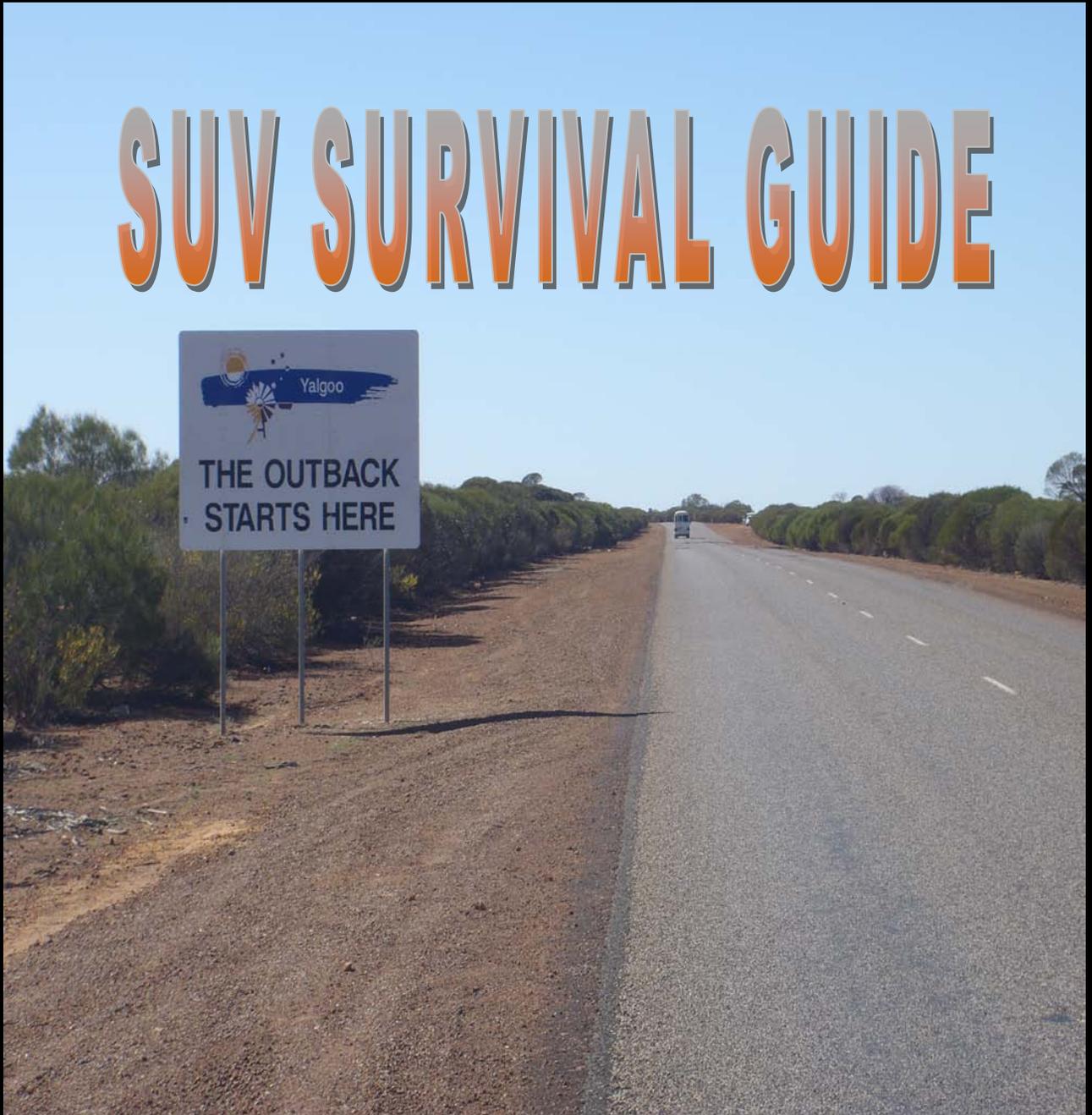


SUV SURVIVAL GUIDE



For Outback Australia



2011 Edition: With web updates:

Copyright Notice

Copyright January 2006 Outback Australia Adventure Travel, ALL RIGHTS RESERVED Except as permitted by the Copyright Act 1968, no part of the SUV Survival Guide (this book) may in any form or by any electronic, mechanical, photocopying, recording or any other means be reproduced, stored in a retrieval system or be broadcast or transmitted without the permission in writing of the author, Outback Australia Adventure travel.

(Printing of this book for personnel use is granted)

Disclaimer

All information in this book is provided as a general guide only, the Author does not express or imply anything regarding the accuracy or reliability of this information or its suitability to your situation or for a particular purpose.

The author has made every effort to ensure the information contained within this book is correct, and expressly disclaim any liability or responsibility for the accuracy of the information in this book or for any loss, injury or inconvenience by any person using this book. It is your responsibility to confirm the currency, validity and suitability of all information.

OUTBACK AUSTRALIA ADVENTURE TRAVEL DO NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES, REPRESENTATIONS OR ENDORSEMENTS WHATSOEVER (INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF ME, INFORMATION OR SERVICE PROVIDED, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WITH REGARD TO THE BOOK, THE MATERIALS, ANY PRODUCTS, INFORMATION OR SERVICE PROVIDED THROUGH THE BOOK, OR ANY SERVICES LISTED THEREIN, AND OUTBACK AUSTRALIA ADVENTURE TRAVEL WILL NOT BE LIABLE FOR ANY COST OR DAMAGE ARISING EITHER DIRECTLY OR INDIRECTLY FROM THE USE OF THIS BOOK.

Do your own research, Prepare Well and enjoy your adventure

Travel Safely in the Australian Outback
www.outback-australia-adventure-travel.com

INTRODUCTION

First let me congratulate you on downloading this valuable manual, you will find it has loads of useful information and tips, these will help to build your knowledge and give you ideas on other ways to do things safely. It will only take a little time to build your knowledge and skills to safely explore the Outback.

I am often asked “What is the Outback and where does it start”, I feel this is a difficult question to answer and will depend on where you live. I consider it any remote location away from civilisation and a phone network. My advice You will know when you get there, just take a drive and find your little piece of the outback.

The Australian Outback is an amazing place to explore. Take the time to find your little piece of paradise. The SUV or 4WD parked in the front yard is your ticket to explore the places that many people simply fear to visit. Why do people fear exploring the outback, for many there is the fear of being stranded, bogged or simply not knowing what to do “OUT THERE” in the Outback. This fear stops many people from packing up their SUV with some gear, the kids or some mates and creating a unique holiday to remember.

You only need a little knowledge some basic training and the time to practice the skills, with this you will build the skills required to confidently start your holiday and have your own adventure. I like to think of an adventure as a enjoyable holiday that is unique as opposed to the epic or worse the tragic epic. Often called a disaster, a good idea with no planning and poorly executed.

This is where we can help, the SUV Survival Manual will provide you with a handy reference on how to deal with almost any situation you will find in the Great Australian Outback.

Keep a copy in the glove box for quick reference when you need it, use our website to obtain more detailed information and also updated information on all subjects raised by our readers

We constantly update the site to ensure you are getting the most relevant and reliable information and provide a guide to some truly incredible locations.

The easiest way to learn the skills you require is just, “give it a go”.

TABLE OF CONTENTS

INTRODUCTION	2
TABLE OF CONTENTS	3
SAFE OUTBACK TRAVEL	5
PREPARATION AND PLANNING.....	5
SUV SELECTION	8
VEHICLE, TOOL & RECOVERY KITS	14
Recovery Tip: Prevention is the key.....	14
SUV DRIVING TIPS	14
BUSHIE TIPS AND HANDY HINTS.....	15
OUTBACK AUSTRALIAN	16
SURVIVAL.....	16
YOUR BASICS.....	17
ACTIONS BY SURVIVORS	18
PERSONAL SURVIVAL KIT.....	19
EMERGENCY PACK	22
WATER.....	23
THE IMPORTANCE OF WATER TO SURVIVAL	23
METHODS OF WATER PROCUREMENT	25
Solar Still “Passive Solar Energy”.....	28
WATER PURIFICATION.....	29
SHELTER	30

TYPES OF SHELTERS	31
FIRE & WARMTH.....	34
FIRE LIGHTING WITHOUT MATCHES, back to basics	34
MORNING FIRE LIGHTING TECHNIQUE	37
HOW TO FIND FOOD	38
LIVING OFF THE LAND	38
FOOD SOURCES	38
SNARING ANIMALS.....	41
PREPARATION OF GAME FOR COOKING	43
EDIBLE PLANTS.....	44
THE TASTE TEST FOR PLANT EDIBILITY.....	44
DIRECTION FINDING	46
GPS RADIO AND SAFETY AIDS.....	49
EMERGENCY SIGNALS	50
BUSHFIRE SURVIVAL.....	53
RIVER CROSSINGS	55
APPRECIATIONS AND PLANNING	55
BUSH FIRST AID.....	56
INDIVIDUAL FIRST AID KIT	57
BASE / VEHICLE FIRST AID KIT.....	57
DEALING WITH DEATH.....	58
LOAD THE SUV	60
NOTES	60

SAFE OUTBACK TRAVEL

This SUV Outback Survival Guide is designed for those willing to learn the simple skill of preventative planning. Survival in the Australian Outback should not be thought of as trying to rub two sticks together and make fire, it should be thought of as sitting in a comfortable folding chair with a cold beer looking out over one of the many incredible views that draw us back to the bush or one of the thousands of isolated beaches dotting the coast. True survival means something has gone terribly wrong, you have either failed to plan, or in my mind you have planned to fail.

For those who have been working in the bush for a long time this would simply be the 6 **P's** "*Prior Preparation and Planning Prevents Poor Performance*".

Adequate preparation before undertaking any trip in to the Great Australian Outback will lessen the chance of dying and wasting your life or worse still the lives of the people you love and care about. There have been many cases where loss of life has resulted from a lack of planning foresight and stubborn foolishness. This often leads to adults and children dying from lack of water or shelter and in fewer cases from cold and hunger.

PREPARATION AND PLANNING

There are a number of things to be considered before starting to pack for your trip, these are linked to the premise that -

"Your Detailed Preparation And Planning Prevents Tragedy or Disaster"

Equipment

The equipment you take into the outback must be serviceable and adequate for the trip, many outback locations will not have extensive spares. Always take additional spares if you are going to remote locations. Mapping should cover the entire area of the intended trip including the possibility of side trips, if you are reliant on electronic mapping. The very minimum carry some larger scale paper maps as a backup and additional hand held GPS with spare batteries. Electronic devices whilst very good are never as reliable as a paper map or charts in a waterproof bag.

Communications

For close range communication between vehicles an off the shelf citizen band (CB) UHF or VHF radio may be used, these are normally good for 1 – 5km and up to 30km depending on power output, vehicle aerial and terrain. The next step is long range communication using a HF radio, satellite phone or emergency satellite beacon communication device. Single vehicles and for those who want the comfort of knowing assistance is never far away, satellite phones and beacon trackers are essential. The advent of the increasingly popular Beacon /

Trackers, such as the SPOT Tracker can reduce the threat of dying alone on a desert track.

The SPOT Tracker allows you to send a predetermined emergency message with your location to a phone number or email. The spot tracker service also allows family and friends to follow your outback adventure from the comfort of their lounge room on the spot website. You need to provide your contacts with logon details and they will be able to track your progress as it is updated at regular intervals. This is a good cheap device and readily available service.

