



# RALLY PRIVATE TEST SAFETY

2021  
RALLY SAFETY GUIDELINES



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# INTRODUCTION



Rally fans that can access team test days know that they will get to see the car and driver multiple times throughout a day, most likely in a less crowded environment than on an actual rally.

Rally Test organizers need to include spectator access, viewing areas and control into their pre-test planning to be able to have control over the site, to enhance safety for all and to protect our sport.

You will find in this guideline information to help you to prepare safer rally test days.

We recommend to use the **Rally Private Test Safety Checklist** in combination with the guidelines.

We encourage you to use those practices not only during high profile tests, they can easily be deployed on any private test days.

The **FIA Rally Safety Guidelines** should be read in accompaniment to this document.



**The document is split in 4 categories; according to your test preparation progression:**

- Before the test
- During the test
- Incident handling
- After the test



**BEFORE  
THE  
TEST**

# BEFORE THE TEST



## TEST ROAD SELECTION

The list below is not exhaustive but gives an indication of considerations required when looking at a new test road:

- What length is the proposed test road to be?
- Is the chosen test road representative of the rally that the test is being carried out for?
- Are the access roads suitable for the driving crews, MIV, ambulance and recovery units?
- Can the test road accommodate spectators safely? Is there a limit on possible spectator numbers?
- Are possible spectator points easily controlled? Will there be any issues with local residents?
- What risks / hazards does the test road present to the competing crew(s)? Are they insurmountable or manageable risks?
- How easy is it to create a sanitized test road? Are there lots of junctions to marshal? Are there households on the test route?
- How many marshal are required to safely secure the test road and access?
- Is the road used or accessed by other recreational pursuits that may use footpaths?

*Section 4 of the FIA 2021 Rally Safety Guidelines covers special stage selection in greater detail.*

## RISKS IDENTIFICATION

- What are the hazards that are faced by your marshals, driving crews and spectators?
- What is the risk attached to each of these hazards?
- If an injury occurs – what mechanisms have you put in place to cope?
- What else can be done to secure the risks?
- In case of any major incident, is there access for ambulance or a helicopter if it's far from a hospital?
- Has the nearest hospital to the test site been identified?
- Use your previous experience to know the popular viewing points and ensure that your marshalling teams are in position ahead of the spectators to enable you to place them where you want and to ensure that they don't establish themselves in unsuitable locations
- All pre-planning will be enable a planned and controlled response to any incident
- A quick response to any incident can save a life
- Identifying the potential risks to spectators is the first step to manage spectators on your test day and is fundamental to run a safe event
- It is recommended that before the route is finalised, a local very experienced driver or co-driver goes through the test roads in advance to help identify and note any perceived high-risk areas to test crews
- There are many ways to protect high-risk areas, such as:
  - Straw bales (round or square more than 1 m in diameter recommended)
  - Concrete barriers
  - Sand bags
  - Earth bunds
  - Plastic water filled barriers
  - Walls of connected tyres



## TEST PREPARATION

- Obtain all the necessary authorizations according to the test country regulations
- Draft the incident management plan
- Draw the detailed Test Safety Map; including at least:
  - Start, finish, marshal number and exact location, team service area, intervention vehicles positions, parking, public road closing warning signs.
  - Each coordinator must take all necessary measures in case of spectators (safety of the service park, roads and test tracks).
- A helicopter landing area must be identified in case of emergency.
- Start to fill in the Private Test Safety Form.
- Do not forget to subscribe an insurance contract to cover the risks all along the test period.
- Refer to the [FIA Rally Safety Guidelines](https://www.fia.com/rally-safety) for stage setup [www.fia.com/rally-safety](https://www.fia.com/rally-safety).
- Ask [rally.safety@fia.com](mailto:rally.safety@fia.com) in case of question about safety.



## EMERGENCY PLAN MANAGEMENT

### What to do in case of emergency?

- To be able to implement a controlled and efficient response to any incident you will have to have considered such response before the test takes place
- Detailed information is required:
  - Where has the incident taken place?
  - Number of injured?
  - Any detail on injury
  - Any risk on possible further injuries or risk to life?
- Who to be contacted first – depends on the information gathered above. It may be that just the recovery unit is required. If it is a medical incident, the doctor goes in first and then the Medical Intervention Vehicle
- This plan has to be given to all marshals. They need to know who to contact and how. They also need to receive instruction on how to keep spectators in place and to protect the driving crew or injured parties.

