



2017 DAKAR RALLY MEDIA GUIDE



01/ FOREWORD.

**Sebastian Mackensen,
Senior Vice President MINI.**

Dear media representatives

The Dakar Rally is, without doubt, the most punishing and arduous motorsport endurance rally race today; a race that highlights the competitive nature and stamina of its competitors and, of course, the performance dynamics and reliability of the competing vehicles. The 2017 Dakar has all the hallmarks of being a classic "Dakar" – a challenge that MINI Motorsport, our motorsport partner X-raid and the MINI Family of racing crews embrace with the true spirit of adventure.

Seven MINI crews will line-up at the start of the 2017 Dakar Rally on 2 January, in the hope of maintaining the brilliance of four consecutive Dakar Rally titles secured from 2012 to 2015, and a successful defence of the Dakar's four-wheel drive classification in 2016. This level of Dakar success mirrors the titles taken in the FIA Cross Country Rally World Cup and, of course, builds on MINI's winning heritage; heritage that dates back to the 1960s and the original Mini Cooper S.

The 39th edition of Dakar Rally will see another MINI milestone reached with the race debut of the new MINI John Cooper Works Rally: a race-honed car that encompasses MINI performance sub-brand MINI John Cooper Works and its sporting nature. This latest rally challenger, based on the new MINI Countryman, has been designed and built with the same passion and

technical excellence in chassis and engine technology that truly defines the MINI sporting spirit.

The Dakar Rally will, once again, provide significant challenges for all competitors and their vehicles. To deal with uncharted terrain in new locations and the difficulties associated with driving at high altitude and also desert heat understandably makes this the race of all races. Add uncertainty of day-to-day weather and longer special stages, you can understand why the "Dakar" is viewed as the biggest challenge to man and machine.

Experience and equipment alone are not enough to guarantee that any of the competitors will emerge victorious from the two-week off-road racing spectacle. However, what is guaranteed is the experience of MINI motorsport partner X-raid to ensure the eight crews and their cars battle for the win in safety and with incredible back up. The engineers and managerial teams of X-raid have assisted MINI Motorsport to fantastic Dakar and World Cup triumphs in recent years – the dedication and desire to win still burns very brightly in the MINI motorsport family.

To all MINI competitors at the Dakar Rally, on behalf of MINI, I wish you all a victorious conclusion to the challenge of the 2017 Dakar Rally.

Yours sincerely
Sebastian Mackensen



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02/ MINI: THE NEW CHALLENGER.



The 2017 Dakar Rally is the debut race for the all-new MINI John Cooper Works Rally. The arrival of this new long-distance cross-country challenger underlines MINI Motorsport's long-term commitment to its involvement in motorsport; especially the international arenas of rally-raid, which MINI has been a dominant and successful force in since its return in 2011.

The 2017 MINI John Cooper Works Rally is an exciting new development from MINI and motorsport partner X-raid. Based on the all-new MINI Countryman, this new car's sporting

dynamics readily provided a platform for the new MINI John Cooper Works Rally and its role as a specialist cross-country rally car.

To produce a car able to successfully tackle and survive the rigours of cross-country rally is a challenge in itself. However, the MINI John Cooper Works Rally has been designed and constructed to achieve and exceed the same level of success as the previous MINI ALL4 Racing thanks to an exacting development programme.



During the MINI John Cooper Works Rally design, development and build processes, many key areas came under scrutiny and have been extensively reworked when compared to the former cross-country rally car. The following areas have been priority subjects to deliver a totally new formidable racing package.

- **Aerodynamics**
- **Thermal management**
- **Weight distribution**
- **Lower center of gravity**
- **Modified chassis frame design**
- **New engine mapping**

The above areas were subject to many hours of design and simulation tests to ensure the MINI John Cooper Works Rally delivers improved performance with lower fuel consumption. The changes also delivered a positive outcome on the drivability of the car, from gains made in stability, traction and agility. When faced with all manner of terrain and driving conditions – from rain and snow to arid dry conditions; soft sand to deep, wet mud; 3,000 metre above sea level mountain tracks to valley river beds – improvement in chassis and engine detail is hugely beneficial.

