

# Stage Rally

## What is Stage Rallying?

A special stage (SS) is a section of closed road on a stage rally. Rally crews attempt to complete the stage in the shortest time. Competing crews on a special stage are coordinated in such a way that they begin at set intervals, to reduce the chance of the crews meeting each other on the special stage. Each special stage is a relatively short section, usually up to about 30 miles in length. A rally usually comprises approximately 8 stages but can be more and span over days. The driver with the lowest overall time for all special stages in an event is the winner.

## Special Stage

The roads on which special stages are held vary from rally to rally, from the asphalt mountain passes used on the Monte Carlo Rally to the rough forest tracks used on the Rally Wales GB. Surfaces such as ice and snow or desert sand are also common, with the aim of providing a challenge for the driver and crew as well as a test of the car's performance and reliability.

While competing on a special stage, the drivers and co-drivers can have no support from their teams (except through radio/phone contact) and must deal with any breakdowns or problems themselves.

Typically, each car will be given a specific start time for a stage at 30 seconds or minute intervals. In the seconds before setting off, a car will wait stationary at the start point until his scheduled start time. He may begin immediately at that time, and usually a clock with a sequence of lights will show their exact start time. The co-driver (through speech) will provide a five-second countdown to the Driver. The timing of a stage for a particular car starts at its scheduled time, not when it passes the start point. At the end of the stage, there are two sets of markers. The first is usually referred to as the flying finish, and is the point at which timing for the stage ends. The name comes from the fact that a car will be traveling at full speed when it passes this post. Several hundred meters further along the stage is the stop control point, where the car must come to a halt in order for officials to record their time and check paperwork. Approximately 50 meters after the stop point is the end of the special stage restrictions.

The cars must travel between special stages on public roads, often known as road sections. While on public roads, all local traffic laws must be obeyed, so all cars must be roadworthy and taxed and insured. Drivers may be given a scheduled time to arrive at their destination to ensure they do not speed during the journey, with penalties for arriving too soon or too late (although the margin for late arrival is quite large).

## The Essential Co-Driver's Guide

Below is a comprehensive list of equipment, things to do and check. Who said the Co-Driver had an easy job.

RALLY:

1. Download the Regulations and Final Instructions and read and highlight the main points that you will need to know. It's important to know the location of, Noise Test, Scrutineering, Rally HQ and what time you are expected to be there
2. Make sure you collect the rally plates and have them applied to car as instructed in the regulations or final instructions
3. Ensure your service crew have a set of maps, Regulations, Finals and know where they are supposed to be and when. If you have a management car as well ensure they also have a set of the above documentation.
4. Ensure the crew have details of the hotel and you all have each other's numbers stored in your phones.

5. Discuss with your management/service crew times to expect the rally car at the end of each stage and ensure, if management is allowed, that service crew members are aware of management areas and arrange a suitable location to meet. Making sure that if management is permitted what tyres they need to bring etc.
6. Know your maximum permitted lateness, this can be found in the regulations. Usually 15 minutes penalty free but this can vary so always check, every rally
7. Make sure you attend the drivers briefing and listen carefully to the medics if they are providing a briefing re first aid. This is information you will take to every rally you compete in and is vitally important.

## **Where can I find technical regulations for Stage Rallying?**

Technical regulations for Stage Rallying are found in section R of the MSA Yearbook. Specific event or Championship regulations are found in Supplementary Regulations (SRs) made available by the organiser.

## **What safety equipment needs to be fitted to my car?**

Stage Rally cars are required to have safety equipment such as a Roll cage, FIA-homologated seats and harness, and two fire extinguishers, details of which can be found in section R of the MSA Yearbook.

## **What personal protective equipment do I need to wear?**

As a minimum you will be required to wear a helmet and flame resistant overalls to approved standards. Details can be found in section R and section K of the MSA Yearbook.

## **What types of car can I use as a Stage Rally car?**

1. Clubman
2. National
3. International
4. Group A
5. Group N
6. WRC

## **Co-Driver:**

Before you start any rally you should check and double check the following items are in your Rally car or in your rally bag:

- Road Book
- Time Cards (or start ticket if collecting time cards at first time control)
- Safety/Pace notes
- Map book
- Two watches (or stopwatches). Most mobiles now contain both
- Spare batteries for intercom if battery powered
- Blue roll (for all sorts of emergencies)
- Cable ties (miracle fix all)
- Essential tools
- Tyre pressure gauge
- Plenty pencils and pens
- MSA blue book
- Copy of Regulations and Finals Instructions
- Water for you and driver.

Make sure you check your start time on the morning of the rally, and copy this into your time cards. Often cars drop out the evening before the rally, which means start times are adjusted accordingly.

- Check rally time and set both your watches. Rally time is usually held at Signing-On the night before the rally or failing this you will get rally time at the first Time Control
- Check to see which car and crew you are running behind on the road.
- Check there is no discrepancy between your Time Cards and Road Book for road section timings etc.
- Make sure you are familiar with Target Timing, this can be clarified from the MSA blue book.
- Make sure you are familiar with the route the rally takes between stages and clarify this with the overall maps of the rally.