## TEST ROAD SAFETY MAP DRAWING

This test road safety map must contain at least:

- Marshal positioning
- Marshal total number
- Return areas on both sides
- Service area location
- Road closure signs placed before the starts
- Emergency intervention vehicle area
- Spectators area if you have safe area

This test map should be included in the [Rally Private Test Safety Checklist](#) (see Appendix I on Page 42 of this document).

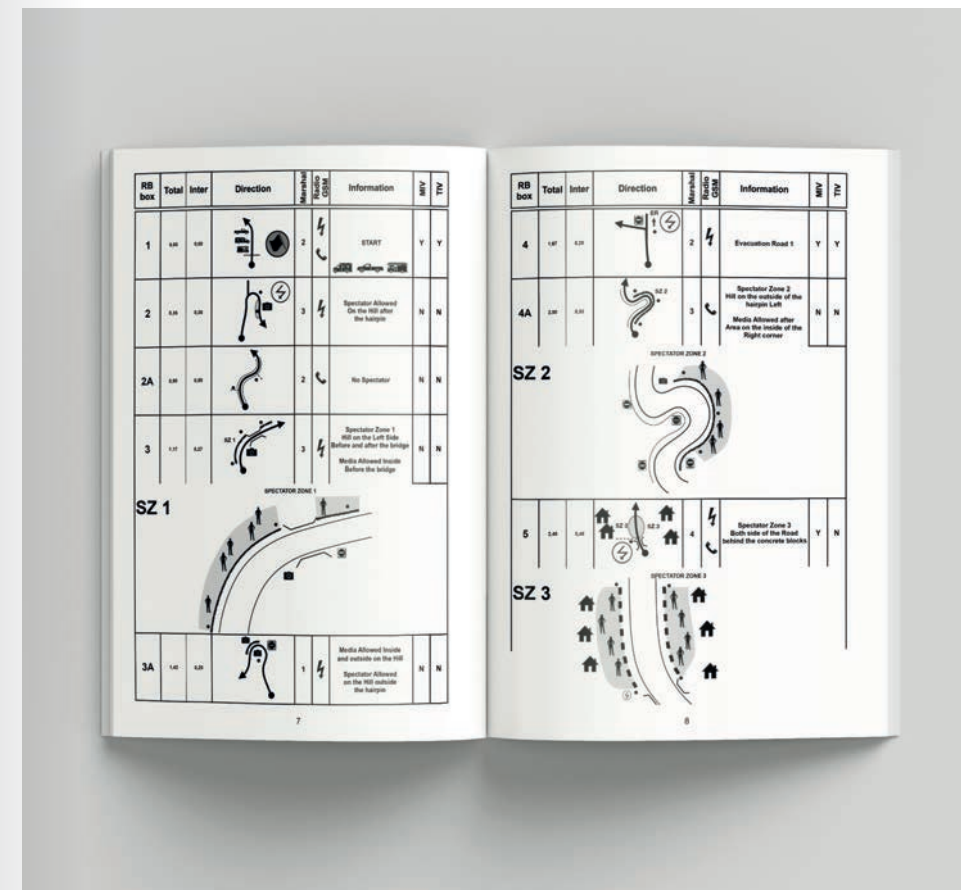


## SAFETY ROAD BOOK CREATION

The aim of the document is to help to setup the test road, and to help the safety manager responsible during the safety check.


