



FREEDOM CHALLENGE

THE 2021 RIDER'S PREPARATION MANUAL

How to prepare for the Freedom Challenge

The most important thing to remember when preparing for the Freedom Challenge is this: **there is no right or wrong way to do it**. Each person will prepare differently and start the race with different equipment simply because most riders will have different abilities, aspirations and objectives coming into the event.

No matter how well prepared you are, you need to accept that by nature, the Freedom Challenge is an unpredictable event. The weather, the navigation and the challenging terrain all combine to frustrate even the best-laid plans. When things aren't going according to plan, remember this: **things will change**. Having the right attitude and maintaining your composure during those trying times will help you overcome the inevitable setbacks and keep you moving forward.

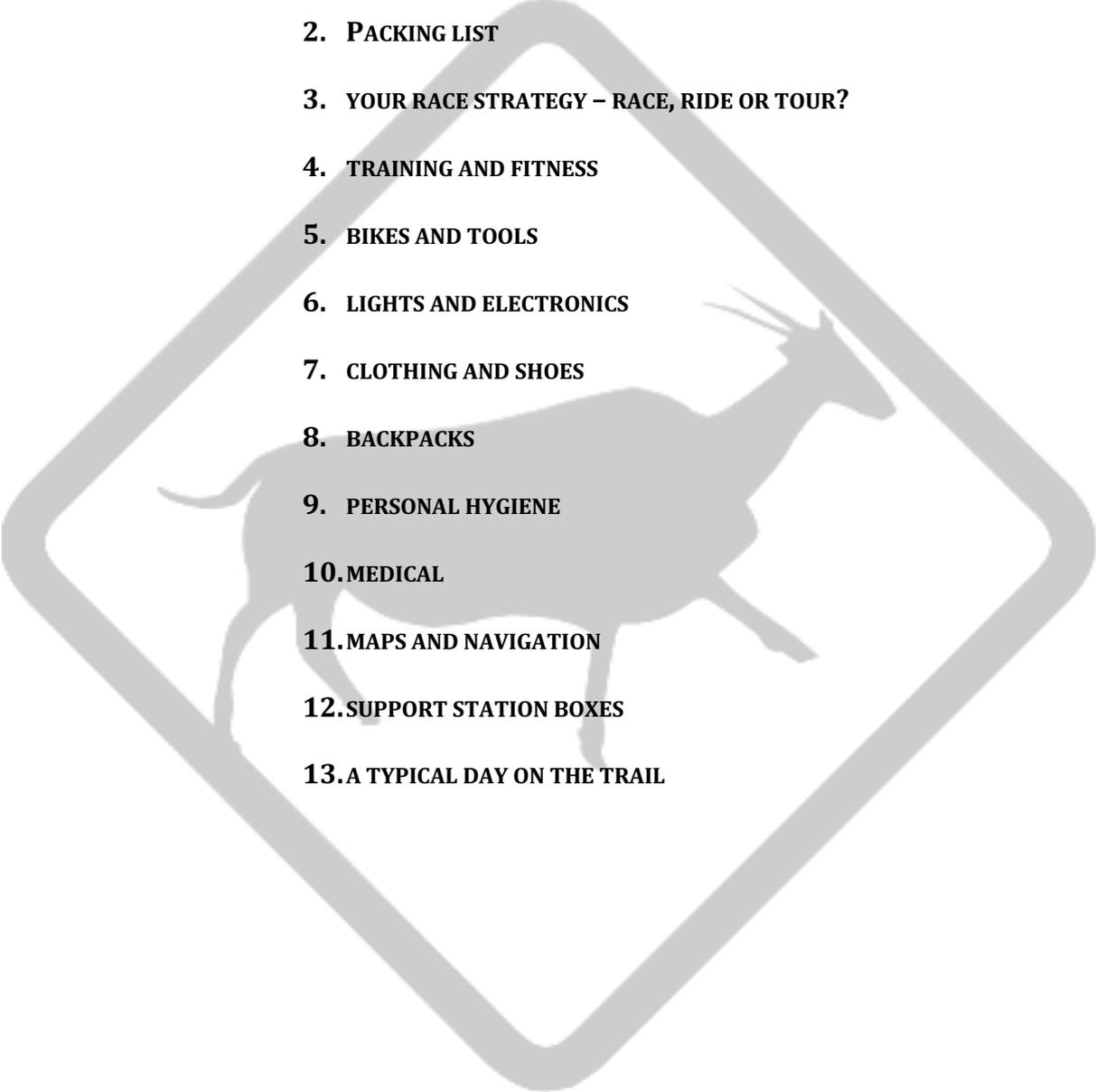
The things you can control are affected largely by the decisions and choices you make whilst preparing for the event and then the way you react to circumstances out on the trail. This guide should increase your awareness and highlight the different areas you need to cover in your preparations.

Please Note: this guide will also help when preparing for the shorter races in March. The race format and route are the same but obviously the weather is hotter, more rainstorms, days are longer and river levels are higher so please take these factors into consideration.

Start by going through the comprehensive packing list – this should give you an idea of the differences between the Freedom Challenge and other events. What follows then is a more detailed look at the categories covered in the kit list, as well as a better insight into race strategy to help you plan a realistic finishing goal.

This guide is a collection of **'good advice'** and **'accepted wisdom'** from various sources taken mostly from previous riders' experiences and all intended to help you avoid some of the common mistakes made in the past. It will not tell you which brand or model to buy but will help you to make a better-informed decision when choosing. Applying this knowledge and a bit of common sense should see you well prepared when you line up at the start and ready for the adventure that lies ahead.

Topics covered in this guide

- 1. RACE FORMAT**
 - 2. PACKING LIST**
 - 3. YOUR RACE STRATEGY – RACE, RIDE OR TOUR?**
 - 4. TRAINING AND FITNESS**
 - 5. BIKES AND TOOLS**
 - 6. LIGHTS AND ELECTRONICS**
 - 7. CLOTHING AND SHOES**
 - 8. BACKPACKS**
 - 9. PERSONAL HYGIENE**
 - 10. MEDICAL**
 - 11. MAPS AND NAVIGATION**
 - 12. SUPPORT STATION BOXES**
 - 13. A TYPICAL DAY ON THE TRAIL**
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1. Race format

It is important to understand the basics of how things work on the trail.

