



SASOL 
SOLAR
CHALLENGE

INNOVATION BEYOND BOUNDARIES



**TEAM MANAGER'S
GUIDE**

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2022 Sasol Solar Challenge

Team Manager's Guide

Introduction and Welcome

Benjamin Franklin famously stated, "Out of adversity comes opportunity". The Sasol Solar Challenge has for more than 12 years represented a unique opportunity for young minds to come together and challenge themselves and the establishment, around what is possible. The event represents the absolute best of what we as human beings can achieve. Our primal need to shape the world around us is more prominent than ever, but instead of shaping it we are learning to work alongside it, and for it.

As the world starts to recover from its single biggest adversity in recent memory we have been reminded, sometimes very starkly how fragile our home is. It is against this backdrop that teams will once again gather in what is widely regarded as the birth of modern man, Africa! A place of deep tradition and history, one where the sun occupies a place as an almost mythical being, bringer of life and magic.

The African Sun is calling all who seek to harness her power and energy, challenging them to defy the most ancient of continents. At the tip of this great land lies a challenge, an investment in the future of mankind, an opportunity to make new.

This is the Sasol Solar Challenge, this is Africa.

Welcome!



Robert Walker
Sasol Solar Challenge Event Director

Special Credits

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1. General Information

1.1. Communication between your team and the SSC

1.1.1. Sporting Regulation 1.6.2 requires you to nominate a Team Manager. The Team Manager is responsible for the actions of their team members and represents the team at meetings.

Your team may use a different title internally, but as the Team Manager has certain obligations you must identify who this person is. By default, this person will be the main contact person between your team and the event organisers. However, if you nominate a different person as a lead contact, the Team Manager must be copied on all conversations.

Our Team Liaison Officer is the point of contact between the event organisers and the team.

The event organisers' team are here to help. The event organisers' office is in Centurion, Gauteng, South Africa and maintains office hours in South African Standard Time. The telephone number is +27 12 661 0285.

Please only use the dedicated email teamdesk@solarchallenge.org.za to contact the event organisers.

An Event Headquarters will be established Red Star Raceway from Saturday 3 September 2022. Event staff will be pleased to assist you with whatever help and local advice you may need.

Further contact details will be provided via a team notice or update to this document closer to the event.

For all important dates, places, and deadlines, refer to the schedule published as Sporting Regulation 1.12, noting a detailed event schedule will be published closer to the event.

1.2. Structure of Your Team

1.2.1. The basic structure of your team is an obligation of Sporting Regulation 1.18.

In addition to the Team Manager, you must have a Safety Officer to ensure the team identifies, mitigates, and manages the risk of participation.

The Safety Officer must ensure that a safety plan is developed, documented and appropriate to the individual circumstances of the team, and that the team complies with the safety requirements of South African law and the Event.

You will also need a Battery Officer to be responsible for liaison with Event Officials and emergency services in the event of a battery incident. The Battery Officer should have a thorough knowledge of the battery system and the risk and remedies involved, have control of all the appropriate safety measures, and have access to the appropriate equipment (including that required for containment and disposal of hazardous waste). In conjunction with the Safety Officer, the Battery Officer must ensure hard

copies of Material Safety Data Sheets (MSDS) for the relevant battery technologies utilised are available in English, for non-English speaking teams, also in the native language of the team.

You will also need a Team Director to be responsible for liaison with Event Officials and organisers in the event of your team being involved in a serious infringement. The Team Director is usually someone senior with experience and is the only person that the Team Manager reports to.

Note that the civilian driving licenses of solar car drivers will be inspected and verified by the South African Road Transport Authorities as part of the scrutineering process (see Sporting Regulation 1.18.6) so make sure your drivers bring their driver's license!

Don't forget Support Vehicle drivers – each of your support vehicles must have a minimum of two people (who are not solar car drivers) available to drive the vehicle. Remember that fatigue is a serious factor in your team risk assessment and must be actively managed.

Finally, participation of persons under the age of 18 (as of Saturday 3 September 2022) is not encouraged. Further information regarding this is available in Sporting Regulation 1.18.7.

EXPERIENCE SHOWS THAT SOME TEAM POSITIONS DEMAND AN ATTENTION TO DETAIL THAT IS DIFFICULT TO ACHIEVE WHEN AN INDIVIDUAL TAKES ON TOO MUCH. DUTIES MAY LOOK EASY UNTIL SOMETHING GOES WRONG. IF YOU ARE THE TEAM MANAGER, YOU CANNOT BE THE SAFETY OFFICER OR THE BATTERY OFFICER OR THE TEAM DIRECTOR. THESE FOUR AREAS OF RESPONSIBILITY REQUIRE A PERSON DEDICATED TO EACH.

2. **WTF – What the Freight!?**

2.1. **How to Ship Your Solar Car**

2.1.1. Experience teams understand the need to be organised, ship early and ship everything together. When you start planning to build your solar car, start planning your shipping.

Pay attention to detail. The work of the best agent will only be as good as the information you provide, and remember, your agent only acts on your behalf—you retain full responsibility, especially for biosecurity and quarantine compliance.

Factor in some extra time so that a shipping delay will not become a total disaster!

If you choose air freight, do not assume that battery packs will be able to be shipped with your vehicle.

2.2. **Customs**

2.2.1. For details of what items can be brought into South Africa please follow the link.

<http://www.sars.gov.za/ClientSegments/Customs-Excise/Travellers/Pages/Arrival-in-SA.aspx>

2.3. Quarantine

- 2.3.1. Teams must be aware of South Africa's biosecurity regulations and ensure that all vehicles and equipment shipped are clean inside and out, and that no food and organic items or undeclared goods are packed with the shipments.

For a list of banned materials please see:

<http://www.sars.gov.za/ClientSegments/Customs-Excise/Travellers/Pages/Arrival-in-SA.aspx>

if quarantine inspectors find something they do not like, the inspection stops at that point until the problem is resolved. If the subsequent inspection finds a different problem, the process is repeated. Yes, it is frustrating, but it can be avoided through preparation and planning.

Serous delays have been experienced in the past by inspectors finding:

- Dirty tents – grass and soil from previous us is a biosecurity hazard
- Seeds in the Velcro closures of backpacks
- Solar car with mud on the wheels
- Undeclared or illegal food items
- Crates made from untreated wood

Unfortunately, the event organisers are unable to undertake negotiations with Customs, Quarantine, or shipping agents on your behalf. The event organisers do not take any responsibility if a solar car or its team's equipment is held up at customs or quarantine. Teams are solely responsible for communicating with shipping agents to ensure their solar car and equipment makes it safely to its destination in South Africa.

The Freight Manual is provided as a separate document. If you have your own freight agent, give them a copy as it contains valuable information on South African import procedures administered by customs, quarantine, and bio-security authorities.

2.4. Deliveries

- 2.4.1. Details of consignment labelling are in the Freight Manual.

Entrants to not have access to Red Star Raceway before Saturday 3 September 2022, therefore no deliveries can be accepted before that date.

As there is likely to be an event at Red Star Raceway before us, attempted delivery will be refused, and you may face delays or additional charges from your freight company.

Please note that if a forklift or crane is required, it must be arranged with your freight company prior to the delivery. The cost of heavy lifting equipment is a team responsibility.

2.5. Road Vehicle Imports

- 2.5.1. All road vehicles (including trailers) arriving in South Africa require a permit from the International Trade Administration Commission of South Africa (ITAC):

<http://www.itac.org.za/pages/services/import--export-control/import-control/guidelines>

<http://www.itac.org.za/upload/amended%20guidelines%20for%20importation%20of%20used%20or%20second%20hand%20vehicles.pdf>

It is important that, as Team Manager, you study these issues as soon as possible and plan for the correct documentation to accompany your vehicles to South Africa.