Terrain or Ground to be driven over in your SUV

A detailed map study should be done to ascertain the following:

- Is it accessible by vehicle or by foot?
- Is it suitable for a SUV or will it require a rugged 4WD (troopy)
- Where are the fuel and water source's en route?
- What is the best route?
- What aids to navigation will you have?
- What alternate route could you use if necessary?
- What positions of evacuation are available?
- Where are the local inhabitants?

Google earth is very useful for planning purposes providing it has good coverage of the area to be visited. You can even use Google earth as a dedicated electronic mapping tool. You will require a laptop and a wireless connection, whilst online conduct your route recon in detail, your computer will store this information into the memory cache to be used at another time. Then when travelling have a GPS linked to your laptop and the track will be displayed in Google Earth. For more details visit our Navigation page.

Use of Maps

The Australian Outback can be very flat with few landmarks and there is a significant lack of signposts on many outback roads, this is particularly true when you are a little geographically embarrassed.

On another note be very wary of the spoken directions given from an "old bushy" he'll know where he is and where he is going, "been there his whole life". Be very concerned if you hear *"its just up the road a mile or two mate"* as these directions can be misinterpreted and the wrong track easily taken.

In the absence of any real map, try to obtain a printed map from Google, a photocopy of a real map at the local post office or station house, worse case a map traced on baking paper is still better than nothing or as a last resort a rough map drawn on paper with as many landmarks as possible indicated and showing the necessary distances. Trust me it's very easy to forget the details 4 hours

down the road when you are trying to find that small track leading to the last clean water in cooee of anywhere.

Tip: Dead Reckoning

Mark your position on the map as you progress so that you can pin-point your location. Do confirm your position at every opportunity. A minimum should be every couple of hours or more regularly let's say 20minutes in more complex terrain.

Weather Conditions

The weather in Australia must be considered as many road conditions vary according to the local rainfall. You should be aware of the changes of season in the area of your planned trip, this will ensure that you are going at the best time of year and less likely to be stranded on a flooded plain for days or weeks.

Time allowance

You should consider carefully the time and space you are allowing for your trip.

- When are you leaving?
- How long will it take?
- What are the roads tracks like?
- Where do you propose stopping to camp?
- When will you arrive?
- Have you allowed a safety margin in case of minor mishaps?

Learn about Australia the country

You should learn as much about the Australian Outback Country as you can, This will assist you if you need to survive in it. Items to consider would be:

- Water Sources
- Native Foods
- Local conditions
- Towns
- Aboriginal camps
- Mining camps
- Emergency services

Notifications

Before leaving on a journey through remote areas always notify either friends, relatives, station owners or police of the following information -

1. Estimated time of departure [ETD]
2. Proposed and alternate routes
3. Estimated time of arrival [ETA]
4. Use of a SPOT tracker or equivalent
5. Mobile and Sat phone numbers

Note:

Don't forget to notify those concerned once you have safely completed the journey. The last thing you want is to be in the middle of a National Emergency Search; this could cost you more than your reputation.

SUV SELECTION

Selection of your suitable SUV or 4WD vehicle, this will ensure safe outback travel. This needs a little home work, do you want petrol or diesel, does it need to be large or small or maybe even a ute.

A lot will depend on where you plan to go and the type of load that you are going to carry. In addition you will carry major items of fuel, food and water, you may also be carrying camping equipment, cooking gear, vehicle spares, tools, recovery equipment, maybe an extra spare tyre and your valuable passengers. If you choose to travel 'off road' you will need to be sure your vehicle is suitable for the conditions you plan to encounter.

There is a difference between an outback family adventure along the Gibb River Road in your SUV or soft off roader, and the true outback adventure in the middle of the Simpson Desert.



Not all vehicles are built for sustained off-road punishment.

That is the reason why the mining companies, the Army and most epic adventurers will either use the trusty land cruiser “troopy” or land rover.

These are built tuff and are reasonably easy to fix, this is because they are very basic vehicles. Now lets face it, most family adventures don't require an hard core, no frills expedition vehicle. In Australia generally we need to drive great distances on sealed roads to find our secret camping spots and that's where driving a comfortable road friendly SUV comes into its own.

When driving I like to hear my music and chat with my family and friends when on the highway. Most SUV's are very comfortable and if treated carefully will get you to that secret camping or fishing spot and bring you home safely.

This Guide is written for people wanting to use their SUV or 4WD to explore the Outback. I consider an SUV to be 4WD and have reasonable clearance under the vehicle. There are many vehicles that are sold as SUV's they do have 4WD but have no clearance or protection for vital driveline components.

A SUV is desirable when it has good clearance, at least 30cm. Your SUV should have high and low range gears available but this will depend on the terrain you intend to travel. If you are just going to use it on the beach for a spot of fishing and camping often high range is more than adequate. Those more adventurous families planning to explore country with rugged rocky terrain or desert country with deep soft sand may need to consider the SUV they purchase very carefully. There are still loads of SUV's available at modest prices that are well built and robust. Visit our SUV page for further details on how to make your selection.

Vehicle Preparation

Your vehicle will not only be your means of transport but if you are travelling 'off road' it will be your home and of course your biggest aid to survival should something unforeseen happen to you. As such it must be in first class mechanical condition. If you are not a mechanic it is best to take the vehicle to one who specialises in this type of vehicle. Explain the nature of your trip and have them go over the vehicle from top to bottom. Short courses in vehicle maintenance are offered by most community TAFE Colleges or you can watch the videos on this website to learn valuable tips.

Roof Racks

SUV's generally require roof-racks to carry the loads required, you may consider the need to install a roof rack. Only buy from a quality manufacturer who specialises outback travel. The best advice I can give, only carry light aerodynamic equipment on the roof, it will save you fuel and reduce body roll and the possibility of a roll over. Our SUV page has further details on SUV equipment selection.

Under Body Protection Plates

These I considered necessary on light SUV's for any area with rocky terrain, rough creek crossings and rough sand dunes. They can however be a problem on tracks with lots of Spinifex. You can get protection plates for most SUVs



Spinifex problems

Spinifex country can be a few kilometres or many days of frustrating travel. Spinifex is one of the most dangerous threats to your survival in the outback.

Spinifex packs tightly into all areas under the vehicle especially between your protection plates and the hot exhaust. It can create a definite fire

hazard, once these fires start they are hard to put out. You will need to stop often and scrape the Spinifex out. I use a piece of heavy wire with a hook in one end and probe on the other end, this generally works well.

Roo and Scrub Bars

I consider a roo bar an essential item for off-road travel if moving at night or during the twilight hours. Scrub bars can be handy on tight tracks to prevent panel damage but they are not essential. If you only move during the day light hours, roo bars are not essential but they can be a good investment should you be unlucky enough to hit a kangaroo or another large animal. You are really just trying to protect your radiator and engine cooling system and also your lights.

Radiator Protection for spinifex and grass seeds

Some spinifex grows to a height of nearly 2m and the seeds can be drawn into the radiator. At least 3 layers of fibreglass wire netting should be placed over the front of the vehicle. This will help to maintain your cooling system. Most SUV 4WD's are already working hard and running a little warm when driving on bush or sandy tracks.

Fire Extinguishers

It is good planning to carry at least 10 spare litres of water in a spray bottle for spinifex and grass fires as well as an extinguisher suitable for electrical or fuel fires. I normally carry two extinguishers as the first only last a few seconds, I have stood by and watched my car burn before me, this while I was standing with an empty \$30.00 fire extinguisher in my hands. Lucky It was only a 40 Km walk to town.

Tyres

Tyres can be a deal breaker. Most SUV are provided with road tyres. It is important to discuss your tyres with your local tyre dealer before your trip. Ensure you have the right tyres for the task. Tough sidewalls are recommended as a minimum for off road use. If its really tough going, two spare tyres mounted on rims plus an additional 2 tubes, tyre plugs repair glue and tyre changing tools should be carried. Depending on where you are going you can also carry another spare, a \$50 second hand tyre or two strapped to the roof, it is a lot cheaper than \$500.00 plus you can be charged for a spare tyre in an outback town in the middle of nowhere.

Wheel Rims

It is easier to change a tyre on a split rim or steel rim than on a alloy rim so stick with the standard steel split rim's or have the correct tools for changing the tyre on the rims you have, if you have never changed a tyre, learn how before your trip. You

Travel Safely in the
www.outback-australia.com



can sometimes buy a second set of second hand rims fitted with off road tyres just for you trips away. Watch the videos on our website on how to change a tyre.

Winches

Types of winches range from hand, electric or power take off. If you have a winch fitted to your vehicle make sure you know how to use it.

There are some simple safety rules to follow:

1. Check your winch is serviceable and know how to use it.
2. Always use a sling around an anchor point rather than forming a loop.
3. Never place your hands within 1m of the drum if the winch is operating.
4. Children should remain inside the vehicle unless unsafe to do so or be 50m away from the cable
5. Always leave six turns of cable on the drum.
6. Run the engine when using an electric winch.
7. Cables should be kept straight ahead of the winch. Do not pull if the cable is more than 15 degrees to either side.

I do like winches however I no longer have one fitted, this is mainly because I never get to use them. I have over 25 years of travelling around Australia and the World and I have never winched my vehicle out of a bog in anger. I only ever pulled the cable out to re grease it. Winches are good but they add weight to the front of your vehicle and you'll need a bigger bull bar, add a second battery etc. I prefer to carry a hand winch If travelling alone. I only carry one if I think I'll really need one, hand winches are useful as they can be used from any angle depending on your situation. Checkout our recovery page for further ideas for using hand winches and recovering you SUV.

Dual Battery Systems

When operating in the outback dual batteries can be handy, each battery should be checked individually on a daily basis. When making camp for the night the appropriate procedure should be used to ensure that the alternate battery is fully charged and will start the vehicle in the morning. The battery used for overnight use [refrigerator, etc.] may go flat. Always ensure your electrical's are in good shape prior to trips into the outback. You may also consider an independent isolator on the starter battery. Many SUV's do not have room for a second battery. I often carry battery starter when driving an automatic, it's a \$100 security blanket and can even be wired into the main battery if it drops a cell.

Fuel

Long range fuel tanks are an excellent idea but make sure yours is fitted in the approximate centre of the vehicle between the chassis rails. I think it wise to have more than one tank in case one should get ruptured. Use the rear tank first

to equalise load. If you do not have a long range fuel tank and most modern SUV's do not have room then consider 20 litre jerry cans. I always carry at least one regardless, they are an excellent method of carrying fuel. If you carry jerry cans make sure they are metal or designed to carry fuel and use tie wire on all caps to prevent spillage. Also try to carry them low in the vehicle if possible. However they often they end up on roof racks

Water

Allow 4 to 5 litres of **drinking** water for each person per day while travelling. If you have a built-in water tank fitted with an external tap it should be fitted with a tap guard and the tap itself lock-wired when moving. I would never go into the outback without plenty of water, an independent emergency water supply and a method of obtaining further water. Read the section of finding water in this guide and there's more information on the website.

Emergency Pack

Enough spare food, water and blankets should be included to allow for any unforeseen delays. Emergency rations should last at least three days on top of your planned trip.

A three day emergency pack for each person should consist of:

- 6 ready to eat meals or tins
- 4 litres of water
- Emergency blanket
- Waterproof matches

Vehicle Loading

The loading of the vehicle is critical and the vehicle's centre of gravity kept as low as possible always. Get in the habit of checking your vehicle and the load whenever you stop.