Here are a few key points to understand:

- The race is essentially non-stop. Once you start, the clock only stops when you cross the finish-line.
- You will start in batches of 7-9 riders per day. Generally slower batches go off first and racing batch last.
- It is a solo event but you can ride with friend(s) if you wish.
- There are Support Stations and Intermediate Stops approximately 50-60km apart where food and accommodation are provided.
- You may pre-pack a 2 litre ice-cream tub to be sent to each Support Station (RASA =19 tubs, RTR,RTC,RTW,RTP = 4 Tub).
- These 2 litre tubs are packed with trail food, spares, personal medications and maps for the following section.
- If you sleep over you will receive snack on arrival, dinner and breakfast.
- If passing through you will receive a meal on arrival.
- Most Stations have bread available to make 'sandwiches for the road'.
- Towels and linen are provided at all stations.
- Most stations will do laundry for you if you stay over (R70 per load).
- All stations have plug points to charge electronics.
- Beds are allocated on a first-come-first serve basis.
- You must follow the prescribed route as shown on the maps.
- You have to check in and check out of all Support Stations (these serve as 'compulsory checkpoints')
- The route is not marked, riders must navigate themselves by means of map and a written narrative.
- GPS devices of any kind are strictly prohibited.
- You must carry mobile phone BUT 'location services' (GPS functionality) must remain switched off on your phone for the duration of the event.
- You must familiarise yourself with the rules of the events to ensure you understand fully the terms of taking part.
- You may not receive any personal outside assistance i.e. No seconding whatsoever.
- There are portions of the route that are not rideable and so you will be required to hike-a-bike
- The route traverses some of the most beautiful parts of the country, rich in heritage and we advise that you treat it like an expedition of exploration and adventure. Having the right attitude and maintaining your composure during the trying times will help you overcome the inevitable setbacks and keep you moving forward.

2. Packing list

A fairly comprehensive list is detailed below. You can use the checklist to make sure you don't forget anything. If you are still undecided about what to actually take, the rest of this guide discusses the different categories of equipment and the reasoning behind the various choices depending on your race strategy etc.

Freedom Challenge packing checklist:

General items

- Backpack (20-25L)
- Rain cover
- Hydration bladder/water bottles
- Headlamp
- Bike-light
- Helmet
- Pump
- Compass
- Map sleeve/ziplocks
- Leatherman (mini)
- First Aid Kit
- Space blanket
- Toothbrush
- Toothpaste
- Soap
- Lip -ice
- Sun cream
- Anti -chafe
- Chargers
- Phone
- Camera
- Saddle bag
- Map board
- Tracker (issued at race briefing)

Clothes

- Cycle shoes
- Walking shoes (if you are using stiff/race cycling shoes)
- Shoe covers
- Socks
- Sealskin socks (waterproof)
- Leg Warmers
- Long tights
- Thermal tights
- Waterproof pants

- Cycle shorts x2
- Running shorts (for sleeping)
- Base layer
- Cycle top
- T-shirt (for sleeping)
- Light Fleece
- Light Shell
- Waterproof jacket
- Riding gloves
- Warm Insulated Gloves (waterproof)
- Arm warmers
- Balaclava
- Buff (x2)

Bike Spares

- Spokes (check lengths)
- Duct tape
- Cable ties
- Spare tyre (optional)
- Brake pads (x2)
- Multi tool
- Lube & rag
- Plugs
- Patches
- Tyre boot /gaiter
- Gear cable
- chain link (x2)
- Piece of chain
- Spare derailleur hanger - NB
- Bombs + inflator
- Spare valve
- Tube (slime)
- Freewheel hub spares (pawls + springs)
- Map board spares

First Aid kit

- Gauze
- Strapping
- Bandage
- Plasters
- Alcohol rubs
- Adhesive tape
- Anti-inflammatories (e.g. Cataflam)
- Pain killers (e.g. Panado/Myprodol)

- Anti-histamine (cream and tabs)
- Anti-septic (Bactroban/Dettol)
- Friars Balsam
- Methiolate
- Anti-diarrheals (Imodium)
- General anti-biotic (ask your GP)

Box spares (things to put in your 2litre containers)

- Batteries (for headlamp etc)
- Chain lube
- Tyre sealant
- CO2 Cartridges
- Anti-Chafe cream
- Spare tubes
- Shower gel
- Toothbrush/paste
- Replacement socks
- Suncream

*Please note: These items are all available at “Tech Zone” Support stations (approx. every 3rd day)

Box Food (things to put in your 2litre containers)

- Energy drink (powder)
- Chocolate
- Biltong/droewors
- Dried fruit
- Energy bars
- Jellies
- Nuts
- Cheese wedges (Laughing Cow)
- Crackers
- Cappuccino sachets
- Nougat
- Home-made treats – crunchies, biscuits etc

Other items

- Hydration salts
- Space blanket
- Hand warmers
- Water purification tabs
- Personal meds

*** Please note that this list is intended for use as rough guideline only and should be tailored to suit the individual**

As you can see from the above list, there are many items to consider and you also need to decide if the items need to be carried with you at all times or if you can send them ahead in your 2 litre containers to collect along the route. The list should hopefully make you aware of the kind of kit that's required and also your responsibility as a rider to take care of your own personal, medical and technical issues during the event. You should go into the event as self-sufficient as possible, since there will be only limited support along the route (only support stations and official race office interventions).

There are no bike shops along the route for spares/repairs, so you need to take care of your own bike and be able to fix any potential issues yourself. Certain items are available at “Tech Zone” *Support stations approximately every 3rd day, these include:

- Tubes
- Tyres
- CO2 Cartridges
- Tyre sealant
- Chain Lube
- Anti-chafe cream
- Foot pump and shock pump available

*MASAKALA, RHODES, ROMANSFONTEIN, BUCKLANDS, PRINCE ALBERT, MONTAGU

Most of the route takes you through remote countryside, away from towns. Although you do pass through a few small towns along the way, you will be relying primarily on the support stations for all your resupply needs, so plan carefully what you will be putting into your 2 litre containers.