The exterior of the MINI John Cooper Works Rally replicates MINI Countryman and therefore, MINI typical handling agility, for racing use. It is also one of the areas of the car that has received special attention from X-ray technicians. Many hours spent in the BMW Group Wind Tunnel with in-house motorsports specialists have resulted in aerodynamic detailing to considerably reduce drag.

The overall dimensions of the MINI John Cooper Works Rally are the same (1:1) as the former rally car, and engine performance and overall car weight is, as in previous years, determined by FIA regulations. As a result, the improved aerodynamics of MINI John Cooper Works Rally are important for improved top speed on flat, open trail sections and the required stability at speed. Reduced fuel consumption and better subsystem cooling is also achieved.

Composite bodywork of carbon fibre and Kevlar makes up the MINI John Cooper Works Rally outer shell, while a honeycomb mix of the same materials is used for an underside tier underneath the

main body. The use of such materials is threefold: 1) strength and durability – ideal for additional safety protection of the two-man crew 2) reduced weight with greater strength, and 3) panels are easily removed or replaced during servicing periods or if damaged.

The underside tier now houses all three of the allotted three spare tyre and wheel combinations and two hydraulic jacks operated from within the cabin. Previously only two spare wheels were carried in the underside. By moving the third from the boot space to underneath, a lower centre of gravity was obtained, along with a change in weight distribution to improve stability and associated driving dynamics.

With the advent of the new MINI John Cooper Works Rally, new colourways and styling cues are being introduced in keeping with the sporting stance of the John Cooper Works road car range. It will feature the exclusive MINI John Cooper Works body colour Rebel Green with the exclusive MINI John Cooper Works contrast roof colour Chili Red as well as new designed Sport stripes. Further MINI body colours for the X-raid competitor cars are Chili Red, White Silver and Light White.

The exterior design has been developed in close collaboration with the MINI Design team. The original rugged and vertical exterior design of the new MINI Countryman was transferred to the competition cars, such as bumpers, grille, bonnet, side and tail geometries, lights, roof rails and side scuttles.

The original design of the all-new MINI Countryman was transferred into MINI John Cooper Works Rally by emphasising the main features. The design team were designing to 'form follows function', by purposeful changing of the original design cues. The expressive fender flares are stressing the crease-lines which are characteristic on the new MINI Countryman. The body itself is a lot wider on the fenders, which is helping to integrate an air-outlet in front of the doors.

The expressive hood was lowered for better driver visibility by enhancing the landscaping of fenders and power dome, and the rugged looking John Cooper Works ALL4 Exterior Optic Pack was adapted to fit the car. The side covers for the underside tier, housing the spare wheels are new "Rocker panels" which form a new design icon of the MINI John Cooper Works Rally. An expressive air inlet is integrated in the roof geometry, framed by the original roof racks.

A specialist frame constructed from aerospace-standard tubular steel ensures the safety of the

crew, in accordance with regulations. Designed specifically for the demands of cross-country racing, the frame is constructed to exacting standards by CP Autosport.

While the main chassis carries the covering bodywork and provides the skeleton for driveline components, it is the job of a front sub-frame to support the engine. MINI Motorsport partner X-raid devised a removable sub-frame, which enables complete engine removal, if required, in just over one hour.

Suspension is by specialist Reiger Racing Suspension. Each axle rides on four fully adjustable suspension units (two per wheel) providing the permissible 250mm wheel travel. Six-piston calipers all-round act on 320mm vented steel discs. To ensure consistent braking performance, while under the stress of racing conditions for hours on end in high ambient temperatures, the rear brake calipers are air and water-cooled.

Exemplary engine performance in terms of response, power, torque delivery and ultimate reliability is provided by a BMW Group TwinPower Turbo Six-Cylinder Diesel engine. Designed with endurance competition in mind, the 2993cc dry sump engine produces 340hp @ 3250 rpm, and torque of approximately 800 Nm @ 1850 rpm with the regulatory 38mm air restrictor in place.

