

# Rangers' Review

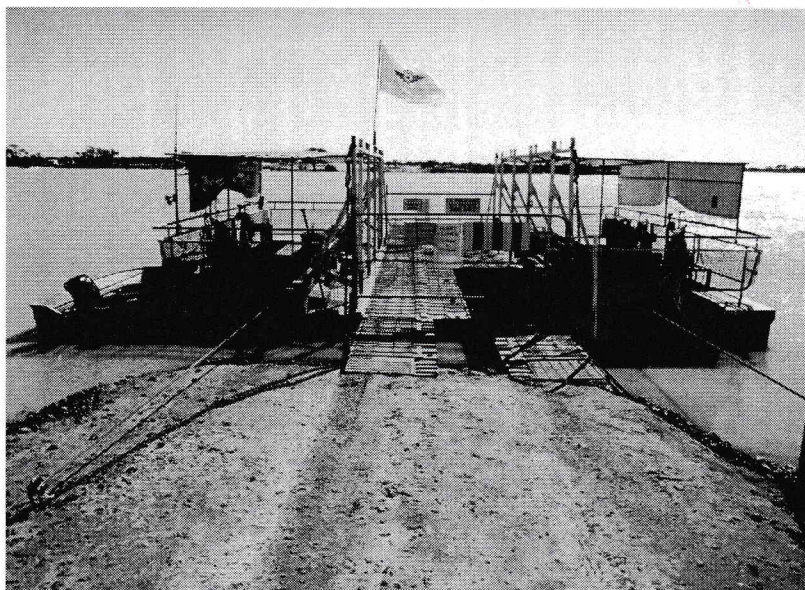
**Mount Lofty Rangers Inc.**

PO Box 1150, Blackwood SA 5051

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

**Volume 16 No.3**

**August 2010**



**Coopers Creek Ferry**

## **TABLE OF CONTENTS**

Editorial .....	3
President's Report .....	4
Social Scene .....	6
For Sale.....	14
Snorkel Tech.....	18
Upcoming Trips .....	22
Training .....	28
Trip Leaders Checklist .....	38
Club Bylaws.....	41

# **Mount Lofty Rangers Inc.**

## **About Us**

The Club's aim is to enjoy all aspects of owning and using our 4WDs while enjoying the diverse surroundings offered by this great country. We are a club of 4WD enthusiasts who enjoy challenging driving, regular trips, camping, camp cooks and a great social scene on and off track.

## **Membership**

Membership is open to anyone who owns a 4WD regardless of its make or model and has a passion for driving. Mount Lofty Rangers Inc is an affiliated member of the SA Association of 4WD Clubs.

## **Club Outings**

The Mount Lofty Rangers provides regular day, weekend and extended four wheel drive trips, lead by experienced trip leaders. Trips are rated on the level of difficulty and are available to all members and guests.

The club has a dedicated social committee who also organises regular events that complement the club trips.

## **Experience and Training**

Our current members possess a wide range of skills ranging from beginner to advanced. The club has a number of accredited instructors and assessors, and is involved in regular training via the SAAFWDC Driver Training Unit.

## **Meetings**

Club meetings are the second Monday of each month\* and are held at the

**Blackwood Football Club Trevor Terrace Blackwood**

**Time 7:15 pm**

\*Except where this Monday falls on a long weekend then the meeting is held on the 3<sup>rd</sup> Monday of the month

## **Information**

For more information on the Club please check out our website at:

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

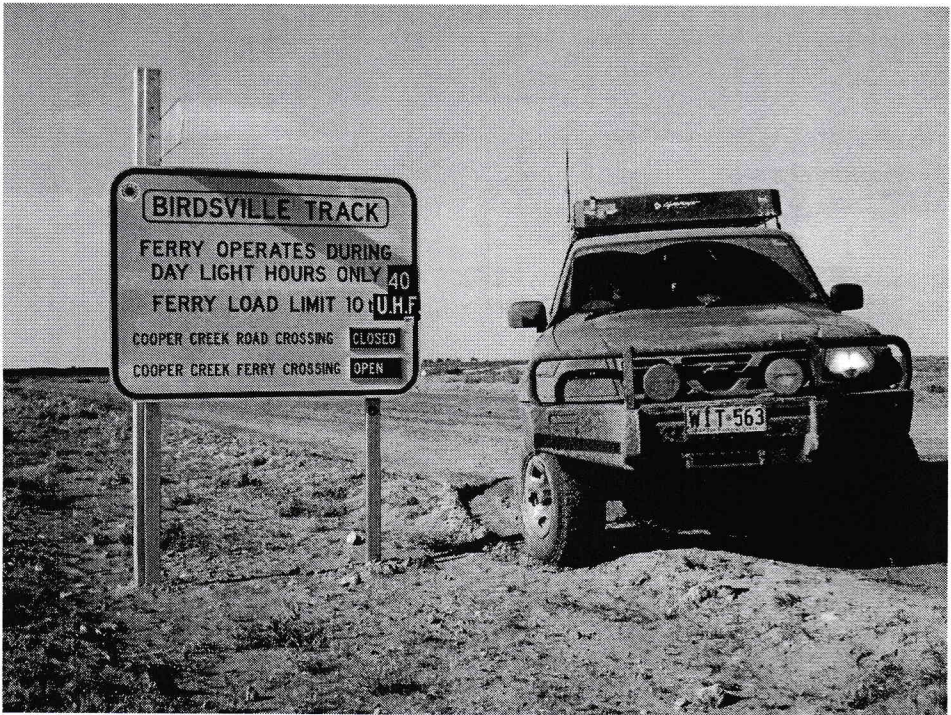
**MT LOFTY RANGERS UHF CLUB CHANNEL NO 27**

# Editorial

All,

Welcome to the July edition of your club magazine.

Cheers *Neil Cook*





## PRESIDENTIAL REPORT AUGUST 2010

Hello Everyone

Firstly I would like to say thank you to the three members of our club who put up their hand to work on the FWDSA Stand at the Caravan and Camping Show, Paul McGregor, Les Toomer and Tony Rushby.

Secondly a thank you to Anthea Uren from the RSPCA for attending our last meeting and thanks to those who put some money in the plate to pass on to this very worthy cause.

Well there is only one month of winter to go.

We dug some holes for a retaining wall at home this week and they are only 600mm deep but soon after getting to about 400mm they started to fill with water. We have a winter creek that flows through our property about 10m from the house and into a dam and it has been flowing extremely well for the last couple of months. The retaining wall holes are near the level of the creek hence the water in them. Our rain water tanks are over flowing and everything is very soggy. The chorus of frogs at night is enough to keep even the best sleepers awake until you get used to it. Everything is green, lush and fresh. Greg Healey mentioned on Monday night at the committee meeting that up north it was just like this and I am sure it would be great to see.

So how did you go with ideas for the October long week end? Is there going to be so many trips up that it will be hard to decide where to go? I certainly hope so. If there has been as much rain up north of our state as they are saying it will be sensational to see, and according to reports from our own members that is the case.

Keep it in mind and please consider the October long weekend as an opportunity to get away with other club members.

Also we all need to keep Friday August 27<sup>th</sup> free for the club dinner. In the past they have been great night s and this promises to be the same. Isobelle has it organised, all we have to do is turn up and enjoy.

See you at the meeting, the dinner, and on the track somewhere.

Graham.



**4X4 ACCESSORIES**



**ACCESSORIES SALES AND FITTING SERVICE**

- |                         |                          |                   |
|-------------------------|--------------------------|-------------------|
| 1 Dual Batteries        | 1 Air Compressors        | 1 Fridges         |
| 1 Side Steps            | 1 Driving Lights         | 1 Snorkels        |
| 1 Roof Racks            | 1 Storage Systems        | 1 Cargo Barriers  |
| 1 Bullbars,             | 1 Staun                  | 1 Polyair Springs |
| 1 Warn Winches          | 1 Wheel Carriers         | 1 Fuel Tanks      |
| 1 Canopies              | 1 Recovery Equipment     |                   |
| 1 Air Locking Diffs     | 1 Old Man Emu Suspension |                   |
| 1 UHF Radios & Antennas |                          |                   |

**\*\*\*CLUB DISCOUNTS AVAILABLE TO ALL MEMBERS\*\*\***

**\*\*\*CONTACT GLENN BULL FOR FULL DETAILS\*\*\***

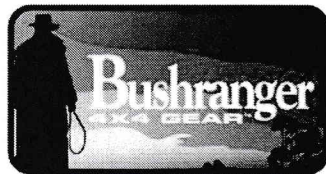


**Mount Barker  
4x4 Centre**

**PH (08) 8391 4391**

**Shop 10/4 Dutton Road**

**Mount Barker SA 5251**



# Social Scene

## CAMP COOK 2010

Chance for everyone to catch up and cook up a storm over the glowing embers at Rockley.

