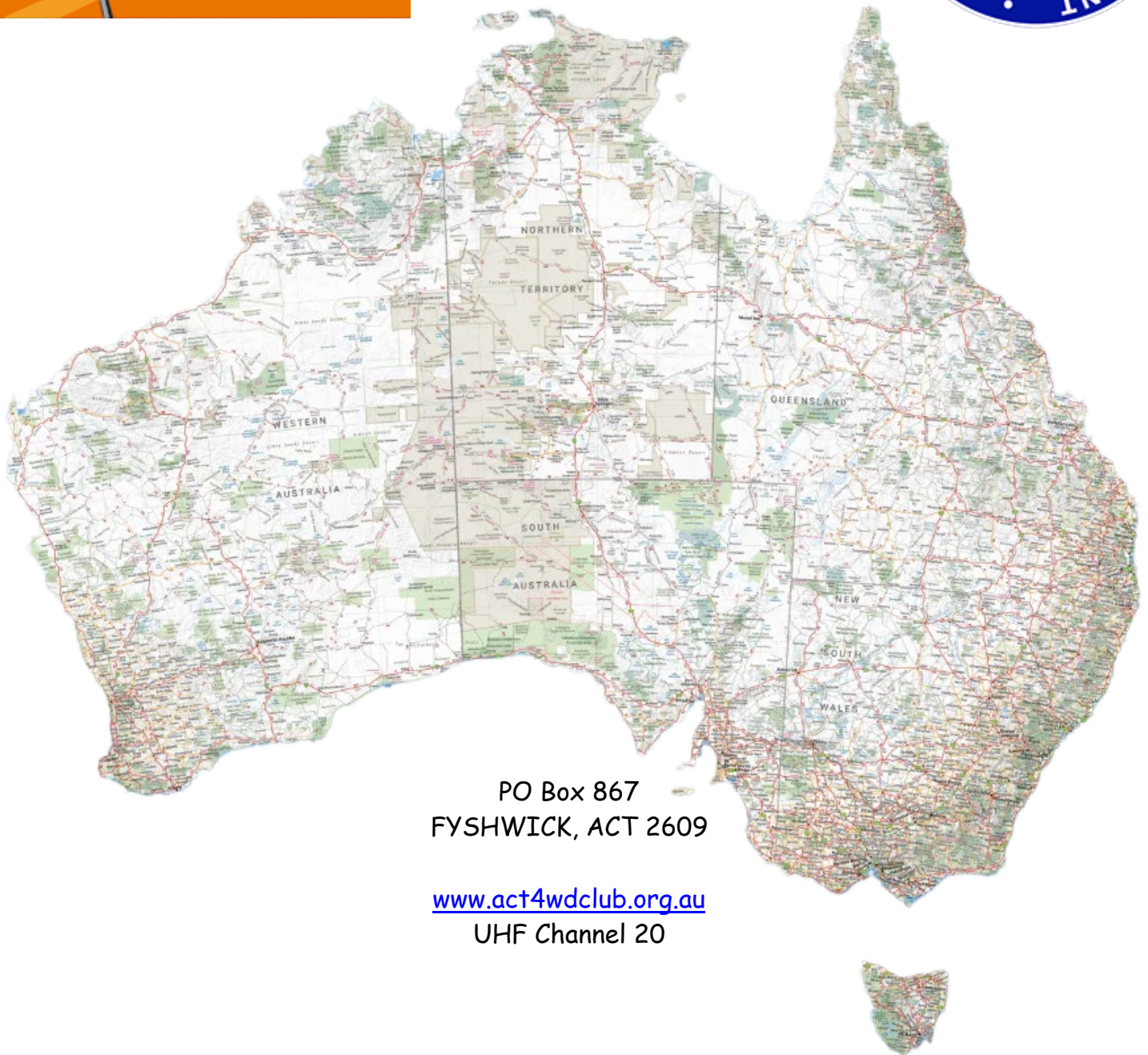


ACT4WD Club - Trip Leader's Guidelines (10.6.25)



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UHF Channel 20



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1. Introduction & Trip Leader's responsibility

These guidelines have been prepared as a generic document with reference to club specific bylaws and club specific guidelines. There may be special circumstances during a trip where additional actions may be required to ensure safe travelling. At all times, Trip Leaders need to be aware of potential risks and will need to mitigate these risks with common sense logic and appropriate actions.

The Trip Leader has responsibility for the safe running of the trip. It is the Trip Leader's responsibility to counsel prospective participants regarding their competency and the trip standard, both before and during the trip.

The Trip Leader **always has** the absolute discretion to make the final judgement to determine the suitability of vehicles or equipment proposed to be used. Furthermore, the Trip Leader has the discretion to accept or reject any person's participation. This specifically includes drivers and passengers, whether before or after the commencement of the trip. This should be done in accordance with the relevant club by-laws, regulations & policy.



1.1 Skills & Attributes of a Trip Leader

The club should run training sessions, where experienced Trip Leaders can advise new potential Trip Leaders how to run trips. It would also be advisable that a potential Trip Leader has attended a couple of club trips already. If Trip Leader training assistance is required, contact either the Training Co-ordinator or the Committee.

All members are encouraged to participate in trips and to organise a trip for the trip calendar. Any member, regardless of the level of 4WD expertise and experience, is able to lead a trip however new trip leaders should have the support of an experienced trip leader.

The club committee manages the trip calendar through the Trip Coordinator, who is available for trip suggestions and for help in preparing trips. Experienced trip leaders are also willing to mentor and help people wanting to lead a trip.



The suggested Trip Leader pre-requisites include:

- Ability to organise and a sense of responsibility
- Effective communication skills and ability to demonstrate authority
- Knowledge of radio communications as per club policy
- Map reading skills - refer [Map Reading Guide \(Auslig\)](#)
- GPS skills to be used in conjunction with the relevant maps
- Knowledge of convoy procedures (Appendix C) and ability to organise the placement of vehicles in convoy
- Responsibility for recovery situations or delegation to a suitable person(s)
- Appropriate 4wd driving experience for the selected tracks
- An understanding of the track classification system (2.2 Track Classification)
- The ability to assign an appropriate Trip Rating using the Track Classification
- Ability to select and nominate an appropriate Tail End Charlie (TEC) and a Repeat Charlie for larger groups/mountainous areas as needed.

1.2 Trip Participants Guidelines

All participants on a trip are responsible for their own vehicles and the actions that they take.

Trip participants do not need 4WD experience that matches the expected difficulty level of the trip as the policy of the club is to use trips as a training ground to build on everybody's skill in as safe as possible an environment. However, the vehicle and safety/recovery equipment must meet the minimum standard required for the trip, see 'Minimum Trip Equipment Standards' at the end of this document or on the website. If your skill level does not match the expected difficulty level of the trip or you have any concerns, please talk to the trip leader well before the trip to make them aware. If this is your first time offroad, it is recommended that you have done at least one basic 4WD training course with the club or take a more experienced buddy with you from the club.

Adequate pre-trip preparation should be undertaken and as a minimum, participants should:

- Register for the trip with the Trip Leader. Some trips may have strict limits on convoy numbers
- Put a completed and signed ICE Personal Details Form(s) in your glove box for each person in your car
- Maintain their vehicle in a roadworthy condition and have tyres that have a suitable tread for the conditions anticipated. For longer range trips it is advisable to have a pre-trip vehicle inspection carried out by a reputable 4WD specialist
- Ensure that their vehicle has rated front and rear recovery points fitted. If not fitted as standard, they need to be installed by a competent fitter and must be safe for use in a recovery situation. Factory transport tie down points and Tow Points off a bull bar are not sufficient unless designed by the bulbar manufacturer. Tow balls and receiver hitch pins should never be used for recovery, however there are 50mm square towbar hitch recovery devices available quite cheaply that can be used instead.
- Provide adequate personal supplies of fuel, food, water and clothing for the trip, relevant vehicle and equipment spares or as otherwise advised by the Trip Leader. Note all fuel must be mounted outside the vehicle
- Obey the instructions of the Trip Leader at all times
- Do not leave the trip without the Trip Leader's knowledge and agreement.