Even if you are planning to team up with another rider, you still need to carry all your own equipment (clothing, maps, spares, meds etc.) as there are no guarantees that both of you will stay together for the duration of the event and in the event of your riding partner (or you) being forced to withdraw, the other rider must still be able to continue on their own.

3. Your race strategy – race, ride or tour?

Your main aim in the Freedom Challenge should be to get to the finish before the 26-day cut off - that in itself is a worthy achievement and for that you will get your finisher's blanket.

Aiming for a faster finishing time is entirely possible but immediately puts additional pressure on you. It is wise to decide on a strategy beforehand because it will affect your planning - are you **racing** (sub15-days); **riding** (16-22-days) or **touring** (22-26-days)?

These are fairly loose definitions but are based on past statistics. The finishing time you are aiming for will determine how far you need to ride each day, where you are likely to sleep each night and it could influence what type of equipment you choose.

Looking at the stage distances and daily altitude stats and comparing them to your normal training rides or other events can be misleading and you should not base your strategy and planning on this. There are 3 reasons why: **navigation**, **portages** and the **weather**.

Navigation: because the Freedom Challenge is a navigation race, **you may not use a GPS** and there are no reliable route markers. You will find the occasional ‘bokkie’ sign (the eland depicted in the logo) along the trail and it will confirm that you are on the right track and even indicate the direction of travel (the direction in which the bokkie is looking is the way you must go) but these signs occur at irregular intervals along the route, so cannot be relied upon as route markers.

You will therefore need to use the maps and narratives to find your way and this means stopping often to check the maps and read the narrative – all those stops add time (up to 2 hours extra per day) and slow your overall pace

down considerably. And that is assuming that you don't make any mistakes or go the wrong way... Some sections have many fences and gates to go through, each time forcing you to stop again and taking additional time.

Portages: parts of the trail are too steep, rough, overgrown or indistinct to ride on, so you will be forced to either push your bike or pick it up and carry it. Often you will need to navigate at the same time. This makes the going very slow and adds a different challenge.

Weather: if the weather is kind, you won't notice it and it will have very little impact on your ride. Being winter though, it is likely to be a factor at some point in your ride. Bad weather means cold, wet, muddy or windy conditions, which can all slow you down.

In order to predict a realistic finishing time for yourself and devise a plan that will get you there in time, be aware that your moving speed will most likely be much slower than what you are used to. If you ride at an average of 15-20km/h or more in other events or when out training, re-adjust and use a moving average of 10km/h for your planning – despite how slow it sounds, when you factor in navigation, portaging, weather and other stoppages, this becomes a fairly realistic average speed for the Freedom Challenge.

For RTR, RTC, RTW and RTP race strategy follows similar thinking but the overall finishing times will be shorter: racing (sub 4-days); riding (4-6 days); touring (6 days)

*Please refer to the separate race planner sheets for each race which details distances, elevations and expected ride times between station

What's your RASA race strategy and what does that mean?

Racing: aiming for a sub 15-day finish

- you will need to be competent at navigation or have prior route knowledge and be able to correct any mistakes quickly or you will be following someone who knows the route well
- comfortable riding alone
- fit enough to ride 12-16 hours per day, also portage fit and able to recover after a long, hard day
- competent enough mechanically to sort out own bike issues on the trail
- prepared to start early, usually in the dark (also the coldest part of the day)
- prepared to ride into the night and navigate in the dark
- can function on 5-6 hours sleep per night but prepared to sleep less and nap along the way
- minimalist approach to equipment - carrying a small, light backpack (target weight 4-6kg) with lightweight technical kit; evening clothing may double as extra layers for warmth if required
- no time to do laundry due to short stops
- sufficient lighting to burn for 4-6 hours per day at least (but not always enough time to recharge)
- contents of boxes well planned with bike spares/meds/nutrition/maps all waiting at appropriate stations
- a clearly defined race plan with daily expected arrival times and confidence to adapt the plan quickly according to weather/setbacks etc
- prepared to push yourself very hard physically and mentally
- you will pass through more than one support station per day but will not always have time to enjoy the hospitality
- you are required to notify the race office (by SMS or phonecall) of your movements and plans at every support station
- happy to sacrifice some of the enjoyment of the event for a faster finishing time

Riding: aiming for a 16-22 day finish

- have some navigation experience and comfortable using the narratives
- possibly ride in a group and navigate as a team

- fit enough to ride 8-12 hours per day with good walking fitness for portages
- competent enough mechanically to sort out own bike issues on the trail
- prepared to start at first light every day
- prepared to sometimes ride into the night and arrive in the dark
- can function on 6-8 hours sleep per night
- carrying a slightly larger backpack with a few extra clothing layers for warmth (target weight 7-10kg), some items of lightweight technical kit and separate clothing for evenings
- time to do laundry at most support stations
- sufficient lighting to burn for 2-4 hours per day (enough time to recharge at night)
- contents of boxes well planned with bike spares/meds/nutrition/maps all waiting at appropriate stations
- a well-defined race plan based on a single stage per day for the first half, with the aim of doubling up on all the shorter stages later on - willing to adapt the plan if necessary
- you are required to notify the race office (by SMS or phonecall) of your movements and plans at every support station
- long days on the bike but usually have enough time in the evenings to relax a bit and enjoy the hospitality without having to sacrifice any sleep