## **Safety/Pace/Route Notes:**

1. If possible, before the rally, take plenty time to go through the DVD and Pace notes with the driver present.
2. Mark as you go through the DVD any changes that the driver may want, looking for key markers for brake points, long crest etc.
3. Marking notes is a very personal thing for every co-driver and this may change as you become more familiar with your driver etc.
4. Make sure the pages of your Pace note book don't stick together. Many co-drivers like to fold the top right corner of the page, so that it is easy to turn over under pressure.
5. Using professionally prepared pace notes, if you look in the bottom right corner of the page, a small boxed area indicates the following few corners of the next page so this is always a good way to clarify that you are following on to the correct page.
6. Some co-drivers like to mark on the folded corner, the page number as an easy way to ensure your just turning a single page.
7. Basic as this may seem, it's really important to check that your notes are on the correct stage. You would be surprised by the number of times a set of stages can be repeated and in the heat of the moment you can forget to check your notes are in the correct order.
8. Another important check is on your way to the start line. Some pace notes have a line at the top of the first page of the stage as an indication as to where the actual start line is. This may read 'Notes start at a gate, next to layby on the right'. It's very important to check this on the way to the start line, as sometimes, for various reasons the start line location can change. If the start line has been pulled back a little – in this case the organisers are usually very efficient in giving you an amendment before you start the stage. If however the start line has been moved further into the stage – if you start reading from the notes stage start – your calls will be out of sync which will cause more than a little panic in the car.
9. Don't worry if you lose your place in the notes, as from time to time, this can happen to even the best of co-drivers. If you do lose the notes – just make sure that you let the driver know that he / she is 'on their own' which allows them to drive with a little caution until you can pick up your place again. Don't try to guess, as this stops you from concentrating on finding your place, and can cause the driver extra stress. Best way to pick up your place is to look for markers such as junction numbers (highlighted on the stage with a post and white marker) or areas in the notes such as sharper corners or bridges / longer distances etc.
10. There are all sorts of tips for marking notes and again this is a very personal thing. Some co-drivers don't highlight their notes at all. Others use a highlighter pen to indicate areas of caution (such as sharper corners or bad crests or deceptive corners). Others use different colours for different things – the possibilities are endless. At the end of the day it what suits you and your Driver.

At first until you identify the system you prefer, mark the corners of a greater severity and any areas of caution. This allows you to scan the page quickly and when you see highlighted areas you can be aware to call these notes in plenty time and clarity so the driver can brake accordingly.

## **ROAD BOOK:**

Give yourself time to become familiar with the Road Book. They are very detailed, using tulips for directional indication. They also have inter-miles (distance between each instruction), marked for each instruction, so if you have the luxury of a trip meter in the car – this allows you to be confident where the next junction / direction is.

If you can always carry a map in the car with you and follow this even if you have a trip meter. At some point in your career, you will sit in a car with no trip meter and feel lost without it. Trip meters are great as a clarification, but there is no security like knowing exactly where you are on a map. In addition, from time to time you will be given re-route directions (if a stage is cancelled, etc) at these times a map is vital to get you to the next stage.

Make sure you highlight areas on your Road Book where

- There are PR problems
- Reduced speed limit is enforced.
- Passage Controls
- Areas for refuelling.
- Management Areas will be designated in the Road Book so make sure you are familiar with this.

At the start line of each stage follow the same routine below:

- Mark on your time card your actual stage start time
- Place time cards away safely when the start marshal has finished marking them
- Change the page of your Route Book ready to read from the finish of the stage you are about to start and place this in a safe place also.
- Get ready to start your stop watch – check your driver is ready
- Get ready to countdown to stage start clearly

## **CAR:**

Sounds basic but always make sure you are familiar with the setup of the car.

- Ensure your seat belts are fitted correctly, before rally morning!
- Make sure you know where the jack and wheel brace are located in the car.
- Practice, practice and practice again your tyre changes. If the worst happens and you get a puncture early in the stage, it will be necessary to change the tyre, which means the slicker the procedure is, the fewer places you will drop in the rally. It's best to have a discussion with the driver, for the longer stages, at which point would they consider stopping to change a tyre and when to carry on. This will of course depend on the severity of the puncture, how successful a day you're having and how far into the stage you are.

Become familiar with your aspects of the tyre changing procedure. If you do have to stop on stage to change tyres, make sure you mark on Notes where you have stopped and ensure you're strapped back in before you head away. Also make sure you don't pull out in front of another car, although your day has been spoilt it would be extremely frustrating for a driver to be catching your dust.

Make sure you carry spare intercom batteries, if the intercom is not directly wired into the car. If this is the case always try and remember to switch intercom off between stages to save batteries, so you don't run out mid stage.

On a serious note – nobody wants to think about crashing. However, it is a very important consideration before you start any rally. Make sure you are familiar with where the SOS/OK board is located in the car. If you are unlucky enough to go off, once you have ensured that neither you or the driver needs assistance, make sure you display your 'OK' board clearly for the next driver to

see. Make sure you are familiar with the use of Rallitrack radio and call Rally HQ to let them know you are ok. The number is always printed on the bottom of each page of your road book.

#### ABOVE ALL ....

The rallying community is a fantastically supportive environment. There is no such thing as a stupid question. We are all still learning, no matter how many years' experience we have under our seatbelts. That's what makes rallying so fantastic, we can always strive to be better and work together better as a team. Although the driver is always expected to listen to the navigator ... it is equally important for the navigator to listen to the driver. You are each placing a huge amount of trust in each other, so it is vitally important to know how your driver would like his Notes read, the more relaxed you can make your driver and the more trust that they can place in you, the more they can concentrate on driving you through the stages quicker. Time is well spent in preparation. Remember to enjoy every second. Your first rally experiences will stay with you for the rest of your life, so make sure they are fond ones!