Vehicle Check List

The following items should be checked at the end of each day. This procedure should be conducted as part of your everyday routine and should never be neglected. Few city dwellers check their vehicle, some only ever check their vehicle when refuelling, most never check it at all. This is a great advertisement for modern vehicle reliability in an urban city environment. **If you don't check your vehicle every day in the outback you could Die.** Use our vehicle checklists, visit the SUV page: The following will give you a starting point:

1. Check engine drive belts.
2. Check engine oil and coolant levels
3. Check fuel filter [if possible]
4. Clean air cleaner and radiator fins
5. Check brake, clutch and power steering fluid levels
6. Check engine for oil and coolant leaks
7. Check engine, transmission and differential for oil leaks
8. Check all steering rods and joints for wear and cracking
9. Check all tyres for pressure and damage
10. Check battery levels
11. Check Roo bars and tow bar assemblies and tighten mounting bolts
12. Check Roof Rack and tighten bolts, look for cracks
13. Check chassis rails for cracks and tighten all mounting bolts, etc.

VEHICLE, TOOL & RECOVERY KITS

A comprehensive tool kit should be carried and should be suited specifically to your vehicle. Visit the breakdown and recovery pages for downloadable guides for VEHICLE TOOL KIT

If you travel in the outback "off road" in your SUV at some stage you are going to encounter sand dunes, clay pans, salt lakes and rocky creek beds. You are eventually going to become stuck. A complete vehicle recovery kit should be carried or you will be one very embarrassed person.

For more information on VEHICLE RECOVERY EQUIPMENT and checklists check out our page on SUV recovery. The first thing you must have and carry is a **Long or short handle shovel and an axe.**

Recovery Tip: Prevention is worth the 5 minutes more it took to get off your butt and walk down the track ahead. You can spend hours or even days getting vehicles out of a difficult bog or creek. With a rising tide you could even lose your SUV.

I have saved myself many embarrassing moments and hours of digging by simply walking the track ahead, the creek crossing or the steep descent. I have always found another way around or constructed a path thru the obstacle. This is always quicker.

SUV DRIVING TIPS

Listed below are some generally accepted safe driving practises to make your trip both safer and more enjoyable:

- When driving on water-logged roads it is better to keep to the centre and avoid soft edges. While the ride may be rougher the road surface is usually firmer.
- When crossing flooded creeks get out of your vehicle and test the depth and current before crossing. If the rain has stopped, the water level quite often drops in a few hours, so in the interest of safety it may be better to wait a day and then proceed safely.
- In the Northern states beware of crocs when crossing rivers and creeks *"remember you are part of their food chain."*
- After driving through water do not stop the vehicle at once. Remember that everything under the bonnet will be wet and by running the engine it will have more chance to dry out. Brakes may be ineffective and can be dried out by driving a short distance with your foot on the brake pedal.
- Use the square-on approach to slopes. Go straight up and down hills and sand dunes. Remember that travelling across the face of a slope is dangerous as the vehicle can easily roll over.

- SLOW DOWN on outback roads, outback highways and dirt roads, the outback is littered with car wrecks of those driving too fast. You can be a long way from hospital or any medical facility, I have encountered many accidents where family members are injured or dying and the driver is sitting stunned and useless and without out a scratch. Just slow down enjoy the view that's why you went there.

BUSHIE TIPS AND HANDY HINTS

If a vehicle breakdown does occur or you encounter problems with your vehicle it may be possible to improvise parts and make the necessary repairs or adjustments. Listed below are some suggested improvisations -

- Nuts, bolts and fixing brackets can often be replaced with wire.
- Soft rope or even nylon panty-hose can be tied in a circle to replace fan belts.
- A piece of thick canvas or vinyl can be used to make a sleeve for a blown tyre.
- A flat tyre can be filled with sand, clothing or vegetation.
- A hole in a petrol tank can be sealed by covering it with a piece of rag covered in condensed milk or a wad of chewing gum, a bar of soap, you may also consider plugging the hole with a wooden plug carved from a stick and of course 2 pack epoxy.
- Bars leak, or at a push mustard or pepper added to a radiator will stop minor leaks, it is a good idea to always carry a packet of epoxy resin bonding agent in your tool kit for longer lasting repairs.
- Quick setting 2 pack epoxy or araldite can be used to effect a repair to a holed sump, in several reported cases a coin araldite (glued) over the hole was successful.
- When the battery is flat and the vehicle cannot be push-started a vehicle with manual transmission can be started by jacking up a rear wheel and manually rotating the wheel in a forward direction with the vehicle in top gear and the ignition switched on.
- The most useful item of recovery equipment for getting out of a bog if you do not have a winch or a second vehicle is **a shovel**. If the vehicle is deeply bogged then try to clear the chassis rails and diff[s] and form an escape ramp in front of each wheel. Next you will need to jack up each of the four wheels individually and place material such as sticks, stones and any other material to hand under the tyres. This procedure will lift the vehicle out of the bog and at the same time give the tyres a firm surface to grip on. A valuable accessory is the Air-bag Jack. This is a blow-up rubber bag which is placed under the vehicle and inflated by connecting it to the exhaust pipe with the engine running. It's purpose is to jack up the vehicle, it can be used on any surface. Watch the recovery videos for tips and techniques.
- A strong long tow rope. I have towed vehicles for up to 300km in the outback.

OUTBACK AUSTRALIAN

SURVIVAL

Survival is best defined as simply staying alive. Generally speaking survival in the outback is a day to day proposition. Each day can be broken into two parts, ensuring that once the sun rises your efforts are directed to staying alive to see it set and once the sun sets to see it rise again. It is better to prevent Survival than to endure it.



The Australian Outback can be a very harsh and unforgiving place if you are ill prepared.

When you are prepared to survive you will never need to.

The temperatures range from 55 degrees Celsius to minus 5 degrees Celsius at night.

Water can at times be a very scarce resource and I can assure you the only thing on your mind when you have none, and you feel like you are dying of thirst.

Some parts of the outback only see traffic once a month or less. If you have the true adventurer spirit there are still places that have never been touched by the hand of man. Please be prepared and enjoy your adventure.

When things don't go as planned, or it's all gone pear shaped.

The first rule of survival

The first rule of survival is **don't panic! don't panic! don't panic!**.

You must take stock of your situation.

The survival mnemonic

The survival mnemonic will assist you to avoid immediate panic.

- S** Size up the situation.
- U** Undue haste makes waste.
- R** Remember where you are.
- V** Vanquish fear and panic.
- I** Improvise.
- V** Value living.
- A** Act like the locals.
- L** Lean on your basic skills.

YOUR BASIC REQUIREMENTS FOR SURVIVAL ARE

You will need four basic requirements to survive, they are:

- **WATER**
- **SHELTER**
- **WARMTH**
- **FOOD**

In general your priorities will be as listed above, however in some situations you may alter them to suit the arid zones of Australia. Shelter may become your number one priority if sufficient water is available. If you have taken the precaution of notifying someone of where you are going and how long you intend to stay, a search will no doubt be conducted to look for you.

Travel Safely in the Australian Outback
www.outback-australia-adventure-travel.com

Your task will be to use the knowledge and skills you have to provide the four basic requirements to stay alive until found.

ACTIONS BY SURVIVORS

A survival situation will be a traumatic experience for most people. The degree of effect it may have will depend on the circumstances. There is a psychology to survival and survivors will face many stresses that can produce a questionable will to survive. To fully understand this process it must be understood that stress is best described as our reaction to pressure.

Too much stress leads to distress. Signs of distress in a survival situation may include anti-social behaviour such as angry outbursts, an inability to get on with others and eventual withdrawal from the group. It may also include difficulty in making decisions and an inability to accept responsibility, over many years of teaching survival I have seen good strong men change when under extreme stress from either fear, lack of food or simple deprivation. Some rise to the challenge and others need to be assisted by the group.

Survival Stressors

Events that produce stress are called stressors. The most important survival stressors include injury, illness, death and uncertainty, lack of control, environment, hunger, thirst, fatigue and isolation.

Reactions to stress

There are several natural reactions to stress that need to be recognised, expected and for which strategic interventions need to be implemented. These reactions can include fear, anxiety, anger, frustration and depression. Make sure that your initial reactions to a survival situation give you every chance of survival.

Initial Critical Reactions

Recognise that you are in a survival situation and don't be afraid to make an honest appraisal of the situation. Get your thoughts on track by employing the survival mnemonic and recognise any survival stressors that may be present. Overcome any problems associated with attitude assumptions and adopt a positive attitude. Remember that your life and the lives of others who are relying on you to do your share are at stake.

Questions You Should Ask Yourself In A Survival Situation

- How much **water** do I have and how will I find more?
- What **shelter** from the elements will I need?
- What is the temperature range and will I need a fire to provide **warmth**?
- How much **food** do I have and what food is available in the area?

Survival Situation Appreciation

There are six elements to a survival situation appreciation, they are:

Travel Safely in the Australian Outback
www.outback-australia-adventure-travel.com

1. Review the situation.
2. Determine your aim.
3. List the factors affecting your chances of survival.
4. Identify all courses of action open to you.
5. Select the best course of action.
6. Make a plan.

Action Tip:

Remember your physical strength and emotional resources are at their strongest in the first three days of survival.

PERSONAL SURVIVAL KIT

The following is a list of equipment that should be sufficient to provide the four basic requirements for survival. But let's first start with:

A basic SURVIVAL kit



Even the most basic of equipment is a start.

A GOOD KNIFE

A good knife is one of the most valuable assets a survivor can have. It is a tool that allows the survivor to cut, chop, whittle and scrape to produce shelter, tools, traps and firewood. It makes efficient skinning and

butchering possible during the preparation of game and, if the tang is strong enough, a knife can be used as a light prying tool. Because of their value and utility, knives need to be well maintained and cared for to ensure their maximum efficiency.

Knives should always be kept clean and sharp, and used in such a way as to preserve the edge and protect the user. Normally, you should never dig with your knives, this is one of the fastest ways of completely removing the edge from a blade.

KNIFE SELECTION

The selection of a suitable knife is an important decision for anybody, the wrong type of knife can be next to useless. It is also too late to change your blade when out in the bush. Selecting a knife, the following points need to be considered:

Handle. The knife grip should be both comfortable and non-slipping. It should fit the contours of the hand so as to avoid blisters during heavy work. An oval or ergonomic grip is better than a round, circular one as it has a more positive orientation of the edge of the knife during cutting tasks. A solid pommel (top of the handle) that can be used as a hammer is also advantageous; these are useful for opening shellfish.

Tang. The tang should be full length and be fully enclosed by the handle. Stub tangs give a higher tendency for the blade to snap at the guard when under heavy pressure or stress.

Edge. The blade's edge should be both sharp and easy to hone back up. Unnecessary curves and serrations are difficult to sharpen effectively when in the field and have limited utility. A sharpening device should be procured with the knife to maintain the edge.

Steel. The steel in the blade should be hard enough to hold an edge but not so hard that this edge is brittle. Most reputable production knives will be made of a suitable steel. The user should be aware that any carbon based steel will tend to rust more easily than the stainless ones.

Sheath. A good sheath needs to come with the knife to allow for safe carriage. It should be sturdy, easy to fit to a belt and securely retain the knife at all angles. A sheath that also allows the carrying of a sharpening stone is beneficial.

Portability. The knife needs to be of a size that allows it to be carried easily, yet big enough to achieve its function. If a knife is too large it may cause the survivor to leave it behind with the result that it is never available when needed.

A good survival knife is one you will use often, so take your time in selecting the correct knife,

A well made knife should last many years of solid service; you will often find yourself carrying at Least two knives.