Touring: aiming for a 23-26 day finish

- have some navigation experience and comfortable using the narratives
- possibly ride in a group and navigate as a team
- fit enough to ride 8-12 hours per day with good walking fitness for portages
- enough mechanical experience to do daily bike check and maintenance
- prepared to start at first light every day
- prepared to arrive in the dark on some days
- can function on 6-8 hours sleep per night
- carrying a larger backpack with multiple clothing layers for warmth (target weight 8-10kg) and separate warm clothing for evenings
- time to do laundry at support stations
- sufficient lighting to burn for 2-4 hours per day (enough time to recharge at night)
- contents of boxes planned with bike spares/meds/nutrition/maps all waiting at appropriate stations
- a race plan with the goal of finishing one stage per day; willing to start slowly and riding yourself steadily into condition to avoid risks of injury; always aware of the rolling cut-offs which apply along the route; willing to adapt the plan if necessary
- you are required to notify the race office (by SMS or phonecall) of your movements and plans at every support station
- long days on the bike but usually have enough time in the evenings to relax a bit and enjoy the hospitality without having to sacrifice any sleep

CUT-OFFS: when planning your race strategy, you need to be aware of the rolling cut-offs that apply along the route– if you miss a cut-off, you may not continue:

- Rhodes – 8 days
- Hofmeyr – 13 days
- Willowmore – 18 days
- Diemersfontein – 26 days
- RTR – 7 days
- RTC – 6 days
- RTW – 6 days
- RTP- 6 days

4. Training and fitness

The fitter you are, the more you'll enjoy it and the faster you'll recover from a hard day out on the trail. The first two stages are both long and hard days with steep climbs, so if you are planning a fast start with an aggressive race plan, then you need to be fit and focused. If you plan to start slowly and ride yourself into it, you could probably get away with a bit less training overall, but you still need to be fit enough to survive those first two days.

In terms of training, you would prepare as for any other multi-day event and according to your available training time but your specific focus will shift depending on your race strategy. The common component should be long rides at medium intensity and sufficient time in the saddle to get used to the bike and all your kit. An average day on the trail will be at least 8 hours of riding, so you need to build enough endurance to cope with this and recover sufficiently to do it again the next day. You also need to get used to riding with a backpack, which you will feel as additional pressure on your neck, shoulders, back and particularly on the saddle.

Your training schedule should include back-to-back training days and more long rides where possible (over the weekends). Fortunately the intensity during the race is lower than you think – it's more about making steady progress than outright racing and the frequent navigation stops will allow for some rest. You could add in some short, higher intensity workouts (e.g. hill repeats) during the week, as they are a time efficient way to improve your overall fitness and will also help with recovery.

Train for the portages by hiking (or running), preferably off-road over steep, uneven terrain and if possible, using the same shoes and your bike to figure out how to carry everything comfortably (stair climbing is a good substitute if you can't get outdoors often enough).

It's a good idea to train with weight on your back but start light and build up to what you expect your final weight to be. Some strength work in the gym could also be beneficial – to help overall conditioning and help prevent injuries occurring later.

A word about overtraining: always allow enough time for recovery, especially as you get nearer to your start date – aim for peak volumes and intensities 4-6 weeks before the event and then start to taper off and focus on maintaining fitness and boost recovery so that you are not over-trained or carrying any injuries going into the event.

Monitor your health so you don't end up getting sick in the lead up to the event – this becomes more important as the colder winter months approach. Early morning rides in the cold are good for conditioning and testing out your cold weather kit to fine tune your set up but you should not risk illness in the process.

5. Bikes and tools

Virtually every type of mountain bike has been used on the Freedom Challenge before: steel, titanium, carbon and aluminium - both hardtails and full suspension and there have been failures or issues with all types to varying degrees – what this says is that there really is no “perfect bike” for the Freedom Challenge and it usually comes down to personal preference. So the best bike for the job is probably the one you already own.

If you have the option to choose though, then here are some points to consider:

- lightweight is good but strength and reliability are important
- dependable components, avoid lightweight or difficult to service parts
- strong tubeless tyres are very important
- choose grips, saddle and pedals for all day comfort (use them in training)
- space for bottle cages on frame
- start the event with a close-to-new drivetrain and a fully serviced bike
- bike fit is critical, a comfortable riding position will lead to less fatigue and a more enjoyable ride.

Something to bear in mind is that you won't be hammering the bike and giving it to someone else to fix afterwards – you will need to take care of your own bike and equipment. You will most likely end up riding more

conservatively and getting off to walk or push more frequently in an attempt to save bike and body. It's good to get into the habit of checking your bike after each day – a quick clean and lube of the drivetrain and an additional check to see that nothing has worked loose or been damaged – this is essential and will help you avoid major mechanical issues later on.

What spares to carry?

Too many bike spares and tools can quickly add up to unnecessary weight so don't try to cover every eventuality when it comes to breakdowns. You should carry the things that you think you will need to keep the bike running smoothly out on the trail and then send additional spares in your support station boxes to pick up along the way.

Consider taking the following spares and tools:

- Carry a spare derailleur hanger – NB!
- A spare tyre is not necessary if you are using strong tubeless (UST) tyres with fresh sealant but many riders still choose to take one. If you decide to take a spare, store it at the bottom of your backpack or strap it securely to your bike frame
- If you don't carry a spare, take glue, patches and gaiters (even a needle+thread) to be able to fix a bad sidewall cut
- Carry a small bottle of sealant with you at all times and send extra in your boxes
- Carry tubeless plugs of various sizes
- Carry spare tubeless valves
- A good mini-pump
- Carry a CO2 bomb+inflator with you
- Brake pads – start with new, carry a set with you and send an extra set in your boxes (to collect about half way)
- Carry a spare derailleur cable
- Carry a few spare spokes+nipples – they can be stored inside you handlebar or seatpost by using some foam to hold them in place
- Chain quicklinks. Small light so maybe carry a few.
- A comprehensive multi-tool which includes a chain-breaker and spoke spanner (or separate tools)
- Strong tyre levers (that will not snap in the cold)
- If you are riding full suspension, consider taking a small shock-pump and make sure all pivot bearings/bushes have been serviced before you start
- A small cleaning brush plus soap – you could carry the brush and send the soap in your boxes (make sure it doesn't leak into food supplies)
- A Leatherman type multi-tool/pliers (mini version)
- Duct tape and cable ties for makeshift repairs
- Chainlube – supplied by the event at the start and at certain points along the route but you may also carry your own preferred brand

Having all these tools and spares will allow you to fix most breakdowns, provided you know how to use them – if you don't know, then ask your local bike shop to teach you the basics and practice beforehand.

