meg		$275
JR/Graupner MX22 – 2.4 gig		$325
JR DSX9 – 2.4 gig		$175
Equipment		
Competition Electric winch (ex Gerry Carter)		$350
PLUS “Airstrike” Aluminium winch line return		$100
Accessories		
Plus, selection of JR 36 meg used and & 2.4 gig new receivers -		make an offer.
Hobby King Metal geared servos (brand new in boxes)		12 x $5 each

All equipment in good functioning order.

Roger Stevenson
Ph Home 98308293
or email – janineroger@aapt.net.au

VARMS clothing order form

Lew Rodman

Colour	XS	S	M	L	XL	2XL	3XL	Total
	48	62	65	68	71	74	77	
Royal $72.50								
JK01 Stadium Jacket	Embroidered VARMS logo left chest							

Colour	S	M	L	XL	2XL	3XL	4XL	5XL	7XL	Total
	62.5	65	67.5	70	72.5	75	77.5	80	85	
Navy $72.50										
JB Flying Jacket	Embroidered VARMS logo left chest									

Colour	S	M	L	XL	2XL	3XL	4XL	5XL	Total
	57.5	60	62.5	65	67.5	70	72.5	75	
Royal $39.05									
JB ½ zip Polar Fleece	Embroidered VARMS logo left chest								

Colour	S	M	L	XL	2XL	3XL	4XL	5XL	Total
	55	57.5	60	62.5	65	67.5	70	72.5	
Navy $40.15									
JB Crew Fleecy	Embroidered VARMS logo left chest								

Colour	S	M	L	XL	2XL	3XL	4XL	5XL	7XL	Total
	53.5	56	58.5	61	63.5	66.5	70	73.5	80.5	
Royal $24.20										
JB Polo	Embroidered VARMS logo left chest									

Colour	S	M	L	XL	2XL	3XL	4XL	5XL	7XL	Total
	53.5	56	58.5	61	63.5	66.5	70	73.5	80.5	
Navy $26.40										
JB Polo with Pocket	Embroidered VARMS logo left chest above pocket									

Note:All measurements are cm for Half Chest

Name:	
Contact details:	

VARMS caps & beanies are also available at $15 each

Please send articles & photos for publication to
editor@VARMS.org.au
Deadline the last Friday of the month.

Administration

Training Dates

11th & 25th of November

VARMS Training is kindly sponsored by:

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Mowing  *Roster*

Field	Alan Gray	
	Graeme Hollis	
	Martin Hopper	
	Robert Kassell	
	Tim Stewart	
	Geoff Moore	
Runway & Pits:	Zdenek Busek	1st week
	Ken Madill	2nd week
	Paul Van Tongeren	3rd week
	Alan Taylor	4th week
Heliport:	Geoff Moore	

Any Problems with the mowing roster, ring
Henry Wohlmuth
9764 1921

Standard Operating Times for VARMS Glider Field:

***Aerotow:** **Second Saturday each month, 12.00 Noon till 5.00 pm**
"Glider" is any Glider, or electric glider, flown as a glider, i.e. climb and glide

Clubrooms: **All days 7.00 am till 11.00 pm**

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
8am-Noon (power) Dawn-Noon (glider)	Power	Glider	Power	Glider	Power	Power	Glider
Noon-5pm (AEST) (power) Noon-5pm (AEDST) (power) Noon-Dusk (glider)	Glider	Power	Glider	Power	Glider	Glider	Glider

For queries or problems regarding this timetable, please contact Ross Armstrong or Ron Hickman.

The Keyboard

Members and visitors with Transmitters using frequencies other than 2.4GHZ, must insert a standard 50mm key, clearly named, into the appropriate section of the Keyboard located on field fence close to southern end of Clubroom veranda.

Opinions expressed in Aspectivity may not represent the view of VARMS Inc. Editor or Printer. VARMS Inc., the Editor and the Printer accept no responsibility for the accuracy of the content.

President	Ross Armstrong	0417 536 389	president@varms.org.au
Vice President	Keith Schneider	0414 294 280	vp@varms.org.au
Site Liaison	Max Haysom	9801 3899	
Secretary	Ron Hickman		secretary@varms.org.au
Treasurer	David Milne	0417 835 766	treasurer@varms.org.au
Contest Director	Alan Mayhew	0412 994 213	cd@varms.org.au
Editor	Russ Pearce	0432 663 429	editor@varms.org.au
Ordinary Member	Mike Barlow		ordinary@varms.org.au
Membership Secretary	Geoff Glover	9807 5623	membership@varms.org.au
Heli Group Rep	Geoff Moore	9802 2044	heli@varms.org.au
Sports Power Rep	Graham Sullivan	95297095	power@varms.org.au
Asset Manager	Bruce Perry		asset@varms.org.au
Webmaster	Michael Best		web_master@varms.org.au
Registrar	Peter Zambory	98074875	registrar@varms.org.au

VARMS Web Site: http://www.varms.org.au – for up to date info on VARMS

Current Members: If you change your address, please notify the Registrar and VMAA, so that we can maintain the correct addressing of this Newsletter.

Potential Members: If you are interested in joining VARMS, or learning more about our activities, please contact the Secretary, or other Committee member.

Victorian Association of Radio Model Soaring Inc.

Organisation No. A0001504U

Affiliated with the Federation Aeronautique Internationale (FAI)
The World Air Sports Federation

VARMS (Inc.) was formed in 1968 to get together aero-modellers who were interested in building and flying radio controlled gliders. Members fly at many places, but have a home field, within the Knox Regional Sports Park (South Wantirna) some 60 metres west of the rear of the State Basketball Centre- Entrance off George Street, where Training Classes with dual controlled gliders are held every second Sunday 10-1.00pm. A calendar for training is attached to the flying field gate.

VARMS Training is kindly sponsored by Hyperion Australia.

VARMS organizes regular competitions in both Slope and Thermal Soaring, from fun-fly, scale, open competition and self-launching (electric) gliders.

General Meetings are held on the SECOND FRIDAY of each month (except January) – at the VARMS Clubroom near State Basketball Centre (as above) and, during daylight saving time there may be limited flying allowed before Meeting starts at 8.00pm. Visitors are welcome. Formalities are usually followed by lively discussions on matters of interest to all **modellers** followed by a cup of your favourite brew.

VARMS

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VARMS Inc.
P.O. Box 4096
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