2. Trip Leader's Guidelines

2.1 Planning the Trip

Before setting out on a trip, it is important that some basic planning is completed to ensure that the event is conducted in such a way to ensure that it is both enjoyable and safe for everyone. The amount of planning required for a trip is variable and depends on the trip leader's familiarity with the intended track and the duration of the trip. Previous trip reports are a valuable source of information for trip ideas and for track conditions. A number of track guides are also available from various publishers. Selection of the route is most important, and consideration should be given to the following:

The trip leader determines the destination and general route, establishes the trip timings and coordinates any administrative requirements, such as campsite bookings, as appropriate. The following is a summary of the activities undertaken by the trip leader:

- **Plan the trip**
- **Trip Rating** - rate the trip to the highest expected standard using the Track Classification Scale (see Section 2.2 or the next page) and be prepared enroute to make changes to suit weather or track conditions
- The trip leader is to ensure that all drivers are aware of the general program for each day, including the route to be taken and the rendezvous point on the first day.
- **Type** - determine the trip type, e.g. Day trip, weekend, outback trip etc
- **Destination** - determine the destination and / or areas to be travelled
- **Daily Trip Length**: Estimate the distance to be travelled each day. Remember that low range 4WDing is likely to average no more than 20km/hour and in rough conditions could be considerably less with a lot of extra fuel used
- **Weather**: Check likely weather - this will affect the trip rating
- **Fuel**: Plan for access to fuel for petrol and diesel vehicles or longer trips
- **Camping**: Select suitable camping grounds and arrange for bookings if necessary
- **Permits**: Check if permits are required and coordinate provision, if necessary
- **Costs**: Advise other participants of expected costs for camping, permits and access fees as necessary
- **Group Size**: Determine maximum number of vehicles, based on expected track or weather conditions and trip leader experience
- **Breaks**: Generally, allow for breaks at least every 2 hours
- **End of Driving**: Plan on being at the overnight destination about 4pm to allow time for camp set up before dark and to allow families with young children to prepare the evening meal at a regular time
- Allow extra travel time for **larger convoys**
- **Contact**: appropriate National Park's offices and State Forest staff or check websites as necessary to obtain an update on track conditions and any track closures.
- **Route** - plan route (tracks) to include alternate routes in case of adverse conditions
- **Special Equipment** - Assess if any special equipment will be required. i.e. snow chains, appropriate first aid kit, UHF Radio (handheld & vehicle mounted) and a fire extinguisher should be installed in

every vehicle in a visible and easily accessible location


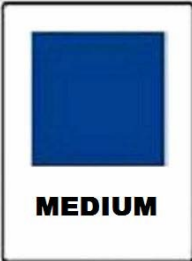
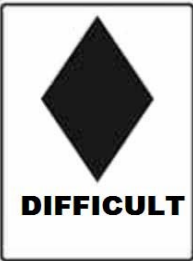

- **Vehicle Requirements** - Depending on trip duration and location(s), you may need to remind vehicle owners of their responsibility to ensure their vehicle is roadworthy and appropriately set up for the trip
- **Maps** - Obtain relevant and current maps of the areas
- **Newtracs** is a great new free Australian GPS app that shows track ratings in colour that you can check before you leave and also use on your trip. If you enter your vehicle profile it will automatically log the difficulty of each track while you drive for future users.
- **Season** - Decide on the time of year to run the trip
- **Activities** - Consider other activities which may be included in the trip
- **Research** - Gather information about the area to be visited, maps, books, contact other club members and relevant authorities
- **Supplies** - Consider, fuel, food, water, clothing, camping requirements, accommodation
- **Convoy Communications** - Determine minimum radio requirements for the trip and carry spare UHF radios to lend members without one and for guiding vehicles in rough sections
- **Emergency Communications** - Determine the communications necessary in an emergency situation. It is important to be aware of areas where normal communication equipment (mobile phones) will not operate, so the need for specialist equipment (sat phone, HF radio, EPIRB etc.) should be considered
- **Emergencies** - Plan what you are going to do if there is an emergency. In an emergency take charge and direct members to ensure that the appropriate response to potential incidents such as bush fires, personal injury, mechanical or vehicle damage, alternative routes, total fire bans, etc. Note NSW generally has a Total Fire Ban from October to March where the ACT does it as needed. Include emergency requirements for food, water and clothing as appropriate for the type of trip.
- **000 & The Emergency Plus App**: If you need to contact 000 while out of phone service, an iPhone 14 or later will let you text 000. If you have an iPhone 14 Pro This app will show your GPS location and a map and allow you to direct dial 000. When you look at the map in the app, you will see 3 words down the bottom. The 'what 3 words' company have divided the world into 3m squares and converted the longitude and latitude of the location into 3 unique words to make it easy for anyone to tell emergency services where they are.
- **Hazards Near Me App** - NSW Rural Fire Service with regular updates on fires etc.
- **Participants** - decide on the number of 4WD vehicles, and the number of participants appropriate for the nature of the trip. Generally trips should have a maximum of 10 vehicles, definitely not more than 15 vehicles. This is primarily an environmental issue and for groups larger than 15, extra

consideration should be given to minimise the environmental impact of the group at rest areas, camping grounds and during vehicle recoveries. Otherwise split into 2 groups.

- It should be noted that **4WDDriving is unpredictable** by its very nature and variation from the expected degree of difficulty and breakdowns are very possible.
- **Track Classification changes** during a trip but the classification must be chosen for the most difficult section that may be traversed. [Newtracs](#) will help you determine track difficulty from live data.

2.2 Track Classification

The following classifications will assist in determining an overall Trip Rating:

	Grade 1 - Easy	Grade 2 - Medium	Grade 3 - Difficult	Grade 4 - Very Difficult
Overview Description	All Wheel Drive and High Range 4WD. Novice 4WD Drivers	Mainly High range 4WD but Low range required. Some 4WD experience recommended.	Significant Low range 4WD with standard 4WD ground clearance. Should have 4WD driver training or lots of 4WD experience	Low range 4WD with High ground clearance. Experienced 4WD Drivers
Advisory				
Expected terrain and track conditions	Mostly unsealed roads with no obstacles and minor gradients.	Tracks with some steep and/or rocky/slippery/sandy sections. May have shallow water crossings.	Tracks with frequent steep and/or rocky/slippery/sandy sections. Possible deeper /more difficult (i.e. rocky) water crossings.	Tracks with frequent very steep and/or rocky/slippery/sandy sections. May have difficult river crossings.
Vehicle suitability	All wheel Drive and High Range 4WD. Can be low clearance with single range and road tyres.	Suitable for medium clearance vehicles with dual range and all terrain or road tyres.	Suitable for medium to high clearance vehicles with dual range and all terrain tyres.	Suitable for high clearance vehicles with dual range and tyres suitable for the terrain. (Mud Terrain tyres).
Recovery Equipment	Recovery equipment should be carried by one car just in case.	Recovery equipment should be carried.	Recovery equipment required to be carried.	Winch/Recovery equipment required and will probably be used.
Driver Training / Experience	Suitable for novice 4WD drivers.	Recommended that drivers have experience or 4WD training. Recommended to be done in groups of vehicles. Novice 4WD drivers accompanied by experienced 4WD drivers.	Recommended for drivers with reasonable experience or 4WD training. To be done in groups of vehicles.	Drivers with extensive experience should only attempt as there are several technical challenges. Recommended to be done in groups of four or more vehicles.
Weather	May be difficult in wet conditions.	Will be more difficult in wet conditions.	Will be more difficult in wet conditions.	Will be more difficult in wet conditions.

The track grading classification scale above has been developed to assist in advising Trip Leaders and

participants on 4WD trips of the type of tracks that they can expect to encounter. It is intended, over time, for all 4WD tracks to be rated according to this scale and sign-posted accordingly.

On most 4WD trips participants can expect that a variety of tracks will be traversed each with an appropriate rating. Trip Leaders should advise participants of the range of track ratings expected to be encountered on the planned route.