The most common mechanical issues encountered along the trail are usually tyre or puncture related, rear hub failures or suspension failures. Tyre issues can be taken care of by carrying the right spares as detailed above (and using strong tubeless tyres), the others are a bit more complex.

The freewheel mechanism sometimes freezes up on really cold mornings and won't engage. Pouring hot water over it often sorts it out but in the event of a more serious failure, you may need to open it up to replace the damaged parts. This is normally a job for the bike shop but by carrying the spare parts (which are small and light),

you may be able to fix this problem out on the trail – get your bike shop to go through the procedure with you for your specific hub if you are concerned about such a failure.

Front and rear suspension systems need to be serviced before you start and all seals replaced – old seals leak air/oil and eventually lead to collapse which can't be easily repaired on the trail.

There have been a few incidents of frames cracking during the Freedom Challenge. If this happens, you will need a temporary fix to get you to the next support station. Duct tape, cable ties, rope, string or wire have all been used to good effect. If you cannot fix the frame, you need to contact the race office to discuss your options. It is possible to have a replacement frame sent in but you will be given a time penalty and depending on where you are on the route, it may take a day or two to reach you. The same applies for any other spares that you may need along the trail – a spare wheel, seatpost, tyre etc.

Please note: any outside technical support has to be cleared by and arranged through the race office - failure to do so will result in disqualification.

6. Lights and electronics

Lights

Lights are an important part of your kit for Freedom Challenge and you are likely to use them every day out on the trail. In the winter expect sunlight only between 7am and 5pm, which gives you 10 hours to work with – being able to extend that by an hour or two either side with your lights could mean the difference between getting lost or arriving comfortably at a support station. On most mornings you will be trying to leave at sunrise to maximize the available daylight but leaving in the dark before sunrise, using your lights, will give you more daylight at the end of the day and a better chance of arriving at a support station in daylight.

The most common set up is to have a light on your bike (usually on the handlebars) and another light on your helmet. The bike light is typically more powerful and has rechargeable batteries while the helmet light uses replaceable batteries – these are sent in your boxes to pick up along the route.

How bright should the light be? It is personal preference but a decent light for off road riding is typically at least **300 lumens or brighter** – sufficient for dirt road riding and slow technical riding. There are many lights that surpass that with 1000 lumens or more being popular. While these lights are really bright, battery life at full power is limited so they are often used at half power to make them last longer. Recharge times are also important – if you are part of a group sharing accommodation, you may only have an hour or two at night when there is a plug available for you to use. Look for a light that will give you at least **300 lumens for 3 hours** or more and be able to recharge sufficiently at night to repeat the next day.

If you decide to use a bike light that runs off disposable batteries, make sure you test the run times and send enough spare batteries in your boxes.

The helmet light should be lightweight on your head to avoid neck fatigue and burn for a few hours before it dims. You will mostly be using it when portaging and for reading your maps – a zoom feature or the ability to adjust the beam to see further is useful when navigating in the dark. Some lightweight headlamps work well for this purpose and give an output of **200 lumens** or more, yet they will only need fresh batteries every third or fourth day. Again, test out the run times beforehand in training and work out carefully where to send your spare batteries in your 2 litre boxes.

Another option that has become more popular in recent years is a hub dynamo that powers a dedicated bike light. These systems do not have any batteries and rely on your leg power when you ride the bike - as long as the front wheel is turning, your light will shine but the brightness of the light depends on your speed. On portages, the light will switch off, so you will still need a helmet light. A bonus of the system is the ability to recharge other devices (phone, camera, tracker etc) at the same time while on the move by means of a small, integrated charger box. The hub dynamo/light/charger system is convenient but is by no means essential to finishing the Freedom Challenge.

It is also important to take a **rear flashing light for safety** – from the start in Pietermaritzburg you will be riding in traffic and again near the end before Wellington. Along the way there are other places where you may encounter traffic. These flasher units are small and light and with fresh batteries and selective use, they should last the whole ride.

Electronics

Apart from an event issued tracking device and a mobile phone, which is compulsory for communicating with the race office, all other electronics are optional. You will also need a simple bike computer to measure overall distance and distance splits for navigation.

A GPS is not allowed – Any rider found on the route with a GPS will be disqualified. (Riders arriving at the start with GPS enabled devices will have them confiscated and only returned at the finish)

Think carefully before taking any extra devices with you – they all add weight and complication to your setup.

In the past, riders have taken some of the following – the choice to take these or similar is entirely up to you:

- a portable power pack to recharge your phone/tracker/camera
- a separate camera if you intend to take photos regularly
- a separate video/action camera to document your adventure
- a music player/iPod
- chargers for all the different devices
- or a universal/USB type charger that will possibly work for all the different devices

Remember that the intention is not for you to suffer on the Freedom Challenge, so if you decide to take some luxury items along, that's fine. Just be sure that you are really going to use them enough to warrant having them with you. Make sure you use them in training and are familiar with functions and battery life.

7. Clothing and shoes

Probably one of the most important topics in your preparation, so apart from what you'll find here, take the time to speak to other riders and learn from their hard-won experience.

The cold winter temperatures and potential for extreme weather make clothing choice critical. If you are caught out in a sudden change of weather, you need to be able to survive those conditions with the kit in your backpack – or you need to find shelter.

Clothing can be divided into 6 categories:

- a) base layer
- b) mid layer
- c) shell layer
- d) extremities (hands, feet, head)
- e) shoes
- f) overnight clothing

a) Base layer

The base layer is your 'next to skin layer.'

Top – a light to medium weight long sleeve top, could be synthetic (polyprop, polyester, nylon) or merino wool fabric. Lightweight and packs up small. Carry two and rinse/wash where possible.