Improved Knife

Travel Safely in the Australian Outback
www.outback-australia-adventure-travel.com

YOUR SURVIVAL KIT

Items	Uses
Water bottle	Complete with 1 litre drinking water
Survival knife	Multi-purpose tool –well built
Plastic bags	Ground sheet, improvised raincoat, shelter building, water collection and carrying, carry bags
Foil rescue blanket	Shelter, warmth, water collection, signalling aid
Nylon cord	Shelter building
Fishing gear	Fishing, shelter building, snares
Signalling mirror	Signalling aid
Waterproof matches	Fire-lighting, signalling
Water purifying tablets	Water purification
Sweets - sugar	Energy food source
Notepaper and pencil	Keep diary, messages

Checkout our survival page on the website for further information on survival kits and emergency packs

Safety Tip:

Your survival kit should fit on your belt and must be carried with you at all times.

EMERGENCY PACK

The following is a list of equipment designed to provide the four basic requirements for survival for the three day period following a vehicle break-down or air emergency.

Items	Uses
Water bottles	Complete with 4 litres of drinking water
Foil rescue blanket	Shelter, warmth, water collection, signalling aid
Food	6 ready-to-eat meals in cans [or other]
Nylon tent fly / sheet	Shelter from sun, wind, rain (also to collect rain water)
Nylon cord	Shelter building
Waterproof matches	Fire-lighting, signalling
Emergency Beacon	

Safety Tip:

Your emergency pack must be carried in your vehicle, boat or aircraft at all times.

WATER

THE IMPORTANCE OF WATER TO SURVIVAL

In the Australia Outback people die due to dehydration, becoming lost or having their vehicle break down in the remote and arid areas of this vast land can be fatal. Many of these deaths occur because the individuals did not use basic common sense, "I often hear people say that common sense is not so common".

I prefer to believe they were just lazy, and did not take the time to prepare. They paid with their lives. The outback will not forgive apathy.

If you have read this far, you are developing your senses through reading. Many of the people who have perished over the years have had the knowledge they just failed to apply this knowledge to the situation. They failed to display good survival techniques.

The average person can expect to survive without water for three to five days depending on the climate and what they try to do. Some instances show individuals have perished within hours of becoming lost and many of these are experienced bushies who simply panicked or made very poor decisions, whilst there have been inexperienced city folk who have survived with a little learned knowledge and a lot of determination.

You must conserve any water you have, including that already in your body. Water is required to replace fluid that is lost, so by conserving body fluid you require less water intake.

Fluid Loss

Fluid is lost from the body by - Perspiring, breathing, urinating, vomiting, crying and talking.

Perspiring

Is a normal bodily process that has a cooling effect as the moisture evaporates from the skin surface. A person sitting in the shade when the temperature is 35C would lose about two litres of fluid in a twenty-four hour period. You should keep your body temperature down to a minimum either by natural or artificial means. It is important to keep activity down to a minimum and conserve existing body fluids during the heat of the day.

Urinating

Is also a normal bodily process and cannot be prevented. However, it should be held as long as possible to slow down this fluid loss from the body. On "***no account drink raw urine***". You can of course distil urine using a solar still to

produce water. All waste and toxic elements in the urine will be left behind during the process of distillation and the distilled water is able to be consumed. (Refer to the section of making solar stills)

Vomiting

Avoid becoming ill, leave bad or harmful food well alone. Use the **taste test** to establish if foods are edible if you are unsure. (*Visit the section on the bush tucker taste test method*) **the taste test may save your life.**

Crying

Should also be avoided, it may be difficult to convince a child of this, however a child will only respond to your lead. Stay calm, in charge and develop a plan. The child will just think of this as another adventure to be lived and enjoyed. If you remain calm the child should. Crying can also raise the body temperature as the person or child will become stressed, this may further dehydrate a person.

When to consume water in a survival situation

If you are unable to locate or procure water and are limited to the 1 litre of water in your survival kit, it should only be consumed in small sips to replace some of the fluid lost to your system. This water will increase your time frame for survival if used wisely.

Tip:

Do not drink salt water and remember dirty water should only be consumed after it has been purified. NEVER drink urine it is a waste product from the body.

METHODS OF WATER PROCUREMENT

Your first efforts in a survival situation should be directed towards establishing a good water supply. Initially you should look for ground water then obtain water using the following methods. Visit the survival page for a more in depth brief of water procurement and techniques.

Transpiration Method

Water can be obtained by placing **clear** plastic bags over the leafy branch of a non-poisonous tree and securing the end of the branch (Tip: place a tie around the leafy branches to reduce the chance of puncture to the bag). Ensure there are no holes in the bag (seal these with black tape, band-aids, etc). The action of the sun on the plastic will cause water to be drawn from the leaves and run to the lowest part of the bag. Do not disturb the bag to collect the water, simply cut a small hole in the bag then reseal it. The leaves will continue to produce water as the roots draw it from the ground.



The transpiration method

The water should be drained off every Few hours and stored. Tests indicate that if this is not done the leaves slow water production. The heavy concentration of moisture laden air may reduce the effectiveness of the sun. If there are no large trees in the area, you can break up clumps of grass or small bushes and place them inside the bag. The same effect will take place. If this is done the foliage will have to be replaced at regular intervals when water production is reduced.

TIP:

*Ensure that these bags receive **maximum sunshine at all times**. This means locating your bag on the Northern side of a tree so that the bag gets maximum sunshine as the sun rises in the East and sets in the West. Ensure that exposed roots are tested for water content. Soft pulpy roots will yield the greatest amount of liquid for less effort.*

Distilling Sea Water using heat from fuel

If you can only obtain salt water and this all that is available, a salt water distilling plant can be made. You will need to improvise and use containers that can be found or that you may have. First you require a container of sea water and material to seal the container to prevent steam from escaping. Push one end of the tubing or rubber hose through this seal material and check to see that the seal remains intact while blowing into the loose end of the tubing. Place the container onto a fire and bring to the boil. (*Tip. do not allow the flame to come in contact with the plastic*). Steam will be forced through the tube where it condenses and fresh water will drip from the end, into another container

The condensation method

This is not the only method of distilling water. You may simply bring water to the boil and catch as much steam as possible on a piece of cloth and then ring it out. Although this method works, it is not as efficient and prevents you from doing other tasks.

You must remember that the steam is the fresh water and therefore you must trap the steam to get fresh water. Any improvised method will do even if you place an open container on the fire and bring it to the boil, then arrange a small plastic "tent" on top of it. The steam will strike the tent, condense and run down to your container or containers.



Tip:

Cooking foil or similar will make a seal around the container by folding it into a cone shape with the tubing attached to the small end of the cone and placing the large end around the container, secure ends of cone with wire or rubber from old car tubes to make the

seal. Run the tubing through a cooling agent (clothing wrapped around the tube dipped in salt-water).

Safety Tip: Beware of containers that have been used for chemicals as it may prove impossible to clean them and using this form of container may poison you.

How to build the above methods

A small channel and fire pit is dug under the base of the 200-lt drum. Fill the drum with the salt or strained dirty or contaminated water, no more than two thirds full. The reason for this is if the drum that is heated is full and the water boiled then the boiling water rather than steam would be forced through your connector and into the cooling chamber so you are not separating the water from its impurities and are collecting nothing but contaminated water.

Once the drum is firm then attach the connector hose or pipe and the 20 lt drum. The 20 lt drum can be held in position by a framework of crossed support beams or simply by another mound of earth or sand. At this point determine the lowest point on the 20-lt drum and puncture the drum to allow the (processed steam) water to drip out and into your catchment container. The plastic tube can be used from the hole in the 20 lt drum and into a bottle if required or use the plastic bag as displayed.

The 200 Lt and 20 Lt drum desalination unit, once in position, is then utilised by placing a small controlled fire at the base end of the 200 Lt drum and keeping the water inside at a constant boil. The 20 Lt drum should be cooled using wet cloth or bags to improve the cooling/condensation of the steam. A good tight seal must be maintained of the connector to avoid steam loss. Monitor the heat source and water collection constantly as this unit can produce over 20 lts of drinkable water in 24 hours.

Solar Still “Passive Solar Energy”

The classic Survivor Solar Still. The most successful method of procuring water in the desert is by using the outback passive “solar still”.

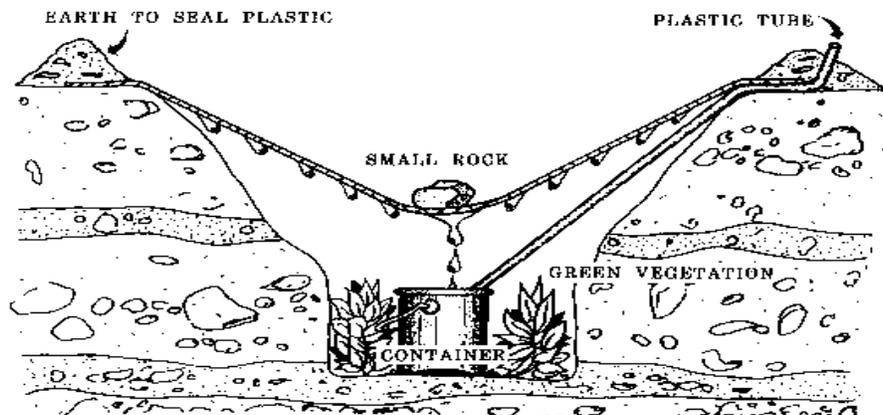
The still is simple to construct with a minimal requirement of equipment.

To construct, place a container in the bottom of 1 m x .5m x .5m hole (approx).



Place the plastic cover over the top of the hole, then seal the edges and place a small stone in the centre directly over the container as a weight. This will act to direct water drop after condensation takes place, into the container. The principle behind this is that the plastic sheet and air underneath gains a greater temperature than the ground, and moisture starts evaporating from the

ground. This process can be aided by placing leafy branches or urinating into the hole prior to sealing.



WATER PURIFICATION

This purpose of this section is to establish the need for clean water and how best to achieve this in a survival situation. You must ensure that the water you drink will not cause you or the people you are with further illness, as this often means vomiting leading to further loss of fluid and dehydration this must be prevented at all costs.

Most adults once informed the water requires purification prior to drinking have the resolve to wait until the water has been purified and processed before having a drink, however children when thirsty will drink what they have at hand.

Often the only water available to livestock and native animals in the outback is the only water available to humans in a survival situation. It is not uncommon to find animals drinking from the muddy water hole the you find.

“I once after searching and digging for water for three days found a dirty muddy water hole that had a big old bore sitting in the middle of the waterhole (wild pig) he was quite happy to share but was not going to leave, being quite parched and thirsty. I carefully scooped up cups of black watery ooze pouring it into a plastic bag. I spent the next two hour filtering and sterilising my only water to be found”, it was still brownish and tasted like dirt with a chemical taste from puritabs but I managed to hydrate and live to tell the tale, I went on to filter another ten litres over the course of the day so that I could continue my travels“.

Clarification

The water you drink should be as clear as possible. To achieve this you must strain it to remove the suspended matter, etc. Carry and use a good old army mill-bank filter (cloth bag shaped like a Christmas tree sock, you can purchase these at an Army disposal store \$1) carried with your survival kit or if you have nothing.

A good method of doing this is to make a filter from the leg of a pair of trousers. Into this place fine sand up to one third the length of the trouser leg, charcoal for the next one third and fill to the top with gravel, small stones, or leaves and branches etc. Hang the leg of the trousers in a tree or similar and pore in the muddy water. It will take a little time but clarified water will begin to seep through the filter and drip into a container placed underneath.