Solar cars will only be allowed to use public roads as part of the event under strict conditions and will be subject to the event organisers' special arrangements.

Support vehicles and trailers must comply with the National Regulator for Compulsory Specification (NRCS) and require a Letter of Authority (LOA). More information can be found here:

<https://www.nrcs.org.za/content.asp?subID=33#1>

Support vehicles and trailers presented for temporary importation under the ATA Carnet system, and which hold current registration for use on public roads in their country of origin and which are valid for a duration not less than your stay in South Africa, may be exempt from these requirements.

Team Managers must appoint their own shipping agent or customs broker.

Team Managers are also reminded of the distances between South African cities. Experience shows that a container offloaded in Cape Town, Durban, Port Elizabeth, East London, or other sea ports of entry can take several days to clear customs and pass quarantine inspection. Once outside the dock gates, it can still take a minimum of 5 days from Cape Town, Durban, Port Elizabeth, East London, or other sea ports of entry to get to Johannesburg by road. It is important to understand these timelines when planning the logistics of your shipment as even minor delays will severely disrupt your preparation for the Sasol Solar Challenge, and your ability to qualify and participate.

3. Getting to South Africa

3.1. You, Your Team, and Your Supporters

- 3.1.1. It is essential that all team members are present at Registration, starting Saturday 3 September 2022.

Many international airlines fly to South Africa. Most flights land at our major gateways of Johannesburg (O.R. Tambo International Airport),

Johannesburg (Lanseria International Airport), Cape Town (Cape Town International Airport), and Durban (King Shaka International Airport).

Please understand the size of South Africa and the vast distance between Johannesburg and other cities. Driving from Cape Town to Johannesburg can take up to 5 days so ensure that you have enough time to make your way safely to the Event.

It is also important to allow your team enough time to acclimatise to the South African weather and time zones before starting the Event.

3.2 Visas

3.2.1. Travellers from other countries usually need a visa to enter South Africa. A new system is being tested for the application of online visas to South Africa. For more information to obtain a South African visa or to see if you qualify visit South Africa Visa:

<https://www.southafricavisa.com/>

it is your responsibility to organise the correct travel documents relevant to your circumstances.

Please consult the South African Department of Home Affairs website at <http://www.dha.gov.za/index.php/types-of-visas> for more information.

The Sasol Solar Challenge will be registered as a “bona fide” event with the Department of Home Affairs (Immigration). The event organisers will not, however, exercise influence to expedite visas.

3.3 Invitation Letters in Support of Visa Applications

3.3.1. Department of Immigration guidelines prevent the event organisers from providing “invitations” to individual team members. The event organisers can, however, provide a formal letter confirming the dates of the event and the registration of your team which will support your visa application.

Visa support letters can only be provided to teams who have paid their registration fees, have submitted their compulsory documentation, and have registered the individual people concerned as bona fide members of their team.

From March 2022, Team Managers will be given access to a Visa Application Support Letter Request Form. Completed forms will require the full name, date of birth, nationality, and passport number of the individual.

Incomplete forms will not be processed, and a new request will be prioritized over changes. Our letter of confirmation will be forwarded by email as a PDF attachment. No visa support applications will be processed after 29 July 2022.

4. Arrival in South Africa

4.1. Travel Plans

4.1. Please advise the event organisers of your travel plans.

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VOLUNTEER COORDINATOR

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We would like to know:

- Your flight details and arrival date
- The details of your planned accommodation in South Africa, especially in Johannesburg and Cape Town (excluding accommodation provided by the event organisers)
- The location of your base camp/workshop-especially if not at Red Star Raceway. Note that teams must be based at Red Star Raceway from Thursday 3 September 2022 (Sporting Regulation 2.10.2).

If your team is arriving well in advance of the event, it is important to let us know so that you can be contacted with the latest information. We would also like to let our media team know, as there are often calls for pre-event publicity.

4.2. Mobile (Cell) Phones

4.2.1. Your 2,500+ km journey will see you pass through some of the most remote areas of South Africa, including large distances with no cellular coverage. Of the many telecommunications providers in South Africa, MTN offers the best coverage of the event route, including many of the small towns and rural communities along the challenge route. <https://wegotu.mtn.co.za/>

You can choose to purchase a local SIM card which can be used in your personal phone or internet device (check with your local service provider if this is possible). You will need to RICA the SIM card upon purchase which will allow you to purchase airtime and data as needed at a wide variety of kiosks and stores across South Africa. You will also be able to connect to WiFi where available. This is the easiest and most cost-effective option in South Africa.

What is RICA? The Regulation of Interception and Communications and Provision of Communication related Information Act, or RICA as it's more commonly known, is South African government legislation that requires all SIM cards to be registered with the aim of better monitoring criminal activity.

When you buy your phone or SIM, you will not know the number before you go to the store, and we won't know the number until you tell us!

Please make the event organisers one of your first calls on your new mobile device as event staff will be unable to access your international number.

4.3. WhatsApp

4.3.1. During the event, we require that all Team Managers download the WhatsApp application onto their mobile devices. WhatsApp is a messaging application that can be installed on both Android and iOS devices. This is the official channel of communication between the event organisers and the teams during the event. This application works with a wireless network connection as well as with local cellular network service providers and guarantees minimal data usage of any kind. WhatsApp can be installed via the Play Store for Android and App Store for iOS.

4.4. WIFI/Mobile Broadband

- 4.4.1. Some overnight venues and pass-through towns may have free WIFI available at selected stores or service stations, however low-cost prepaid mobile broadband devices are widely available and have the advantage of servicing your needs in most locations. MTN provides the best coverage of the route used by the Sasol Solar Challenge: <https://wegotu.mtn.co.za/>

4.5. Car Hire (Vehicle Rental)

- 4.5.1. You will need to arrange transport for team members, your Observer, and your solar car (when it is not on the road). Some important considerations are:
- Most car rental companies have a minimum driving age of 21, some at 23 and occasionally, 25. Double check with your intended service provider
 - You are strongly advised to make advance booking for car rental. The Internet is a great resource!
 - It might cost extra for one-way rentals from Johannesburg to Cape Town
 - Not all car hire companies in South Africa allow their vehicles to be driven into another province

5. Driving in South Africa

5.1. Drive on Left

- 5.1.1.



In South Africa vehicles travel on the left-hand side of the road. Vehicles are right hand drive.

Unfamiliarity with this system is a risk factor so avoid stopping on the “wrong” side of the road where it is all too easy to take off on the “wrong” side, with obvious consequences.

The Sasol Solar Challenge is held on public roads and it is an obligation of your participation that all vehicles operated in conjunction with the event will be driven in accordance with South African road rules. For more information visit Arrive Alive:

<https://www.arrivealive.mobi/rules-on-the-road>

5.2. Fatigue

5.2.1. Driving distances in South Africa can be extreme which is part of the reason you came here, right? One of your biggest risk factors is fatigue. This is especially true of newly arrived international travellers. You do not want to end your journey before it has even started.

Other international solar car events have seen instances where teams did not even make it to the start of the official event proceedings due to accidents and incidents caused by fatigued driving.

South Africa is a vast country and car trips outside major cities often takes multiple days. You will be driving long distances so plan to have someone else in the car who can share the driving. Take fatigue management seriously!

It is recommended to take a break from driving every two hours. This is important if you are near your destination, as statistics show that fatigue related accidents often occur near the end of a journey.