Please note the new venue and its ability to hold all our members, so put the dates in your diary and get the cook books out.

Challenge yourself to cooking something completely different and wild !!!!!!!!!!!

Friday 3rd & Saturday 4th September.

## Annual Dinner

Friday 27 August, 6.00 for 6.30, John Reynell Restaurant, Noarlunga TAFE campus, 35 seats booked in first instance, three course meal \$25, park TAFE car park behind Noarlunga Hospital and follow signs to John Reynell Restaurant.

Registration of interest – numbers

Marion Bowling Friday 15 October – give your name to Isobelle by end of August meeting. Group booking \$11 for one game, \$16.00 for two, or do you want to go Thursday night 14 October and pay \$6.00 for one game, \$12.00 for two. Let me know.

Regards

Isobelle Brett

# NEED & NEED

CHARTERED ACCOUNTANTS

## Our Services Include:

Accounting & Taxation, GST,  
Business Advisory & Management Consulting,  
Audit, Business & Estate Planning,  
Statutory Record Keeping,  
Investment/Retirement/Superannuation,  
Computer Advisory & Processing  
See Craig Need Ph. **0438-297-447**  
9a Anzac Highway, Keswick, South Australia, 5035  
Phone: (08) 8297-4477 Fax: (08) 8297-9989 email: [craig@need.com.au](mailto:craig@need.com.au)

*Proud sponsor of the Mount Lofty Rangers Magazine*

**I GOT WIRED**  
@  
**Belair Road Auto Electrical**  
59 Belair Road  
Kingswood SA 5062



**Phone: 08 8271 7617**

## Prop: Tim Byrne

**Repairs To:** Motor Vehicle Electrical and Electronic Fuel Injection Systems  
Air-conditioning Servicing  
Bosch Electronic Tuning  
RAA/Bosch Battery Sales  
4x4 Accessories –sales and fitting

59 Belair Road, Kingswood 5062  
**Phone 8271 7617 Fax 8272 8510**

E-mail: [brae59@internode.on.net](mailto:brae59@internode.on.net)

*Proud sponsor of the Mount Lofty Rangers Magazine*





Official Information Release from Four Wheel Drive SA

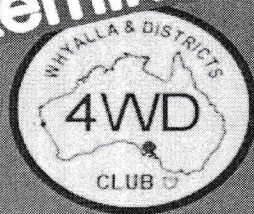
## 4WD Matters *Info Brief*

June 2010  
- 05/06/2010

South Australian Association of Four Wheel Drive Clubs Incorporated ABN 24 036 898 953 - [www.saaflwdc.asn.au](http://www.saaflwdc.asn.au)

# 2010 4WD WEEKEND in WHYALLA (WW6)

## Reminder



### 2nd, 3rd & 4th of October 2010



**Register Now!!  
Order the Shirt!!**

#### Activities include:

- Camp-oven Cooking Competition • Mt. Laura Circuit
- Get to know your GPS Session • Night Navigation Challenge
- Tagalong Tours • Beach Fishing • Andrew's Canyon
- Camping with all facilities at Whyalla Showgrounds

Visit **[www.whyalla4wd.org.au](http://www.whyalla4wd.org.au)** for more details.

This event is open to all financial members of the South Australian 4WD Association. For insurance purposes all weekend participants must be financial members of a SAAFWDC Club, and register this event with your Club as a Club Trip

Detail: Whyalla & Districts 4WD Club

Edited: by 4WD Adventurers Club of SA Inc - Direct all correspondence to Editor FWDSA email - [saaflwdc@saaflwdc.asn.au](mailto:saaflwdc@saaflwdc.asn.au)

4WD Matters June 2010 - 05/06/2010 - Disclaimer: Whilst every endeavour is made to ensure the accuracy of the material in this publication, Four Wheel Drive South Australia shall not be held responsible for any errors, omissions or inaccuracies.



## 2010 4WD WEEKEND IN WHYALLA (WW6)

ACTIVITY : 2<sup>ND</sup> & 3<sup>RD</sup> OCTOBER 2010 BEACH FISHING TRIP

TIME : 8AM DEPARTURE FROM SHOWGROUNGS

TARGETED FISH : YELLOW FIN WHITING, SALMON TROUT,  
TOMMY RUFFS, CRABS & RAZOR FISH

BAIT : SQUID OR COCKLES

GEAR REQUIRED :

FISHING ROD & REEL ( 6-8K LINE ) HOOKS ( NO 6 – 8 )  
SINKERS ( 7.5G- 15G ) FISHING BAG ( FOR FISH ) WADERS (IF YOU  
HAVE THEM) FISHING KNIFE, CRAB RAKE ( IF YOU HAVE ONE )  
SUNSCREEN, HAT, SUNGLASSES, DRINK BOTTLE

FISHING SYSTEM :

WE WILL WALK OUT FISHING OUT GOING TIDE, COME IN FOR  
LUNCH BREAK. AT LOW TIDE GO RAKE FOR CRABS & RAZOR  
FISH. IF TIME PERMITS FISH INCOMING TIDE .

LUNCH : BBQ ON BEACH ( BRING YOUR OWN FOOD & DRINKS )  
OR BRING YOUR OWN LUNCH

Information for personnel who wish to do some fishing as part of their 4WD activities on the October 2010 long weekend. The trip is planned to coincide with trips to Plank Point about 40 minutes from Whyalla.

Please contact the email address attached if you require further information. [Dyan.Elliott@vesuvius.com](mailto:Dyan.Elliott@vesuvius.com)

Rod Worden

President Whyalla & Districts 4WD club

***Welcome to a new club sponsor***

# **Rain & Recycle Plumbing**

***Contact Dave 'Shorty' Wilsmore or Pat O'Kane  
for further info and check out their new ad in  
next months mag.***

***Dave 0412 411 751      Pat 0414 432 366***



## **FOURPLAY 4X4 MALLEE CHALLENGE, GERANIUM, SA**

**13<sup>TH</sup>-14<sup>TH</sup> NOVEMBER 2010**

The FOURPLAY 4X4 Mallee Challenge is an event open to all registered vehicles and will be run in 3 separate classes : Standard, Touring and Challenge .Refer to CCDA rules and regulations for classes.

The event will be run over 2 days from midday Saturday to midday Sunday.  
Competitors and spectators are encouraged to stay overnight as the event will be held on private property with camping facilities, IE Toilets and Hot showers .

The event will consist of 3 sections throughout the days plus a special night section so make sure you have some decent lighting.

You will require seat belts, window nets, helmets and vehicles will be required to be registered for 3<sup>rd</sup> party insurance.

Rollbars (cargo barriers etc) are not essential but are advisable .

The terrain will be mainly mallee covered sandhills ( some big) . no mud or rocks but lots of sand !.

There will be sections which we anticipate will not be driven .IE you will require winching or snatching  
The event is **not** designed to be a car breaker, but it will have challenging 4x4 sections and you may scratch your vehicle on mallee scrub. All sections will be pre-driven in a standard 90 model Rangle,so all Nissans, Toyotas etc should be able to complete easily.

**ENTRIES WILL BE CAPPED AT 30 CARS. SO BE QUICK TO ENTER.**

**COMPETITION VENUE:** TINTINARA GERANIUM RD, APROX 30 K'S FROM GERANIUM. SA

**ENTRY FEE:** \$300 PER CAR, INCLUDES ENTRY & CAMPING FEE (driver/nav)

**SPECTATOR FEE:** \$10 PER PERSON

**CAMPING FEE** \$20 PER CAR

**ENTRIES CLOSE:** OCTOBER 31<sup>ST</sup>. 2010

Contact Fourplay 4x4 for entry forms.