Sterilisation

Because the water is clear does not mean that it is safe to drink or has no bacteria in it. To make sure of this you must sterilise any suspect natural water that you drink. To sterilise water you can use several methods; the easiest would be to put in sterilisation tablets (puritabs) these are chemical tablets placed in a litre of water shaken and left for 30 mins, this will render most water safe to drink. The alternatives would be to boil the water for at least 10 mins or

to use other chemicals that will neutralise any bacteria, these may include Condy's Crystals - Iodine or even chlorine in small amounts. There are many new methods available such as UV lights, advanced micron filters and reverse osmosis, generally you won't have these available in a survival situation. Yet many of these new methods are lightweight and ideal for trekking. Check out our Survival page for further information.

SHELTER

Extremes of heat and cold are the enemies of human survival and both these qualities are found in the inland arid regions of outback Australia where very hot days are followed by cold nights.

A shelter will provide you with protection from the elements, insects and animals. It is also a huge psychological boost to help you feel that you are managing.

First you determine what type of shelter you require and sketch a plan in the dirt and then simply build it according to your plan and the available materials. Ensure the dimensions of your shelter meet only your essential requirement for survival and the size of your party or you will be trying to heat an empty space. All the timber you collect use energy and valuable sweat.

Using Vehicles as Shelter

Vehicles are a source of shelter as they provide protection from the sun during the day and the cold air at night. Trees, branches, blankets and other items can be used to keep direct sun from the vehicle.

Rescue and Space Blanket

Space or rescue blankets are a prepacked cheap, lightweight and an ideal item to assist in providing shelter. The reflective surface reflects the sun's rays from the person sheltering underneath.

Natural Shelter

If nothing else is to hand you will have to use bush materials, when constructing a shelter you should consider the following points:

- Type of shelter required: shade or warmth.
- Protection from elements and wildlife
- Availability of materials.
- Proximity of water.
- Close to your emergency signals.

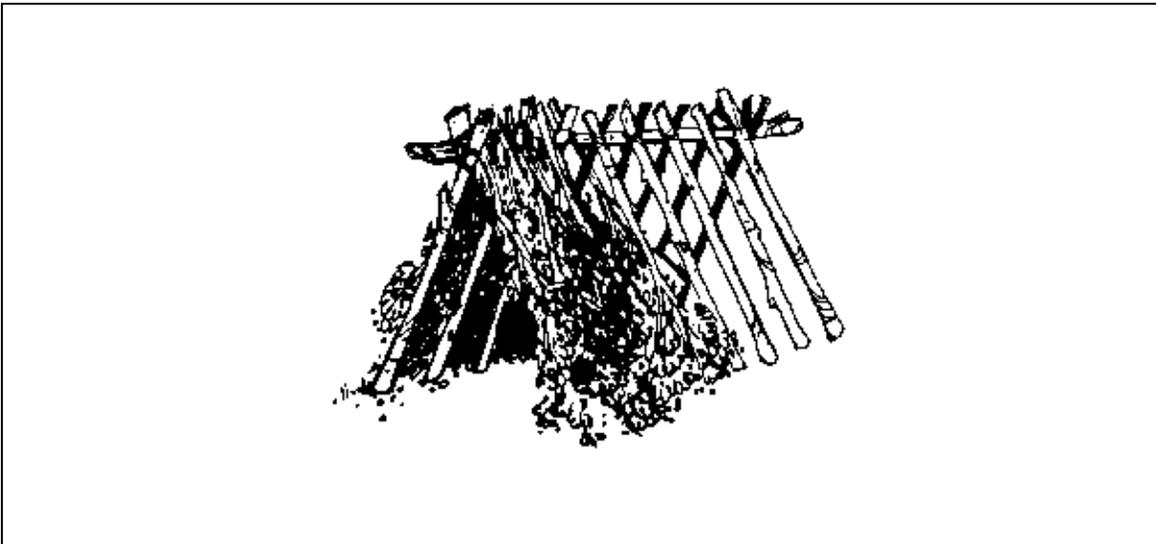
When you begin construction, use larger branches for your basic frame as you will find a roof fairly heavy when it is wet. Dry old branches can break trying to

support it. Branches can be tied together using vines, strips of bark or strong grass. If you are near your vehicle, strip out wires to use for this.

Remember that your ability to improvise and see alternate uses for items that you may have available, could mean the difference between life and death.

TYPES OF SHELTERS

Any survival situation will involve the construction of some form of shelter from the elements. The need for shelter and the type of shelter should be as identified in your survival situation appreciation plan. It is important that you base any decision to build a shelter on your survival plan. Be careful not to use items from your survival kit which have a higher priority of use. Some fairly simple types of shelter which you can build with a minimum of effort include the following:



The A-frame shelter



The lean-to shelter



The aboriginal shelter

Roofing

If old vehicles are handy, you can pull out the head lining to use to make a waterproof roof. If not, then blankets, sleeping bags or even spare clothes can be used for a sunshade.

Thatching

Thatching can be done by using materials such as leaves from palms or leafy branches, even tufts of grass tied together will provide a thatch. Some types of thatching you can use include the tufted grass thatch and the batten thatch.



Batten thatch using grass and palm fronds

Use Of Debris

Once you have constructed the skeletal structure for your shelter in cold or wet weather you should consider the use of debris for protection and insulation. Construct the framework; weave green branches thru this then heap on a pile of light soft debris. Leaves, grasses, brush, almost anything will do. The debris should eventually form a large dome shaped mound some 60 cm thick over the structure. Remember the thicker the pile the better the insulation and the steeper the pitch the better the rain protection. On top of the debris add some slabs of tree bark, moss or any smooth material to form a protective waterproof layer that will shed water.

Your shelter will depend largely on what is available to use and what the conditions are. Common sense will guide you but be warned, a shelter can take a good deal longer to build than you think. If you can find something that will provide a part of a shelter such as a hollow log or a depression in a rock face, then use it as the basis of your shelter, this will save time and energy.

Tip:

Whilst building your shelter remember that heat stroke and loss of body fluid can be avoided by keeping in the shade and moving as little as possible during the heat of the day. Work at first and last light or the cooler parts of the day.

FIRE & WARMTH

FIRE LIGHTING WITHOUT MATCHES, back to basics

Fire is one of the essential ingredients in mans survival as man; it separates us from other creatures that inhabit this Earth. We as man are very susceptible to the environment we live in.

Man has developed the tools and creature comforts to exist in all but the most inhospitable environments. You and I rarely appreciate what we take for granted, It is not until you find yourself stranded in the Australian Outback a thousand kilometres from civilisation in the desert country, scorching hot during the day and freezing cold at night.

It is at this time we embrace the basics foundations of life. One element is FIRE. Your Fire cooks food, warms you, sterilises your water and acts as an emergency signal if necessary to assist on your recovery or rescue.



To start a fire requires an understanding of the basic principles of combustion. For combustion to occur requires the presence of fuel, heat and oxygen. Fuel consists of dry vegetable matter, dry animal manure, reactive chemicals, kindling and timber. Heat can be provided by friction, chemical reaction, spark or magnification. Also oxygen as this is one of the essential ingredient to produce flame

photo: CHEMICAL METHOD

from heat and fuel. Oxygen and plenty of it is a given unless you are in an cave or old mine shaft, and in that case it's probably not a good place to light a fire.

Always carry some form of fire starter with you on trips such as waterproof matches, lighter, flint and cotton ball soaked in petroleum jelly.

If you do not have these then your skills should include at least one of the following methods. Remember that traditional methods of fire lighting require a high degree of patience and skill and should be learned and practised in a

training environment before you really need them. (*Watch our videos on fire lighting you'll find this on the survival page*)

Vehicle Method

Your vehicle has probably been fitted with a cigarette lighter. Use this to ignite a petrol soaked rag (**outside the car**). If you do not have a lighter then pull out two wires from the vehicle and attach these to the terminals of your battery, run them away to the ground. When the ends are touched together they will spark and ignite tinder.



The battery method of fire lighting

Safety Tip:

The gas produced by a lead acid battery is highly volatile and if exposed to a spark could cause an explosion. Make sure the fire is started away from the battery.

Torch Battery Method

A fire can be started by holding very fine steel wool over the negative terminals of a 6 volt torch battery and brushing it against the positive terminal. The sparks produced should ignite the steel wool, make sure you have tinder ready. Please pay attention to above safety tip.

The Fire Bow Method

This method is used by many indigenous people around the world. To use the fire-bow take a turn around the drill with the nylon cord attached to the bow, if you have used green timber for a bow the tension will be applied automatically, otherwise use your fingers to hold it tight. Place the tip of the drill into the base starting groove and hold the head stock onto the top of the drill. Push and pull the bow to rotate the drill. The over-heated shavings *punk* will fall through the groove in the base onto the tinder. The small black embers which will form should be held tightly in the tinder and blown upon lightly until it ignites. (*Watch our videos for tips*)

The fire-bow method of fire lighting



The Bow - can be any branch of a tree and should be approximately 45 cm to 60 cm.

The Head Stock - is a piece of hardwood, bone or concave stone to hold the top of the drill and allow it to rotate.

The Base - is a softer piece of dry wood flattened top and bottom so it will sit on the ground to allow the drill to start. A small groove is cut into the side of the base directly beside where the drill is to be used to allow the shavings or **punk** to fall onto the tinder.

The Drill - consists of a piece of dry wood of soft texture 30 - 40 cm long and as straight as possible. The diameter should be 1.5 cm to 2 cm, the drill sharpened to a point at both ends to fit into the starting groove of both the base and head stock. One of the better types of wood to use for both the drill and base is the lower portion of *Blackboy stalk*.

You will find a DETAILED INSTRUCTIONAL SHEET AND VIDEO of the SIMPLE BOW METHOD FOR FIRE LIGHTING

- **Check out the Survival page for Fire lighting to find the instructions in the following techniques**
- **The Lens Method for fire lighting**
- **Flint, Steel and Magnesium Blocks**
- **Chemical**
- **Your fire log and Morning Fire Lighting Technique**

How to Find FOOD

LIVING OFF THE LAND

The art of survival is a learned skill, however the will to survive is within us all.

The easy access to food we enjoy has dulled our primitive survival senses. We learn what foods are suitable and good (or bad) for us from our parents as children, as adults we learn by what we read on the package or propaganda on the TV. If you have not spent time in the bush learning skills on how to find food and what edible bush foods are available then you are at a disadvantage when it comes to finding food in the bush, alone, lost and hungry.

In a survival situation there is no packaging and in many cases what looks suitable is in fact poisonous. The good thing is most of us carry several days reserve on our waist. Food is not as important as the other three requirements for survival.

It is however necessary for a prolonged and demanding survival situation. Whilst trying to establish your situation any available foods should be eaten sparingly, keeping in mind that it is better to have one meal a day than to nibble small amounts.

The average healthy adult can live for several weeks without food so this will give ample time to learn from the bush and the natural environment the knowledge you need, and to locate the nourishment from natural sources if necessary. Just because your hungry doesn't mean you are going to die. I find hunger helps you focus on finding food, sharpens your senses and reflex's.

FOOD SOURCES

Sources of food available to survivors include; animals, bird life, marine life, insects, grubs and plant life.

Things to consider when finding natural sources of food, there are some important points to remember:

1. Most native animals, birds and some plant life are protected and should only be used for food sources in an emergency. This is where you act like the natives, only take what is necessary for your survival. A food source preserved in its natural environment is better stored and fresher than to take too much food and have it rotting before you can eat it.