Bottom – padded cycling shorts with leg warmers (could be bib type) or long cycling pants. Carry 2 pairs (shorts) and rinse/wash where possible.

b) Mid Layer

Top - The mid layer can also usually be worn as a 'next to skin layer' if needed. It is intended to provide more warmth and insulation than a base layer. Usually a synthetic or merino wool fabric, with or without front zip. Could also be a long sleeve, winter-weight cycling jersey. Quite bulky to pack but it is usually worn every day, with possibly a second garment stored in the backpack if you have the space.

Bottom – if you don't have legwarmers, consider taking long cycling pants as your warm layer to wear over your padded cycling shorts.

c) Shell Layer

Top - this layer must protect you from cold, wind and rain. It may be one waterproof jacket or two jackets, one waterproof and the other one a lightweight windproof. The waterproof jacket should have a hood, which you will typically wear under your helmet (some jackets have adjustable hoods which can fit over a helmet). Carefully consider the weight and bulk of the waterproof jacket – it needs to keep you dry in the worst conditions but you won't be wearing it all the time and will have to carry it in the backpack mostly – too big and bulky will mean a bigger backpack, too thin and light and it may not provide sufficient protection and could tear easily, allowing water/cold in.

Bottom – waterproof shell pants to match the jacket, will be used in very cold conditions to cut the wind and conserve body heat and in the rain to keep you dry, otherwise mostly carried in the backpack.

d) Extremities

The hands, feet and head are areas that are very susceptible to cold.

Hands – a combination of thin base layer, windproof mid layer (winter cycle gloves) and insulated, waterproof outer gloves depending on conditions. Most of the time you will only use one of the 3. Sizing is important, the outer gloves should be sized with enough room to fit the layers underneath.

Feet – similar to hands but possibly fewer layers, a thin liner sock (that can be washed regularly) plus a thick, warm outer sock (wool or synthetic). Waterproof socks like Sealskinz also work well as they are insulated, windproof and waterproof – ideal as outer layer and the thicker versions can be used as the only layer.

Head – your helmet will be your outer layer and you should have enough adjustment to accommodate some thicker insulating layers underneath. These layers are very much dependent on personal preference but should be adaptable and easy to take off if you start overheating. A buff /tube scarf around the neck with a second over the head is common. A windproof skull-cap and a thin balaclava for really cold mornings are other options worth considering.

e) Shoes

Shoes need to be comfortable and keep your feet warm.

First you need to decide if you will use one pair of shoes for the whole journey or if you want to take a second, lighter pair of shoes for portaging and wearing at night around the support station.

If you take two types of shoes, then choose cycling shoes that you can still walk in and take a pair of lightweight running shoes as the second pair.

If you plan to use only one type of shoe, look for something that you can walk in comfortably over technical terrain, shoes which are robust to protect your feet and keep them warm. These types of shoes typically have leather uppers and a 'hiking shoe' type sole (there are models available that have a waterproof treatment or lining which adds warmth and protection in wet conditions, in either a shoe or boot style). If you are buying shoes for this event, try to fit them with the socks you will use, especially if they are thick winter socks or Sealskinz – you typically need to get a size bigger than normal for a comfortable fit.

f) Overnight clothing

Although you will spend most of the day outdoors on your bike, at night you should be indoors at a support station. Here you'll typically wear your second set of clothing, while the dirty ones are being washed and dried. Some riders prefer to pack a separate set of 'night clothes' which are only worn in the evenings or which could double as extra layers on the bike if needed. The important thing is to be able to put on clean clothing at night and to be comfortably warm while at the support station.

A lightweight fleece top and sleeping shorts are good options and some riders even pack an ultralight down jacket/vest for the evenings. Remember that the support stations are generally warm inside because they have a heater/fire/stove going all the time. Consider these items carefully as they will usually be packed in your backpack during the day and only get used at night, which means extra weight on your back. If possible, choose items which could also be used on the bike in the case of an emergency or if you encounter extreme weather conditions.

8. Backpacks

First decide if you prefer to carry all your kit in a **backpack**, in **frame bags on the bike** or using a **combination** of both. If you use only a backpack, most of the weight will be on your shoulders and back (putting pressure on your saddle). This will make the bike lighter for portaging and pushing. Using frame bags, the weight is distributed across the bike, resulting in a much smaller and lighter backpack but the bike is then significantly heavier when pushing and carrying it on the portages. If you decide to use both frame bags and a large backpack, make sure you don't end up carrying too much kit – extra packing space should not be an excuse to carry unnecessary extra weight.

Whichever setup you choose, the aim is the same, try to pack sensibly and eliminate things that you don't need daily or rather send more items in your 2 litre boxes – any extra weight will just make life harder on the trail.

Backpack only

Look for bags in the 20-30 litre range, any bigger will become uncomfortably heavy and smaller will make it hard to fit everything in. If you have lightweight kit and are taking a lean and mean approach, you'll get away with a 20 litre backpack and be aiming for a total mass of 7-8kg (including water) or less.

A 25 litre pack will give you a bit more volume but you could still end up with a total mass of 10kg or less. This seems to be the ideal size and is a popular choice. Going bigger than 25 litres makes it harder to get the total under 12kg (because you often tend to use the extra space for luxuries). However, if your kit is light but bulky e.g. down jacket, you may need the extra volume to fit everything in. Smaller backpacks can be harder to pack because everything is a tight fit, so bigger bags do have some advantages here.

As far as backpack features go, look for something with pockets/pouches to organize your gear (inside and outside), a decent waistbelt that can transfer weight to the hips (zip pouches on the waistbelt are good for items you need to access easily – snacks, tools etc), water resistant fabric and zips or a separate rain cover and hydration compatibility to carry fluids (although you don't necessarily need to fill it)

Frame bags

Frame bags offer a lot of volume and feature robust construction. The most popular type of bag used is a small top-tube bag, usually filled with snacks, tools or spares. Another useful option is a seat pack – it offers good volume and also serves as a mudguard below the seat. There are other types of bags that fill in the frame triangle or hang in front of the handlebar so it's worth researching all the options.