That document (see Appendix II on Page 46 of this document) should contain:

- Distance from start and distance to finish
- Marshal position
- Detailed public zone map
- Inventory of equipment on the post
- Any other useful safety information



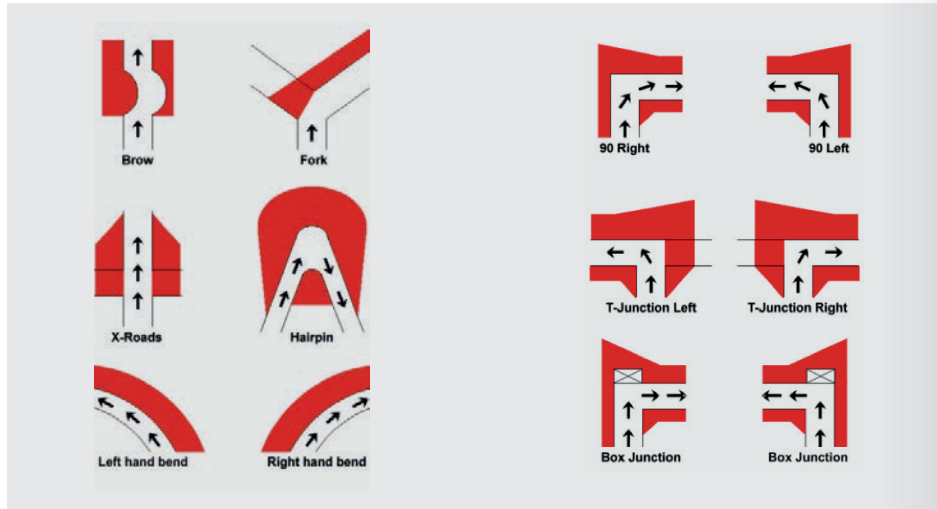


## ROAD CLOSING

- Close and tape each access to the test road (paths, roads...).
- No vehicle must be able to go on the test road!
-  Tape should be used to block alternative roads, escape roads and run-off areas as a visual aid to drivers.
- Any person coming from main access roads should pass "road closed" / "Motorsport is dangerous" and test information signs at least three times.
- At the entry and exit of test road, a car should be positioned to block any car access.
- All access roads should be closed at a safe distance back from the edge of the test road by tape to ensure that spectators, marshals and media are kept well back.
- Spectators should be directed left and right to safe areas.
- A marshal must always be positioned at any access road or junction where there is a possibility that spectators or members of the general public may try to enter the test road.
- All escape roads must be kept clear. Consideration must be made that the test road can be used at speed in both directions, so safety must be checked for each direction of travel.
- No cars (spectators' or marshals') should be parked on escape roads.


## SPECTATORS AREA IDENTIFICATION

The shaded areas below show areas that should be classified as a prohibited area for spectators, media and marshals. Full details are available in Section 5 of the **2021 FIA Rally Safety Guidelines**.



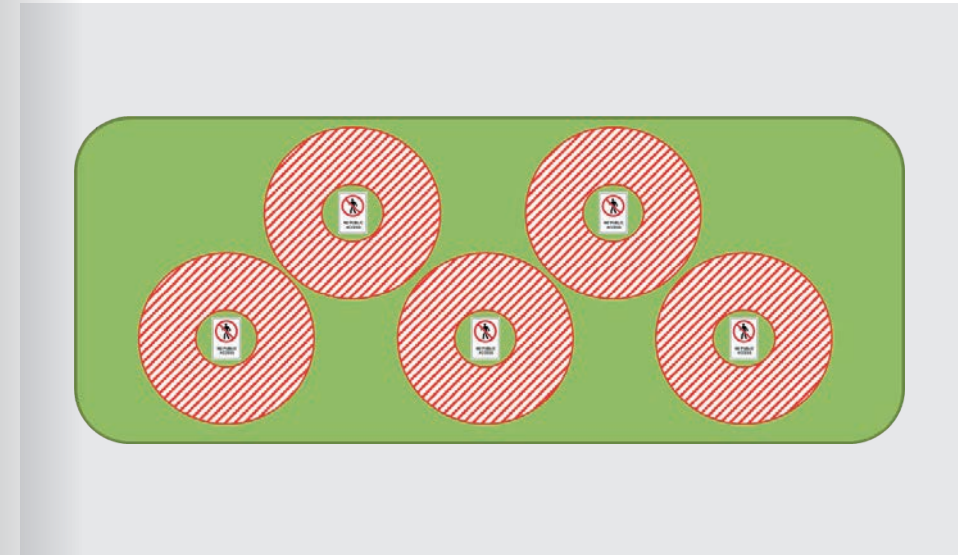
Remember that your test road will be used in both directions, a safe position in one direction might be unsafe in the other direction.