It is also possible for fatigue crashes to happen on short journeys, or near the start of a trip especially when you are jet-lagged or have been working all night! The way to avoid these issues is simply not to drive if you feel tired or know your concentration is not at its best. It is a good idea to task dedicated drivers within your team who can rest when everyone else is working.

When planning each day of travel, spend some time calculating how long it will take to drive between destination and be realistic about how far you can drive in a day.

5.3. Speed

5.3.1. South Africa uses the metric system. Distances are measured in kilometres and speed in kilometres per hour (km/h). The national default speed limits are 60 km/h in urban areas and 100 km/h outside of urban areas and 120 km/h on freeways. Other speed limits may apply and must be followed according to the South African road rules.

Even though freeways have a default speed limit of 120 km/h we hope that you will recognize the importance of driving safely within your capabilities and those of your vehicle and in accordance with road and weather conditions.

Speed and red-light cameras operate in most parts of South Africa and South African Traffic Police are good at their jobs! They can swiftly empty your wallet, and serious infringements result in the car being impounded and even arrest the guilty driver. Try explaining that to the rental company!

5.4. Seatbelts

- 5.4.1. The law requires all occupants of motor vehicles to wear seatbelts. The driver is responsible for making sure that all passengers are wearing seat belts. Fines exist for those who do not wear them (remember this also applies to passengers travelling in the back of campervans).

5.5. Driving Whilst Under the Influence of Alcohol

- 5.5.1. The 2022 Sasol Solar Challenge is considered a “Dry Event”. This implies that no alcohol consumption will be tolerated whilst engaging in any duties associated with the event. Infringement might lead to hefty penalties or disqualification.

South African civil law applies to drug use and driving under the influence of alcohol. Drivers, team members and all individuals related to the event are to maintain a 0% blood alcohol level whilst engaged in any duties associated with the event. The event organisers reserve the right to request a test at any time during the event and the offending team may face penalties which may include being excluded from the event.

5.6. Four Wheel Drive Vehicles

- 5.6.1. The handling characteristics of four-wheel drive vehicles differ from those of standard passenger cars. These vehicles, designed for both on-road and off-road conditions, have a high centre of mass, and can be affected by winds.

If you have hired a four-wheel drive vehicle, ensure you know how and when to use the vehicle and how to safely change a tyre. Note that many hire companies’ insurance conditions preclude off-road use of off-road vehicles!

5.7. Single Vehicle Rollovers

- 5.7.1. One of the most frequent types of accidents that occur when travelling through South Africa is single vehicle rollover. Invariably, the causes are fatigue, inattention, or distraction. It is very common when a vehicle drifts off the road for the driver to overcorrect. If you do drift off the edge of the road let the vehicle gradually slow down, keeping the wheels straight, and without braking, ease the car back onto the road.

5.8. Vehicle Roadworthiness

- 5.8.1. All vehicles (including trailers) driven on South African roads must be roadworthy, registered and insured. Ensure that your car is in good mechanical order before you travel.

Check that tyres, brakes, lights, and windscreen wipers are all in good condition and working properly before leaving the hire company depot, and regularly throughout the journey.

5.9. Sharing the Road with Trucks

- 5.9.1. When preparing to overtake a truck, or any large vehicle, the further back you are the better your forward vision, and the more time you have to plan

the overtaking manoeuvre. Trucks and large vehicles have a blind spot at the rear of their vehicle extending at least 10 m from the rear. When overtaking, use your mirrors, signa, move out and pass quickly but sensibly. Do not move back in until you see both truck headlights in your mirrors and don't slow down until well ahead of the vehicle you have overtaken.

Only overtake when you are confident you can safely do so.

Do not cut in front of trucks or large vehicles as they slow for traffic lights or when out on the highway. They need more space than you to slow down and stop. Do not take unnecessary risks, be patient.

5.10. Convoys

- 5.10.1. Do not drive in convoys. By law, longer vehicles such as caravans must leave at least 200 meters between vehicles to allow other vehicles, including other trucks, to overtake. All drivers need to be courteous with other road users in mind. If your team is found to be holding up traffic or another team due to driving in convoy resulting in the hindering of overtaking for other road users, penalties may apply. If your team is found to repeat this offence serious steps will be taken and might include exclusion from the event.

5.11. Pedestrians

- 5.11.1. Always be on the lookout for pedestrians. Be particularly careful at night because pedestrians may be encountered on town or rural roads but do not disregard highways or other main roads.

5.12. Wildlife

- 5.12.1. Many roads in South Africa are unfenced so beware of wandering stock. Out on the road do not be surprised to see horses, stray dogs and cats, cattle, goats, donkeys, or other wildlife such as baboons, monkeys, buck tortoises and other medium to large reptile species. Slow down and sound your horn to alert the animals of your presence. Never swerve to avoid wildlife, which is the common cause of drivers losing control of their vehicle.

Generally, animals will give you a wide berth, but they do like to stand on the road at night. Be aware of birds of prey and other wildlife feeding on dead animals killed on the road.

5.13. Photographs

- 5.13.1. If you stop to take photographs, park your vehicle well off the road in an area where it will not affect other traffic or create a safety risk. Standing in the middle of the road to take photographs is best avoided, but if it's a "must have" shot use another person as a traffic spotter.

5.14. Mist

- 5.14.1. Some sections of road on the route may present mist or dense fog from time to time and this may result in very little visibility. In misty or foggy

conditions, continue with extreme caution. Rather slow down and take it easy until you reach better visibility.

Leaving your headlights on will help other vehicles see you through the mist or fog. In some instances, other road users may turn on their hazard warning lights to increase their visibility to other road users.

5.15. Railway Crossings

- 5.15.1. Trains always have right of way. Not all rail crossings have gates, lights or audible warning systems so be sure to always check before crossing railway tracks. Never enter a level crossing unless you can clear the crossing completely on the other side.

5.16. Driving at Night

- 5.16.1. Don't! At least avoid driving between sunset and sunrise. The ability to see animals on the road at these times is greatly reduced and the risk of a crash is greatly increased.

6. Remote Area Travelling

6.1. General Tips

- 6.1.1. The 2022 Sasol Solar Challenge route offers spectacular scenery and the chance for a great adventure, but it is important that your team is prepared for travelling through some very vacant towns and isolated areas. Distances between towns may vary significantly along the route, with food and fuel not always available at regular intervals.

The route can be extremely hot and dry, especially in February, and the nights can be cold. There is also a large possibility to encounter some rainy days, so you need to be prepared for all weather conditions.

To ensure that you get the best out of your experience, it is important thoroughly prepare for your journey. Your safety is important to us.

- Be careful how you pack your vehicles – a loaded roof rack will increase the chance of rollover
- Carry plenty of water, at least 4 litres per person per day
- Carry enough food for each person for two days
- Carry spare fuel
- Take a hat, sunscreen, and insect repellent
- Shake out your shoes in the morning to remove any "critters" that have settled in during the night

If for some reason your vehicle breaks down or gets stuck, stay with your vehicle, and contact the event organisers.

7. Team Preparation Facilities

7.1. General Information

7.1.1. Team preparation facilities will be provided at Red Star Raceway, N12 Zonderfout Farm I226, Portion 5, Delmas, 2210 (Sporting Regulation 1.23).

To register your arrival at Red Star Raceway, drive the perimeter road to the main entrance gate and follow the signs to the Sasol Solar Challenge Event Office (note that all site speed limits apply).

Pit garages (workshops) will be available from 12H00, Saturday 3 September 2022 to 18H00, Wednesday 7 September 2022 by which time all vehicles, materials and waste must have been removed (see also Sporting Regulation 2.10.9).

