

# Adventure Route Planning and Navigation

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**It was terra incognita** but his will and determination guided him forward along with 20 some members of the Rashid tribe. Bertram Thomas navigated 650 miles on an overland journey across the Empty Quarter. Land navigation in 1931 was accomplished using celestial bodies to relate a position on earth by the use of sextant, artificial horizon, and chronometer. The group departed with 40 camels and provisions. Emergency planning dictated that they were to ditch the loaded weight of the tents on the camels backs in order to keep the equipment to record the natural history of the area. They were to endure the cold desert nights without shelter.



Present day we continue traveling to far off destinations. We have followed in our ancestral footsteps as wonderers seeking new adventures, visiting places that we have never been. Part of the adventure is in the planning stage. This is where your overlanding concept is drawn out. We find places to explore and things to do when we get there. At this point imagination is key, fueled by stories and descriptions of travelers who were there before us. What will it be like when we get there? The planning stage can set the tone for the entire trip.

## **Where to go:**

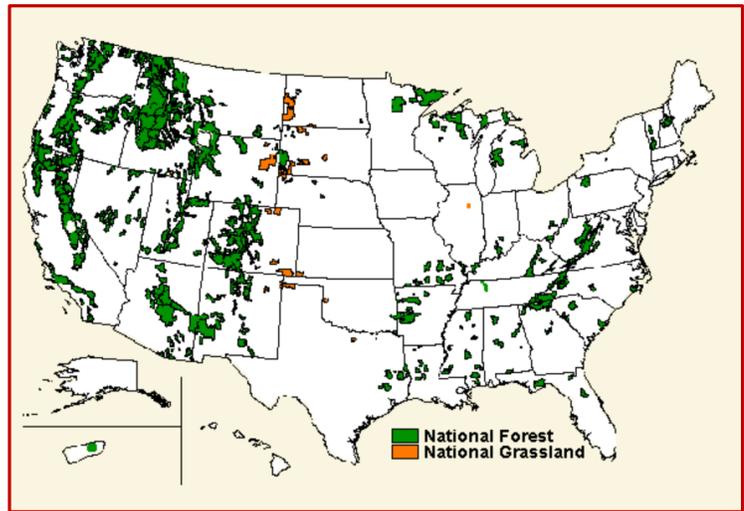
**Target an area for your overlanding trip** by zeroing in on the max mileage range you will make from your launch point, then draw a radius on a map from there. Whichever direction you go this will begin the first leg of your journey. It is more manageable to draw mileage radius zones as several legs leading you to your destination. This method also works well by combining base camp locations as a benchmark and then explore from there. Study your target zone(s) on a map to reveal overlanding and recreation opportunities. You might find that your target zones could easily change according to access of these remote areas.

## Search the target zone for green space in national and state parks

as well as other public lands. We need to be reminded that nearly early one-third of the United States belongs to US citizens in the form of public lands. Discover and identify which have roads and trails accessible by vehicle.

Open public land use is out there; it just takes some research to find it.

Bureau of Land Management (BLM), US Forest Service (USFS) as well as state lands offer ample roads and campsites for public use. Their websites have a great amount of information along with map downloads available to the overlander.



Tap into the overland network to find out where travelers have been going. Dialogue about overland adventures, trails and rig are found on web forums and around campfires. Search on websites featuring regional areas, vehicle types, and specific interests. Overland events are excellent destinations to combine with your route giving you the opportunity to network while progressing on your journey. Look for Meetups, private trail networks and events near your home base but don't let a few miles get in your way – get there.

Consider using varied research methods to get a complete view of your target zone. Digital mapping provides a multitude of ways to focus on an area. Research websites that offer layers of information and ways to view land mass such as topographical information, satellite view, route layering and real time weather. Invest in printed maps of different map scales to give a broad prospective of the area. Finally organizing all of your research into scouting note folders will help with planning down the road.

Building options into a route plan requires research of the proposed region well in advance. Studying the details of your navigation plan will allow you to steer off course but still remain confident that you will get back to the original track. There are many approaches to travel. Some may plan and prep extensively while others ride with the wind totally unscripted. The concept is to have a solid plan that you can revert back to after veering off route. The travel plan in this scenario is meant to be altered

## Navigational aids:

The paper map will never go out of style. Consider maps as a two-dimensional art form allowing for a graphic representation of where you are upon the planet. Maps are great tools for reference during the planning stage as well as when operating your overland vehicle. By studying the the roads, terrain and other features you will learn the area thus gain confidence in your position. Spreading a small scale map out in front of you allows for a large bird's eye view of the region. Where as the digital version is confined to the screen size, paper maps can be grandly displayed before you.



### **Build a map portfolio**

by obtaining several types of maps for your journey. Reference different map scales that show greater detail or a larger area. All maps are packed with information. The first thing to take note of is the map legend and information box as a guide to the printed details. Topographical

maps showing contour lines are essential when crossing through lonely roads and trails.

Knowing what lays ahead such as key interest points and bailouts maintains your readiness.