2.3 Advertising the Trip

Once the trip planning has been completed, the trip will need to be placed into the trip calendar, which is emailed to members, published in the monthly newsletter and is available on the private club Facebook site. Club trips must be promoted within the club and are available to all members. As a guide, when a trip is advertised it should have a minimum of two vacancies. For one or two day trips, notification should be through the monthly newsletter, by the club email address and on the private Facebook page at least one month in advance. For longer trips, particularly those planned to extend over several weeks; several months' notice should be given through the newsletter, the club email address and on the private Facebook page

Updating the trip calendar can be done by contacting the club Trip Coordinator and providing him/her the following details (this is available as a [Trip Template Document on the club website](#)):

- **Trip Name & Destination:** Indicate the trip name and planned destination (provide a Google maps reference or Google trip plan link)
- **Trip Leader:** State who is leading the trip, mb and email
- **Dates / Duration:** Nominate dates, departure time and duration of trip, stating the meeting point and approximate distance to be travelled from start to finish
- **Trip grading:** Indicate trip grading in accordance with descriptions at Section 2.2 (further details are available in the newsletter and on the website)
- **Vehicle numbers:** State minimum number of vehicles (suggested maximum 10 vehicles per convoy). Each club / Trip Leader to determine the limits. Public Liability insurance and environmental impact requirements need to be considered
- **Vehicle and Recovery Gear requirements:** Ensure that these requirements notified in the trip advertisement.
- **Fuel:** Indicate if additional fuel is to be taken due to lack of fuel in a remote area and/or indicate where fuel stops are planned
- **Camper Trailers/Caravans:** Provide notes about the suitability or not for camper trailers and caravans if it's an overnight trip and could turn muddy or snow or become a narrow track
- **Maps:** List any maps that would be useful for participants to bring (paper or electronic)

- **Special Equipment needed:** (note some gear can be shared) - eg: 'UHF Radio, portable is ok if that's all you have. I will have 2 spare portables if you don't have one. We will be on Channel 20 unless that's busy.'
- **Food/meal stops:** state the minimum required food for the trip and meal stops planned
- **Comments:** State any special requirements and give a brief description of the planned trip and activities, fuel and airing down points, etc.

Refer Sample Trip Advertisement (Appendix A) and on the [club website](#).

2.4 Running the Trip

The following activities and tasks should be carried out:

- **Start meeting point:** At the start meeting point carry out all the introductions and tell everybody that we usually stop at the start of the dirt to air down to 25 psi or lower
- **Confirm Air Down:** Communicate that we will stop together at the end of the trip to do a debrief and to air up before heading home, also to help anyone who is unable to air up
- **Briefing(s):** Provide trip briefing(s) and state the planned daily activities
- **Head count:** Confirm head count before, during and immediately following the trip
- **Attendee record:** Record a list of all attendees and email to the Trip Coordinator after the trip so records can be kept of who was on the trip for insurance purposes. This includes visitors and children who are not club members. This is necessary for Public Liability insurance coverage
- **ICE Card:** all participants should have one for each person in the glove box, Trip leader to have spares, these are in Appendix E
- **Who has a First Aid Kit, Snake Bite Kit and a Fire Extinguisher?**
- **Trip report:** Nominate person(s) to complete trip report(s). Usually the last person to arrive but can be shared for longer trips. They are then responsible to send the trip report to the Trip Coordinator and Newsletter Editor within a week of the trip finishing
- **Photos:** ask participants to take photos on the trip and send them to the newsletter editor and/or trip coordinator
- **Weather:** Check weather reports prior to trip and if possible, every day on a multi-day trip
- **Night Travel:** it is more difficult to 4WD at night as the lights cause blind spots and depth perception is difficult so judging how deep ruts and gullies are is harder. Some participants may have difficulty seeing as well in the dark. Allow adequate time on trips for incidents and try not to get caught out 4WDing at night unless night driving is in the trip plan
- **Tail End Charlie:** The TEC has the responsibility for keeping the Trip Leader informed of the progress or delays of the group, confirming they have passed vehicles and turns and for ensuring that gates are left open or closed as found by the Trip Leader. With larger groups or mountainous areas you may have to have a Repeater Charlie to pass on communications

- **Inexperienced drivers:** If necessary, designate positions within the convoy to accommodate special requirements, such as inexperienced drivers
- **Spotter for hard sections:** it is a good idea that the trip leader or a passenger gets out with a handheld uhf and directs following cars through a difficult section
- **Communicating 4wd settings:** it is important that the trip leader communicates when they are approaching rough, steep sections to tell the convoy to switch into low range and when to go back to high range. Also check that everyone is in 4wd once they are on the dirt as it will improve cornering and help in difficult areas
- **Convoy procedures:** Explain convoy procedures as per Club Rules/By-laws. Refer Appendix C
- **Recovery gear/winches:** Find out who has recovery gear and a winch and try to spread them out in the convoy. Confirm if any vehicles do not have rated recovery points talk and about only using a dedicated towbar towing hitch receiver, not a hitch pin or towball for recovery if a vehicle does not have a dedicated rear recovery point
- **Greater distance between vehicles on ascent & descent:** depending on steepness, weather and surface grip
- **Communication:** Decide on radio channel and do a radio check before departing by having each vehicle call their position number in order. The ACT4WD Club generally uses Channel 20 on trips but if this channel has interference/other vehicles the group will move up 2 channels at a time (at the direction of the Trip Leader). Channel 10 should be used as the Club Channel to contact other groups in the vicinity and to avoid head-on collisions. Be aware that some vehicles may have an older UHF with only 40 channels



- **Breaks:** make sure you provide adequate toilet breaks, coffee & food breaks etc
- **Setting camp:** Make sure you stop and set up camp well before sun set. Happy hour is a good idea and gets the group to mix and socialise and also helps with discussing how the day went and planning the next day
- **Vehicle Checks:** It is important to check the vehicles' mechanical state at the end of each day before socialising so repairs can be made then. It is poor etiquette to do vehicle repairs at the start

of a day and hold the rest of the convoy up

- **End Point:** It is important to have a definite end point, ensure that a location is selected during the planning stages and also confirm the participant(s) that will provide/write the trip report(s)
- **Questions?**

2.5 Member's Responsibilities

When participating in club trips:

- **Safety:** Each driver is individually responsible for the safety of his/her own vehicle, passengers and preparation level of their vehicle
- **Behaviour:** No driver is to drive in a manner that may endanger themselves or others
- **UHF radio:** Each vehicle is to be equipped with a UHF radio which may be substituted by a handheld UHF radio. Usually the trip leader carries spares
- **Leaving trip early:** If a participant wishes to depart from the trip prior to completion, they must notify the Trip Leader. The Trip Leader may assist with the departing if the participant requires it. For further information, see Section 11
- **Tread lightly:** Look after the environment and leave nothing but footprints. Follow the ARMA Code of Conduct for Four Wheel Drives (Appendix D)

2.6 Visitors on Club Trips

Club events are primarily intended for club members. The club's public liability insurance provides cover for club members and visitors on club trips. Prospective new members are encouraged to attend a club meeting and one trip before deciding on membership.

Visitors are to be advised:

- that the invitation applies for only one trip
- that the visitor is individually responsible for the safety of his/her own vehicle and passengers
- while the trip leader and other club members will provide assistance as required, participation in any portion of the trip remains at the discretion of the visitor.

In all cases, an existing member must sponsor visitors on club trips and that member is responsible for hosting the visitor for the duration of the trip.

Club members wishing to have a visitor attend a club trip should seek the agreement of the trip leader.

2.7 At the end of the Trip

Return any borrowed equipment and ensure the trip report is submitted for club magazine by required date. Remember to clean your vehicle and equipment after each trip and between eco-sensitive areas and check the mechanical state of your vehicle for necessary repairs including tightening all nuts and bolts. If the winch was used it should be wound out, rope cleaned and rewound and tensioned once dry.

Start thinking about planning the next trip.

Appendix A: ACT4WD Club - Sample Trip Advertisement

TRIP TEMPLATE



Trip Details (to be completed by trip leader and forwarded to tripcoordinator@act4wdclub.org.au)