Teams must register with the Sasol Solar Challenge Site Manager upon arrival. The Sasol Solar Challenge Help Desk is located at the Event Registration Office adjacent to the racetrack control tower (as indicated by the dot on the plan) and is well signposted.

Each team is entitled to a workspace with power (230 V 50 Hz A single phase), light, water, and toilet facilities.

Teams may not reserve workspace in advance. Preferential allocation of workspaces that form part of the permanent infrastructure of the venue will be given to teams who base themselves on site and arrive early. Please be aware that most workspaces are shared with other teams.

Pit allocation is available upon payment of a cash deposit of ZAR2,000.00. This is refundable by returning the pit garage in a clean and tidy condition at 18H00 on Wednesday 7 September 2022. The receipt of a pit garage does not guarantee occupation. The facility is not free storage*. If the workspace is not utilised as intended, you will be required to return the key and make the space available to a team needing workspace.

**The storage of vehicles, crates or containers can be arranged within the area secured by the event organisers but is not guaranteed. This is also on provision of Red Star Raceway management.*

The space allocated to each team will include a portion of the paddock in line with each garage (an example is indicated by the red line) which is reserved for no more than one team support vehicle (excluding any vehicles larger than SUV's or pickup trucks or "bakkies") to be parked in single file.

Additional parking areas are available close by and at the team camp site. Roads, crossings, and pathways may not be obstructed.

It is important to note that camping arrangements have been made by the event organisers at Red Star Raceway with all the facilities needed to set up your team's camp site for the duration of your stay at Red Star Raceway.



7.2. Conditions of Occupancy

- The Occupational Health and Safety Act 85 of 1993 will apply to all event-related activities in South Africa. See:
https://www.gov.za/documents/occupational-health-and-safety-act?qclid=CjoKCQiAvvKBBhCXARIgACTePW-eL5_sVMWqlIsYRnzyVqeQmdec6ghKeQwsrRoCgPrjw6OnFOhwzm4aAp22EALw_wcB#
- Every person working on site must report to the Event Registration Officer on arrival.
- South African road rules apply to access roads within the complex and speed limits must be observed.
- The main gates of the venue will be closed overnight between 2H00 and 06H00.
- Teams may only work through the night by prior arrangement with the Sasol Solar Challenge Site Manager. Abuse of such arrangements will not be tolerated.
- Testing solar cars in the car parking areas or access roads is not permitted.
- Access to the track without the permission of the Clerk of the Course/Track Controller is strictly forbidden.
- All rubbish must be placed in the bins. Large items and additional waste must be disposed of by making arrangements with the venue management.
- Cost of any damage or additional cleaning is recoverable from the team concerned.

South African safety laws place strict obligations on every individual. For the health and well-being of others, health and safety inspections may be carried out in pit garages and camp sites by Event Officials. These officials have the power to close any operation they decide hazardous, and issue on the spot fines.

It can be extremely hot at Red Star Raceway. Please remember to drink plenty of water and apply sunscreen. There are often insects that bite, especially at dusk and dawn-cover up and use insect repellent.

7.3. **Use of the Track**

7.3.1. A Track Controller/Clerk of the Course will be appointed to ensure safe operation of the facility. The track must not be accessed without clearance from the Track Controller. Contact with the Track Controller can be made through the Sasol Solar Challenge Event Registration Office.

The Track Controller will coordinate session times for track use. Track capacity is a maximum of 4 solar cars at any one time. Session times will be limited to 30 minutes during busy periods.

Solar car drivers must wear their full safety protective wear including their helmet and racing suit. Strict speed limits will be applied in the pit lane.

All event safety precautions must be observed. Solar cars must be accompanied by a rear support vehicle always while on the track, with flashing yellow light switched on.

Track etiquette is important. The track is for testing not racing. If another team wishes to run faster than your car, you must give way.

A disabled car must not be repaired on the track; it must be recovered to the pits. The Track Controller will coordinate recovery. A driver of a disabled vehicle should wait for recovery in a place of safety.

The track is only to be used for testing under the control and supervision of staff authorised by Red Star Raceway. Misuse of this facility (speeding, driving recklessly on site, driving any vehicle on the track without permission, using the track at night or any other behaviour detrimental to the safety of any person) will result in the removal of track privileges. Event penalties, which may include exclusion, will also be applied. Team Managers are reminded that they will be held accountable for the actions of their team members.



Red Star Raceway track layout with turn numbers.

7.4. Road Testing the Solar Car in South Africa

7.4.1. The Sasol Solar Challenge will not provide road testing for solar cars before the commencement of the event. The location of the scrutineering venue is not favourable for road testing arrangements due to busy public roads that would be dangerous to merge and exit on a regular basis, this includes surrounding areas and public roads.

Solar cars will only have permission to drive on public roads once they have passed scrutineering with the provision of the road use permits for solar cars only extending from Friday, 9th September to Friday, 16th September 2022. (Also see Sporting Regulation 2.10.8).

Please be aware that individuals and teams making their own demands across a range of provincial and local government departments in South Africa without understanding the areas of responsibility, or the sensitivities of declaring they are planning illegal activities (e.g., “racing” on public roads) are counterproductive to the process.

Cruiser Class entrants who are saying that this does not apply to them as they have road registration at home need to understand that the arrangements made by the event organisers will only permit use of public roads when the conditions of the relevant licencing authority are met, and any arrangements they may make themselves will not allow testing and are unlikely to allow participation in the Sasol Solar Challenge. Team Managers wishing to discuss this further are invited to contact the Event Director.

Pre-event testing facilities will be available at Red Star Raceway. No testing is to be conducted in the car parks or access roads. Event penalties will apply.

Driving an unregistered vehicle is considered a serious offence in South Africa. Teams operating their solar car on public roads without a permit may be prosecuted by police and excluded from the event.

8. Health and Wellbeing

8.1. General Information

8.1. We want the Sasol Solar Challenge experience to be a memorable experience for each member of your team. Experience has shown that it is important to be well organise and prepared when you arrive in Johannesburg.

We hope that you and all your team members will be fit and healthy when you arrive in South Africa. If anyone is sick before leaving home, they should consult their own medical practitioner before travel to South Africa.

Anyone with special medical needs must advise the event via the Team Liaison Officer at teamdesk@solarchallenge.org.za.

Those people on medication should carry sufficient quantity for their stay. Copies of prescriptions may be requested by Customs officers, as well as being useful if visiting a doctor. Care should be taken to look after medicines as it may not be possible to replace them in remote areas of the country.

Note that while the event will look after registered participants in the case of accident, the provisions we make for sickness only apply to the remote areas we will be travelling in. Sickness in Johannesburg or at Red Star Raceway in Delmas should be referred to one of the local medical centres. If in doubt, contact the Event Registration Office at Red Star Raceway.

It is important that you allow enough time for your team to arrive in Johannesburg as it is important to manage fatigue, so that your team members can acclimatise and get ready for their adventure without having to work 24 hours a day. The time shift to South Africa is possibly the greatest many will have experienced so, ideally, one day for each hour of time difference should be allowed.

All team members must be at Red Star Raceway in Delmas and registered by Saturday 3 September 2022.

Consider driver fatigue for solar car and support vehicle drivers, minimise stress, and make sure drivers have proper hydration, nutrition, and rest. Fatigue creeps up on drivers – don't overlook support car drivers! An early indicator of fatigue is a slow response to the radio. Power napping (whilst not driving) is a great strategy-better to lose 15 minutes than have an accident!