## SPECTATOR OK LOCATION IDENTIFICATION

- Preparing the zones where spectators will be authorized only will improve the safety, and make your public management easier:
  - You will be able to inform the spectators that they can only stay where you clearly allow them, in safe position
  - All other place will be forbidden
-  Green Tape (or the 'official' color in each country), preferably netting should be used to indicate an area reserved for spectators that presents no apparent danger. These spectator zones should be closed on both sides to contain the spectators, and should be controlled by marshals.
- The public should understand that they must only enter the 'Go zone' if authorised by the marshals.
- You should spread the message that the public can only stand where it is identified. No tape = no public.

## SPECTATOR NO GO AREA IDENTIFICATION

The prohibited area 'No-Go' printed on both signs should be used to designate all other areas, or sections prohibited to the public. Those 'No-Go' areas will need to be marshalled at each end to stop spectators from moving past the areas identified for them.



## MARSHALLING

- Each marshal must have:
  - safety tabard
  - Radio + extra battery
  - Whistle
  - red flag
  - extinguisher
  - broom to clean the road if needed
- The authorisations given by authorities must be shown if asked by anyone
- The coordinator must stay at the service park during the tests
- No car (spectators' or marshals') should be parked on escape roads



- We recommend that all marshals use these hand signals each time the safety car proceeds through the test road:



## SERVICE AREA

- The service area should be an appropriate size to allow adequate space for individual service bays, vehicle movement and safe pedestrian access. The ground should be relatively even, with any significant hazards adequately controlled.
- For safety reasons, the teams service areas must be taped and access limited to the team personnel only.
- All test entrants will have an environmental ground-sheet in place before work commences on the vehicle.
- Temporary structures such as awnings and pop-up tents must be erected securely and with sufficient ballast to cope with wind conditions. All structures deemed unsafe by the event organisers must be dismantled and removed.
- Fire extinguishers should be readily available at all times when vehicles are being worked on, particularly in the event of any welding, grinding or fuel circuit intervention being carried out and when vehicles are being refuelled.
- Vehicles need to be supported by axle stands, chassis sill stands or ramps, all with base plates, when raised by a trolley or any other type of jack. No other work should be attempted when raising or lowering of the car is taking place.
- Trailing cables and hoses should not be allowed to create a trip hazard and should not be run across access or roadways unless covered by cable protectors.



## SERVICE AREA FIRE HAZARD

- When necessary, as part of the service, changing of the fuel tank, fuel pump, fuel filter or any other item of the fuel circuit, emptying and/or refilling of the fuel tank is permitted, provided that:
  - The work is carried out with the knowledge of the tests organiser
  - A fire extinguisher with an operator is on standby
  - No other work is carried out on the car during this operation
  - A safety zone is established within which all sources of ignition are removed
  - A minimum amount of fuel is used and any removed fuel is stored in a sealed container
- All competitor and service vehicles need to carry a suitable fire extinguisher
- Special consideration should be made before lighting any cooking appliance
- All sources of ignition need to be kept away from any fuel store or refuelling area
- Fire extinguishers should not be moved from their known location, other than when in use
- In the event of any fire, a report should be made to the test organiser before leaving the service park
- The organisers are responsible for putting in place an emergency plan to cover fire.

## HELICOPTER LANDING PATCH

In case of emergency, it could be useful to know where a medical helicopter can land in the test road area

This place should be reported in the emergency plan and on the test road safety map, ideally with GPS coordinates



## REGION SPECIFIC HAZARDS

Depending on the area you are setting the test road, you could face some specific hazards:

- Fire hazards will be higher in dry regions
- Water hazards if the test road run close to water
- Falling hazards if the test road goes through mountains