Remember that these bags were developed for carrying bulky camping equipment on extended backcountry bike trips – during the Freedom Challenge you will be staying indoors at support stations with all bedding supplied. Unless you plan to use these bags in place of a backpack, don't make the mistake of ending up with too much packing space and filling it with unnecessary items.

“What if I realize on Day 1 that my bag is too heavy, and I want to send some kit back home?”

If you've taken too many 'extras' with you and your bag is too heavy and you need to dump some kit but don't want to throw it away, you have two options:

1. You are allowed to dump kit at Allendale (support station 1) – this will be collected and taken to the finish in Wellington for you to collect at the end. If you withdraw before finishing, it is up to you to track down the kit and make arrangements to retrieve it from the race office.
2. You may post the kit back home from any post office along the route but you will need to do it yourself.

Asking someone else to post it for you is considered outside support and will incur a time penalty or lead to disqualification. Towns along the route with post offices/agencies:

Matatiele/Jamestown/Hofmeyr/Pearston/Kleinpoort/Willowmore/

Prince Albert/Montagu/McGregor - some of these are slightly off route and require a detour to get there. If you need to post anything, you will need to inform the race office of your intentions before doing so and will have to re-join the route at the same point you left it.

If you leave any other items of kit (spares, clothing, devices etc.) at any of the other support stations, you will forfeit those items – you may not ask the support station hosts to make any arrangements to get them back to you after the race and you may not arrange for anyone to meet you along the route during the race to collect the kit from you.

So pack carefully and test everything thoroughly in training before the event, especially in colder weather as the winter approaches. Try to have a system of packing and unpacking worked out in advance and make use of your training sessions as a simulation of a typical day out on the trail.

9. Personal Hygiene

You need to look after yourself and your kit while on the trail. Washing or rinsing your clothes regularly is important, especially in preventing saddle sores. Some of the support stations offer a paid-for laundry service – you need to pay them R70 in cash if they do your laundry (if you intend to make use of the laundry service, send the cash ahead in your boxes). You may also wash or rinse your own clothing but ask where to do it first and ask where you may hang it to dry (often in front of a stove or fireplace). In this case, you can send some soap/washing powder in your boxes too but make sure it doesn't leak and contaminate food supplies.

The personal toiletries that you carry can also be kept to a minimum by sending most things in your boxes. Soap, toothpaste, shampoo etc. can all be decanted into smaller containers, otherwise you end up carrying them all day but only using them at support stations at night – better to have them waiting for you there and save a bit of weight in your backpack.

10. Medical

Minor injuries and illness are common on the Freedom Challenge. Being prepared for them will limit their potential impact on your ride. Your first aid kit should have the basic items to treat any injuries/wounds and illness. The first aid kit will be carried with you at all times, so pack it carefully and make sure it is easily accessible in the case of an emergency. Consider if any items could possibly be sent in your boxes and also where you may need to replenish stocks of items you expect to use along the trail.

Freedom Challenge Race organizers do have a Race Doctor on call for telephonic consults and he can prescribe medications if need be. There is also an emergency evacuation plan in place for each region. Please be aware that all emergency evacuations are for your own (medical aid) account.

Injuries/wounds – overuse injuries to muscles and joints tend to creep in after a few long, hard days, more commonly due to all the walking and portaging (strength training for knees, ankles, shoulders and back can counter this). Carry strapping tape and bandages for support. Anti-inflammatories and pain-killers may become necessary but use them wisely. In the event of a crash or fall, you may need to dress an open wound – gauze, disinfectant cream/wipes, plasters or bandages may all be required.

Saddle sores are also common, largely due to the long hours in the saddle and the extra weight of the backpack – prevention is best with long rides in training for conditioning and the use of an anti-chafe cream. An anesthetic cream (e.g. Anethaine) can help manage discomfort once a problem has developed and the race doctor usually advised Friars Balsam and/or Methiolate for treatment of sores so it is worth carrying those.

Illness - During the Freedom Challenge, cold morning and evening air temperatures may increase the chances of throat, chest and lung infections, so consider taking an immune booster and carrying a general antibiotic with you (consult your GP). Stomach issues are common too (some due to bad water, so always ask if water is safe for drinking) – carry an anti-diarrheal (Imodium) and electrolyte replacement (powder/tablet) to aid recovery.

If you are taking any critical medication prior to starting the Freedom Challenge and need to continue taking it during your ride, it is vital that you make provision for this when packing. Either carry enough supply with you at all times or take a smaller supply and spread the rest out over your support station boxes. While the race office will always attempt to help in an emergency, it may take several hours/days to reach you or get any support through to you, so you need to prepare well and plan ahead. The route takes you through remote areas away from towns and cities so you cannot rely on purchasing anything specific along the way.

If you are affected by injury or illness during your ride, you need to manage it and the decision to continue is in your hands. Be realistic about your condition and your chances for recovery – sometimes a rest day at a support station could be enough to help you get going again and there will be opportunities to make up lost time further along the trail. If carrying on leads to further injury and means risking permanent damage, consider your options carefully and consult with the race office before making any final decision.

11. Maps and narrative

There are currently 83 maps covering the Freedom Challenge route (1:50 000 scale). The maps are accompanied by a set of route narratives that give a detailed verbal description of the route with distance splits.

The Freedom Challenge route has evolved over time and continues to do so – it is therefore important to make use of the most recent set of maps. These are labeled as “2020 Freedom Challenge.” Do not try to use older versions of maps and narratives as they could indicate a route, which is no longer in use and you could end up getting lost. You may also end up trespassing on private land.

***Please refer to separate list of Freedom Trail Map Revisions 2020 for route changes over the years**

It is best to use the maps and narratives together but it is possible to follow the route using only one (maps or narratives). On average you will be using 3-4 maps and a few pages of narrative per single ‘stage’ of the route.

***Please refer to 2020 Race Planner which indicates which maps should be packed into which SS box**

Together with a compass and bike computer, these form your navigational tools and your means to follow the intended route. Although you may find some signs (the famous Freedom Challenge ‘bokkie’) along the route, these are intended only as confirmation markers.