It is likely that to you, ours is a foreign land, full of strange customs, creatures (more about our wonderful wildlife later) and food. Yes, we have

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boerewors and vetkoek, and you will most certainly eat well in Johannesburg and at Red Star Raceway, but it is very important to pay attention to hydration.

The Sasol Solar Challenge passes through some of the driest parts of the country. Dehydration is a serious hazard and the Chief Medical Officer suggest that you prepare your body by drinking water at regular intervals during the weeks preceding the event. How much will depend on your body mass, but an average person should consume around 3 litres over a 24-hour period.

Ambient temperature water is far better for you than “sports drinks” and the most reliable indicator of a healthy body is that you pee regularly. Thirst is not a reliable indicator for the need for fluid, in fact feeling thirsty is your body’s way of telling you that you are already dehydrated.

This section would be incomplete without a section on personal hygiene. Experience shows that camping, and communal toilets may often lead to upset stomach. Washing hands takes on a new importance as no one wants the “runs” while travelling long distances on the road for 9+ hours a day! Put antibacterial hand sanitizer on the shopping list and use it regularly! Remind those responsible for feeding the team of the importance when handling and storing food.

8.2. Garbage

- 8.2.1. It is a good idea to segregate, and deal with, unwanted items appropriately. Along the route and at official event venues there should be more than enough waste facilities to get rid of all the unwanted items of your team. In the case that insufficient facilities are available, please transport it with your team until you find a suitable disposal solution for your unwanted waste items. The event organisers have arranged sufficient solutions as far as possible, please ensure your team goes the extra mile to keep our country safe.

8.3. Wildlife

- 8.3.1. Even though poisonous spiders, snakes and scorpions are rare encounters to find during your Sasol Solar Challenge adventure, these encounters still exist, and vigilance is a great way to ensure that you don’t meet some of our venomous friends. Don’t leave boots outside at night and check them before putting them on, give any wearable garments a firm shake before attempting to wear them.

Insect bites are a common problem, and some participants may be more susceptible than others which may lead to hospitalization. Mosquitoes are the most common throughout South Africa, especially around dusk. Wear loose clothing, cover exposed skin, and use a quality insect repellent. Those containing DEET (e.g., Tabard) are good. If you do suffer bites, take antihistamines (e.g., Allergex) or apply a cream (e.g., Anthisan). If your bites don’t heal within a couple of days or if your wounds seem to get larger, more inflamed, or infected, seek medical advice from the ER24 team that will be travelling with the event.

8.4. Health Notes from the Chief Medical Officer

8.4.1. If you are joining us on the upcoming Sasol Solar Challenge, you've no doubt already heard that this is an adventure endurance event like no other. And while there is no doubt this will be one to remember, we want you to remember it for all the right reasons!

Please read these health and safety tips for our CMO at ER24, and make sure you and your team leave the event fit and ready to return to another year.

Health Guidelines

Wear sunscreen, drink water: Tar roads, changing tyres, eating on the go – the SSC's biggest health challenge is dehydration. Make sure to refill water bottles at every stop, carry enough water in your vehicle, provide your drivers with hydration, and apply sunscreen even on overcast days. Wearing a hat is also highly recommended, as the SA sun can be truly brutal!

Remember to eat and sleep: Sound obvious? Sure, until your fifth day of long hours and stress. Make sure your team gets a healthy, and that everyone – especially those driving – get plenty of rest. Sleep deprivation leads to bad decisions, which can put everyone's safety at risk.

Fill your scripts: While there are several cities on the SSC route, many towns are small and remote. Fill scripts for essential medication before the event starts, carry your scripts with you in case of emergency, and identify pharmacies if you are worried about running out.

Treat injuries with disinfectant: Hooked on a screw, scratched by a tyre jack? Make sure to clean and cover wounds and avoid infection while exposed to different surroundings.

If all else fails, check in with our ER24 paramedics: ER24 Paramedics travel with the SSC daily, and are always stationed near the event caravan at start lines, control stops, and finish lines/parc fermé.

Safety Guidelines

Night owl? Make sure you have a flashlight, and do not trip over those tent pegs in the camp!

Carrying a lot of stuff? We know there is a lot to bring. Store in-car luggage in seat wells and trunks so they do not become projectiles if you suddenly have to hit the brakes.

Follow the rules of the road: When you're swept up in the excitement of that last loop or that quick tyre change, it's easy to forget the hundreds of civilians on the road who are not part of the SSC. And while they will stare and point, they will not expect you to be standing in the middle of the road taking photos. Be sure to follow traffic rules, stay off the road when it is not cordoned off, and keep all your limbs inside your moving vehicles.

Do not multitask and drive: We know, we know. You are the support car driver, the contact for media, and you have not yet had lunch. But

multitasking while driving puts everyone at risk – especially after days on the road depleting your ability to concentrate. Pull over, or swap drivers.

Do not drive tired: Schedule driving duty for support and lead vehicles to ensure everyone rests. Solar car drivers are obligated to swap every 2 hours (Sporting Regulation 2.23.4). Use this opportunity to swap out all drivers of support vehicles and when other team vehicles are not in sync with the solar car driver swaps ensure that those drivers also swap out every 2 hours.

Check your rental cars: Make sure all your vehicles are roadworthy, have a safe tyre tread level, spare tyres and working headlights, and are not overloaded. Regularly check your tyre pressure, oil levels, headlights, and wipers. And always buckle up!

Keep a safe following distance: It might be tempting to stay with the convoy but following close not only makes it impossible for the public to pass by you on the road, it also greatly increases the severity of any accident that may take place. Also see Sporting Regulation 2.24 and 2.26.

When in doubt, check with our safety team: The SSC has two safety teams – one for general safety, and one for on-road safety (ThinkBike). Check with them if you are unsure about anything.

9. Insurance

Mandatory insurance arrangements are detailed under Sporting Regulations 1.17.

9.1. Personal Travel Insurance

9.1.1. Participants are advised that a personal travel insurance policy in respect of theft, loss, sickness, and accidents is highly recommended. More detailed information can be found in the Short Term Insurance Act: No. 53 of 1998 here:

https://www.gov.za/documents/short-term-insurance-act?gclid=CjoKCQiAvvKBBhCXARIsACTePW8EX9vbIt8kJrvTf59f1m_x7ySfEzEOCE3NRAlIorgJyZotu5be6BoaAqxBEALw_wcB#

The event organisers will ensure that a medical team from ER24 with an ambulance travels with the event from Johannesburg to Cape Town to serve the event in the case of any medical incident. The cost of remote area evacuation and emergency medical treatment is not covered by the event organisers in the case of an accident. As this can be tens of thousands of Rands, all registered team members are advised to take out short term medical insurance on their own account for the duration of the event in the case of a medical emergency or accident.

The South African Health Care System is more reliable when seeking private medical care, with public health care facilities found more often than not to be unreliable in the attempt to seek medical treatment.

If you are planning adventure activities such as diving, bushwalking, or travelling in remote areas outside of the event, it would be wise to check that your own travel insurance policy fully covers these activities.

Remember to bring your insurance policy details and emergency contact numbers with you.

9.2. Public Liability

- 9.2.1. The event organisers hold a ZAR 2 million Public Liability policy (aggregate cap with a sub limit of R500,000.00 per incident) which covers registered team members for property damage caused by a participating solar car during the event. The cost of this coverage is included as part of the entry fee.

9.3. Third-Party Bodily Injury Insurance

- 9.3.1. The Third-Party Bodily injury insurance component is not compulsory in South Africa but is strongly advised by the event organisers as this will not be covered by the Event.