The use of the BMW Group Twin Power Turbo Technology is an obvious choice for the MINI John Cooper Works Rally within the BMW Group's engine family. The powerful and torque-laden engine is a race-proven unit that has captured many major MINI victories. Delivering peak performance at low rpm contributes to its renowned reliability and is ideal for all terrain conditions from uphill, rocky trails to wide open WRC-like stone covered tracks. Its tractability is also an advantage on desert sands. Low fuel consumption of a race-tuned diesel engine is also an important consideration.

Improved fuel consumption also comes with the use of new engine management mapping. Many hours of testing has realised even greater potential in racing conditions, especially at altitude. The 2017 Dakar Rally will take in mountain sections approx. 3-4,000 metres above sea level. Reduced oxygen content at such heights not only dramatically affects the way a body and mind works, but also the way an engine breathes and can severely hamper engine performance. To fully realise engine performance at all times, the new engine mapping ensures the retention of the MINI John Cooper Works Rally's driveability and performance.



The MINI John Cooper Works Rally retains the highly regarded ALL4 racing driveline to place it within the 4x4 racing category that has seen MINI Motorsport dominate cross-country rally competition in recent years. The driveline features an AP Racing clutch combined with a six-speed SADEV sequential gearbox. Lockable, oil-cooled Xtrac front and rear diffs with a central SADEV unit to deliver maximum engine performance at all times regardless of the terrain and racing conditions. Also helping to stir the blood of MINI Motorsport and MINI John Cooper Works fans will be the exhaust tone of the MINI John Cooper Works Rally. The Akrapovič exhaust is a new design with rear outlet.

The cabin interior has been renewed but retains a carbon fibre dashboard area of three sections – driver, central and co-driver – displaying essential info. The driver has selected gear display and LED readout for RPM and gear ratio shift alert. Speed, oil pressure, fluid temperatures and electronic functions are displayed on the central dashboard to enable both crew members to view. All navigational systems are located on the co-driver's dashboard.

Ongoing test and development work is paramount to racing success. The new MINI John Cooper Works Rally is currently undergoing final testing ahead of the 2017 Dakar Rally and will be the focus of X-rail staff and MINI engineers throughout its lifetime.

MINI JOHN COOPER WORKS RALLY: TECHNICAL SPECIFICATIONS

Engine:	BMW Group TwinPower Turbo Six-Cylinder Diesel
Output:	340 bhp / 3250 rpm
Torque (approx.):	800 Nm / 1850 rpm
Capacity:	2993 cc
Air restrictor:	38 mm diameter
Top speed (approx.):	184 km/h
Transmission:	six-speed sequential gearbox
Braking:	4 x six-piston calipers – air-cooled front, air / water-cooled rear. Discs: 320 x 32 mm
Length / width / height:	4350 / 1999 / 2000 mm
Wheel base:	2900 mm
Track width:	1736 mm
Weight:	1952,5 kg
Fuel tank capacity (approx):	385 litres
Chassis:	tubular steel with composite bodywork
Tyres:	BF Goodrich 245/80R 16





Despite relatively short development time, MINI Motorsport with the MINI ALL4 Racing – derived from the 2012 John Cooper Works Countryman – achieved incredible racing success in the world of cross-country rally. The toughest challenge of this motorsport discipline is, without doubt, the race-of-all-races – the annual, long-distance rally-raid that is known as the Dakar Rally.

Such was the brilliance and superiority of this racing car in the experienced hands of rally specialists X-raid and passionate racing crews, the MINI ALL4 Racing went on to win the Dakar over four consecutive years: 2012-2015. In 2016, MINI repeated the status of winner of the four-wheel drive ranking.

Competing within the FIA Cross Country Rally World Cup, MINI again demonstrated how success breeds success. Following the first World Cup win in 2012, this success was replicated over the next three years (2013-2015). Now, the new MINI John Cooper Works Rally aims to honour the legacy of its predecessor.

The new MINI John Cooper Works Rally will also be subject to constant development, via motorsport partner X-raid. At the same time, technical feedback gained from its racing development programme can, of course, be used to further aid reliability and performance programmes in all aspects of MINI production cars.

DEVELOPED TO WIN

Tried, tested and approved. The new MINI John Cooper Works Rally is a car born of experience, passion and, of course, heritage of some note – including four Dakar wins and four FIA Cross Country Rally World Cup titles.