Unless food is scarce, in that case what you catch may need to last for longer periods, it can be prepared, preserved and stored. (see food preparation on the survival page)

2. The body needs fluid to digest food, so foods with a high water content should be considered before others. If no water or limited water is available, then food should be avoided, particularly meat, meat requires more fluid to digest than vegetation in most cases.
3. You do not need to be a skilled hunter to obtain food in the bush. Even without sophisticated weapons. A simple timber club, long sharp stick (basic spear) or digging stick of any description can assist in providing enough lizards, insects and grubs to keep a person alive for several days, weeks or months simply by looking under rocks and dead branches, tree stumps and anthills.
4. If possible all foods should be cleaned carefully by washing, then cooked, this lessens the chances of any infection or stomach upsets. Cooked food is generally safe for consumption.
5. Generally bush food is tough, fibrous, unpalatable, and to some, even nauseating; but if it keeps you and your family alive, it is food so eat it.

The Energy Foods

The Energy foods do not consist of a mars bar or snickers, well at least not for long. The best energy source and the most bang for your buck in a survival situation is generally meat, easy to catch, prepare, cook and consume. If you are a vegetarian I would say “choose to live”, you will need to eat anything and everything if you are to survive. Sure there are plenty of vegetable foods, but the amount of energy required to collect and prepare these foods will deplete you fat reserves even faster, do not let yourself become a liability to the group their survival depends on you. You will require some fibre and there are many bush vegetables or sources of fibre to be found. In a survival situation I would generally try and catch or find the following in order to keep my energy up:

1. Animals:

- **Wild domestic animals, goats, pigs, sheep, small cattle**
- **Marsupials: kangaroo, rabbit, possum**
- **Emu, ducks, swans, sea birds and small birds**



2. Reptiles / Fish:

- Goanna, lizards
- Snakes
- Fish
- Eels
- Frogs

3. Insects / Grubs:

- Wichita Grubs
- Termites
- Green ants

4. Edible Vegetation:

- Covered in the next chapter

Checkout our survival page for further information and details

Animals and Reptiles

The presence of any animal or bird life in an area is evident by tracks, droppings and traces of fur or feathers. If you have been lucky enough to find a waterhole used by animals it is a simple matter to sit under cover, down-wind from the water source and either shoot or snare the animals as they come to water.

Even by walking through the bush quietly during the day it is possible to surprise sleeping animals in creek beds, under shady trees and amongst rocky outcrops.

Some of the most likely animals seen in the bush include; kangaroos, small marsupials, wild goats, donkeys, pigs, rabbits, snakes, lizards, frogs, sheep and cattle.

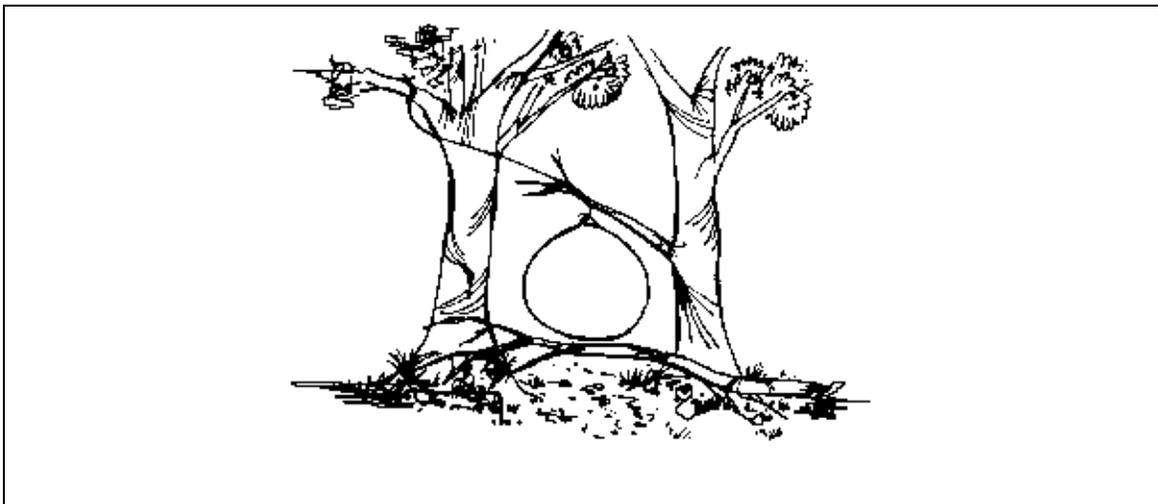
Some imagination and bushcraft skills are needed in knowing where to look, how to recognise tracks and how to snare the faster moving animals. The Survival page will have more details for finding animals.

SNARING ANIMALS

Without a firearm or a manufactured animal trap most animals can be snared with a wire noose placed in a convenient position such as the entrance to a rabbit hole or above an animal path between two trees. The noose should slide freely and the other end of the wire should be anchored securely to a tree or post. As the animal passes through, the noose tightens around the neck quickly killing it as it tries to pull free. This type of trap is generally successful at night when the animal is out hunting, animals cannot generally see the snare. Care should be taken not to leave any human smell on the snare. Owing to the cruel nature of the snare, it should only be used when other methods fail or are not available. Snares can be a very effective method of catching food.

WHERE TO SET A SNARE

When setting a snare look for signs of fur around the base of a tree or along a fence line, this will indicate where an animal has passed through. Animals will return to the same place to sleep and will continue to negotiate fences at the same spot. Remember animals move morning and night when getting water and hunting for food.



The animal snare

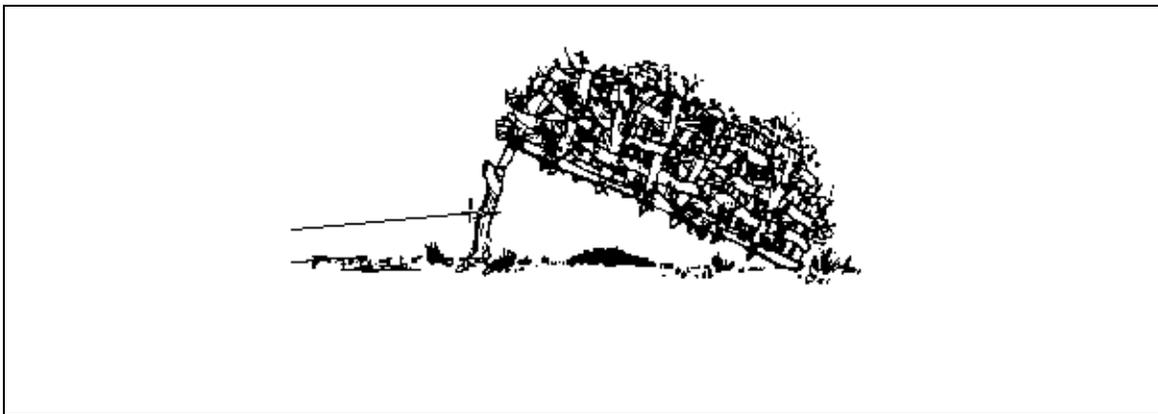
Safety Tip:

Remember traps and snares are illegal in Australia and should only be used in survival situations when your life is in danger. If you do practice making snares ensure small children and domestic pets cannot access your snares as they can be killed by accident very quickly.

Checkout the survival page for more information on how to make snares

Bird Life

Ground feeding birds can be trapped by placing grass or other bait under a cage made from wire netting or green sticks woven together. The cage is propped up with a stick that is pulled out by a hidden observer tugging a string as the bird walks under the cage. The cage falls, trapping the bird.



The bird trap

A fishing line can also be used successfully. Bait the hook with an insect, bread, or other edible matter, tie the line to a tree or stick where the birds frequent.

Birds are rather difficult to shoot or trap because of their flighty nature but you may be lucky enough to locate a nest, either on the ground or in the trees, containing eggs or young. Most birds try to confuse intruders by flying away from their nest at the approach of any danger. This has the effect of leading the intruder in the wrong direction, thus protecting the eggs or young.

Emus are very common in outback areas and can be enticed towards bright objects waved by a person hiding behind a bush. As the bird's inquisitive nature leads it within metres of the object, the person can then step out and kill the bird with a suitable weapon. Emu's are a very tough hardy animal with strong legs that can cause damage to soft tissue (you). Ensure the weapon you use is quick and effective in killing the Emu or you could be injured.

When shooting or trapping the most likely places to find animals is around a water source, animals will travel great distances for water. Frequent a water source early in the morning and toward dusk if possible.

To secure a meal, Stealth not speed is of great importance. You do not want to startle your prey when shooting or using any form of weapon, even a throwing stick, patience will be rewarded. The best time at a water hole is at dawn or dusk and you will be usually rewarded provided there is sign of previous animal life.

PREPARATION OF GAME FOR COOKING

The size and type of animal will determine your method of preparation for cooking.

Large Animals

Should have the throat cut to 'bleed' the carcass, then hung up by the hind legs, the gut contents, head, and skin removed then cut into joints for cooking. Check out the survival page for videos on how to prepare wild animals.

Snakes

Should have the head, skin and stomach removed and be cut into small pieces.

Lizards

Prepare simply by removing the head and gut contents.

Birds

Remove the head along with all the feathers and the intestines.

Rabbits

Should be skinned, gutted and have the head and feet removed before cooking.

The Survival page has links to Videos on preparing Australian game:

Kangaroo

Goat

Emu

Pig

Safety Tip:

Remember to wash all meat of blood before cooking, also make sure in the interests of hygiene that you wash all blood and meat from your hands after handling dead animals.

EDIBLE PLANTS

A vast number of plants that can provide food in an emergency occur naturally in Australia. However, many of them are hard to identify without expert help and many more have sharp or tangy juices that discourage people who cautiously taste them.

The seeds of many of the native pea and bean family are highly poisonous. It is best to avoid native plants that you are unfamiliar with even though garden varieties are good to eat. You do not want to become ill when you are already working hard to just stay alive, you do not want to add illness to your misfortunes.

You should also avoid the palm-like plants. Zamia palm fruits contain poisons and so do the young shoots. Unless you are absolutely certain of the identity of the palms that you are about to eat they are best left alone. Fungi (mushroom) are another group of plants best avoided. Although many of the fungi that are found in Australia can be eaten (including the field mushrooms), they only provide limited nourishment and there is no rule to eliminate the deadly species,

If you must eat native plants to survive use the following rule from the Taste Test below.

THE TASTE TEST FOR PLANT EDIBILITY

Should you find vegetation that you think is edible or have no choice but to eat only vegetation, you must carry out the taste test to reduce the chance of eating something that will harm or could kill you.

LOOK

Does it look like something you can eat, look for poison indicators such as milky sap.

- **Next step**

SMELL

Break open, crush it and smell it, be wary of things that smell like almonds or peaches.

- **Next step**

TOUCH

Rub on to a tender part of your body inner forearm or bicep. Wait 30 minutes to see if a rash develops.

- **Next step – wait 30 minutes, no rash**

Travel Safely in the Australian Outback
www.outback-australia-adventure-travel.com

TASTE

Rub on the inside of the lip and tip of the tongue, testing for flavour and reaction.

- **Next step – wait 30 minutes, no rash or adverse reaction**

EAT

Eat a very small portion ***providing all the above tests prove negative*** and wait a further 3 hours to see if you have any reactions. If there are no reaction then you may eat a larger portion and wait 12 to 24 hrs, If you have no adverse reaction you can consume larger amounts of this food. Only check one food type at a time, do this until you are sure that large quantities will not harm you.