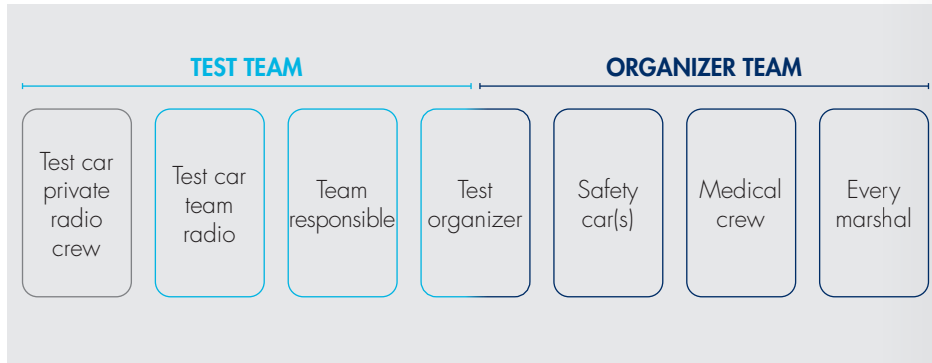
You should asses those hazards and prepare the additional means according to the hazards:

- Water tank truck / fire brigade
- Way to slow down the car in hazardous areas
- Divers intervention team
- Slings and other specifics accessories to tow a car

Local authorities could also require to have specific prevention tools based on regulations.

## RADIO PROTOCOL

- **Radio channels:** Test organizer should have 2 radios and liaise the 2 channels



- **Radio protocol:**
  - A marshals radio check should be done when the safety car proceeds through the stage
  - The co-driver before the first run must do a radio check
  - Another test must be done at the end of the road to make sure it works well at the other end
  - The test team manager should announce to the Test Organizer that the car is about to leave the service, and wait for the confirmation before releasing the car
  - The crew should wait for confirmation before leaving the service



**DURING  
THE  
TEST**

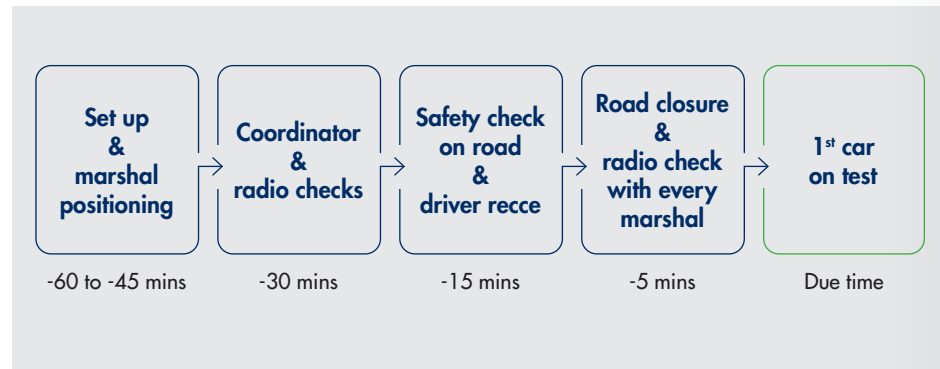


# DURING THE TEST

## ROAD PREPARATION

- Clean the road and the roadsides to prevent any object or vegetation from hitting the test car
- Fill in the FIA Private Test Safety Form checklist together with the team responsible, during or after the safety check on the test road

Bellow is an example of a timeline to help you to be ready on time:



## MARSHAL BRIEFING

Prior to the marshal positioning, a briefing should be done by the test organiser and should include:

- Personal Safety information
- Location specific risk assessment information; marshals should always be located in a safe/spectator location. They must not stand in a restricted area when the test starts. Marshals can walk on the road to the deal with issues but must always consider their own safety when doing so
- A diagram showing Spectator Viewing Areas (Go) and No Go (prohibited) areas and the detailed test road map
- Mobile number for the test organiser
- Confirmation that all marshals will take the same approach in dealing with spectators and media in relation to prohibited areas and for example, in asking spectators to move, with advice given about delaying the start of the car due to uncooperative spectators
- A reminder about the importance of using a whistle to advise marshals and spectators on an approaching safety or rally car
- Marshals are to be reminded of the recognised hand signals for the safety cars as they proceed along the test road
- Marshals should not sit down whilst working. This reinforces the message to spectators not to sit down whilst watching the rally cars
- List of first on accident scene actions