8266 4144 email [fourplay4x4@bigpond.com.au](mailto:fourplay4x4@bigpond.com.au) Tim 0418 811 312

Trophies for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> will be awarded in each class. PLUS first place winners will receive free entry to next Mallee Challenge.

Maps , Indemnity forms and further information will be forwarded upon receipt of entry.

FOURPLAY 4X4  
590 NORTH EAST RD  
Holden Hill SA 5088  
PH: 8266 4144  
Email: [fourplay4x4@bigpond.com.au](mailto:fourplay4x4@bigpond.com.au)



See over for details. (Ed)



## **NOTIFICATION OF A NEW 4WD EVENT—PUT IN YOUR CALENDER & GET YOUR ENTRIES IN ! (Ed)**

Hi club-members,

I would like to extend an invitation to you to attend our upcoming 4x4 Event located near Geranium in our State's Mallee country , November 13<sup>th</sup> and 14<sup>th</sup>, 2010.

The terrain is very similar to the 'Border Fence track,' predominately sandy, with some decent sand hills set amongst Mallee scrub. Great for 4x4 driving and camping.

As you would know, South Australia has lacked the type of Four Wheel Drive events which are currently being run on the Eastern States. These events range from Navruns (navigation based competitions) to the extreme winching events such as Outback Challenge, Cliffhanger, Engel Series etc etc.

There are a few of us in South Australia who have been taking part in these events and now we are trying to establish a series here in South Australia.

Initially, our event is intended to establish competitions that will attract a range of vehicles from standard through to extreme. It is hoped that the experience of challenging 4 wheel driving will in itself generate the interest of club members and enthusiasts to build up 'comp trucks' which will provide the base for growth.

I have developed this first event for those of you who enjoy the challenge of pitting your car and your skills against others of the same bent.

We have a class for standard vehicles, and this means 'as they were made' to Touring class, which means suspensions lifts, suspension upgrades, bigger tyres up to 33 inch, etc and full blown 'Challenge Class". We have based these classes on the Cross Country Drivers Association (CCDA) who have developed them over many years. You can visit their website to check out the classes.

We will have winch sections for those of you who have equipped your car, and for those who haven't, you can elect to be snatched over but this will attract penalty points. All standard vehicles will be snatched or drive around. So all cars are welcome!

Please have a look at the attached document which outlines the event.

Entries will be sent to those who make contact with Fourplay 4x4 at Holden Hill.

I would be more than happy to come and visit your club to discuss the event and answer any questions or take on board any suggestions you have for making this a success for competitors and spectators alike.

Regards

Tim Margitich, CCDA Competitor and Qualified CCDA Event Marshall

Fourplay 4x4,  
590 North East Rd,  
Holden Hill. 5088  
0418 811 312



Tim Margitich  
showing the field  
how it is done, back  
in 2007 at the Nara-  
coorte 4x4 event  
(Ed)

# FOR SALE

## General

Garmin Quest GPS Navigator

Kit includes Navigator, Map CD, Suction Cup Mount, External Speaker with 12-24V Adaptor, A/C Charger, USB Interface Cable and All Operating Manuals.

Comes with full Australian Street Level Mapping Preloaded  
Country Mapping Downloadable

Automatically creates routes with Turn by Turn Directions

Voice prompts for Navigation Instructions

High Resolution bright colour display

Brand new in box never used.

Full Warranty

\$650

Contact Glenn Bull 0410 648 410

**CGear annexe matting** - special discount offer to all club members.

Small 1.8m x 2.4m - RRP \$109 - Club price \$85.00.

Medium 2.4m x 4.3m - RRP \$208 - Club price \$176

Large 2.4m X 6.0m -RRP \$274 - Club price \$220

Extra Large 3.6m x 4.6m RRP \$307 - Club price \$247

For more info on this product See Paul Tabone or phone him on

Ph 8276 5666



### **The latest edition of Camps Australia 5**

This is a great book for finding camp sites when in new areas.

B4 size spiral bound with camp site pics \$70 RRP normally \$79.95

A4 paper back \$40 RRP normally \$49.95

I have both in stock at the moment.

Cheers

Paul Tabone

### **FOR SALE**

#### **Second Hand Tyres**

BFG AT 265/70R16                      30% tread left    \$30

Dunlop Grandtrek 265/70R16        50% tread left    \$50

Uniroyal MT 265/75R16              90% tread left    \$90

Good for spares

Contact Jeff Morgan 0410665019

#### **For Sale**

2 off 265x70x16 Bridgestone Dueller A/T, 90% Tread \$100ea

1 off 265x70x16 Bridgestone Dueller A/T, 50% Tread \$50

See Skippy 0418 828 372

**For sale** : set of 4 Suzuki wheels and tyres in reas. cond. \$100.00.

set of 5 - 6 stud Toyota skinny split rims and tyres in good cond.

\$150.00.

CONTACT LES TOOMER    0409285232.

#### **For Sale**

TO SUIT 80 / 100 SERIES SOLID AXLE : Set of 2" lift heavy duty coil springs, EFS TLC-102 front (brand new), TLC-113HDE rear (5000km travelled), \$200.

For further info & specs contact Neil Cook 0400 416 220

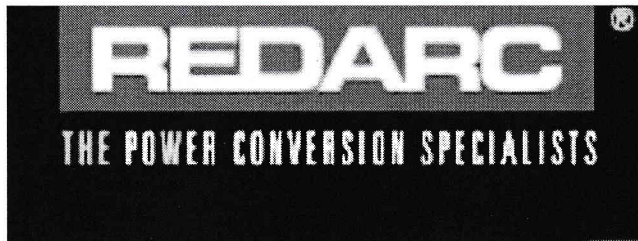
**Does your business need more exposure?**  
**Don't hire a stripper-**  
**Become a sponsor of the Mount Lofty Rangers**



\$250 for a quarter page ad, \$500 for a half page ad. Both include a free membership to the club (\$75 value), ad is also displayed on the MLR webpage with a link to your business website.

Give Graham Jones our president a call on 0419 851 040 to discuss further and your accountant will thank you (try convincing the tax man, that the stripper was for business purposes !!).

# *Welcome to a new club sponsor*

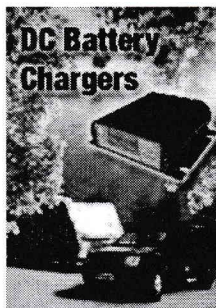
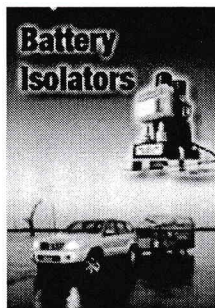


## **Redarc Electronics**

Based in Lonsdale, South Australia, Redarc has over 30 years experience in the research, design, development and manufacture of a range of electronic voltage converters and associated products including inverters, power supplies, battery chargers, CANBus modules, turbo timers, glow plug timers, trailer braking products and customised electronic modules.

Essentially, Redarc's products are attached to any moving vehicle that uses battery power including cars, boats, rail, trucks, mining equipment, bus and emergency vehicles.

REDARC's goal is to ensure that the REDARC product and service is the benchmark by which the competition is measured.



23 Brodie Road North

Lonsdale

South Australia 5160

Phone: +61 8 8322 4848



## **Description of the Airflow Cold Air Induction System and its effect on 4WD vehicles**

### **A brief history of Snorkels**

Snorkels have been in use for a long time on vehicles and craft. Before World War I, they were used on tanks and later on submarines. After WW1 and the mechanisation of agriculture, they were fitted on tractors and transport vehicles with the unique purpose to supply the engine with air free of water and contaminants.

In more recent times, with the advent of leisure 4WD vehicles, snorkels are now mostly fitted to allow the crossing of rivers without causing damage to the engine. However, more benefits can be obtained from a well designed Snorkel. This is where the Airflow Cold Air Induction System (ACAIS) comes to the rescue.