This is a car that has evolved from more than six years of racing across challenging terrain that would strike fear into even the hardest adventurers. For the thousands of kilometres of experience gained to make the MINI John Cooper Works Rally, we must thank the predecessor MINI ALL4 Racing.

A further well done must also go to the people who have had input, large or small, into the constant development of a race-winning champion. Be it drivers or co-drivers, MINI Motorsport

partner X-raid technicians, or MINI engineers and designers at BMW Group, all have read and recorded data or helped in some way to make the MINI John Cooper Works Rally a champion elect.

The best way to further a reputation for winning ability is development. The MINI John Cooper Works Rally is built on knowledge gained in the field of rally raid and endurance events such as Dakar Rally and Silk Way Rally, but the development does not stop now that the car is built.

The MINI John Cooper Works Rally will also be subject to constant development via motorsport partner, X-raid, in order for the new MINI John Cooper Works Rally to become as victorious and iconic in the cross-country rally world as its predecessor. At the same time, technical feedback gained from its racing development programme can, in the future, be used to further aid reliability and performance programmes in all aspects of MINI production cars.

Every race is a development arena. Take, for example, the 2016 Dakar Rally, a racing spectacle that saw competitors climb skywards to around 4,500 metres, where the air thinned so dramatically that nearly all competing cars lost power output from being unable to “breathe” properly – in the same way many drivers and co-drivers were affected.

From this, X-raid and MINI Motorsport technicians devised a new fuelling and ignition programme to counteract the effects of altitude, while being efficient with fuel consumption – fuel is arguably the most important commodity when faced with several hundred kilometres of desert in every direction. The end result is the MINI John Cooper Works Rally, which performs at all elevations and with a lesser carbon footprint!

Diagnostics are important to convey electronically-recorded data, allowing X-raid engineers to see fully what components are working to their optimum and to illustrate driver and co-driver feedback. After all, it is their skill and human experience that counts in the end. If a driver needs more response steering or stability and grip, it is the crew who will advise on certain parameters of a chassis or a key system to improve the car’s driving dynamics.

Finally, there is the old but trusted method of measuring key components. To do this requires a professional pair of hands, knowledge and exacting measuring tools. Most components are known quantities and are only replaced within a specific recorded distance or time spent in racing conditions. These schedules are only known and implemented after being constantly measured for race after race, or test after test.

So, when you look at images of the new MINI John Cooper Works Rally, you will know that not only does it look superb, every square centimetre is engineered to be truly superb even down to details as explained by Sven Quandt, CEO, X-raid...

“The whole technical side underneath the chassis has had a big change because there are three spare wheels underneath. This is something that nobody has done so far to get the centre of gravity down. We also moved the radiator down lower to give a substantial improvement compared to last year. The car is more and more a rally car. For the MINI John Cooper Works Rally, we have made the biggest changes seen yet. Development is a priority. We have to move forward all the time... literally.





03/ PEOPLE.

Interview with Sven Quandt – CEO X-raid Team.

X-raid is a German company that specialises in cross-country rally racing and is the motorsport partner to MINI. X-raid's success in long-distance endurance races and the FIA Cross Country World Cup is legendary – four Dakar Rally titles and ten rally World Cup titles. The man behind X-raid is Sven Quandt, a former rally specialist, Dakar competitor and now, one of the most experienced voices of the rally world.

What does competing in the toughest automotive endurance race mean to you as CEO of X-raid; after so many years of success do you still get the buzz?

Yes, it is the same buzz of performance, reliability and success – all of these with the top team and having the right people around you. Finishing at the top is not necessarily the most important as everybody thinks; first you have to finish. To finish even tenth in this race is success.

What, if ever about the Dakar, keeps you awake at night?

Before, it is everything. Basically you think of everything you are taking on board and hoping you have forgotten nothing because to bring anything later on is difficult. You have to make sure that all small areas that could make problems are taken care of as good as possible especially on the car.

During the race, I can tell you that at night you try to get as much sleep as possible because the stress during the day, when the cars are out competing, is quite big. So the relaxing times are actually when the cars are back in the camp or out of the special stage. Even so, when you go to bed you are already considering what can happen tomorrow. Sometimes the sleep is not very good, but you are tired so you get some sleep.