## RECCE

- The recce must be done by the driver & codriver before the beginning of the test day
- Nevertheless, the road must be ready prior to the recce, marshals in place, stage furniture erected and checked by the Test Organizer
- This is an opportunity for the last radio test before the action starts

## MEDICAL / FIRST AID POSITION

- The medical car must be placed at the beginning of the test road
- In case of multiple test cars on the same test road, it would be better to place the medical car after the start line to prevent the medical crew being blocked by the test cars queue in case of emergency
- The medical and intervention crews should be ready before the first test car run



## SAFETY CAR

- The Safety Car should be clearly identified and the Safety Car crew members (Test Organizers) should also be clearly identifiable as test officials when they are out of their vehicle
- Each crew should have a means of communication with the other Safety Cars. Mobile phones cannot be solely relied upon. Each crew should have a radio with a dedicated channel
- The Safety Car should proceed through test stage at a speed suitable to the vehicle being driven and to the prevailing stage condition. At no time should a Safety Car be driven in a manner that puts the occupants, stage officials or members of the public at risk
- During the first ride through the stage, the Team Representative will join the Safety Car to fulfil the FIA Private Test Safety Form and decide together that the test road ok to start the test or not
- The Safety Car should have roof lights, to be clearly identified
- On any Safety Car you should bring
  - Extra red flags
  - Taping / no public signs
  - Fire extinguishers
  - Absorbant powder
  - Water / umbrella / sunshade / ... for marshals

## USING A DRONE TO CONTROL SAFETY

- A drone could be used to obtain a view of the test road between 2 marshal posts
- In any case, a UAV must never fly directly over any test road course or public area unless under the direct control of persons authorised by the test organisers, for safety or information purposes only
- Test organisers must be clear in their understanding of the current regulations pertaining to the use of drones at their events
- Always comply with the local UAV regulations



## RUNNING OF THE TEST

- Only 1 car should proceed on the test road. Only the test coordinator/organizer can give the start authorization after insure the road is blocked and safe.
- Every cars driving through the test road should be fully monitor by the marshal as a manual tracking to insure to find the car in case of incident.
- During the running of the car the radio channel should be totally free and used only in case of emergency or to announce the passing of the car at every post.
- If they are several cars testing on the same road, the second car **MUST** be retained at the start and wait the return of the first one or waiting the exit of the first car if the test road is on one way.
- NEVER 2 cars must be drove in the same time on the road.
- The road can't be open until the testing cars are back at the service bay.
- No vehicles are allowed to start, follow or drive on the road in the same time as the testing car.

A photograph of a Ford Fiesta RS rally car driving on a dirt road. The car is dark-colored with various sponsor logos, including 'MS-RT', 'Powered by EcoBoost', and 'ONEBET'. The image is split vertically by a white diagonal line. The left side is covered by a solid blue overlay, while the right side shows the original scene with trees and a grassy embankment. The text 'INCIDENT HANDLING' is centered over the blue area.

# INCIDENT HANDLING

# INCIDENT HANDLING

## MANAGEMENT OF CARS CROSSING THE TEST ROAD

- To let a car traveling through the test road, the marshal should wait for the authorization of the Test Organizer.
- The test car should be parked at the service bay prior to open the test road.
- While the car is traveling through the test road, each marshal must monitor and write down the registration plate numbers of each car passing on the road and ensure that the car goes out the test road.
- The test road should be reclosed as soon as possible, and the marshal must inform the Test Organizer that all public cars surely exited the test road.
- There must be no car left on the road, any time
- Any car parked; or any people in the test road area must be in safe position, validated by the Test Organizer
- No car is allowed on the track during the test – including the test staff cars
- No car or people are allowed to move without Test Organizer approval



## MANAGEMENT OF SPECTATORS

- Each Test Organiser must take all the measures necessary if spectators are present (safety of the service park, roads and test tracks)
- Pedestrians must stay in a safe area near a marshal
- Prepare some signs to inform the public that they can only stand where it is allowed by tapping or netting
- If during the day some spectators appear along the test road in an area you have not identified before, you should have the safety car ready and equipped to make the place safe in few minutes
  - Think to put a marshal to manage the safety in those new zones
  - Update your safety road book and safety map for the next test days