### **ACAIS is much more**

The ACAIS is designed to improve the fuel efficiency and power of your vehicle. These two goals may appear contradictory, but we have succeeded in combining them. In the process, we did not forget style; fitting like a glove, the Snorkel complements your vehicle. Once installed, your 4WD will be ready for new adventures and maybe some river crossings!

Not all snorkel body designs in the big wide world produce a cold air induction effect. This effect improves fuel efficiency while improving also engine power. GibsonRM has been conducting airflow studies, friction loss assessments and performance testing in its laboratories for many years to achieve this effect.

In the past, physical presentation took a back-step to operation which was always foremost in the design. However, in recent years, our customer base has become more discerning about the appearance of Snorkels. This motivated us to refine the "look" and the "fit".

Like many examples in nature, the study of airflow trajectory and pressure gave birth to shapes with "perfect fit to purpose" where elegance and efficiency are combined. A new range of ACAIS was born, one which increases the performance and efficiency of your 4WD.



## GibsonRM Pty Ltd

4 Collins Rd, DROMANA VIC. 3936

AUSTRALIA

Ph: +61 3 5987 3733 Fax: +61 3 5987 3735

[info@gibsonrm.com.au](mailto:info@gibsonrm.com.au)

## How does it work

A combustion engine needs air and fuel to operate. The more air and oxygen flow into the intake manifold, the more efficient is the combustion.

The ACAIS harvests fresh air at roof level where it is the least disturbed. This air contains less contaminant and is cooler than air absorbed from the engine bay. When the air is cooler, it contains more oxygen.

Modern vehicles are fitted with engine management systems; these are computers which measure accurately in real-time all inputs available to the engine to improve its efficiency. Consequently, the availability of cooler air inflow results in more power and torque.

Three main parts constitute an ACAIS: a 'hat' we call the 'Air Ram', a Snorkel tube we call the 'Body' and an air filter called the PACC. The three parts are designed to complement each other in their efficiency.

## The Air Ram

Air entering the Air Ram swirls violently, creating a cyclonic effect. The heaviest particles are ejected by the centrifugal force to the periphery of the swirl. There, they hit the vertical ribs where air pressure takes over to eject them out of the four slots at the base of the Air Ram. At this point, the air pressure pushes them out. The finer particles that are not ejected are removed by the vehicle air filter.

### Comparison: not all Air Rams are equal in performance.

It is preferable for the Air Ram to have an open face without a screen because the screen deflects the airflow.

The surface ratio of the open face to outlet aperture must be a minimum of 1.4:1. If the ratio is lesser, it will be insufficient to create the cyclone action that separates heavy contaminants effectively.

Approximately 30% of the incoming airflow (above 25kph / 15mph) is used in the separation process.

At GibsonRM, we ensure that the Airflow range uses a minimum of 1.4:1 for the 3" air ram, 1.7:1 for the 3.5" air ram and 2:1 for the cold air induction air ram.

Any deflection of the incoming airflow must be avoided since it dramatically affects efficiency. Deflections may be caused by:

- 1- Air Ram situated in close proximity to the bonnet/hood of the vehicle,
- 2- Air Ram with a curved or foiled roof,
- 3- Turning Air Ram away from travel direction,
- 4- Where Air Ram design makes the air go back on itself at an angle greater than 100 degrees.



GibsonRM Pty Ltd  
4 Collins Rd, DROMANA VIC. 3936  
AUSTRALIA

Ph: +61 3 5967 3733 Fax: +61 3 5967 3735

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

If the Air Ram is turned away from the direction of travel, it will lessen the necessary positive pressure. In extreme situations, at higher speed, a vacuum may be generated causing irreversible engine damage!

Incorrect Air Ram design may cause excessive induction noise, lack of separation and air blocking by vortex at various speeds. This air blocking will limit airflow. This is a common occurrence when "looks" take priority over functionality.

If the Air Ram is moulded on the body of the snorkel (for aesthetic reasons) it does not provide particle separation, thus all contaminants need to be removed by the internal air filter. This increases the maintenance cycle of the air cleaner. Furthermore, this configuration may cause a vacuum into the snorkel, thus increasing the risk of engine damage

## The Body

Now that the air is free of large particles, it starts travelling down the snorkel body in a straight line. The body may be of two types, induction or non-induction. In the induction case, the air slows down because it enters in a larger volume, the plenum chamber. The swirling created by the Air Ram diminishes, thus reducing friction losses. There, the air is buffered, immediately available for the air box at positive pressure. The engine management system can use it readily.

### Comparison: not all bodies are equal in performance.

In the case of a non-induction body, the air passes down directly to the bonnet tubing and ducting into the air box. While this technique increases efficiency and engine performance, it is not as effective as the cold air induction type.

## The PACC

The PACC is a replacement for the air filter; while it removes the smallest of particles, it compresses the air to make it available at even higher pressure than when it arrives from the body.

### Comparison: not all air cleaners are equal in performance.

Commonly, there are two types of air cleaner fitted to cars by manufacturers: the Flat Air Cleaner and the Cyclonic Air Cleaner, both fitted with paper filters. While they conform to emission laws, they are not fuel or power efficient. The Cyclonic is the most effective of the two types.





**GibsonRM Pty Ltd**  
4 Collins Rd, DROMANA VIC 3936  
AUSTRALIA  
Ph: +61 3 5987 3733 Fax: +61 3 5987 3735  
[info.gibsonrm.com.au](http://info.gibsonrm.com.au)

Some after market suppliers replace the paper filter by a foam oil filter to further increase airflow and thus power to the engine. However, what is gained in power is lost in filtration. Generally, a paper filter will suppress particles down to 30 microns while foam oil filters will not filter below 40 to 50 microns. Larger particle sizes will increase exponentially the risk of damage to the power plant.

Gibson RM's goal is to filter particles to less than 10 microns.

GibsonRM has improved the already better Cyclonic Air Cleaner by creating the Parabolic Air Cleaner Cyclonic, the PACC. The PACC has the least friction losses while maintaining particles filtering to less than 10 microns at all engine speeds. When combined to the ACAIS, it further provides dramatic improvements in performance and efficiency across the total power range of the engine.

### Conclusion

Purchasing an ACAIS ought to improve your car's performance at most engine speeds. Furthermore, it should reduce fuel consumption and make your engine run cleaner. This is future proofing your adventures.

Many thanks to Michael for the very informative article. Airflow Snorkels can be purchased through club sponsor Mount Barker 4x4. Give Glenn Bull a call on 08 8391 4391 (Ed).



# Upcoming Trips

## Summary of up coming trips:

When putting your name down for a trip you **MUST include your contact number** If you cannot attend and your name is on the trip sheet you **MUST** contact the trip leader or Trips coordinator.

- ♦ July /August 2010 Cape York
- ♦ 27 August 2010 Club Mid Year Dinner
- ♦ 3/4/5 September Camp Cook
- ♦ 18-19 September 42 Mile Crossing to Murray Mouth
- ♦ 2-4 October Loveday 4x4 Adventure park
- ♦ 2-4 October Weekend In Whyalla 6
- 4-5th December 2010 Xmas Show

## **Club Trainers**

Trainers: Ian Manglesdorf, & Tim Byrne

Assessors: Ken Bradey, Mark Curtis, Jeff Morgan, Ricky Esser, Paul Tabone

Advisors: Brenton Bowley

## **MLR Club Training**

Contact: Paul Tabone, Education Officer Mobile: 0417 080 663

**Unless otherwise specified, ALL MLR trips use UHF channel 27**

# Upcoming Trips

Trip	Cape York
Date/s – Duration	July/August 2010
Trip Leaders	Les Toomer
Convoy limit	<b>Expressions of interest required</b>
Distance – Kms	Lots TBA
Departure / meeting point & time	TBA
Difficulty	Moderate to very hard
General comments	

**Unless otherwise specified, ALL MLR trips use UHF channel 27**

Trip	Club Mid Year Dinner
Date/s – Duration	27th August 2010
Trip Leaders	Isobelle Brett
Convoy limit	N/A
Distance – Kms	N/A
Departure / meeting point & time	John Reynell Restaurant, Noarlunga TAFE
Difficulty	N/A
General comments	See flyer on page 6