To save you having to carry all the maps and narratives all the time, you can split them up and send them ahead in your race boxes – NB make sure you place the correct maps in the correct boxes and send them to correct support stations (i.e the maps you will need for the next section of the route after that particular support station).

***Please refer to 2020 Race Planner which indicates which maps should be packed into which SS box**

NB – if there are any late changes to the route or support stations, riders will be notified by the race office and sent the relevant info in time to include in your 2 litre boxes. Should there be any further changes, they will then be discussed at the race briefing before the start.

Getting to know the route

Once you have your printed maps and narratives in hand, spend some time getting to know them. Read through each section of narrative and then find and follow it on the map, paying attention to landmarks mentioned and

direction of travel. You will not remember every detail but the idea is to get comfortable with using the two side-by-side and cross-referencing between them.

If you are using a map board, practice with the maps mounted and decide where you will keep the narrative (you could produce your own map and narrative for one of your training rides and practice with that, this has the advantage of also giving you practice with the compass and the process of resetting your bike computer for distance splits).

You can study the route further by trying to match the route on the printed maps to Google Earth – this will give you a better idea of the type of terrain you will be passing through along the route.

Although the navigation can seem daunting, it really is the essence of this event and once you master it, you will gain the confidence to head off into the unknown with only your maps and narratives to guide you. It may take a few days on the trail to figure it out but it really isn't something to fear and can be practiced and mastered with a bit of patience.

If you really are in a panic about getting lost, you have the option of trying to stick with other riders who can either navigate well or know the route – don't rely on this though, if your pace is slower, then you will also be worried about being left behind.

With the maps and narratives in hand, you will have the tools you need to find your way and stick to the route – that is part of the challenge of any navigation event and is what sets the Freedom Challenge apart from most other staged mountain bike events.

Not having a marked route to follow brings in the element of adventure and makes each day a journey of discovery. Finding the route becomes like solving a puzzle - something you do bit-by-bit each day as you move down the trail.

12. Support station boxes

Your 2 litre support station boxes are meant to get your maps & narratives, bike spares, toiletries and medicine to those parts of the trail where you will need them. After you've packed all the essentials, there should still be space left over in the boxes. Although the support stations and lunch stops will provide you with ample food and lunch packs for the road, you may decide to use a particular energy drink, recovery product or take your favourite riding snacks with you.

The key to packing these boxes is variety – don't put the same thing in every box, you will eventually get tired of eating even your best loved snacks. You will also start to crave different things during the ride, sometimes sweet, other times salty, so give yourself the option of both types of snacks. You could get friends or family to help you by giving them some guidelines and then letting them pack each box as a surprise for you. Once on the trail, you could also end up swapping snacks with other riders for even more variety.

Some riders in the past have also packed reminders from their families or short messages of encouragement from home – these could give you a morale boost at just the right time but they also help to involve your family in the preparations for the event.

Once you have decided what to put in your boxes, pack everything you need and then label each box clearly e.g. Support station NAME e.g. ELANDSBERG plus YOUR NAME on the top and ends of each box. Remember that you will only be sending boxes to a 'support station' and not to any 'interim stops.'

***Please note there are now only 19 support stations in RASA (4 in shorter races) so please double check to make sure you know which Support Stations have changed to interim stops and don't get tubs.**

Take your time when packing them and make sure you pack the correct maps in the correct boxes. Seal your boxes with adhesive tape (or duct tape) to make sure they don't accidentally open during transit.

The Race Office will notify regarding the arrangements for getting your boxes sent to the office, usually by drop off at a courier company. The deadline is usually 3 weeks before race start. Once they arrive at the Race Office, they will be sorted with all the other riders' boxes and then repackaged and sent to the support stations along the route.

When you arrive at a support station during the event, the hosts will either give you your box or show you where they are all being stored. Do not open any other unopened boxes, only your own. You may make use of items found in the leftovers from previous riders – only those who started in earlier batches than you and have already passed through the support station. These will either be in their opened boxes or all placed in a large leftovers box by the hosts. Whatever you leave behind at a support station is lost to you and you should not expect to see it again after the race – it will be used by other riders or claimed by the support station hosts (this includes clothing and bike spares).

Sign-in sheets

At every support station (but not at interim stops) you will find a printed list of all the riders entered for the event. Each rider **MUST** sign in next to their name by writing down their **arrival time** and **the date** and the same again on **departure**. **These times must also be sent by SMS/phone to the race office.** These are compulsory checkpoints along the route, so it is the rider's responsibility to sign in (not the hosts) – it is also compulsory to communicate via SMS to the race office, your intentions need to be known to notify the next support station of your expected arrival time.

13. A typical day on the trail

To make life easier on the trail, it helps to have a daily routine to follow. This soon becomes habit and takes some of the thought and associated stress out of each day.

Below is a guideline:

- wake up,
- get dressed and pack bags,
- breakfast
- final bike admin and bag packing,
- sign out and SMS race office
- on the road by sunrise,
- mid-morning snack stop,
- ride till lunch,
- afternoon snack stop,
- ride till supper.

Try to keep moving during the day, limit stops on longer days or in bad weather conditions and aim to arrive before sunset.

On arrival at a support station:

- sign in and SMS race office
- get your box
- supper,
- shower/bath,
- laundry,
- bike check and maintenance,
- social time and check maps for next day,
- bed.

Daily bike maintenance and checking is important and setting up your bike for the next day can develop into a routine of its own:

- where possible, wash bike (or just drivetrain),
- do a quick check (front to back/top to bottom), check for play, loose bolts, broken spokes, tyre cuts etc,
- Mornings – lube chain (not indoors!), check tyres, reset trip meter, display correct maps (or do all of this at night so bike is ready to go in the morning).

Week 1 is the hardest as you will be **adjusting** to life on the trail, by **week 2** you should be **coping** well and by **week 3** you will either be **comfortable and having fun** or you will have gone home...

If you still have questions about how to prepare for your first Freedom Challenge, speak to other riders who are usually very willing to help and share info or alternatively, please contact the race office.