## MANAGEMENT OF TEST CAR STOPPED ON TEST ROAD

If the test car stop on the test road, either through a failure or an accident:

- Marshals or test car crew must confirm that the car is stopped using the test car team radio, and give the reason of that stop
- The Test Organizer must approve any intervention car entry into the test road.
- As soon as a car has entered the test road, the test car must be retained in place by the closest marshal, even if the reason for the stop is solved.
- The entering car will be monitored by the marshals through the stage.
- The test car will only be allowed to move again after the monitoring process is cleared.
- The information could also be relayed by the closest marshal
- If there are several cars to test, the test should be immediately stopped, and red flag deployed by all the marshals
- If there is an accident with injured people:
  - Priority to the medical and rescue crew + test organizer to access the test road
- The road must keep closed and secured by the marshals during any intervention
- The marshals must stay at their point unless the accident is by their post, where their assistance maybe required to assist recovery; and listen to the radio to stay updated



## ACCIDENT MANAGEMENT – FIRST ON SCENE

- If the crew are still in the vehicle, responsive and there is no risk of fire:
  - Approach from the front, look them in the eyes
  - Do they seem aware of their surroundings?
  - Speak to them, ask their name - do they respond?
  - Any pain, loss of feeling - if yes keep them where they are!
  - Keep them calm and keep them talking.
- Do not move them until professional help arrives
  - Do nothing else
  - Stop any life-threatening bleeding by applying direct pressure/plugging the wound
  - Ensure an open airway
  - Immobilize the head and c-spine (neck)
  - Check if they are breathing
- Do not remove their helmet unless there is no other way to ensure an open airway
- If the competitor is out of the vehicle:
  - Do not grab hold of them - they might be unaware of what is happening and become combative.
  - Guide them to a place of safety away from the incident and other competitors.
  - Speak to them, ask if they are OK?
  - Keep someone with them.
  - Once in a safe place, assess them for injuries:
  - Are they aware of their surroundings?
  - Any signs of injury/are they experiencing pain?
- Do not let them wander around, but keep them under observation
- Afterwards, please write a short report of the accident
  - This report should cover the facts as you know them and include times of when the incident started and when you left the scene
- First on Scene Motorsport UK educational video: <https://youtu.be/zFOAISpMF28>



# AFTER THE TEST

# AFTER THE TEST

## DEBRIEFING

- Debrief with test team
- Debrief with test organiser team
- In case of any incident / accident, make sure to update the documents and processes to avoid it the next time
- Remind to update Safety Road Book / Test Road Safety Map in case of new element occurred during the test day, like people in unsafe position, dangerous situation in service park...

## RALLY SAFETY GUIDELINES

- In addition to that guideline, you will find in the [Rally Safety Guidelines](#) a lot of complementary information. Available in English / French / Spanish / German / Portuguese

[www.fia.com/rally-safety](http://www.fia.com/rally-safety)




# APPENDICES



# APPENDICES

## APPENDIX I: RALLY PRIVATE TEST SAFETY CHECKLIST

 FEDERATION INTERNATIONALE DE L'AUTOMOBILE

### RALLY PRIVATE TEST SAFETY CHECKLIST

NOTICE

SAVE PRINT CLEAR

The aim of this document is to ensure that all safety measures are in place before your private tests start. The stage should be set-up accordingly to the Rally Private Tests Safety Guidelines, and the Rally Safety Guidelines.

Please fill the form in prior to the test, together with the team and test organiser, and complete the safety checklist before the first recce/run of every test day.

TEAM INFORMATION

Team personnel in charge of test and safety:

Mobile number during the test (international format):

TEST ORGANIZER INFORMATION

Company name:

Address:

International phone number:

Country:

Person in charge of the test and safety:

Mobile number during the test (international format):

TEST BASE INFORMATION

Country: Region: Town:


Road name/nr: Road surface:

INFORMATION ON CAR(S)

Number of cars:

Rally 1	0	Rally 2	0	Rally 3	0
Rally 4	0	Rally 5	0	Other	Specify 0

1

 FEDERATION INTERNATIONALE DE L'AUTOMOBILE

### RALLY PRIVATE TEST SAFETY CHECKLIST

TEST ROAD DETAILED MAPS

**Detailed test road #1 map**  
(Start, finish, marshal number and exact location, team service area, intervention vehicles positions, parking, public road closing warning signs, ...)