# Upcoming Trips

Trip	Camp Cook
Date/s – Duration	3/4/5 Sept 2010
Trip Leaders	
Convoy limit	Unlimited
Distance – Kms	100 (held @ Rocklea this year)
Departure / meeting point & time	TBA
Difficulty	N/A
General comments	Camp Cook weekend, held this year at Rocklea, just past Monarto. Bring your camp oven & your receipies

**Unless otherwise specified, ALL MLR trips use UHF channel 27**

Trip	Coorong National Park
Date/s – Duration	18 - 19th September
Trip Leaders	Eric
Convoy limit	TBA
Distance – Kms	600
Departure / meeting point & time	TBA
Difficulty	TBA
General comments	Beach fishing & run up to Murray Mouth and back. Start point 42 Mile Crossing

# Upcoming Trips

<b>Trip</b>	<b>Loveday 4x4 Adventure Park</b>
Date/s – Duration	2-4 October 2010
Trip Leaders	David Lamb
Convoy limit	TBA
Distance – Kms	1000
Departure / meeting point & time	TBA
Difficulty	TBA
General comments	Private property on the banks of the River Murray in the Riverland. October Long Weekend

**Unless otherwise specified, ALL MLR trips use UHF channel 27**

<b>Trip</b>	<b>Weekend in Whyalla 6</b>
Date/s – Duration	2-4 October 2010
Trip Leaders	TBA
Convoy limit	Non
Distance – Kms	1000
Departure / meeting point & time	TBA
Difficulty	Various
General comments	October Long Weekend, see flyer in mag

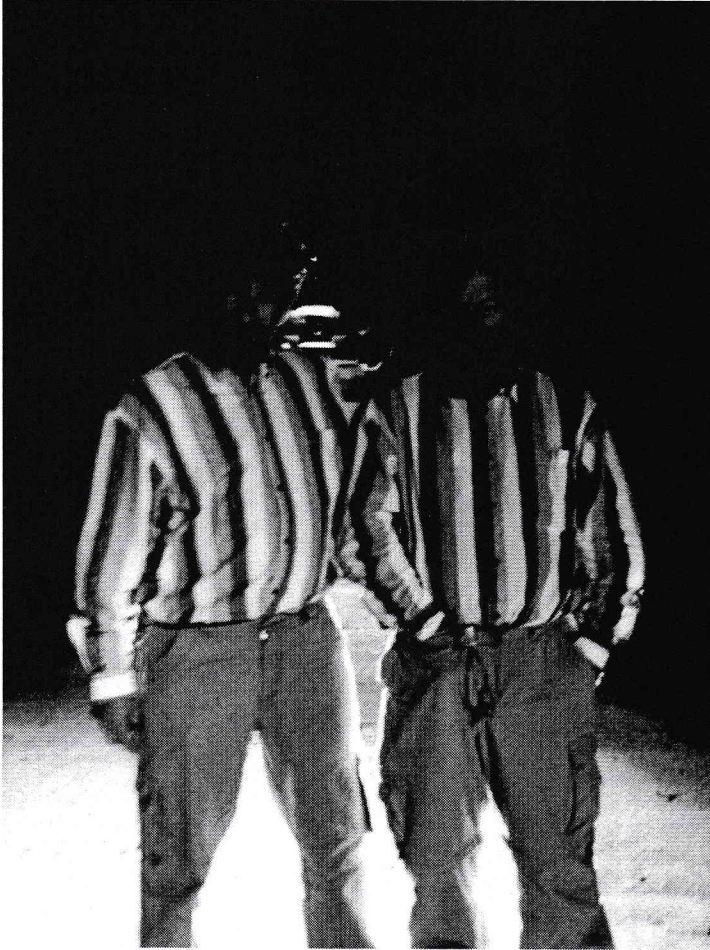


<b>Trip</b>	<b>Weekend in Whyalla 6</b>
Date/s – Duration	2-4 October 2010
Trip Leaders	TBA
Convoy limit	Non
Distance – Kms	1000
Departure / meeting point & time	TBA
Difficulty	Various
General comments	October Long Weekend, see flyer in mag

**Unless otherwise specified, ALL MLR trips use UHF channel 27**

<b>Trip</b>	<b>Club Xmas Show</b>
Date/s – Duration	4-5th December 2010
Trip Leaders	
Convoy limit	N/A
Distance – Kms	200
Departure / meeting point & time	Wall Flat
Difficulty	N/A
General comments	Enjoy BBQ, drinks and hopefully live music (c/o our very own president)

*Spot the difference !*



# TRAINING

Below are some dates for DTU ran training & MLR club only training.  
This will be the last of the training offered by the DTU.

I strongly recommend any members wanting to do training get to some of these events.

This is for anyone wanting to start the training you MUST do this first.  
This will be the only theory course for 2010.

This one is for DTU members only eg Advisors, Trainers & Assessors.

DTU Professional Development / Advanced Assessment at Knipto, 7 - 8  
August 2010 (DTU Members only)

## **Basic Theory Course.**

The dates that have now been set to run a basic theory course at Cavan they are.

Sat 31 July & Sunday 1 August.

It will be run with other clubs and Barry Anderson from the Overlander Club has made the booking at Cavan.

If you are interested please let me know sooner rather than later.

Final costs will be determined once final numbers attending are confirmed.

Regards

Paul Tabone

0417 080 663

JUNE**2010 DTU Calendar**

5 <sup>th</sup> – 6 <sup>th</sup>	Assessor Course (week 2)	Cavan	9:00am
8 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
10 <sup>th</sup>	DTU general meeting	Cavan	7.30pm
12 <sup>th</sup> – 14 <sup>th</sup>	Queen's Birthday weekend		
17 <sup>th</sup>	Association general meeting	Cavan	7.30pm
19 <sup>th</sup> – 20 <sup>th</sup>	Assessor Course (week 3)	Cavan	9:00am
20 <sup>th</sup>	SRXRIK, SRXOHS & SRXEMR Courses	Cavan	9.00am
26 <sup>th</sup> – 27 <sup>th</sup>			

JULY

3 <sup>rd</sup> >	School holidays start		
3 <sup>rd</sup> – 4 <sup>th</sup>			
6 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
8 <sup>th</sup>	DTU general meeting	Cavan	7.30pm
10 <sup>th</sup> – 11 <sup>th</sup>			
15 <sup>th</sup>	Association general meeting	Cavan	7.30pm
17 <sup>th</sup> – 18 <sup>th</sup>			
> 18 <sup>th</sup>	School Holidays end		
24 <sup>th</sup> – 25 <sup>th</sup>			
31 <sup>st</sup> – 1 <sup>st</sup> Aug			

AUGUST

31 <sup>st</sup> July – 1 <sup>st</sup>			
7 <sup>th</sup> – 8 <sup>th</sup>	Professional Development 002 / 003 for DTU Members	Kuipito	9.00am
10 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
12 <sup>th</sup>	DTU general meeting	Cavan	7.30pm
14 <sup>th</sup> – 15 <sup>th</sup>			
15 <sup>th</sup>	Assessor Update Course (Sunday)	Cavan	9:00am
19 <sup>th</sup>	Association general meeting	Cavan	7.30pm
21 <sup>st</sup> – 22 <sup>nd</sup>			
28 <sup>th</sup> – 29 <sup>th</sup>			
29 <sup>th</sup>			

SEPTEMBER

4 <sup>th</sup> – 5 <sup>th</sup>			
7 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
9 <sup>th</sup>	DTU general meeting	Cavan	7.30pm
11 <sup>th</sup> – 12 <sup>th</sup>	Professional Development 002 / 003 for DTU members	Morgan	9.00am
16 <sup>th</sup>	Association general meeting	Cavan	7.30pm
18 <sup>th</sup> – 19 <sup>th</sup>			
25 <sup>th</sup> – 26 <sup>th</sup>			
25 <sup>th</sup> >	School holidays start		