Check out the Survival page for more info on the Taste Test and some cooking techniques to make some foods more palatable.

Safety Tip:

Should the food you have tested prove inedible then do not discard it as cooking may make it edible. If one part of a plant proves to be inedible then test the rest. You may also be able to use the plant as bait for birds and animals in the traps you make.

SOME COMMON TYPES OF EDIBLE VEGETATION

This list gives only a few of the well-known plants that grow in Australia and are fairly easy to identify. The Survival page has many edible plant types;

Banksia and Grevillea

Many of the flowers of the Banksia and Grevillea family contain large amounts of sweet nectar that can be sucked directly from the flower or they can be stirred in water to make a refreshing sweet drink.

Blackboy [Xanthorrhoea sp]

Has an edible white substance at the base of the green leaves, this is quite sweet when eaten raw. The plant is killed when you remove this growing heart so treat this plant strictly as emergency food.

Bracken Fern [Pteridium sp]

This and some other large ferns are edible while the green shoot is in the "fiddle head" stage. Although they can be eaten raw, they are more palatable when cooked, the underground stems although stringy are rich in starch and roast up well in the campfire.

Safety Tip:

Always carry out the taste test on anything that you cannot positively identify as a safe source of food.

DIRECTION FINDING

Basic Survival Navigation

Navigation in the Australian Outback can at times be very challenging. Navigation skills like most skills are learned, and whilst some people have an innate sense of direction. Most people and nearly all children lack basic navigation skills outside of remembering landmarks and having a recent mind map of where they have been, this is providing they concentrated on the route.

This does not help you when you crash landed in the middle of the Australian outback or have relied on another party to navigate for you.

Why learn Navigation skills for your adventures, good question. I believe it is to simply know where you are, where you have been and how to go somewhere else, it's also good to teach kids basic navigation as it may prevent them from wandering off in the wrong direction away from your camp in the Outback.

One simple rule to remember down-under in Australia, in The Southern Hemisphere:

- **The Sun will always Rise in the East**
- **The Sun will always Set in the West.**

The opposite to those living in the Northern Hemisphere

Once you know this is it is very easy to establish North and South.

To navigate you need to understand some basics.

A compass is a circle with 360 degrees, it has four cardinal points:

- **North – 0 degrees**
- **East – 90 degrees**
- **South – 180 degrees**
- **West – 270 degrees**

You can break these down further but for now we'll keep it simple, you can learn more about navigation on our ***Outback Navigation page***.

If lost in almost every case it is best to stay with your vehicle, boat or aircraft as searchers will locate this first, providing they know you are missing and have some idea of where you are, remember back to having a travel plan and letting people know where you are or intend to go. However you may have become

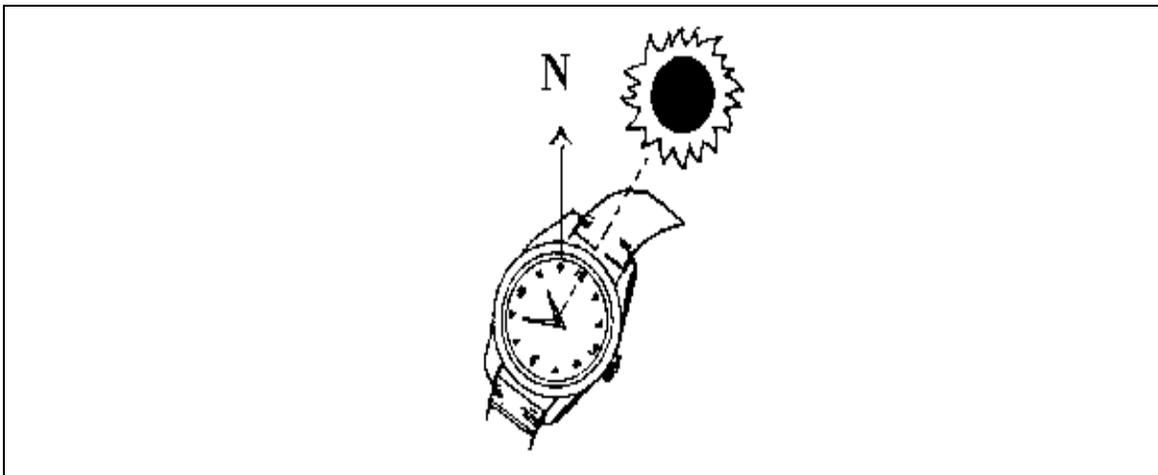
isolated from a walking party or be a survivor of a crashed aircraft and find yourself lost without a plan, GPS or even a compass. For this reason you will have to know how to navigate without a map or compass and how best to proceed on to a safe route back to safety.

HOW TO ESTABLISH NORTH without a COMPASS

The Watch Method [by day]

To find north using your watch

- Step 1. Stand holding your wristwatch horizontal with the figure 12 pointing at the sun
- Step 2. Bisect the angle between the hour hand and the 12 O'clock position
- Step 3. The line will indicate north approx



Finding Direction using a wrist watch

The Old Bushies method

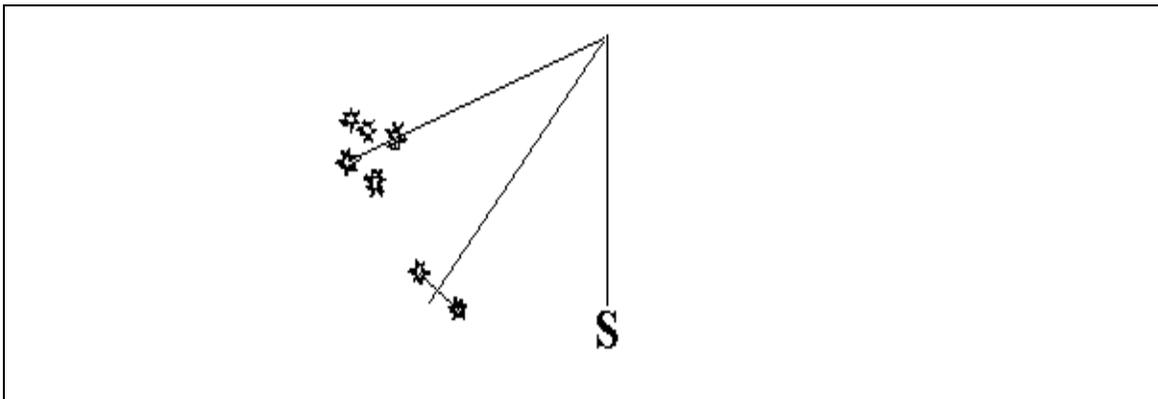
A rough estimate of south can be obtained by remembering that kangaroos rest in areas of shade during the heat of the day. As we are in the southern hemisphere the shade areas will be on the southern side of bushes [look for disturbed areas of earth].

NAVIGATION AT NIGHT

The Southern Cross method - at night

The Southern Cross can be used to indicate south at night by -

- Step 1. Extending an imaginary line through the long axis
- Step 2. Locating the two pointers and bisecting them at right angles with another line.
- Step 3. Where these two imaginary lines meet drop a line straight down to the horizon
- Step 4. This will indicate south [approximately]



Direction finding at night using the Southern Cross –

Nav Tip:

Try to select stars that are not right on the horizon as you will lose sight of these when moving around trees. Remember that stars move from east to west in the same manner as the sun and you will have to allow for this at 15 degrees per hour. Stop periodically and check your direction by drawing your compass on the ground again.

GPS RADIO AND SAFETY AIDS

There are many aids available to the outback traveller and it is worth considering these when planning for outback travel both on foot and by vehicle.

Radio communications

For communication between vehicles a UHF citizen band (CB) radio is recommended, a reasonably priced 5 watt UHF radio with a quality aerial should be more than adequate for talking at distances up to 30km. If travelling in more remote outback regions a HF single side band transceiver radio or Satellite phone (sat phone) will be required. These sets will allow you to communicate with the Royal Flying Doctor and Emergency Service and although expensive to buy they can be rented through local 4WD agencies. Radio schedules can be organised with the Royal Flying Doctor Service and some remote Police or Ranger stations.

Emergency Position Beacons (spot tracker)

There are several rescue systems available for the purpose of signalling an emergency for assistance, these include different types of rescue beacons. Travellers in isolated or outback areas should seriously consider including these as part of their safety equipment. These should be considered essential if travelling alone or isolated outback travel with small children.

Satellite Navigation Systems

Global positioning systems (GPS) are common place in Australia as for everywhere in the World today. Many phones even have dedicated GPS as a feature. GPS come in many forms from hand held system for \$100.00 to flat panel visual displays worth several \$1000 dollars.

That said they all allow you to establish your exact position. They also assist you to plan routes and navigate by giving you a read out of your exact speed and heading. This is particularly useful in the Australian Outback, there are places that few people ever visit and the track you are following may even have been washed away in the last big rains.

A \$100 GPS will assist you to follow the correct route. Even though the cost may be a factor, these units are of obvious value to off road Outback travellers, particularly when travelling through unfamiliar territory.

Safety Tip:

*Due to the technical nature of gps users are advised to ensure they understand their operation fully. You should also carry a map or maps for all places you visit, **batteries do go flat and electronics always fail when***

***you need them.** Map suppliers should be consulted to ensure that maps used are compatible. Not all maps [particularly older ones] use the grid system of reference used by GPS.*

EMERGENCY SIGNALS

The following methods can be used to indicate your position.

Fires

A smoking fire will aid searchers, both in daylight hours and at night. Extreme care should be taken when lighting signal fires as some have got out of hand to the extent of causing major bush fires further endangering survivors and searchers.

Tip: A signal fire should be built in a pyramid shape, with three fires separated by at least 100m.

Your fire should have several meters cleared around it to prevent bush fires.

Your fire should be started with dry flammable material and even an accelerant (petrol), once the fire is hot, add black rubber plastic, oil soaked material or green leaves to create dark smoke.



Whistle Signals

Distress signal by lost party

- **three** signals together, regularly spaced.

Searchers looking for a lost party;

- **one** blast at regular intervals.

Acknowledgement of distress signal;

- **two** blasts repeated regularly.

Recall signal for search parties

- **four;** blasts.

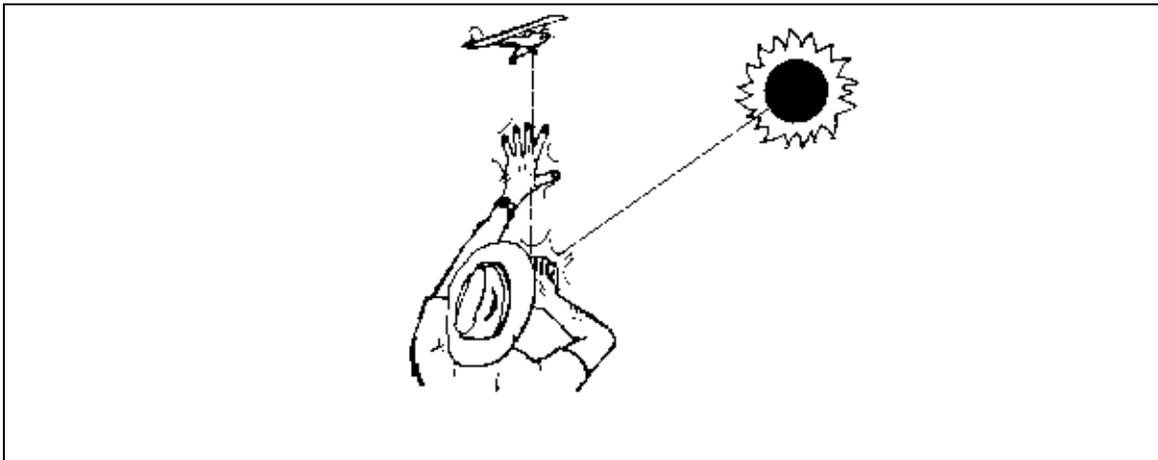
Safety Tip: *A cheap \$1.00 whistle is an ideal item to give children who can then hang it around their neck, children may wander off when playing around camp or in the outback. A whistle can be heard at great distance and is easier to make an emergency sound should you be injured.*

Gun Shots and Torch Flashes

The same as whistle signals, guns shots should be discharged (fired) into soft ground, not the air.