9.4. Comprehensive Insurance

- 9.4.1. Comprehensive Insurance for personal effect, tools, equipment, solar cars, and other vehicles is the responsibility of the entrant.

The South African Insurance Industry is closely regulated. It is extremely difficult for non-residents to purchase insurance services in South Africa, and it is suggested that entrants seek professional insurance advice in their own country prior to travel.

10. Compulsory Activities

10.1. Team Manager's Briefing (Mandatory) – Saturday 3 September 2022

- 10.1.1. The Team Manager's briefing will be held at Red Star Raceway. Details will be posted on the official notice board at Red Star Raceway. It is the Team Manager's responsibility to check this and attend the meeting. This meeting is for Team Managers only.

10.2. Team and Team Member Registration (Mandatory) – Saturday 3 September 2022

- 10.2.1. Saturday 3 September 2022 in the dedicated Event Registration Office at Red Star Raceway.

Registration times for each team will be allocated between 13H00 and 17H00 on Saturday 3 September 2022.

All participants of the team must be present and sign-on at the time allocated. Team Managers are specifically reminded that they were made aware of, and agreed to, this condition when applying for a place in the event.

Every individual team member is required to attend registration sign-in at the time appointed for the team. Registration occurs in the dedicated

Event Registration office at Red Star Raceway and must be completed to allow the solar car to enter the scrutineering area.

Team members will be able to prepare registration information prior to the event start by using the designated online forms. The relevant forms, which includes questions regarding any allergies, medical conditions, medications and provides details of an emergency contact person and contact number, will be made available from 6 June 2022. The information provided in these forms will be provided to the Chief Medical Officer (CMO), for event purposes only.

It is important for Team Managers to be clear on who their team members are (team, support drivers, media crew, parent supporters etc.).

Solar car drivers are required to produce their civil driver's license. Please ensure these important documents come to South Africa.

10.3. Qualifying

- 10.3.1. All solar cars are required to qualify for the event by undertaking a series of technical inspections and dynamic activities, which are undertaken during static and dynamic scrutineering.

10.4. Static Scrutineering

- 10.4.1. From 08H00, Sunday 4 September 2022 at the Red Star Raceway scrutineering pit garages, N12 Zonderfout Farm 1226, Portion 5, Delmas, 2210.

Scrutineering times are allocated by draw and announced on the official notice board and online by 12H00, Saturday 3 September 2022. It is the Team Manager's responsibility to check the time allocated.

It is a requirement that all teams plan their attendance and prepare to present themselves to scrutineering at the time allocated.

The purpose of the scrutineering process is to confirm the vehicle presented is the vehicle described in the documentation, that the regulations and design requirements have been met and that minimum safety standards have been achieved.

It is important to arrive on time for registration – if you miss your time you will miss your allocated scrutineering time. The Chief Scrutineer may allocate a new time, however this may compromise the opportunity of re-presentation, should any problems be discovered.

If you are unable to make your scrutineering time, please let the event officials know as soon as possible.

Per Sporting Regulations 1.12.2 and 1.26, any requests to attend or participate in promotional activities or public appearances etc are obligatory for all registered teams. Teams are advised that such activities will occur during the static scrutineering process, a detailed programme will be provided once details are finalised.

10.5. Media Briefing – Thursday 8 September 2022, Carnival City Big Top Arena

- 10.5.1. All team members and their solar cars are required to attend. Updates and additional media requirements will be advised via the official notice board. It is the Team Manager's responsibility to check the noticeboard.

10.6. Dynamic Scrutineering – Procedural Briefing 07H00, Tuesday 6 September 2022, Red Star Raceway

- 10.6.1. All Team Managers and solar car drivers must attend the procedural briefing prior to the commencement of dynamic scrutineering. Details will be advised via the official notice board. It is the Team Manager's responsibility to check the noticeboard.

10.7. Team Briefing

- 10.1. The Team Briefing will be held at Carnival City Big Top Arena on the afternoon of Thursday 8 September 2022. Details, including times, will be advised via the official notice board and online by 15H00, Wednesday 7 September 2022. It is the Team Manager's responsibility to check the noticeboard.

10.8. Official Finish Line

- 10.8.1. Per Sporting Regulations 1.12.2 and 1.26, any requests to attend or participate in promotional activities or public appearances etc are obligatory for all registered teams. Teams are advised that such activities will occur at the official finish line, a detailed programme will be provided once details are finalised.

10.9. Static Scrutineering Process

- 10.9.1. Static scrutineering is separated into two parts – array/top-shell on, and array/top-shell off.

Key components of your vehicle may be marked and verified at different stages of the event. It is important that all your sponsor signage is on your vehicle prior to scrutineering so that these markings can be made.

Escort vehicles, trailers, safety equipment and communications will also be inspected at scrutineering. Please check the regulations about what you are required to bring with you.

Only seven (7) team members, including the Team Manager, are allowed on the scrutineering floor at any one time (Sporting Regulation 2.12.3). This includes any interpreter required under Sporting Regulation 1.18.1.

The Team Manager is responsible for the number of team members present at any time. This number includes any drivers, technical advisors, and team media representatives.

There are viewing areas around the scrutineering pit garage. We ask that you do not go into the areas which are closed off due to health and safety requirements.

Static scrutineering takes four hours. While every team member is required at registration, the whole team is not required to be present for your entire scrutineering process. Your Team Manager, interpreter (if required) and key team members need to be present always during scrutineering (details in Sporting Regulation 2.11).

Problems? It is not the aim of the Chief Scrutineer to find fault. The onus of compliance is with the entrant.

Depending on the nature of the problem, non-compliance penalties may be issued, or an opportunity may be provided to correct the problem and re-present. Re-presenting will occur on Tuesday 6 September 2022, except by arrangement with the Chief Scrutineer.

Except in exceptional circumstances, if your car has not passed static scrutineering by the close of Tuesday 6 September 2022 then you will not be permitted to drive your solar car to Cape Town.

10.10. Dynamic Scrutineering Process – 08H00 Tuesday 6 September 2022, Red Star Raceway

- 10.10.1. Solar cars successful in static scrutineering move on to dynamic scrutineering, which includes a timed lap to determine starting positions.
A mandatory briefing for Team Managers and drivers will be held before the session commences.

10.11. Vehicle Registration Plate

- 10.11.1. Following the successful completion of dynamic scrutineering, the National Department of Transport will issue an event vehicle registration plate which must be affixed to your vehicle in accordance with Technical Regulation 1.6.2. This vehicle registration plate authorises the solar car on to be driven on public roads during the event.

11. On the Road – Johannesburg to Cape Town

11.1. Sasol Solar Challenge Time (Event Time)

- 11.1.1. At the time of the event, South Africa as a whole observe Standard South African Time (SAST = GMT/UTC +02:00) and is the same as Central African Time (CAT). The event will observe SAST for the duration of the event.

11.2. About the Route

- 11.2.1. The Sasol Solar Challenge is held on public roads in normal traffic. It is a privilege for you to be allowed to do so and it is essential that the road rules and any conditions imposed by the road traffic authorities are observed.

The event course will stretch between Johannesburg and Cape Town and will include sections of major highways and other national roads – approximately 2300 km excluding loop stops.

A set of route notes will be compiled by the event organiser. As the value of the route notes is directly proportional to their accuracy, the route notes will be reviewed at the last possible moment and be available electronically for teams to download from July 2022. One hard copy will be provided to each team at registration.

11.3. Accommodation

11.3.1. Overnight accommodation will be provided by the event organisers in the form of camping facilities. Please note that on-event accommodation is included in the team registration fee as per Sporting Regulation 1.14.7.