## OCTOBER

2 <sup>nd</sup> – 4 <sup>th</sup>	Labour Day Weekend		
9 <sup>th</sup> – 10 <sup>th</sup>			
≥ 10 <sup>th</sup>	School holidays end		
10 <sup>th</sup>	Assessor Update Course (Sunday)	Cavan	9:00am
12 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
14 <sup>th</sup>	DTU general meeting	Cavan	7.30pm
16 <sup>th</sup> – 17 <sup>th</sup>			
21 <sup>st</sup>	Association general meeting	Cavan	7.30pm
23 <sup>rd</sup> – 24 <sup>th</sup>	Trainer Course (week 1)	Cavan	9.00am
30 <sup>th</sup> – 31 <sup>st</sup>			

## NOVEMBER

6 <sup>th</sup> – 7 <sup>th</sup>	Professional Development 002 / 003 for DTU Members	Peake	9.00am
9 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
11 <sup>th</sup>	DTU general meeting	Cavan	7.30pm
13 <sup>th</sup> – 14 <sup>th</sup>	Trainer Course (week 2)	Morgan	9.00am
18 <sup>th</sup>	Association general meeting	Cavan	7.30pm
20 <sup>th</sup> – 21 <sup>st</sup>			
27 <sup>th</sup> – 28 <sup>th</sup>			

## DECEMBER

4 <sup>th</sup> – 5 <sup>th</sup>			
7 <sup>th</sup>	Training Committee Meeting	Cavan	7.30pm
9 <sup>th</sup>	DTU general meeting & break up	Cavan	7.30pm
11 <sup>th</sup> ≥	School holidays start		
11 <sup>th</sup> – 12 <sup>th</sup>			
16 <sup>th</sup>	No Association general meeting		
18 <sup>th</sup> – 19 <sup>th</sup>			
25 <sup>th</sup> – 26 <sup>th</sup>			





## FOUR WHEEL DRIVE SOUTH AUSTRALIA

<http://www.saa4wdc.asn.au/>  
Driver Training Unit, P.O. Box 725 SALISBURY SA 5108



11 February 2010

### Revised Assessment Criteria for Driver Training Effective February 2010

The number of training / Assessments required for each competency will be as follows:

Competency	Training	001 Assessment	002/003 Assessment
1.1. Vehicle Inspection	1	1	n/a
1.2. Forward stall start	1	2	n/a
1.3. Reverse stall start	1	3	2
1.4. Drive up an incline	1	2	2
1.5. Drive down an incline	1	2	2
1.6. Drive in mud	1	2	2
1.7. Drive in sand	1	2	2
1.8. Drive in water	1	2	2
1.9. Drive in rocks	1	2	2
1.10. Drive in sloping terrain	1	2	2
1.11. Drive a winding bush track	1	n/a	See note (a) 2
1.12. Change a wheel	1	1	See note (b) n/a
1.13. Snatch strap recovery	1	3	2
1.14. Tyre repairs	1	n/a	1
1.15. Winch recovery	1	n/a	3
1.16. Lift recovery (High lift jack)	1	n/a	See Note (c)
1.17. Lift recovery (Exhaust jack)	1	n/a	See Note (c)

**Note:**

- The winding bush track is an advanced competency therefore must contain advanced features.
- Must be trained / assessed in either sand or irregular terrain
- Lift recovery will consist of one training session on both high lift jack and exhaust jack but the assessment will be nominated by the trainee from one of the following choices:
  - Two high lift jack assessments (sand & mud terrain)
  - Two exhaust jack assessments (sand & irregular terrain)
  - One assessment of each type of jack (either of the appropriate terrains)
- Where there are 2 or 3 assessments required for a competency the assessment must be done by two different assessors.
- The changes to the training / assessment criteria will be effective from February 2010

• RECREATION • TRAINING • EDUCATION • CLUBS • LAND MANAGEMENT  
South Australian Association of Four Wheel Drive Clubs Incorporated ABN 24 036 898 953  
Trading as Four Wheel Drive South Australia

## A NOTE FROM THE COMMITTEE

Paul will be heading off on the great lap of Aus later this year and this will be his last ad in the mag.

Many thanks to Paul for his long term support of the club, through Vogue Lending and we wish he and Bev all the best in their upcoming adventures.



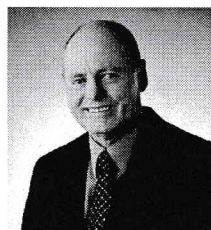
# VogueLending

## THREE IMPORTANT QUESTIONS

- Is your Bank giving you the 'run around' ?
- Does your home loan need its free annual health check ?
- Have you ever felt uncomfortable inviting a stranger into your home to discuss finance ?

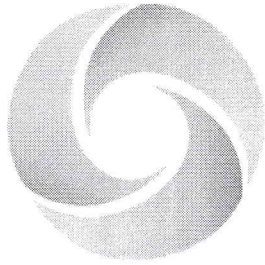
*Now it's easy and hassle free to discuss your finance and investment property needs in total confidentiality with someone you know*

*Proud sponsor of the Mount Lofty Rangers Magazine*



**Home Loans, Refinancing,  
Debt Reduction, First Home**

Paul West has been a club member for 12 years and really enjoys helping people achieve their dreams.  
Phone anytime on **83874255** or  
**0405484448.**



**TCIS**  
insurance brokers

**FOR ALL YOUR INSURANCE NEEDS**

**CALL**

**KAI HEINSEN**

Tel: 8278 7000

[kai@tcis.com.au](mailto:kai@tcis.com.au)

**SPECIALIST 4WD CONTRACTS**

***Proud sponsor of the Mount Lofty Rangers Magazine***

### **A NOTE FROM THE VICE PRESIDENT**

Guest Speakers confirmed for the next four months are:-

August	Police crime prevention and home safety
September	KESAB
October	St John's
November	Sea Rescue

Thanks  
Mark Moss

# TOTAL TRACTION TYRES

DARREN CALLARY

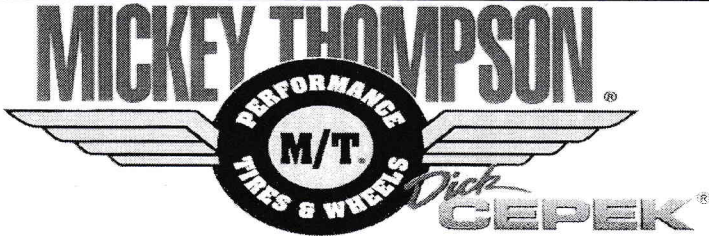
Ph - 8186 1011

80A O'SULLIVAN BEACH  
RD. LONSDALE SA 5160

sales@totaltractiontyres.com

Check out our web site - [WWW.TOTALTRACTIONTYRES.COM.AU](http://WWW.TOTALTRACTIONTYRES.COM.AU)

Specialising in 4x4 & Car - Tyres, Wheels and Suspension



LEGENDARY OFF ROAD TYRES



ATZ

ATZ

FC

MTZ

CLAW

4 RIB



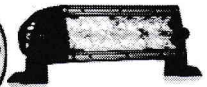
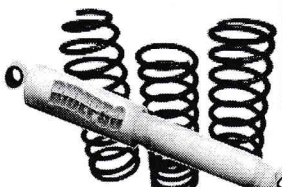
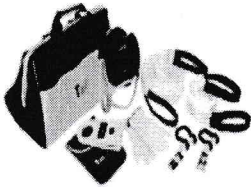
80/20%

70/30%

60/40%

40/60%

20/80%



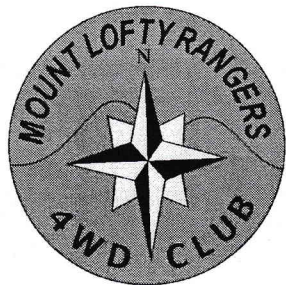
**PRE-TRIP SERVICING,  
INSPECTIONS & ADVICE**

QUALITY NEW & USED TYRES & MAGS—ALL BRANDS—ALL SIZES  
REPAIRS—BALANCING—WHEEL ALIGNMENT—ACCESSORIES—BATTERIES  
EXPERT ADVICE—QUALITY, RELIABLE SERVICE

RIGID INDUSTRIES LED LIGHTING,  
RIDEPRO, BILSTEIN & ARB SPECIALIST

ABN 74 280 871 853

# MOUNT LOFTY RANGERS 4WD CLUB



## GENERAL MERCHANDISE RANGE

Cloth Badges	\$7.00
Car Stickers	\$2.50
Name Badges	
Initial 2 on joining	FREE
Additional	\$6.00
Replacement	\$6.00
Sand Flags	\$2.50
Tyre Plugs	\$7.50

Please see Les Toomer (0409 285 232) for clothing or other purchases

## ITEMS FOR LOAN

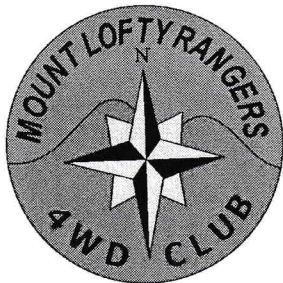
Crate Mate Recovery Tracks	Recovery Kit
Club Banner	Tirfor Winch
Club Flag	Puncture Repair Kit *
Exhaust Jack	First Aid Kit *
Maps	4 x Lightweight Shelters with sides.