Mirror

Your survival kit should contain a plastic signal mirror or some foil that can be used if you do not have a dedicated signal mirror or heliograph for use in bright sunlight. You can also use an music CD as an improvised signal mirror, or even string a few together on fishing line hung between trees, to gain attention.



Signalling using hand held mirror

AIRCRAFT CODES

Ground to Air Code

This is a universal code used to communicate with rescue aircraft. The figures should be approximately eight to nine metres in length and contrasting material such as rocks, logs or brush should be used. Trenches in sand can also be used to throw a shadow.

Ground to air visual code for use by survivors

I/ we are unable to proceed	X	No or negative	N
Proceeding in this direction	↑	Yes or affirmative	Y

If in doubt use international symbol - 'SOS'

Actions by Aircraft

The aircraft will indicate that your signals have been seen and understood by rocking from side to side in day light hours and by making green flashes with a signal lamp at night.

If ground signals have been seen by the aircraft and not understood, it will fly in complete right hand circles in daylight hours or make red flashes with a signal lamp at night

Rescue Helicopter

Never approach a helicopter from the rear, position yourself in front, in view of the pilot and wait until approached by a crew person or signalled by the pilot to approach the helicopter. Remember a helicopters blades can sometimes touch the ground so you need to be very careful.

BUSHFIRE SURVIVAL

Every year in Australia there are many serious bushfires across this vast land, some burn for several weeks and cover hundreds of kilometres. There are often bushfires in which people are caught and sometimes die. In many cases these deaths could and should have been prevented, if only the people involved had not panicked and had a basic knowledge of bushfire survival. Here I present some basic ideas and some simple rules.

Panic

Causes energy loss and poor judgement, act calmly and do not run. Stop, Think, make a Plan, then move to action.

Breathing

When the smoke is dense the air closest the ground will be cool and fresh.

Heat

Radiated heat is the **real danger**, use anything to avoid it such as culverts, running streams, Large ponds, rocks or depressions. Cover yourself and your family with a wet blanket to protect them from hot embers.

Flame Fronts

Do not attempt to run through large flame fronts. Always move downhill away from a fire as fires travel faster uphill.

Critical Periods

When you have no possible escape you should lie on the ground covered with a wool blanket or any non flammable material on the bare ground in a depression, in a creek, a rut or behind a log or rocks) or better still dig a hole bury yourself and stay put. If you have children, dig a big enough shallow hole quickly, with your hands or a rock if you need to, place everybody in there, cover yourself with a blanket and earth, come out only after the fire has passed, you will survive! It you think and act calmly (Soil and wet woollen blankets are a great insulator against fire and heat).

Clothing

When you realise that you are in danger from a bush fire cover as much exposed skin as you can with any non flammable clothing (wool or cotton) available and wet it if you can. **Do not use nylon clothing**, it will melt to your skin. If your clothes catch fire do not run as this feeds air to the fire, roll on the ground or use items such as blankets to smother the fire.

In a vehicle

Many tragedies have occurred because people left the safety of their vehicles and tried to flee from a fire. Your vehicle will provide some protection from radiated heat and flame.

You need to move the vehicle into an open area where the fire will have less fuel and heat or shelter it from the oncoming fire in a culvert or depression or even a building on the other side away from the fire. Do not park on a road as other people trying to flee the fire may drive into you at speed in the attempt to escape (this has killed many people in the past).

If you find an enclosed culvert under the road this should provide more protection than your car.

DURING the FIRE: Get low in the vehicle and cover yourself with a blanket for protection from radiant heat. Control children and animals, it is better to lose you animals than your children or leave them orphans because you tried to save the cat or dog. **Be ruthless save you kids first.** *“Many people have died trying to save a family pet only to leave their kids scared fighting for their own lives”*

AFTER the FIRE: Once the fire passes, get out of the vehicle and put out any spot fires on or around your car.

RIVER CROSSINGS

The question of crossing creeks and rivers can be difficult to answer and one that usually results in people avoiding crossing them because of the inherent danger. You may have no option but to cross a swollen creek or river to make your way to safety.

If you are required to cross a water hazard then there are accepted methods and safety procedures that you will need to apply.

APPRECIATIONS AND PLANNING

Before proceeding conduct a mental appreciation including reviewing the situation and making sure there are no alternatives and the crossing is unavoidable. Have a clear understanding of what is required by listing the factors that will help or hinder you. Consider the courses of action open to you and select the best course of action.

Considerations

If you decide you have to cross a water course then there are several points you should consider, these include:

1. The shape of the river
2. The composition of the river bed
3. Speed of flow of the river
4. Turbulence of the river
5. Depth of water
6. Temperature of the water
7. Proposed entry and exit points
8. Capabilities of members of your group
9. Predators (crocs) in the water

Acceptable places to cross

There are two places where you should be safe during a crossing including shallow water [approximately thigh deep] over a gravel bed with accessible banks or a deep, slow flowing river that is not too wide.

Unacceptable places to cross

High discoloured water with fast flow, volume and wide rivers.

Safety Tip:

Remember you will need to consider whether to cross or not, where to cross and which method to employ.

BUSH FIRST AID

LEARN FIRST AID – First Aid is an essential outback touring skill.

Take a course in First Aid with St John's first aid or an equivalent educational provider:

This section of text can never replace knowledge learned on a professional course.

First Aid is what you can do to assist an injured person at the scene using only what is available under the prevailing circumstances. You may only have your two hands and some common sense, remember that first aid does not rely solely on equipment.

In some circumstances if there is nothing, or nothing **more** to be done then first aid may mean going for assistance. Remember that the patient is relying on you to go carefully and be prudent with your life to avoid an accident or injury to yourself.

Possibly the most important aspect of practical first aid, particularly in the bush, is clear logical thinking and the ability to improvise.

Factors

First aid is based on four factors:

- Common sense
- Knowledge
- First Aid technique, and
- Action

Order of urgency

1. Protection of the patient from further injury.
2. Ensuring the first aider has regard for his or her safety.
3. Restoration of breathing and heart beat.

Further responsibilities

Stop bleeding, minimise pain, reassure the patient, seek further aid and if necessary transport the patient to hospital.

Making a diagnosis

Before you can commence suitable treatment, a diagnosis must be made consisting of:

- **History** - The story of how the injury occurred, “I saw a snake but now I don’t feel well”
- **Symptoms** - What the patient feels, the pain and where is it
- **Signs** - What you can observe or find out by examination of the patient, i.e. “the (snakes) puncture wound”

INDIVIDUAL FIRST AID KIT

This first aid kit is recommended for bushwalkers and those required to provide themselves with basic emergency first aid.

Items

Triangular bandage	Scissors
Wound Dressing, [medium]	Tweezers
Elastic bandage [10 cm]	Sterile needle
Band-Aids [assorted shapes]	Safety pins
Adhesive strip dressing [8 cm x 50 cm]	UV sun filter cream
Gauze swabs	Medicated insect repellent
Non-stick sterile dressings	Paracetamol tablets

Visit our First Aid in the Outback page for more information

Safety tip:

Add personal medication if required.

BASE / VEHICLE FIRST AID KIT

This first aid kit is recommended for extended or remote area trips for those required to provide themselves and others with basic emergency first aid.

Visit the First Aid page and you will find a download page with our recommended equipment and details explaining vehicle first aid kit

Safety tip:

Those responsible for group first aid should have a current and relevant first aid qualification and ensure that all treatments are recorded (a medical history for later reference) to ensure all events are detailed when handing over to Royal flying Doctors or Emergency Services.

DEALING WITH DEATH

While it is an accepted fact that only a qualified Medical Doctor can certify that a person is dead, and that treatment once started should be continued, there are occasions where the casualty is dead and a decision must be made to start or stop treatment.

Signs of Death

- Fixed dilated pupils, not responding to resuscitation.
- Absence of spontaneous heart beat in spite of prolonged resuscitation.
- Rigor mortis (stiffening of the body) is a late but reliable sign of death.

Safety Tip:

Resuscitation should never be stopped when medical aid is on the way.

Dealing with a Dead Body

Whilst this may be an unpleasant topic it is a possibility that you will encounter somebody that is deceased. It may even be a vehicle accident, it is a topic that needs consideration and should be dealt with properly to avoid further stress among friends family and witnesses. We try to address the issue in a manner to satisfy the law and to facilitate the later recovery of the body by the police or coroner. It is not uncommon to encounter vehicle accidents in the outback.

If on foot and an accident occurs the group should not attempt to carry the body out with them and for purposes of morale should not split themselves up and have some of the group remain while others go for help. They should leave the body and walk out in a group.

Before doing this you should :

- Get everybody in the group to take careful notes of the circumstances surrounding the accident and death as statements, also take photos of the scene and GPS grid reference. If you have the equipment or a map reference, the more information you can provide the police the better this will assist the coroner.
- Wrap the body in a sleeping bag, ground sheet or even a tent and firmly secure it with rocks etc., this will protect it from animals and the elements.
- Mark the spot and the trail out, this will allow it to be found by police later.
- Note any valuables on the deceased and have somebody witness them. Give them to the Police when you are able.

- On return to the nearest town or station report the matter to the police immediately, **under no circumstances do not post this information on social media**. The last thing the family needs is to be informed by the evening news that their son, daughter, mother or father has been killed and it was reported on facebook. This is a job for the police and social workers, people need time to grieve.

Effects of Death on Others

Watch for signs of shock in your party, task people with jobs to keep their mind off the situation keep busy. At the very least there may be signs of depression and distress. This must be handled by the group and talked about before it leads to stress and shock and another casualty.

It's time to load the SUV

The Kids

And Create your Adventure

NOTES

REFERENCES:

There is a book case full. Survival is not a black art; man has always had the ability to survive. We have some references dating back to the 1500's and also early British exploration of Australia, those early explorers recorded their own survival tips for adventurous men and women who would follow. We provide many of these open source books as downloads from the website.

There have been many people have taken the time to record their observation of sound survival techniques and pass on their own tips to surviving in the great Australian Outback.

We thank them for all the hard work and time they spent producing the many references we have read and studied. We have developed our own knowledge and skills from many years of practice and teaching what we know, we also continue to learn and update this this manual and website.

The following link will take you to a valuable addition to you knowledge. The more you read, study and learn the more confidence you'll develop.

Please visit our website for SUV survival tips and techniques, places to visit things to do and many other articles to make your family outback adventures safe and enjoyable.

Yes there are spelling and grammar mistakes, all I can say is I'd rather be fishing than editing so there's always the next update fix them or in my case probably add a few more.

See you out there somewhere.

www.outback-australia-adventure-travel.com

We also thank:

- The Australian Army
- The Australian Police
- The Royal Flying Doctors
- The families who run our outback towns and stations
- The many quite achievers who contribute to a safe outback

For sharing their knowledge