Trip Name & Destination	Welcome new members - 'Tuesday Night Mt Coree run'
	Mt Coree - Tuesday 18.2.25 - 1 hour driving time to get to Mt Coree.
Trip Date and Time	Tuesday 18.2.25, meet 5.30 for 5.45 departure. Last vehicle to arrive writes the trip report for the newsletter. Should be on the Summit by 7pm.
Trip Leader & Contact Details (Mb and Email)	Eddy Hoek (please email or text me to confirm attendance, how many vehicles and if you have a UHF. Handheld is ok.) I have 2 spare UHFs
	0402102103 President@act4wdclub.org.au
Trip Grading and Total time	Level 2 (Medium) Mainly high range 4wd but low required. Suitable for beginners with limited 4WD experience. Basic 4WD skills required. Approx 1 hour each way plus an hour or 2 at the summit, so 3 to 4 hours all up.
Departure Time & Departure Point	Meet at 5.30 in McDonalds carpark, leave 5.45pm
	Meet at McDonalds 14A Kirkpatrick St, Weston Creek (this is the McDonalds off John Gorton Dr near Wright/Coombs not the one near Cooleman Court Weston)
Fuel Availability	Ampol Weston Creek next to McDonalds departure point
Maps or Google Map reference	Google Maps (note: toilet break at the bottom of Mt Coree) McDonalds Weston Creek -35.32106434166162, 149.05578047600196 Mt Coree -35.307260690568626, 148.81046897998186 We will be travelling up on Cotter rd, turning right onto Uriarra rd, left at the T junction on Brindabella rd, right just after Blue Range Road, then left onto Blue Range Road, then left on Two Sticks rd and finally left on Coree Summit rd. The section near the summit is steep and windy but was graded and gravelled last year. We will head down after watching the sunset, turn left then left on Curries rd.
Max Number of vehicles	12. The summit can cope with about 15 vehicles but other vehicles may be there as well. On arrival we will reverse our vehicles while light so that we are facing the right way to leave in the dark as there are some very large rocks.
Special Equipment needed	UHF Radio, portable is ok if that's all you have. I will have 2 spare portables if you don't have one. We will be on Channel 20 unless that's busy.
Comments	Note: Sunset is 7.50pm, dark by 8.25pm. Toilet stop at the bottom. The plan is to enjoy the sunset from Mt Coree, get some photos, chat and have a coffee then head home in the dark travelling back down as a group. BYO coffee, drinks, food and nibbles; you could even have a BBQ up there as I will be bringing a portable BBQ.
<p>Note: Trip leader to record the names of all participants for insurance and report purposes.</p> <p>All participants to make themselves familiar with our Club Convoy Procedure in the newsletter before going.</p>	

Appendix B : ACT4WD Club – Guide to Trip Risk Assessment

This form is to accompany the trip notice advice and forms a part of the ACT4WD Clubs' rules. All trip attendants are to ensure they understand that offroad driving activities have some degree of risk associated to the vehicle and the occupants. This guide helps to mitigate that risk as best as practical in advanced preparation of a trip.

This guide printed or electronic, is to accompany the trip leader to help the trip leader and the group reassess conditions

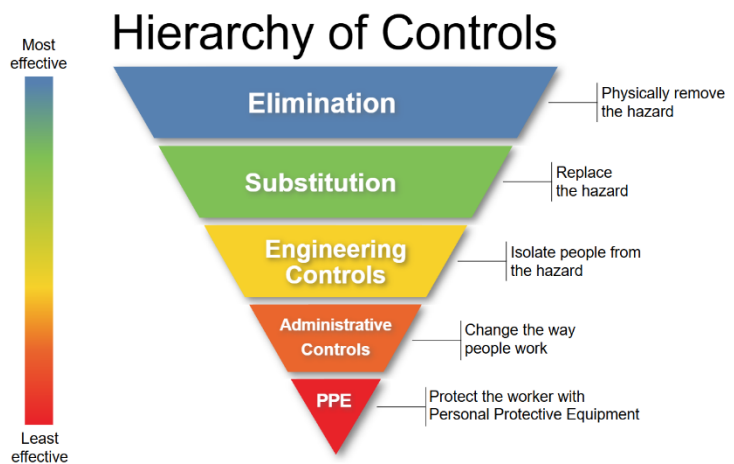
Part 1 – Risk Assessment guide, current for all trips as at July 2025

Trip Name:		Trip leader:	
Planned duration:		Classification: (can be multiple)	

as the trip evolves. Everyone is responsible for their own and others safety.

Understanding a risk assessment matrix

This is a typical Hierarchy of risk control matrix used in most Australian industries, including the road transport industry



Translated to 4WD activities and recovery

Elimination	Training; vehicle preparedness; vehicle in good serviceable condition; off road lights; offroad tyres; a tyre repair kit; a suitable spare tyre; recovery gear; first aid kit; UHF Radio; spare clothes and food as necessary; an ICE card in the glove box; air compressors; shovel; recovery boards; know your and your vehicle's capabilities.
Substitution	Change route is possible; stop and think about it. is 4x4 engaged? air down for more traction; discuss options with experienced members of the group; do the least dangerous recovery possible, EG: air down, use recovery boards, dig out around wheels. Secure the vehicle if on an incline.
Engineered Solutions	Recovery points front and rear. Consider the resistance principles for incline and the MIRE principles for mud and sand bog's (see last page); a winch recovery is the safest and easiest to control, discuss options; consider what could go wrong with all options available to you. If you have a winch, ensure it works and is in good serviceable condition. Vehicle to vehicle recovery must be controlled and onlookers kept well clear.
Administrative controls	Training: trip preparation; pre trip briefings for each day; check and monitor the weather condition; communication with others; club convoy procedure; this pre-trip risk assessment guide; maps; planning.
PPE and lack of experience	Lack of skills and training; overconfident; bravado; complacency; little to no preparation; little to zero suitable equipment; no personal PPE; alcohol and or drug affected; a careless approach impatient. All will lead to a simple situation becoming a high-risk situation. <i>It is better to be 5 minutes late than to lose a life in 1 minute.</i>

Pre trip planning. To be reassessed as the trip demands.

How severely could it hurt you or someone else Or How likely is vehicle damage likely to occur?	How likely is it to be that bad ?			
	1 Very likely Could it happen at any time	2 Likely Could it happen sometime	3 Unlikely Could happen but very rarely	4 Very Unlikely Could happen but probably never will
A. Kill or cause permanent disability or ill health. Vehicle damage	H1	H2	H4	M7
B. Long Term illness or serious injury	H3	H5	M8	M11
C. Possible physically demanding, may need first aid	H6	M9	M12	L14
D. Some difficulty may be experienced	M10	M13	L15	L16
HIGH 1- 6	UNACCEPTABLE: STOP or reassess the route or activity . STOP – THINK- ASSESS. If there is a likely hood that vehicle damage or injury may occur, change the route and reconsider the activity.			
MEDIUM 7 – 13	ONGOING MONITORING: Ensure that everyone on the planned route or activity is comfortable to proceed as there is still some risk. Assist those less experienced, adopt the A.L.A.R.P, principle (As Low As Reasonably Practicable). Stop, check and reassess as many times as needed			
LOW 14 – 16	ROUTINE MONITORING: No further action is required where residual risks are Low. However, ongoing monitoring is still required to ensure the risk does not escalate.			
Type of possible Hazard / risk	Proposed Controls/Solution (or risk register reference)		Risk Rating (Before controls)	Risk Rating (After controls)
Vehicle preparedness	Have your vehicle prepared for this trip; for some trips this may require extra preparation; do your own research			
Trip planning	Good preparation will reduce risk; plan the trip; estimate the trip classification; how many stops; facilities along the route; etc			
Expected track classification	This can be multiple for any given trip. Do not expect that everyone will be experienced, take a sensible approach to trip classification,			
Will recovery be anticipated?	Advise participants that this may be the case and ensure as trip leader you are prepared. Find out who has a winch and associated recovery gear and place those participants in the middle and rear of the convoy.			
Will there be water crossing more than 300mm deep	Consider an alternative route. Take note of recent rain fall; avoid crossing more than 300mm deep, if possible; always walk the crossing first (if unsure of the depth wear PFD); a water crossing tarp on the front of the vehicle is recommend; cross slow and with a constant speed.			

May there be a requirement for chain saw for track clearing	Does anyone in the group have a chainsaw ticket? If a chain saw is needed to clear fallen trees, it is best that a person with a ticket or experience lead the operation of clearing. Trees roll when being de-limbed; keep on lookers well clear; find an alternative route if possible; ensure that PPE is worn: leg chaps, gloves, visor, hearing protection.		
Do participants have an ICE form in the vehicle	Recommended for all club trip participants, ICE form is to be kept in the glove box so people know where to find it in case of an incident. It should list medical condition, medications, allergies, contact person details, etc.		
Will there be over nights stops / camping; extreme weather conditions	Plan ahead, consider adverse weather conditions from heat to cold; do not camp near a rivers edge if heavy rain (50mm and above) happened in the last 24hrs or heavy rain is expected. Consider food requirements		
Radios and convoy procedure	Use the club convoy procedure, keeping your position in the convoy as much as practical, if the convoy is long, nominate a radio relay vehicle in the middle, avoid unnecessary talk at times where messaging is necessary.		
Pre-trip briefing, daily updates as the trip proceeds	Always prepare a pre-trip brief so participants are clear on what to expect for the day; invite questions and ask if there are any concerns.		
EPIRBS and first aid kits and DEFIB	Ask if people have an EPIRB and or DEFIB, if so ensure that every person in the convoy knows where it is, how to get to it and use it. If a person on the trip has medical skills or advanced first aid, let it be known.		
Permits and permissions	For long trips, plan ahead and get land access permits where needed; never access property without permission; take only memories; leave only footprints		
Fuel availability	For long trips, plan regular fuel stops; some participants may not have long range tanks; consult with them and carry at least 30% reserve fuel if practical.		
Number of occupants	Limit the number of participants if the trip is going to have a high level of technical difficulty.		
Alcohol	Limit alcohol consumption to reasonable levels and for after hours, not while driving. An alcohol affected person may have difficulty operating a vehicle in difficult condition putting themselves and the group at risk		
Steep descent / ascent	Trip classification: advise participants that steep ascents and descents are a possibility; slow up and slow down; keep a reasonable distance between vehicles; allow for manoeuvring; control vehicle movements if needed, one at a time is the safest approach. Consider tyre pressure.		
Mud or snow	Be prepared for constant mud conditions, consider what this does to vehicle's operation; if it is hot, the vehicle will work harder so consider more stops. Reduce tyre pressures; clear excess mud from wheels if driving back on sealed road as excess mud can put the wheels out of balance and cause poor road handling. Snow chains are also useful in mud, (DO NOT REDUCE TYRE PRESSURE IF CHAINS ARE FITTED) .		