This year's Dakar is the 39th edition and has been reported that it's the toughest Dakar Rally in South America so far, would you agree?

Altitude wise, it's a bit crazy and will, for sure, cause problems. Being over or around 4,000 metres for more than four days is not easy for most people. This, with crazy navigation, will create a big question mark over who will win. There are so many different obstacles to overcome to win the Dakar. To say today "yes, this person will win", isn't possible. It will be physically the toughest Dakar!

There's also the marathon stage for competitors to deal with...

A quite long marathon stage of over 1,200 km and without overnight service assistance means all crews will have to be really careful with their tyres and use of spare tyres. It will be a big poker game on this stage. Normally, in total, the marathon stage is about 800km, but it will be over 1,200km in two days and that is exceptional. Our tyres are made for approximately 800km special stage; when you know this, to do 1200km with one set of tyres is difficult. You have three spare tyres with the car but if you have punctures you are on the limit of tyre usage and it becomes an issue. This will be a factor on these days as to whether you have a chance to be a frontrunner.

Have you given the MINI family special instructions or assistance to prepare for five days in the mountains, where altitude sickness is a problem?

They are all professional, know the dangers and are in preparation for altitude. Even I have been sleeping for a couple of weeks in an altitude tent every night to help start to get the red blood cells for a better chance of being fit – last year I felt very bad. I know other team members have done this 'training' for a couple of years but more co-drivers and drivers have started to do it.

Will the second week of Dakar coming down from altitude be critical to the end result?

Yes, but you are definitely going to be more tired. I can tell you the rest day from the altitude is already bad but when you come down everybody will be saying "wow" from the difference in air. Then you will be trying not to do crazy things; it's for me one of the biggest challenges. I compare it a little bit to when I climbed Mount Kilimanjaro many years ago. That was a big challenge for me to reach the top and then come back down – Dakar is a little bit like that this year; you have to overcome the height and be able to finish the second week.

Dakar 2017 sees the debut of the new MINI John Cooper Works Rally. Has X-raid prepared any differently for the arrival of this new car or is it business as normal?

No, it's not business as normal. To make a complete new body with huge input to the aerodynamics was an intense time. Getting the car's centre of gravity down was a priority, which we succeeded in doing. We have been in the wind tunnel with the new car. We had to do some small changes but overall we know we achieved our goal.



A quite long marathon stage of over 1,200 km and without overnight service assistance means all crews will have to be really careful with their tyres and use of spare tyres. It will be a big poker game on this stage.

Sven Quandt – CEO X-raid Team



03/ PEOPLE.

Interview with Mikko Hirvonen

X-raïd Team – MINI John Cooper Works Rally #303

Mikko Hirvonen is a man of fast rally experience gained from a successful career in WRC. After officially retiring, he took up the X-raid offer to test and then race the iconic MINI ALL4 Racing. In less than two seasons he has delivered key results in the FIA World Cup and taken on the mighty Dakar Rally in 2016, where he finished fourth and achieved “Best Rookie” status. Armed with the new MINI John Cooper Works Rally and partnered once again with co-pilot Michel Périn, Finnish-born Hirvonen is keen to secure the 2017 Dakar Rally.

MINI: Based on your first Dakar Rally last year and World Cup experience, what makes a winning team?

MH: The car is very important. All the people around are very important parts of the team. But none of us, not the car or the driver, can win Dakar alone. It's a big team effort which starts at the end of last Dakar. At the end of the day, it's really hard work with all the preparation during the year. With some luck on your side, too, this can help us into victory.

MINI: I bet you can't wait to drive the new MINI John Cooper Works Rally at Dakar. What are your thoughts of the new car after recent tests?

MH: This is true. Dakar was a year ago so I can't wait to start this challenge again. Of course, the team has been working really hard with the new car and made a lot of improvements in different areas – working on the aerodynamics, brake distribution and more. I've been doing a lot of work on the set-up as well to change the car a little more to suit my style of driving. So yes, I really can't wait to get behind the wheel of the MINI John Cooper Works Rally at Dakar to see what we've been able to do.