Scrutineering accommodation at Red Star Raceway will be available from Saturday 3 September to Wednesday 7 September 2022 (5 nights).

Team accommodation for the 8th of September 2022, the Solar Car Expo at Carnival City Big Top Arena, will be the responsibility of the entrants. The organisers will take no responsibility for any accommodation for teams on the aforementioned date.

On-event accommodation along the Sasol Solar Challenge route will include Friday 9 September to Thursday 15 September 2022 (7 nights).

Team accommodation from Friday the 16th of September 2022, the official finish at V&A Waterfront will be the responsibility of the entrants. The organisers will take no responsibility for any accommodation for teams on the aforementioned dates. Team catered dinners will be arranged at specified locations that will be communicated to the teams via a Team Notice. The organisers commit to a minimum of three (3) catered dinners during the challenge, additional catering might be arranged and will be communicated by the event organisers in reasonable time.

11.4. Overnight Stops

11.4.1. As we have seen, stuffing used camping equipment in the same container as your solar car can result in quarantine delays. It is often more expensive to ship camping gear than it is to source it new in South Africa.

The secret is to arrive in South Africa with plenty of time to enjoy the sights and shop for your on-road needs. If possible, our supply officer should not be concerning themselves with setting up your solar car but be free to source your on-road requirements. It is a fact that your team will perform much better when properly prepared and adequately provisioned.

After the event, anything you do not wish to ship home to your own country can be recycled. The organisers will plan with community groups, and facilities to help with this process.

Sporting Regulation 2.29 provides more detail concerning selection and use of overnight stops.

11.5. Cruiser Charging

- 11.5.1. The Cruiser Class external charging stations will be located at specified overnight stops and will be located on the premises or a short drive from the respective overnight venues.

Further details will be provided via a Team Notice.

11.6. Personal Equipment

- 11.6.1. It makes sense to carry only basic camping and cooking requirements. Most of your campsites will be at showgrounds, sports fields or camping resorts.

Take a small tent, warm sleeping bag and light mattress – it is not uncommon for it to be cold overnight. Bring suitable clothing, noting that there will be varying weather conditions. It can be very hot travelling through the inland part of South Africa and quite cool when approaching the coast. Having your own cutlery, plates, and mugs will avoid the need for disposables.

Essentials include a small torch, spare batteries, insect spray, and personal toiletries. Personal hygiene is particularly important for camping (more information on this in the Health and Wellbeing section).

Non-essentials might include a light-weight camping stool or chair.

Communal needs will include cooking equipment in sufficient quantities for the size of your team, and facilities for washing and keeping the camp clear and tidy. Plastic buckets and bowls for washing up (don't forget the dish soap and tea towels).

11.7. Water

- 11.7.1. It is important to note that many towns on the Sasol Solar Challenge route don't have clean, safe drinking water from the taps. Experience shows that it is a good idea to carry drinking water in separate containers from water which can be used for washing or other purposes. Many towns or fuel station kiosks may have a public standpipe where it is a good idea to top up water containers. It is always polite to ask.

11.8. Fire

- 11.8.1. You may want a campfire, but before striking the match make sure you clear the area around the fire of any items within 2 metres.

It should not be assumed that each venue or overnight stop allows camp fires, open fires or charcoal fires. Team Managers are advised to check with the event organisers when intending to make a fire if it is permitted at the venue.

Fires are more commonly accepted when made in a "braai stand" (open fire barbecue stand) and most camp sites have a braai stand allocated to each stand. Many venues will not allow ground fires, but exceptions could be made for portable fire pits. The key is not to damage the ground or turf where the fire is made. Locals generally have small portable braai stands

which they travel with when unsure of the facilities available at campsites. It is recommended to equip your team with one or more of these to service the needs of your team. Gas cooking equipment is widely accepted unless indicated otherwise.

Always make sure that the fire is totally extinguished before moving on and clean up your camp site as best possible to its original condition as it were on your first arrival.

11.9. Provisions

- 11.9.1. The type and amount of food and drink required will depend on the personal preferences of your team. It is a good idea to test your plan during your time at Red Star Raceway, that way you will see what supplies you run short of and what you may need to carry.

Don't forget you will have an Official Observer as part of your team.

Refrigeration, food handling and storage should be part of your team safety plan. Ice may be replenished from most fuel stations but be aware that if you are the fourth or fifth solar car team to visit that day supplies may not be guaranteed.

Supermarkets – Most overnight towns have decent facilities where most day-to-day supplies can be found. In between, there are kiosks, a "padstal" (farmstall) or two, and express shops to service your team's most basic needs.

11.10. Fuel

- 11.10.1. Fuel (diesel, petrol, and LPG) is available at regular intervals along the Sasol Solar Challenge route. The prices in South Africa are regulated and only small differences will be experienced between coastal and inland areas. Teams need to be aware that there can be many hundreds of kilometres between fuel stops, and it is important that you have enough fuel for all of your vehicles to make it along the route.

11.11. Control Stops and Loop Stops

- 11.11.1. The location, along with the operation times, of the declared control stops and loop stops will be available following the route survey in July 2022. Undeclared control stops may be created at any time.

Team Managers should make themselves familiar with Sporting Regulations 2.27 and 2.28 detailing activities, which again differ from previous events.

You must follow all directions given by control stop signs and the Control Stop Manager and the accompanying staff. Parking spaces for solar cars will be allocated in order of solar car arrival, you will not be able to "reserve" a parking space for your solar car.

You may wish to send a scout party ahead to check the control stop. However, please note there is limited space available, therefore all team vehicles, except the solar car and escort vehicles, must keep well clear of reserved areas at control stops.

Teams are responsible for the timing of their control stops and loop stops. The Control Stop Manager will not provide the departure time for your team. It is not your Observer's responsibility to manage your time keeping.

The control stops are also an opportunity to provide your sponsors with a media opportunity, and give time to refresh, refuel and regroup. This is also the point at which your Observer may or may not be changed, and any time penalties may be served.

11.12. Keeping Up with Open Control Stops

- 11.12.1. The closing time of control stops is calculated to reflect the minimum progress required by regulation; however, Event Officials are empowered to consider the circumstances of any team making poor progress or encountering technical difficulties.

Rather than demand withdrawal, an efficient team may be allowed to "catch up" following a technical setback. If weather or other factors suggest an improvement in anticipated progress is unlikely, a team may be required to trailer forward to the overnight stop in order to remain in sync with scheduled event times and activities.

One thing Event Officials are instructed to bear in mind is that, even though you may be determined to see how far you can go, our event permit is finite, and we want you safely at all communal venues along the route as well as in Cape Town to join the festivities. We also need to avoid unreasonable trailering times towards the end of the event. It would be better do complete 400 km on solar and 100 km on the trailer each day to maximise your experience of the event.

11.13. On Road Behaviour and Safety

- 11.13.1. Participants must not confuse the Sasol Solar Challenge with mainstream motor racing. The event uses public roads, and the Regulations demand compliance with all civil traffic regulations. It is important to remember that the event is a challenge, not a race.

Competitors who seek all-out racing may seek out several solar events around the world that provide the opportunity of a few hours on the racetrack, and the thrills and spills of neck-and-neck competition.

The Sasol Solar Challenge is run over 2,300+ km, and there is little excuse to run off the road during the first 100 metres. Nether is there any excuse for running red lights or speeding through the small communities along the way.

The event organisers take your safety seriously and will not hesitate to impose event penalties on any team not behaving in accordance with normal traffic protocol.