Winching and kinetic rope recovery danger zone guide







NB: When recovering with a snatch strap or rope, doubling the speed provides 4 times the energy.

Maximum snatch speed should be 10kmh.

3000kg Vehicle	
Speed	Energy
2 km/h	500
4 km/h	1900
8 km/h	7,500
16 km/h	30,000
32 km/h	120,000



Track classification guide

	EASY	MEDIUM	DIFFICULT	VERY DIFFICULT
Overview Description	All-wheel Drive and High Range 4WD. Novice Drivers.	Mainly High Range 4WD but Low Range required. Some 4WD experience or training required.	Significant Low Range 4WD with standard 4WD ground clearance. Should have 4WD driver training.	Low Range 4WD with high ground clearance. Experienced drivers.
Advisory Sign/Symbol	Green Circle	Blue Square	Black Diamond	Double Black Diamond
				
Expected terrain & track conditions	Mostly unsealed roads with no obstacles and minor gradients.	Tracks with some steep and/or rocky/slippery/sandy sections. May have shallow water crossings.	Tracks with frequent steep and/or rocky/slippery/sandy track sections. Possible water crossings.	Tracks with frequent very steep and/or rocky/slippery/sandy track sections. May have difficult river crossings.
Vehicle Suitability	All-wheel drive and High range 4WD. Can be low clearance with single range and road tyres.	Suitable for medium clearance vehicles with dual range and all terrain or road tyres.	Suitable for medium to high clearance vehicles with dual range and all terrain tyres.	Suitable for high clearance vehicles with dual range tyres suitable for the terrain. (Mud terrain tyres)
Recovery Equipment				Winch/Recovery equipment required.
Driver training experience	Suitable for novice drivers.	Recommended that drivers have experience or 4WD training. Recommended to be done in groups of vehicles.	Recommended for drivers with reasonable experience or 4WD training. To be done in groups of vehicles.	Drivers with extensive experience and advanced training should only attempt as there are several technical challenges. Recommended to be done in groups of four or more vehicles.
Weather	May be more difficult in wet conditions.	Will be more difficult in wet conditions.	Will be more difficult in wet conditions.	Will be more difficult in wet conditions.

The Easy Mire Calculator

GVM (Maximum Loaded Weight of Vehicle) _____ kgs

Angle resistance ((GVM x (Angle x 0.02))

10 Degrees GVM x 0.2

20 Degrees GVM x 0.4

30 Degrees GVM x 0.6

40 Degrees GVM x 0.8

50 Degrees GVM x 1.0 _____ kgs

Surface Modifier (GVM x Surface Modifier)

Hard Packed Dirt, Pavement GVM x 0.1

Gravel, Grass, Hard/Wet Sand GVM x 0.2

Thin Mud, Dry Sand GVM x 0.3

Thick Mud/Soft Wet Clay GVM x 0.4

Sticky Mud/Clay GVM x 0.5 + _____ kgs

Mire Depth Modifier (GVM x Mire Depth Modifier)

Wheel Depth Modifier GVM x 1.0

Hub/Frame Depth GVM x 2.0

Body/Hood Depth GVM x 3.0 + _____ kgs

Estimated Resistance (Angle + Surface + Mire) = _____ kgs

20% Safety Margin (Estimated Resistance x 0.2) + _____ kgs

Total Estimated Resistance = _____ kgs

Mud resistance guide	
Mire Depth	Mire Factor
Hubs	1
Wheel wells	2
Fender line	3



Appendix C : ACT4WD - Club Convoy Procedure

A convoy comprises of a group of vehicles including a trip leader, a 'Tail End Charlie' at the end of the group, and any number of vehicles between the two. The club utilises the following convoy procedure on all club trips to help ensure safety and group cohesion:



- Remember you are responsible for the vehicle behind you!
- At the commencement of the trip, the Trip Leader shall arrange the convoy order to spread vehicles out with winches and recovery equipment and nominate a vehicle to be last in the convoy ('Tail End Charlie') each day. All vehicles shall stay in the convoy order unless directed otherwise by the Trip Leader
- All vehicles are to have their headlights on while in the convoy
- At the start of the trip, the Trip Leader shall check that radio communication is working effectively for all in the convoy. This will generally be a simple on-air radio check by all cars calling out their position number in the convoy. If at any time on the trip you are unable to make radio contact, flash your headlights onto the vehicle ahead. This is a signal for the rest of the convoy to stop
- The trip leader will keep a record of all vehicle's registrations and attendees for safety and insurance purposes and email it to the Trip Coordinator after the trip
- Fuel tanks must be filled prior to the start of a trip, and participants need to be made aware that 4wding uses more fuel than normal driving so allowances need to be made for fuel stops on the trip if necessary. Vehicles can carry extra fuel, but it must be on the roof as it is illegal and unsafe to carry fuel inside the vehicle. Only diesel can be mounted on the rear of the vehicle
- Seat belts must be worn at all times
- All vehicles must be road registered and well maintained
- The convoy will utilise the normal club radio channel (channel 20), unless decided otherwise
- Please keep radio conversations short and relevant



- The trip leader will call directions at each intersection. These are to be acknowledged and repeated by the vehicle at the end of the tail of the convoy ('Tail End Charlie'). Vehicles in mid convoy need not acknowledge
- Where the intended route may not be obvious, each driver is to wait at the intersection until satisfied that the following driver had identified the proper route. The trip leader will determine at which intersections to wait
- Drive at your *COMFORTABLE* and *SAFE* speed. Generally, keep 4-6 vehicle lengths distance between vehicles and keep the convoy moving
- On steep inclines / obstacles proceed one vehicle at a time and allow more space between vehicles
- On very steep or difficult terrain, call the next vehicle through when you are clear
- 'Tail End Charlie' is to radio the trip leader once he/she has cleared each intersection or hazard. The trip leader will acknowledge and repeat 'Tail End Charlie' messages to confirm for all cars to hear for clarification
- When negotiating hazards such as steep grades or rivers, maintain sufficient convoy spacing so as not to endanger yourself or the vehicle in front. In particularly hazardous terrain, wait until the vehicle in front has negotiated the hazard before proceeding. At times it may be necessary to radio and check if it is ok to proceed, or the vehicle in front may need to advise it is clear of the hazard
- If in any doubt of the best / safest way to proceed through hazards / obstacles, ask the Trip Leader or more experienced driver for advice. Remember you probably won't be the only one experiencing difficulty
- The trip leader will generally reply on the regular radio acknowledgements from 'Tail End Charlie' to ensure that the convoy retains radio contact. In larger convoys and particularly in dusty or hilly conditions, when vehicle separation distances are likely to increase, radio relay through the convoy may be necessary to maintain contact - a 'Relay Vehicle', may be organised by the trip leader
- After negotiating a hazard, wait at a safe distance to ensure that the following vehicle has also negotiated the hazard, and if necessary, provide assistance
- At the start of the journey, or at any time after stopping, tail-end-Charlie is to identify themselves to the trip leader and advise the leader once underway



- The trip leader will advise of any hazards by radio



- The trip leader will advise by radio of any oncoming vehicles when traveling on single-lane roads and tracks confirming number of vehicles and basic vehicle description and colour to help convoy vehicles identify when they are clear. Tail-end-Charlie will acknowledge when they are clear of all vehicles
- The lead driver (generally the trip leader) is to report gates as either open or closed as they are encountered. Gates should be left as they are found. If gates were identified as being closed, a member of the convoy should remain at the gate to prevent the movement of stock through the open gate. Unless directed otherwise, 'Tail End Charlie' has the responsibility for any gate closures
- In the event of a breakdown, the vehicles behind will wait and organise assistance. The trip leader is to be informed of any breakdowns or hold-ups
- Any driver leaving the convoy must notify the trip leader.