MINI: Yet again you have the experienced Michel Périn at your side. Would you say familiarity breeds greater trust and faith in your crew partner?

MH: For sure after our first Dakar, where I learned a lot from him, we have done more races together and understand and work even closer together. Of course, it's a lot easier to start our second Dakar together.

MINI: You have had one year to reflect on your first Dakar Rally. Is there anything that you will do differently this year? Preparation, driving style... anything?

MH: I think we have done a lot of work since then. After some experience for myself, I've been able to work on the car and I have been building the suspension a bit more to my way of driving. That will already help. It sounds like Dakar this year is going to be a lot more challenging because last year they had to change the route in the last minute. There will be more off-road sections this year, but we have done couple of races to be prepared for it. Nothing still beats the experience from the Dakar itself so we just need to be humble and concentrate really hard for each day.

MINI: How does the thought of even more time at altitude for Dakar 2017 grab you?

MH: I don't mind about that. I felt really good about it last year, but now this year we will have some dune sections in high altitude, which I haven't done before. This will be a new thing and there hasn't been really any way to test in these conditions. That will be exciting to see what it's going to be like. So after the race, I wanted to come back, but I wanted to have a bigger challenge. Maybe I should be careful what I wish for, but I'm ready for it.

MINI: What does it mean to you to be part of the MINI Family – that is the family of crews and X-raid staff?

MH: I'm really happy to be part of and work with the MINI Family. They have taken me very well in to the team and made me feel really welcome. We are all working towards the same goal and it's such an experienced and successful team that I'm proud of being part of it.



Of course, the team has been working really hard with the new car and made a lot of improvements in different areas – working on the aerodynamics, brake distribution and more.

Mikko Hirvonen – X-raid Team – MINI John Cooper Works Rally #303



03/ PEOPLE.

Interview with Yazeed Al-Rajhi

X-raid Team – MINI John Cooper Works Rally #306

Yazeed Al-Rajhi and his regular co-driver Timo Gottschalk (GER) make up the third X-raid Team pairing. Al-Rajhi's World Rally Championship (WRC2) experience meant his Dakar debut in 2015 was one of speed and top five stage placings. His polished driving skill in a MINI ALL4 Racing in 2016, along with the experience of co-driver Gottschalk, captured them third place in this year's FIA Cross Country Rally World Cup.

MINI: What does competing at the Dakar mean for you?

A-R: It is the ultimate in cross-country rally by being the toughest race for man and car. To race at altitude is an incredible feat; to race on cold mountain tracks at one point and then in desert extremes the next is not an everyday kind of race. To compete for nearly two weeks across three countries makes it a great challenge, spectacle and competition.

MINI: For the 2017 Dakar Rally you will compete with the new MINI John Cooper Works Rally. How has the new car performed so far?

A-R: Everything is in place: I have a great car; a great co-pilot with Timo; and a great team to support us. Because of the new route and navigational requirements, this year's Dakar will for sure not be easy for anyone even with a new car – like anything new there is work to be done. We will all give 100% in order to complete Dakar with, obviously, the main focus to take the title.

MINI: Going into the unknown, such as the route, terrain and weather must make racing life difficult. What do you do to help through this?

A-R: As said, a good co-driver and back up is needed for a successful Dakar. Within this you need background assistance for things like your body – the correct food to maintain performance and

health is very necessary. The physiotherapists also help repair the body especially after serious bumpy terrain. Technicians' working on the car to ensure its readiness for the next day also helps calm the mind. The rest of it is relaxing when you can.

MINI: It looks on paper as if the competition has risen to the challenge of Dakar.

A-R: For me, I think all the professional teams have moved their game forward. Even privateer entries have made big leaps in order to finish Dakar. What you have to remember is completing Dakar is a challenge in itself. This year's Dakar could see some crazy results.

MINI: Has any part of the revealed route surprised you?

A-R: No, not really. But being at altitude for a longer period of time might cause problems for some teams. With the Dakar, especially this year, there is always something ahead that is new, either on the road or in the rules – you can never take Dakar for granted. All you can do is be prepared to race and deal with whatever comes your way.

MINI: How would you, as a driver, best describe competing at the Dakar Rally?