2

**RALLY PRIVATE TEST SAFETY CHECKLIST****SAFETY CHECKLIST TO BE FILLED IN BEFORE FIRST RECCE/RUN**

Please fill in this section together with the team and test organiser representative, as declared on page 1, prior to the first recce/run.

Test road map number (according to "Detailed test road map #" above): 1

Test date: Test start time: Test end time:

Closest hospital: Emergency number (int. format):

Nr of marshals on the detailed test road plan: Actual nr of marshals on site:

Number of extra marshals:

Number of radios: Number of extra radios / batteries:

Please ensure that you have sufficient time to go through the stage from the entry to the exit closed road signs with the team and test organiser representative, as declared on page 1, prior to the first recce/run, while filling in the safety checklist below.  
If anything is missing, please ensure that you have a strong back-up solution before starting the tests, and report in the Observations section.

- |  |  |
|--|--|
| <input type="checkbox"/> Official documents and authorisations duly obtained by the test organiser |  |
| <input type="checkbox"/> Marshal briefing done   | <input type="checkbox"/> Start line closure public warning signs         |
| <input type="checkbox"/> Radio for each marshal  | <input type="checkbox"/> All marshals are at safe and dedicated position |
| <input type="checkbox"/> "No public" signage   | <input type="checkbox"/> Red flag for each marshal point                 |
| <input type="checkbox"/> All junctions safely closed   | <input type="checkbox"/> Taping for public allowed zones                 |
| <input type="checkbox"/> Fire extinguishers available  | <input type="checkbox"/> No car parked / No people on escape roads       |
| <input type="checkbox"/> Doctor / Ambulance team ready   | <input type="checkbox"/> Finish line closure public warning signs        |

Please remember to go through the list several times throughout the day, especially after a long maintenance or lunch break, as people are likely to move during no-car periods.

Keep a close watch on the public arriving throughout the day, sometimes from directions that you would not expect.

Remember that safety is the top priority; do not hesitate to interrupt the tests momentarily in case of doubt, to rectify a situation.

**RALLY PRIVATE TEST SAFETY CHECKLIST****EMERGENCY INFORMATION**

Driver

Co-driver

Name

Birthday

Emergency contact

Blood group

**OBSERVATIONS**

## APPENDIX II: SAFETY ROAD BOOK

RB box	Total	Inter	Direction	Marshal Radio GSM	Information	MV	TV
1	0,00	0,00		2	START 	Y	Y
2	0,35	0,35		3	Spectator Allowed On the Hill after the hairpin	N	N
2A	0,90	0,55		2	No Spectator	N	N
3	1,17	0,27		3	Spectator Zone 1 Hill on the Left Side Before and after the bridge Media Allowed Inside Before the bridge	N	N
<p><b>SZ 1</b></p>							
3A	1,42	0,25		1	Media Allowed Inside and outside on the Hill Spectator Allowed on the Hill outside the hairpin	N	N

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RB box	Total	Inter	Direction	Marshal Radio GSM	Information	MV	TV
4	1,67	0,25		2	Evacuation Road 1	Y	Y
4A	2,00	0,33		3	Spectator Zone 2 Hill on the outside of the hairpin Left Media Allowed after Area on the inside of the Right corner	N	N
<p><b>SZ 2</b></p>							
5	2,48	0,48		4	Spectator Zone 3 Both side of the Road behind the concrete blocks	Y	N
<p><b>SZ 3</b></p>							

8

RB box	Total	Inter	Direction	Marshal	Radio GSM	Information	M/V	T/V
6	2,69	0,21		1		No Spectator	Y	Y
6A	2,88	0,19		1		Spectator Allowed On the Hill Inside	N	N
6B	3,29	0,41		1		No Spectator	N	N
7	3,46	0,17		2		Spectator Allowed On the Left Hill	Y	N
8	3,65	0,19		1		FLYING FINISH	N	N

## NOTES



[FIA.COM/RALLY-SAFETY](https://www.fia.com/rally-safety)