(End of ACT4WD Club Convoy Procedure - Updated 30.4.25)

Appendix D: ARMA Code Of Conduct For Four Wheel Drives

<https://www.arma.net.au/conduct>

RESPONSIBLE DRIVING IN RECREATIONAL AREAS

- Minimise your impact by travelling only in areas open to four-wheel drive vehicles.
- Every true recreational enthusiast should know the basics of minimising impact in the great outdoors. The following points follow the principles of the Tread Lightly campaign.

TRAVEL RESPONSIBILITY

- Travel responsibly on designated roads, tracks or areas
- Travel only in areas open to recreational vehicles and obey all state vehicle regulations and road rules
- Respect the cultural, heritage and environmental values of all lands
- Drive over, not around obstacles to avoid widening the track
- Straddle ruts, gullies and washouts even if they are wider than your vehicle
- Cross creeks only at designated crossing points, where the track crosses the creek
- When possible, avoid mud. In soft terrain, go easy on the accelerator to avoid wheel spin, which can cause rutting
- Don't turn around on narrow roads, steep terrain or unstable ground. Back up until you find a safe place to turn around
- Stop frequently and check ahead on foot. To help with traction, balance your load and lower tyre pressure to where you see a bulge (typically not less than 20 psi)
- Know where the differential or the lowest point on your vehicle is. This will help in negotiating terrain and prevent vehicle damage resulting in oil and fluid spills on the track
- Maintain a reasonable distance between vehicles
- Comply with all signs and respect closed gates
- Travel with a group of two or more vehicles. Driving solo can leave you vulnerable if you have an accident or breakdown. Designate meeting areas in case of separation
- When recovering a vehicle always inspect your equipment, use the right rated equipment for the situation. Attend a course to learn safe recovery techniques
- Don't mix driving with alcohol or drugs
- Take home all rubbish. Keep the environment clean

RESPECT THE RIGHTS OF OTHERS

- Respect the rights of others, including private property owners, all recreational track users, campers and others so they can enjoy their recreational activities undisturbed
- Be considerate of others on the road or track. Learn the basics of track etiquette
- Leave gates as you find them. If crossing private property, be sure to ask permission from the landowner(s)
- Give way to those passing you travelling uphill. Give way to mountain bikers, hikers and horses
- Proceed with caution around horses and pack animals. Sudden, unfamiliar activity may spook animals—possibly causing injury to animals, handlers and others on the track
- Do not idly ride around in camping or picnicking, areas
- Keep speeds low around people and in camping areas
- Keep the noise and dust down



EDUCATE YOURSELF

- Educate yourself prior to your trip by obtaining travel maps and regulations from public agencies, planning for your trip, taking recreation skills classes and knowing how to operate your equipment safely
- Obtain a map, (as detailed as possible) of your destination and determine which areas are open to off-road recreational vehicles
- Take a realistic plan and stick to it. Always tell someone of your travel plans
- Check with the land manager's websites for area restrictions, closures and permit requirements
- Check the weather forecast before you go. Prepare for the unexpected by packing necessary emergency items
- Take a Four-Wheel Drive course to learn more about negotiating terrain in a four-wheel drive

vehicle

- Make sure your vehicle is mechanically up to task. Be prepared with tools, supplies, spares and a spill kit for track-side repairs

AVOID SENSITIVE AREAS

- Avoid sensitive areas such as lake shores, wetlands and streams. Stay on designated routes.
- Other sensitive habitats to avoid include living desert soils and seasonal nesting or breeding areas
- Do not disturb historical, archaeological or paleontological sites
- Avoid "spooking" livestock and wildlife you encounter and keep your distance

DO YOUR PART

- Do your part by modelling appropriate behaviour, leaving the area better than you found it, properly disposing of waste, minimising the use of fire, avoiding the spread of invasive species and restoring degraded areas
- Carry 2 rubbish bags in your vehicle and pick up rubbish left by others
- Practice minimum impact camping by using established sites, camping 60m from water resources and trails
- Observe proper sanitary waste disposal or carry your waste out
- Protect the soundscape by preventing unnecessary noise created by a poorly tuned vehicle or revving your engine
- Before and after a trip, wash your vehicle to reduce the spread of invasive species
- Support four-wheel drive touring as a responsible and legitimate family recreational activity. Consider joining an affiliated four-wheel drive club
- Report inappropriate behaviour (Bush Telegraph) on: 13 28 74.



**THIS CODE SUPPORTS THE NATIONAL RECREATIONAL VEHICLE POLICY
AND IS VALUABLE, ONLY IF YOU OBSERVE IT!**

Appendix E: ACT4WD Club - ICE Form (I.C.E. - In Case of Emergency)

Trip:

This information will remain confidential and should be kept in your glovebox in a sealed envelope. It may be used in case of emergency and be given to RFDS, Ambulance or other medical personnel should the need arise. Your cooperation in completing this is appreciated. Fill out a separate sheet for anyone else travelling with you. Write on the back if you run out of room. Make special notes if anyone has a Pacemaker or is anaphylactic.

	Person 1	Person 2
Name		
Home Address		
Mobile number		
Satellite phone no		
Drivers Licence no.		
Date of birth		
Medicare number		
Private Health Insurance?		
Known Allergies		
Blood type - if known		
Known medical conditions		
Current medication		
Person to contact in case of emergency - Name		
Address of emergency contact		
Phone number of emergency contact		
Relationship of emergency contact		

Anything else that we should know about?

Appendix F: ACT4WD Club - Trip Record of participants

(email to tripcoordinator@act4wdclub.org.au)



Trip Name: _____

Date: _____

Trip Leader: _____

Names	Car Make, Model & Rego

ACT4WD Club - Visitors Temporary Membership form

Given name: _____ Surname: _____

Partner: _____ Email address: _____

Mobile: _____ Vehicle Make/Model: _____

Rego No: _____ State/Ter: _____

By signing this temporary membership form, I agree that, while on this trip, I will act and promote the ACT 4WD Club in a responsible and positive way, drive and act sensibly and follow all directions given by Club Members.

Signed: _____

Given name: _____ Surname: _____

Partner: _____ Email address: _____

Mobile: _____ Vehicle Make/Model: _____

Rego No: _____ State/Ter: _____

By signing this temporary membership form, I agree that, while on this trip, I will act and promote the ACT 4WD Club in a responsible and positive way, drive and act sensibly and follow all directions given by Club Members.

Signed: _____

Appendix G: ACT4WD Club - Trip Leaders Cheat Sheet

The following activities and tasks should be carried out:

- **Start meeting point:** At the start meeting point carry out all the introductions and tell everybody that we usually stop at the start of the dirt to air down to 25 psi or lower
- **Confirm Air Down:** Communicate that we will stop together at the end of the trip to do a debrief and to air up before heading home, also to help anyone who is unable to air up
- **Briefing(s):** Provide trip briefing(s) and state the planned daily activities
- **Head count:** Confirm head count before, during and immediately following the trip
- **Attendee record:** Record a list of all attendees and email to the Trip Coordinator at the end of the trip so records can be kept of who was on the trip for insurance purposes. This includes visitors and children who are not club members. This is necessary for Public Liability insurance coverage
- **ICE Card:** All participants should have one for each person in the glove box, Trip Leader has spares
- **Who has a First Aid Kit, Snake Bite Kit and or/a Fire Extinguisher?**
- **Trip report:** Nominate person(s) to complete trip report(s). Usually, the last person to arrive but can be shared for longer trips. They are then responsible to send the trip report to the Trip Coordinator and Newsletter Editor within a week of the trip finishing
- **Photos:** Ask participants to take photos on the trip and send them to the newsletter editor and/or trip coordinator
- **Weather:** Check weather reports prior to trip and if possible, every day on a multi-day trip
- **Night Travel:** It is more difficult to 4WD at night as the lights cause blind spots and depth perception is difficult so judging how deep ruts and gullies is harder. Some participants may have difficulty seeing as well in the dark. Allow adequate time on trips for incidents and try not to get caught out 4WDing at night unless night driving is in the trip plan
- **Tail End Charlie:** The TEC has the responsibility for keeping the Trip Leader informed of the progress or delays of the group, confirming they have passed vehicles and turns and for ensuring that gates are left open or closed as found by the Trip Leader. With larger groups or mountainous areas, you may have to have a Repeater Charlie to pass on communications
- **Inexperienced drivers:** If necessary, designate positions within the convoy to accommodate special requirements, such as inexperienced drivers
- **Spotter for hard sections:** It is a good idea that the trip leader or a passenger gets out with a handheld uhf and directs following cars through a difficult section
- **Communicating 4wd settings:** It is important that the trip leader communicates when they are approaching rough, steep sections to tell the convoy to switch into low range and when to go



back to high range. Also check that everyone is in 4wd once they are on the dirt as it will improve cornering and help in difficult areas