There are several types of paper used for map printing. Thin weight paper will tear easily but is lighter in weight. These maps fold easy showing only the grid you are working on. Some maps have synthetic water proof paper making them a durable, tear resistant, all weather map.

Your map portfolio should contain as many state and national recreation brochure maps that you can get your hands on. Include into your travel plan a visit to regional or park headquarters when entering the target zone. Collect maps and information on campsites, motor vehicle use, trail and recreation areas. These maps are almost always free to the user. BLM and USFS websites offer a wide range of maps and information available to print, there is even specific paper for the job. What your after is a system of navigational aids - paper and digital.

Digital mapping offers a huge assortment of data available to user. The Geographical Information System (GIS) allows to user to view layers of information in a well managed format, for a custom display. Downloading maps to your device or onto on external memory cards gives the user more map choices. There are many sources to download free maps as well as a huge selection of store bought maps available. Pinch, swipe and zoom to get the information and detail that you want. On the road the position accuracy of these systems are limited by the satellite constellations above us but they usually work so well we take using GPS/GLONASS for granted. Best to be cognizant when off grid and solely relying on one method for navigation.

Where we are in the world can be pin pointed upon the earths surface as coordinates. There are several different formats to record our exact location within the cross hairs. Expressed as latitude and longitude - degrees, minutes, seconds (dd mm' ss") was the way that Bertram plotted his way across the desert.

most common geographic coordinate system formats  
used in electronic navigation applications

<b>degrees decimal minutes</b>	<b>dd mm.mmmm'</b>
<b>decimal degrees</b>	<b>dd.mmmmm</b>

If you are storing waypoints be sure to use like coordinates. You will find parks and other destinations that offer their location as coordinates will use different formats. When operating several NAV devices ensure that they are all using the same coordinate format (for example: phone apps, dash mounted GPS, and tablets). There is an app for that but which one is the best? Download a coordinate conversion app on your device or phone to easily match the format that you are using. For navigation programs, look for device apps that allow for route planning and route saving. Some offer use and access on several devices multiplying your resources.

Don't underestimate the use of a compass. Your vehicle may have an electronic compass on the dashboard. Ensure it is calibrated for the region's magnetic declination which you are traveling in. Calibration may also be necessary if you added equipment made of ferrous metal such as bumpers and roof racks. As you course changes, learn to appreciate knowing what this means to your route plan. If you are far off highway, then a magnetic compass paired with a paper map of the area is a good idea. There is a certain allure to observing the swing of the needle and confidently knowing your next move.

## Pre/post planning:

Pre-planning involves using checklist to help you prepare and pack all of the gear you will need. Consider using a live checklist leading up to your departure. Equipment should be maintained and staged as ready for use. A large part of the pre-planning phase is to set time aside before your wheels are rolling to perform the maintenance and familiarization of your vehicle and gear. Hands on gear breeds familiarity and confidence in your rig and ensures that it is ready for the adventure. Create a task list covering 'to do' items such as vehicle prep and securing your home base while you are away. These tasks are important elements that will give you peace of mind.

The checklist is an essential part of your adventure travel planning. Source or create a checklist and adapt it to your style. You never know what you will get yourself into, so always be prepared.

The way we explore and satisfy our quest for adventure is varied from two feet to four wheels and the reasons we choose our conveyance are only limited by our means or imagination. The best method for travel is evidenced by varied types of overland rigs out there.



Packing and preparing your vehicle comes down to a matter of preference. If you choose to be light and fast you will soon notice the advantages. Set up and demobilizing the camp will take less effort and allow more time to relax with your favorite beverage. When traveling light you will find it easy to locate gear. Try paring down on any piece of equipment on your next journey and see if you still have what it takes to get through the overland day. Think of it as an exercise and let ingenuity take over.

On the other side of the packing spectrum is outfitting to be slow and purposeful. These types realize that being in the rear with the gear sets the right pace. Its rewarding to be 'on the spot' with the right piece of gear at the right time. Operate with gear which can have more than one purpose and you increased preparedness two-fold. Gear junkies salute!

Recording your route plan will benefit your adventure by creating an evolving record during all travel phases; pre-plan, execution, and after action. During the pre-plan you are building and researching. All this information can be referenced later so keep good scouting notes. Executing your plan means you just pulled chocks and are traveling. Your trip should include maps (paper and digital), the travel checklist you've been using, and any other notes or documents. All of these should be readily available during your journey.

Upon your return keep all the material in one location to review as an after action report (what went right, what could be improved, gear and equipment notes). Save all of your digital track and waypoints in one location. Make adjustments and update your checklist. All of these documents serve as a record of what you accomplished and the places you've visited. Isn't that cool. Take those parts of your journey which didn't go as expected as a learning point for your next adventure.

**Your route plan is the foundation on where your adventure will take place.** Putting time into research gave you familiarization with the topography you going to cover. Your vehicle and equipment are checked and ready. This confidence allows you the freedom to explore because you know what's out there. Your plan doesn't have to be a commitment to follow to exactly. Plans are meant to be broken. Take the time to explore, should it be crossing of the Empty Quarter or a simple journey with a folded map on your dashboard. Your overland quest for adventure can be realized.