11.14. Tracking

- 11.14.1. Your solar car will be fitted with a data logger during scrutineering by a team of technical experts from Ctrack. In normal circumstances no further

action is required. Note that the “box” remains the property of the event organiser (see Technical Regulation 1.9).

11.15. Radio Communications (Sporting Regulation 2.8)

- 11.15.1. Please refer to Sporting Regulation 2.8 for a detailed description of event related communication requirements. In addition, the following information should be noted as important should your team be making use of any radio communications.

There may be many questions regarding acceptable radio frequencies. Anything concerned with the event must comply with South African civil laws. The South African federal regulations, together with the Independent Communications Authority of South Africa (ICASA) regulations can be found at <https://www.icasa.org.za/> or you can email an enquiry to info@icasa.org.za

If you are using equipment from your own country that was out of band as far as South Africa is concerned, there would be no guarantee that you wouldn't be swamped by licensed users transmitting not only speech, but telemetry or data packets when you least expect it, and there may be remote installations – pumping stations, livestock control or remote area solar power systems (RAPS) – that have the potential to do that.

11.16. Remotely Piloted Aircraft (Drones)

- 11.16.1. Please refer to the Remotely Piloted Aircraft Addendum for detailed information regarding the operation of RPA's during the 2022 Sasol Solar Challenge.

Further requirements of Sporting Regulation 1.27, which states that RPA may only be operated with the approval of the event organisers, persons seeking to operate an RPA in association with the 2022 event must apply through the event media accreditation process.

Teams must also complete the online form requesting approval to operate an RPA, which will be made available on the website, and will include the following fields:

- Purpose of use
- Details of RPA – type, weight etc.
- Copy of relevant SACAA registration and license
- Copy of insurance (teams should include RPA operation in their insurance policy coverage)
- Proposed flight plan/schedule

The event organisers will review the request and advise provisional approval in writing to the Team Manager. Formal approval will be provided upon confirmation of request from the pilot and Team Manager in person at Red Star Raceway.

For more information about no-fly zones in South Africa visit:

https://www.google.com/maps/d/viewer?mid=1dysv62Uj_IMCo7jtE99-x8iRVNU&ll=-26.029090790035557%2C28.738983494642902&z=13

Approved operators must confirm requests to fly between 3 September and 8 September 2022 a minimum of 24 hours in advance, in person to the Event Registration Office at Red Star Raceway. Requests to operate after the event's departure from the Official Start Line must be made through the Event Media & PR Manager the end of the day, the day prior to the intent of flight.

Approval will only be given to operators registered and accredited through the media registration process.

Logs of operational locations and times must be provided to the Media & PR Manager as soon as possible on completion of operations, but no more than 24 hours later.

12. Cape Town and the Event Finish

12.1. Finish (Sporting Regulation 3.1)

12.1.1. The Finish Line will be at V&A Waterfront that is located in the heart of Cape Town. Further details will be announced once final arrangements have been made.

When your team arrives at the V&A Waterfront, all team support vehicles must be parked strictly at the designated support vehicle parking area. The solar car concession will be halted to allow for team members to make their way to the Finish Line. Each team will be given approximately 15 minutes for photographs.

Your solar car will be subject to final scrutineering once entered into the final parc fermé area at the marshalling point. A marshalling point will be established a few kilometres before the official finish line. The finish line time for the challenge will be determined at the marshalling point. The marshalling point will also serve as the operational holding point where Event Officials will orchestrate the Finish Line solar car concession.

12.2. Public Engagement/Promotional Activities

12.2.1. Once your solar car arrives at the official Finish Line it will be placed on display until 16H00, Saturday 17 September 2022. Team Managers must ensure that at least 3 team members are allocated to your solar car during the public display to engage with the public and media. Security will be provided.

Other promotional, public engagement and event activities such as Cruiser Class practicality judging will be held at The Lookout V & A Waterfront the morning of the Awards Ceremony. Further details will be announced closer to the event.

Per Sporting Regulation 1.12.2 and 1.26, any request to attend or participate in promotional activities or public appearances etc are obligatory for all

registered teams. A detailed programme will be provided once details are finalised however may include the following:

- Attendance at event media calls
- Meet and greets with event sponsors and key stakeholders
- Involvement in industry or business networking sessions

12.3. **Awards Ceremony**

12.3.1. The Awards Ceremony will be held on Saturday 17 September 2022 (see Sporting Regulation 3.6) at The Lookout V & A Waterfront, full details regarding the location and timing will be provided in the relevant Team Notice.

Tickets will be allocated appropriate to the number of registered team members at no cost. Tickets for up to 5 non-registered persons (public, friends, family, sponsors) per team may be purchased upon request from the event organisers via admin@solarchallenge.org.za from Monday 1 August 2022 to 12H00, Friday 26 August 2022. Ticket prices will be published closer to the event.

Teams are encouraged to wear their team uniform or National Dress. Doors open at 10H00 SAST. Remember to bring any team shirts you may wish to trade with other teams.

It has become usual for the celebrations to continue at a nearby nightlife venue nominated for an “unofficial” after party!

Further details concerning the Awards Ceremony will be provided in a Team Notice.

12.4. **Pack Down**

12.4.1. Your containers and crates may be delivered to the official pack down area as advised in Sorting Regulation 3.7 from Wednesday 14 September 2022. Details of the exact location and entrance will be shared closer to the event.

Any equipment required for loading/unloading your containers is your team’s responsibility.

Please note that Team Managers are responsible for any contractor they invite on to site, as care needs to be taken to minimise any damage to the ground. Please refer to the Freight Manual for details of export formalities.

The pack down site will be available until the afternoon of Sunday 18 September 2022. Any freight remaining on site will be removed to a storage facility at the owner’s expense.

12.5. **Rubbish/Unwanted Items**

12.5.1. Please plan to minimise your waste. Skips will be provided for rubbish and recycling; however, experience shows that after the Sasol Solar Challenge there may be perfectly useable items which are uneconomical to ship back to your home country.

An area will be put aside for the deposit of any items which may be useful to others and, depending on the nature of the items, will be passed on to help other community groups such as rural communities and schools.

Separate arrangement will need to be made for the disposal of hazardous substances. Please contact the event organisers to discuss.

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13. Appendix

13.1. Event Schedule

13.1.1. See Sporting Regulation 1.12.

13.2. Event Locations

<p>13.2.1. Red Star Raceway N12 Zonderfout Farm I226 Portion 5 Delmas, 2210 Garages available from 12H00 Saturday 3 September 2022 to 18H00 Wednesday 7 September 2022. Registration 3 September 2022 13H00 – 18H00 Static Scrutineering 4-5 September 2022 07H00 – 17H00 Dynamic Scrutineering 6-7 September 2022 07H00 – 17H00</p>	<p>13.2.2. Carnival City Big Top Arena Century Rd & Elsburg Road Carnival City Brakpan, 1540 Public Expo Thursday 8 September 2022 07H00 – 15H00 Briefings as per Sporting Regulation 1.12.</p>
<p>13.2.3. Official Start Line Century Rd & Elsburg Road Carnival City Brakpan, 1540 Official Start 9 September 2022</p>	<p>13.2.4. Official Finish Line V&A Waterfront, Jetty 2 Victoria & Alfred Waterfront, Cape Town, 8001</p>
<p>13.2.5. Pack Down Location to be confirmed. Wednesday 14 September 2022 – Sunday 18 September 2022</p>	<p>13.2.6. Awards Ceremony The Lookout, Waterfront Granger Bay Blvd, Victoria & Alfred Waterfront, Cape Town 8002</p>