- **Convoy procedures:** Explain convoy procedures as per Club Rules/By-laws (Appendix D)
- **Recovery gear/winches:** Find out who has recovery gear and a winch and try to spread them out in the convoy. Confirm if any vehicles do not have rated recovery points talk and about only using a dedicated towbar towing hitch receiver, not a hitch pin or tow ball for recovery if a vehicle does not have a dedicated rear recovery point
- **Greater distance between vehicles on ascent & descent:** Depending on steepness/weather and surface grip
- **Communication:** The ACT4WD Club generally uses Channel 20 on trips but if this channel has interference/other vehicles the group will move up 2 channels at a time (at the direction of the Trip Leader). Decide on radio channel and do a radio check before departing by having each vehicle call their position number in order. Channel 10 should be used as the Club Channel to contact other groups in the vicinity and to avoid head-on collisions. Be aware that some vehicles may have an older UHF with only 40 channels
- **Breaks:** Make sure you provide adequate toilet breaks, coffee & food breaks etc
- **Setting camp:** Make sure you stop and set up camp well before sun set. Happy hour is a good idea and gets the group to mix and socialise and also helps with discussing how the day went and planning the next day
- **Vehicle Checks:** It is important to check the vehicles mechanical state at the end of each day before socialising so repairs can be made then. It is poor etiquette to do vehicle repairs at the start of a day and hold the rest of the convoy up
- **End Point:** It is important to have a definite end point, ensure that a location is selected during the planning stages and also confirm the participant(s) that will provide/write the trip report(s)
- **Questions?**

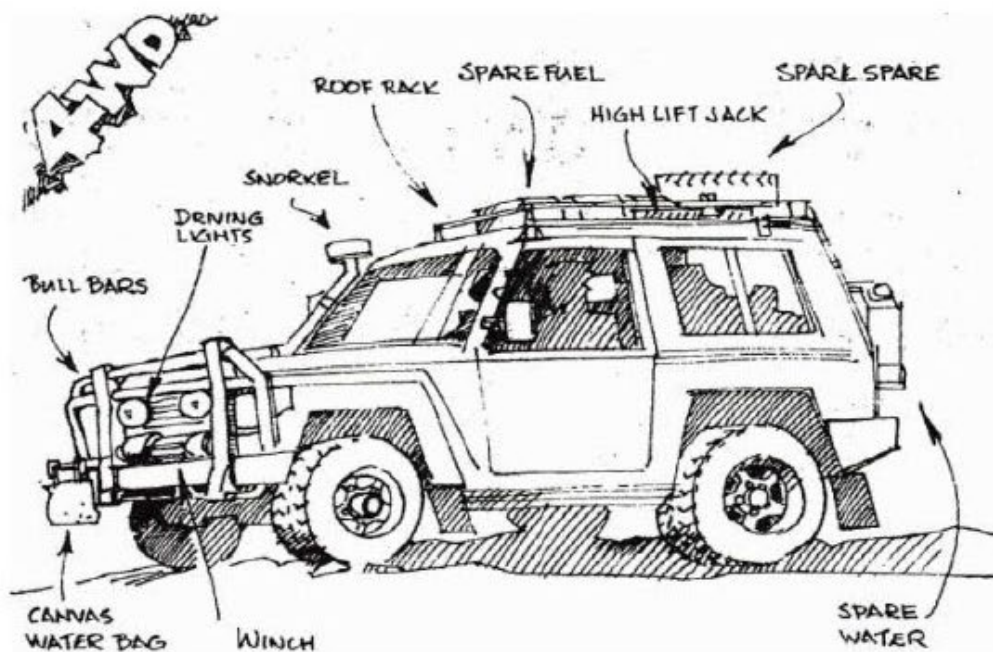




ACT4WD Club

Minimum Trip Equipment Standards

22 May 2025



ACT4WD Club

Minimum Trip Equipment Standards



*Please Note: Trip Leaders may recommend additional equipment for certain trips.
For longer/harder trips, always consider travelling with an experienced person/s.*

VEHICLE AND RECOVERY EQUIPMENT	Green Track	Blue Track	Black Track
Tyres - Light Truck preferred - AT type minimum for offroad	R	✓	✓
Spare Tyre - identical size & preferably tread pattern.	✓	✓	✓
Wheel Change Equipment - including wheel brace, jack plate and a quality jack - sized for vehicle weight and allowing for vehicle lift (Note the original Jack may not fit lifted vehicles & campers).	✓	✓	✓
UHF Radio - Vehicle Mounted preferred for range and wired directly to power (so it stays on when ignition off)	✓	✓	✓
UHF Hand-held Radios - needed for negotiating difficult sections	R	✓	✓
Rated Recovery Points - Front and Rear	R	✓	✓
Tyre Pressure Gauge and Tyre Deflater	R	✓	✓
Air Compressor (Aim for min flow rate of 70 Litre/min, twin head??)	R	✓	✓
Puncture Repair Kit - which includes reaming tool, insertion tool (metal handles) and repair cords or strips. (For people with tube tyres a tube repair kit - Bead breaker and tyre refitting tools)	R	✓	✓
Snatch Strap - rated for your vehicle weight		✓	✓
Rated Shackles - minimum of two		✓	✓
Cable Dampener or 2 (an old blanket can be substituted)		✓	✓
Equalizer Strap/Rope - if you have two front recovery points.		✓	✓
Gloves - good quality (for handling steel cables, rocks, etc).		✓	✓
Recovery Boards - e.g. Maxtraks or TREDs		R	✓
Shovel - Long handle is best		R	✓
Bush Saw, Axe, Chainsaw or Hand Chainsaw		R	✓
First Aid Kit - and first aid manual, St John's or equivalent.		R	✓
Winch - either vehicle mounted electric winch or hand winch (Tirfor, Anchor, Pulla, or similar) and associated equipment such as:		?	✓
Snatch Block - look for a quality block with deep cable groove and solid construction. The block should be greaseable.		?	✓
Winch Extension Strap - (20 metre) or plasma rope with eyes either end.		?	✓
Tree Trunk Protector - rated and 3 metres long.		?	✓
Drag Chain - 5 metres		?	✓
Fire Extinguisher - shaken monthly	✓	✓	✓

✓ = Mandatory for this grade, R = Recommended, ? = If conditions warrant (Trip Leader)

Items NOT to be taken on club trips:

Firearms, Pets, Hunting Weapons (e.g. crossbows, etc).

Note that in some States and areas one or more of these may also be prohibited by law.



TOOL KIT

You should always carry a good range of tools to at least undertake minor repairs. Your tool kit should consist of a variety of sizes and combinations of commonly used tools such as socket sets, wrench sets, Allen keys and screw drivers. Your tool sets should cover the variety of sizes found in your vehicle. Some suggestions:

- Allen/Torx Keys – check if your vehicle or vehicle accessories use either Torx or Allen keys and take appropriate tools
- Cold Chisel and Punch
- Extendible Magnet
- File/s – a half round and a small round
- Flat & Phillips Screwdrivers, large, medium, small
- Hacksaw or something to cut metal
- Hammer
- Jumper Leads (300A with surge protection or Jump Pack).
- Open End Combination Spanners
- Pliers include Combination Pliers, Long Nose Pliers, Slip Joint Pliers, Side Cutters, Inside and Outside Snap Ring Pliers
- Shifting Spanner
- Multimeter
- Socket Set – to suit your vehicle
- Soldering Iron & Solder – Gas Soldering Iron get a good quality one and make sure it works. 240volt – you can make temp repair until you get to 240volt power and then undertake a proper repair)
- Strong Utility knife
- Vice Grips – a couple of sizes is good
- Wire Stripper/Crimper



(but



There are now several 4WD aftermarket accessory companies who are selling 4WD tool kits that are worth exploring if you don't want to assemble the kit yourself – Google is your friend.