\* Please replace used items

Please see Mark Curtis for any items you wish to borrow Ph 8358 4776



# MOUNT LOFTY RANGERS 4WD CLUB



## MERCHANDISE APPAREL RANGE

Sizes available for the clothing range are S, M, L,  
XL, XXL & XXXL

So let's get out there and support & promote our  
club to the 4wd community

see Andrew Thomas 0408 854 694

Bulk orders placed in Feb, May, Aug & Nov or/if when minimum orders quantities are met  
All items to be paid in full when placing order. Add \$5 per item for name embroidery.

## HATS

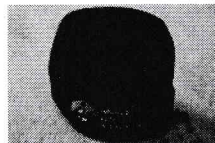
with club logo embroidered



Baseball Cap  
\$17



Bucket Cap  
\$15



Beanie  
\$15

## SHIRTS

with club logo embroidered



Polo Shirt  
With pocket \$37  
Without pocket \$35



Chambray Shirt \$45  
Mens and Ladies  
Full, short or 3/4 sleeves



COOLER  
with club logo printed

Stubby Holder  
\$5

## JUMPERS

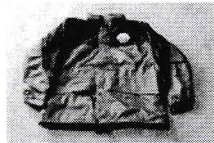
with club logo embroidered



Windcheater  
\$50  
Ranger Review



Arctic Top  
1/3 or full zip \$50



Winter Jacket  
\$85

# Your Committee

PRESIDENT

Graham  
Jones



0419 851 040

VICE PRESIDENT

Mark moss

SECRETARY &  
PUBLIC OFFICER

Ali Ford



0408 775 969

TREASURER

Paul  
McGregor



0408 900 889

ASSOCIATION  
DELEGATE

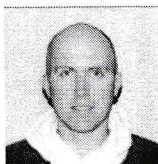
Anthony Rushby

MEMBERSHIP  
OFFICER

Greg Healy

TRIPS  
CO-ORDINATOR

Richard  
Williams



0437 734 670

EDUCATION  
OFFICER

Dave 'Shorty'  
Willsmore



0412 411 751

PROPERTY  
OFFICER

Mark  
Curtis



0408 297 065

MAGAZINE  
EDITOR

Neil  
Cook

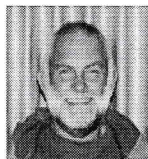


0400 416 220

[nlhcook@adam.com.au](mailto:nlhcook@adam.com.au)

INSURANCE  
OFFICER

Ken  
Bradey



0418 807 934

WEBSITE

Pat O'Kane



0414 432 366

SOCIAL  
SECRETARY

Isabelle Brett

MERCHANDISE  
OFFICER

Les Toomer



0409 285 232

# **TRIP LEADERS CHECKLIST**

## **PRE-PLANNING**

Choose a location for the club trip  
Choose a date - start & finish  
Choose a route - there & back  
Accommodation - caravan, camper trailer or tents only  
Cost of camping, track access or other costs  
Determine difficulty of the trip  
Determine vehicle suitability, requirements & convoy limit  
Work out an estimate of the trip distance

## **AT A CLUB MEETING**

With all your pre-planning information at hand approach the trips coordinator  
Discuss & seek feedback on your trip details & amend if necessary  
Ask if anyone else within the club has done the same trip for any advice or suggestions  
Fill out a trip sheet & post on the trips board  
Within the club meeting, stand up & introduce yourself  
Explain all the details of your proposed trip as outlined in the pre-planning stage  
Answer any questions if needed  
During the next subsequent meetings keep up to date with progress of names listed on your trip

## **IN THE MEANWHILE FINALISE DETAILS FOR YOUR TRIP**

A start meeting point & time for your trip, there can be multiple places to meet when on route  
Finalise any personal, camping, safety & recovery equipment required for the trip as a minimum  
Determine if there is any First Aiders, club trainers or assessors on your trip  
Amount of fuel stops & fill up locations whilst driving  
Notify & book in your trip with any relevant landowners, caravan parks, national parks etc  
Assess & check any possible weather conditions you may encounter whilst on your trip  
Leave details of your trip with the trips coordinator - itinerary, route & planned return time  
Determine all the water & food requirements of the trip - are there any group cooked meals ?

### **THE LAST CLUB MEETING BEFORE YOUR TRIP**

Gather together the members of your trip into a small group & finalise any details of the trip

Confirm all names & numbers of persons attending

Gather all participants trip application forms

Determine if there are any special needs or medical requirements of the participants

Collect any money or fees if it is required

### **THE FIRST DAY OF YOUR TRIP**

Arrive first at the chosen meeting place & time

Once all intended persons have arrived, introduce yourself & anyone travelling with you & call sign

Get everyone else to introduce themselves, people travelling with them, call sign & type of vehicle driven

Make sure everyone is aware of your mobile phone number in case of an emergency

Make everyone aware of the nominated first aider

Discuss convoy procedures, marking of corners & making sure they can see the vehicle behind them

Remind everyone of UHF radio use, etiquette & rules. No swearing / bad language etc

### **THINGS TO DO THROUGHOUT EACH DAY OF YOUR TRIP**

At the start of each day or each individual section of the drive appoint a Tail End Charlie

Nominate a person to write the trip report for that day

Perform regular radio checks of all vehicles in your convoy

Make yourself available to everyone if there are any grievances or conflicts on the trip



# **CLUB BY-LAWS & RULES FOR TRIPS & ACTIVITIES**

## **As extracted from the Club's Constitutional Document**

### **CLUB ACTIVITIES**

For the purposes of these by-laws & rules, only those activities that have been approved by the Directors or at a General Meeting & noted in the minutes shall be recognised as official Club activities. Any activity not so approved shall be considered as a member's private activity & shall only be discussed at General Meetings during general business, if time permits.

### **REGULATIONS**

All members & visitors shall at all times abide by the Club Constitution, these by-laws, rules & regulations laid down by Government Authorities & owners/lessees of private property.

### **CLUB IDENTIFICATION**

All club identification shall be removed from vehicles prior to sale or upon expiration of membership.

### **RADIOS**

Members using CB, UHF & HF radios shall use them at all times in accordance with State &/or Federal Government rules & regulations governing the use of radios.

All members shall install 27 Meg (AM) or UHF radios for all club trips within 6 months of joining the club.

### **VEHICLE INSURANCE**

All participants in Club activities are required to produce to Directors a written declaration stating that they have in force, and will have in force for the duration of the club's financial year, a current policy of Comprehensive or 3<sup>rd</sup> Party Insurance applicable to the vehicle they are driving, upon renewal of such participants' membership with the club.

### **CONDUCT OF ACTIVITIES**

#### **Direction of Organisers**

All members & visitors participating in a club activity at all times shall abide by the directions of the activity organizer or trip leader in respect to:

- i. Compliance with Club by-laws & rules

- ii. Safety of all other members
- iii. Fire precautions & restrictions
- jjj. Care & respect of private property
- kkk. The rights of other people

#### **Trip Leaders**

On trips, the Trip Leader has absolute authority over the whole trip & they must ensure that members & visitors are aware of all relevant Club by-laws & rules & have adequate recovery equipment.