ADDITIONAL ITEMS TO CONSIDER TAKING

(Depending on the trip)



As a 4WD owner you should be aware that it isn't easy to call road service or the nearest garage if something goes wrong when away on a trip.

Therefore, it is important to look after your vehicle at all times and thus minimise the chances of something going wrong in the bush. Even so, things do go wrong, and it is then that you need:

1. To know as much as possible about your vehicle and how it works
2. To have a good set of tools on hand to carry out any necessary repairs
3. To carry a few spares to repair or replace the damaged part on the spot to get you home.



The following is a reasonably comprehensive list of additional general spares and equipment to guide you in selecting the right additional equipment recommended for trips. The more remote your travels and the more risk involved would normally necessitate more equipment. For example, spare shock absorbers are unnecessary for local trips but maybe considered basic requirements if doing the Canning Stock Route.



As you can see you would probably need a semi-trailer to carry it all, so careful planning of trips is essential, and equipment/parts selection is important. Sharing of equipment between vehicles on a trip will eliminate duplication and therefore ease everyone's load, as will trying to identify equipment that fulfils multiply roles.



Spares to aim to have on board for any trip

(Some items below may not be applicable to your vehicle)



- Fan Belt (and other belts if your vehicle has them).
- Fuel filter - spare to suit your vehicle.
- Radiator hoses.
- Hose clamps.
- Spare Electrical Wire - varying sizes but include 1 meter of large gauge wire 8awg
- Electrical Terminals - a variety of types to suit your vehicle set-up
- Auto Fuses - check all fuse boxes and ensure you have spare fuses in the various types used by your vehicle. Also consider spare fuses for any auxiliary electrical item - e.g. your fridge)



GENERAL REPAIR ITEMS

Aim to have on board for any trip

- Can of WD40, RP7, CRC or similar
- Cloth Race/Duct Tape 50mm (to seal doors etc. before driving through deep water)
- Electrical Tape
- Hand Cleaner and rags
- Light - Magnetic LED or head torch and spare batteries or torches
- Metal Epoxy Putty, JB Weld, Araldite, Super glue gel & Contact Cement and coarse Sandpaper to roughen plastic tanks and radiators for gluing.
- Self-Fusing Silicone Tape (Self-Amalgamating Tape) - good for radiator hose and electrical repairs
- Sheath Knife
- Small Tarpaulin - to lie on when making repairs
- String and Tie Wire. General tie wire for holding things together when they break and long quality cable ties
- Zip Ties - lots of them in different sizes, they are great for repairs and have a multitude of uses

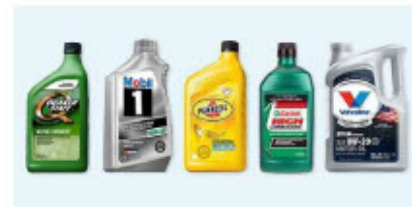


Additional Items to consider for longer or more high risk/remote trips

- Air filter - on longer or dustier trips
- Brake Cleaner (for slipping or oily clutches, and brake linings)
- Brake Fluid (500ml)
- Brake Line Clamp or other ways for blanking off broken brake lines.
- Brake Master Cylinder Repair Kit (on big trips only)
- Brake Wheel Cylinder Repair Kit (for drum brakes) and brake hose. (on big trips only)
- Clutch Master Cylinder repair kit (if applicable on longer trips)
- CV Joint (if your vehicle has CV joints - particularly for more remote travel).
- Differential Oil
- Emergency Windscreen (plastic) and windscreen crack repair kit
- Engine Oil and Radiator Water - 5 litres each approx
- Gaffer Tape
- Extra Fuel: Auxiliary tank is best, but steel or approved plastic jerry can will do (if you have a long-range tank, it is worth still carrying an extra 20 litre in a jerry can in case of loss of fuel through tank failure - particularly in remote areas)
- Funnel or other fuel transfer method
- Globes - Headlight, stop/tail and interior light
- Leaf (or coil) Spring spare
- Leaf Spring U-bolt (with nuts) and spring centre bolt
- Length of fuel hose

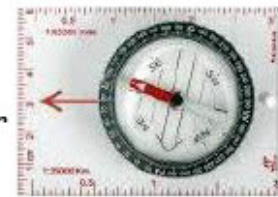


- Muffler Tape (for exhaust system)
- Multipurpose Grease and grease gun (500gm)
- Paint Brush (for cleaning parts)
- Plastic hose (for siphoning fuel or transferring fuel from drum to carburettor in case of fuel pump failure)
- Radiator cap
- Radiator Fluid (or spare water)
- Radiator sealing compound
- Relays
- Ratchet Straps to compress tyre to reseal bead, hold broken suspension together and retie loose gear
- Scraper
- Shock Absorbers (Originals before suspension upgrade will do if you kept them)
- Spare Nuts, Bolts, Split Pins, Roll Pins, Washers, etc. Try to cover the main bolt and nut types on your vehicle
- Spark Plugs (full set if applicable)
- Sump Plug and gasket
- Transmission Oil Filler (a soft plastic bottle of the 'squeeze' type with a flexible extension)
- Transmission Oil, Engine Oil & Filter to suit your car
- Voltage Regulator
- Workshop Manual/s



OTHER KEY ITEMS TO CONSIDER

- Water: 2 litres per person per day minimum!
- GPS Unit - if you use one
- Compass and Maps - relevant to the area you are travelling in, recommend even if you use a GPS unit or electronic maps - you never know when they might, fail plus maps give a good overview
- Pencil and Paper - some people also carry logbooks
- Spare Car Key - where they can be accessed in an emergency, outside of the vehicle - maybe in another car. Immobilizer fob or key for newer cars
- Emergency Communication Equipment - we recommend a Satellite Phone or HF Radio and Personal Locator Beacon, particularly when travelling in remote areas or areas of no mobile coverage. Starlink is good as it gives you satellite internet and mobile phone coverage
- Sand Flag - compulsory in some areas (eg Simpson Desert)
- Extra wheels or tyres for longer/remote trips and tyre levers



CAMPING & RELATED GEAR

Camping gear is a personal thing, and one person's idea of a comfortable bed is another's nightmare. So, while you will probably have your own list of camping gear you like to take along, here are some prompts to ensure you are comfortable on your trip.

- 240V cable for fridge and extension cord
- Binoculars
- Cameras - and memory cards or film (for the traditionalists)
- Clothes to suit conditions (remember in the Aussie deserts it can get very hot and cold and, in the Vic, High Country it can be sunny one minute and snowing the next)
- Clothesline & pegs, buckets
- Driving license
- Fishing gear, spotlight, swimming gear, water bottles for hiking
- Gas stove, gas bottle (full or spare cartridges), matches, saucepans, frying pan, billy, griller plate, cutlery, plates, cups, camp oven, insulated gloves, tea towels, soap, pot scourer, wash up bowl, detergent, tin opener, can punch, corkscrew, flasks & containers for hot & cold drinks, spare plastic containers for food, rubbish bags
- Hammer (or similar) to put your tent pegs in with
- Insect repellent and sunscreen
- LED Lights, torches and LED lantern, spare batteries
- Money
- Permits - National Park, Land Council and other types for the area you are travelling in
- Sleeping bags, mattresses & 12v pump if not self-inflating, pillows, inner sheets. (Patches, glue & spare plug for mattresses - just in case)
- Sunglasses, Table & Chairs
- Tent or Swag - don't forget the tent poles, pegs, spare ropes, and a ground sheet
- Toilet gear (Toilet Paper, sponge, toothbrush and toothpaste, deodorants, soap, towels, razor, brush/comb, shampoo, etc)



Spider Compact Stove \$79

Appendix I: ACT4WD Club - UHF Channels

Note: our default channel is 20, we move up 2 channels at a time with interference

80 Channel UHF	Use
1-4;6-8;41-48	Duplex - Repeater Output
5	Duplex - Repeater Output (Emergency use only)
9;12-17;19-21;24-28	Simplex
39;49-60;64-70;79-80	Simplex
10	Simplex 4WD Drivers - Convoy, Clubs & National Parks
11	Simplex Call
18	Simplex Caravan & Campers Convoy
22	Data Only (No Voice)
23	Data Only (No Voice)
29	Simplex Pacific Hwy (NSW) & Bruce Hwy (Qld) Road
30	Simplex UHF CB Broadcasts
31-34; 36-38	Repeater Input
35	Repeater Input (Emergency Use Only)
40	Simplex Highway
61-63	Reserved for Future Expansion
71-78	Repeater Input