#### **Assistant Trip Leader**

Trip Leaders at their discretion may appoint separate trip leaders to lead separate convoys.

### **Contravention of Club by-laws & Rules**

A member contravening Club by-laws or rules may be asked by the trip leader to leave the activity or trip & the incident reported to the Committee. Disregard of club by-laws & rules should be reported to the Committee members by the club members. All members must inform the Trip Leaders of their intention to go on a club trip.

### **National Parks & Forest Areas**

All members & visitors are responsible for knowing & observing Park, Woods and Forest regulations whilst traveling in these areas, or in other areas controlled by Government Authorities.

### **Conclusion of Trips**

Trip Leaders must ensure that all participants have clear directions to their destination at the conclusion of the club trip.

### **Children**

Adults must be responsible at all times for the behavior of the children in their charge.

### **Prospective Members**

Prospective members & visitors are allowed on Club activities at the discretion of the activity organiser but not to the exclusion of club members.

### **Non Financial Members**

Persons previously on the club committee but who are currently not financial, or other persons, who are not financial, are not allowed to take part in club activities with our prior Committee approval.

### **Numbers of vehicles**

The number of vehicles on a Club activity shall be determined by the trip leader but also may be subject to requirements of outside authorities. As a general rule the number of vehicles in a convoy shall not exceed 15 as the sight & inconvenience to other members of the public must be considered.

### **Dogs**

On trips where dogs are permitted, they must be kept under control at all times, preferably on a lead.

### **Motorcycles**

Motorcycles are not permitted on Club trips except with the express permission of the trip leader.

### **Firearm**

Guns & rifles must not be visible inside vehicles & should only be removed in cases of emergency, or with the express permission of the trip leader.

### **Intoxicating Liquor**

Excessive consumption of intoxicating liquor on club activities is discouraged.

### **Off Tracks**

Vehicles are to stay on existing roads & tracks except in areas where permission has been granted to move away from existing vehicle corridors.

### **Flora & Fauna**

Live branches are not to be broken from trees or shrubs. No member shall use a tree as an anchor for winching without providing adequate protection around the tree from slings or cables. Trip members must not disturb birds, animals & their habitat.

### Gates

All gates must be left as they were found.

### Camping

Campsites must not be within 500m of any artificial constructed watering points. Campsite adjacent to large natural watering points must be sited so that stock & wildlife are not prevented from gaining access to water. Campsite must be at least 1km away from any station homestead, shearing shed, outstation or other improvement unless prior approval of the land manager. Previous campsites should be used wherever possible. Care must be taken to minimize damage to vegetation etc at campsites & making of unnecessary vehicle tracks is to be avoided.

### Water

Minimal water only is to be taken from any watering point. Members are not to swim or bathe in tanks or dams without permission from the land manager. If water is required for washing it is to be bucketed out. Soaps & detergents etc are not to be introduced into tanks, dams, rivers or natural watering points.

### Litter

No litter or rubbish is to be thrown from vehicles. At all stops, members shall ensure that no rubbish is left at the site. All non-burnable rubbish is to be carried out & disposed of in approved receptacles or areas. Burnable rubbish may be burnt at campsites provided all other members are considered, correct precautions are taken & there are no fire bans in place. Non-combustibles are to be removed from ashes.

### Historical Sites

All sites of historical significance are to be left undisturbed & artifacts are not to be removed off site.

### Toilets

When using bush toilets ensure an adequate, deep hole is dug & covered properly before leaving the campsite. Do not allow paper & tissue to blow around the area.

### Mobile Generators.

The use of generators must be kept to a minimum & not used after 8.00pm or before 7.00am without the permission from everyone within the vicinity. At all times other travelers must be considered when using generators. Members must ensure as far as possible that generators are permitted in NPWS areas prior to departures or obtain permission from rangers at the site.

### Fires

Fire bans must be complied with at all times. Normally one campfire should be adequate and the trip leader is responsible for its location. The trip leader may approve other small cooking fires. At sites where adequate supply of dead wood on the ground is not available (especially National Parks etc) or during potential fire danger periods members are encouraged to use gas or other means for cooking. All fires must be extinguished before the site is vacated, ashes disposed of, and where practical, no signs of the fire should be left at the site.

### Spares

Vehicles must carry enough spare to be reasonably self sufficient in the event of breakdown. Spares for similar type vehicles can be shared amongst those on the trip. The specific spares would depend on the type of trip & location and agreement between participants.

### Grievances

Any grievance arising from any club activity must be made as soon as possible (preferably in writing) to the organisers of that activity or Directors so that any problems can be resolved promptly.

## Convoy Procedure

**Regulations** – All drivers shall observe all regulations at all times.

**Departure Warning** – The trip leader shall give a 5-minute warning before departing.

**Briefing** – Prior to departure each day all drivers are to assemble at a central point for the trip leader's briefing on the next stage of the trip.

**Travel** – All members of the convoy are to follow the trip leader & not stray from route

**Track Widening** – Drivers are not to widen existing tracks by driving around obstacles such as broken branches, large holes, rocks etc but should endeavor to do minor track maintenance to allow vehicles to remain on the track, i.e. remove branches, fill holes etc

**Convoys** – Vehicles should stay in convoy position unless a change is authorised

**Distances** – members should keep a safe distance from the vehicle in front, particularly in hilly country or if brakes are wet after a water crossing. On main roads leave adequate space between vehicles to enable other vehicles to overtake safely.

**Driver Responsibility** – Each driver is responsible for the vehicle behind. Keep the following vehicle in contact at all times. In conditions where visibility is poor switch on lights & check regularly that following vehicle is in sight. Contact by radio if possible.

**Acknowledging Turns** – Wait at every turn with indicators flashing until the following driver acknowledges with their indicators flashing.

**Separated Convoy** – If the convoy becomes separated & an intersection is reached where there is no other vehicle, stop and wait for instruction from the trip leader.

**Leaving Convoy** – If members wish to leave a convoy for any reason they must inform the trip leaders by radio or at stops. If on the move, drop back & advise your intentions to the last vehicle who will advise the trip leader as soon as possible.

**Breakdown of Vehicles** – If a vehicle breaks down or becomes immobile for any reason, all vehicles must stop with the affected vehicle until it is again mobile or the trip leader has checked that the vehicle is safe to be left for adequate assistance. Arrangements are to be made to renew contact as soon as possible.

**Stopping Convoy** – if members wish the vehicle in front to stop, call on radio if available, attract drivers attention by flashing lights on an off or stop. Care must be taken when flashing lights at night to avoid causing a hazard to oncoming vehicles.

**Negotiating Hazards** – At any creek crossing, steep hill, sand hill or other hazardous terrain all those not involved are to stand well clear of the activity. The trip leader, or delegate, will have complete control over activities. Vehicles are to be moved well clear of the hazard to allow sufficient room for following vehicles.

**Recovery Operations** – During recovery operations members should give what assistance possible but not get in the way. Stand well clear of vehicles, towropes & winching cables. Obey instructions of trip leader.

**Vehicle Damage** – Any damage caused to a members vehicle is the member's own responsibility. Members should not be afraid to stop to remove obstacles to avoid this

**Stopping Areas** – Campsites or rest areas should be chosen where practical so that all members of the trip can be accommodated comfortably in the one area. Care must be exercised so that damage to stopping areas is minimised.

**Starting Times** – Times for daily departures are agreed to prior to departure or at daily briefing

**Lunch Stops** – Meal breaks should be about an hour unless otherwise agreed beforehand. Time starts from the arrival of the last vehicle at the site.

**Stops** – Convoys should stop for a short period every 2 hrs to allow participants to rest.

**End of day's Travel** – Where possible the day's travel should end with sufficient daylight available to allow campsites to be established unless otherwise agreed beforehand.

**Convoy Speed** – The maximum traveling speed for any club trip shall be determined by the road conditions, all state regulations and not faster than the slowest vehicle in the convoy. The trip leader prior to departure particularly for bitumen road travel should advise