A-R: Ha! This is good to ask. Ok, long days with not much time to sleep, rest eat or do anything normal. The racing is fast but controlled; it has to be because we do not get to recce the route. We race in the cold; we race in strong heat. It can be dry or raining, or it can be torrential rain. One minute the track can be firm with a few rocks; the next minute it can be the total opposite, either desert sand or flooded with big rocks. Bruises and arm fatigue are an everyday occurrence. There are only a few things to stop us driving: punctures, weather or the end of stage finish point. It is the same every day and the reason why Dakar is such a challenge.



Everything is in place: I have a great car; a great co-pilot with Timo; and a great team to support us. Because of the new route and navigational requirements, this year's Dakar will for sure not be easy for anyone even with a new car.

Yazeed Al-Rajhi – X-raid Team – MINI John Cooper Works Rally #306

03/ PEOPLE.

2017 Dakar Rally – the route analyzed by Michel Périn
X-raid Team – MINI John Cooper Works Rally #303



Michel Périn is a living, breathing legend in the world of long distance cross-country rally. At the age of 59, this likable man of France has lost none of his desire to race, learn about and love the world. Once again he is sharing the air, heat and noise of a MINI racing car (for 2017 the new MINI John Cooper Works Rally) at the Dakar with Mikko Hirvonen. It is safe to say Michel Périn played his part in their fourth overall result at 2016 Dakar and went some way in helping Hirvonen achieve the Dakar title of 'Best Rookie'. Co-pilot is Périn's trade, but such is his experience he should be an author on the subject of Dakar. It would be a number one best seller...

MINI: What are your expectations and feeling for the latest route?

MP: Every year we say "Ahh, it is Dakar, it will be much more difficult than last year." But it is only talk because, finally, it is more or less the same. But this year there are some major changes and, I promise you, we will be facing the most difficult Dakar for ten years or something like that. There are two reasons because of this. Firstly: the choice of the terrain – there are more off-piste sections, which makes our life definitely difficult. Secondly: very difficult navigational rules and changes in the navigational method. I'm not joking when I say it will be very difficult for us this year.

MINI: Any idea on what might be the most challenging stages of the 2017 Dakar?

MP: Generally speaking, all of Bolivia will be difficult because of the altitude and more distance off-piste. The stage from, I believe, Chiletico to San Juan will be difficult because the starting order will include the first ten cars, the first ten bikes and so on depending on the times they achieved the day before. The start will be on very soft terrain so it is not ideal. I prefer, if possible, to get away in the top five because the terrain is ok, but with this kind of start it gets smashed and becomes very soft. This is not so good.

MINI: Is there such a thing where a crew can have an advantage on certain stages?

MP: You must take this answer with humour: I personally know Dakar teaches you a lot of humility and if people believe they will have an advantage at Dakar then they probably haven't competed at Dakar!

MINI: 2016 Dakar Rally proved to be very wet and interfered with racing. Is it such a problem?

MP: When it is raining a lot, like last year, yes. Fortunately they had to consult us on some sections. When it is raining a little bit it is not so bad because you are not fighting with the dust. Of course it makes it more difficult for the driver because it is then slippery. Of course, with cars in front they leave deep marks and this can be a problem in wet weather. So yes, generally, we much prefer dry conditions but you never know how it is going to be at Dakar.

The good thing is I have a fantastic talented driver with Mikko. He is an excellent driver and so I don't care about the way he drives. Most of the time I can focus on my things and I know he trusts me

Michel Périn

X-raid Team – MINI John Cooper Works Rally #303



MINI: What makes a special connection between co-pilot and driver and vice versa? Trust? Same way of thinking. Telepathy?

MP: Pffff... The good thing is I have a fantastic talented driver with Mikko. He is an excellent driver and so I don't care about the way he drives. Most of the time I can focus on my things and I know he trusts me. People need to trust each other and know each other's habits. The ability to communicate is also needed; I am French and Mikko is Finnish but we both communicate in English, a common ground. Now we are at a point where all things are automatic – it takes time but it is necessary.

MINI: What's the best part of the Dakar Rally for you? Finishing? Starting? Going home?

MP: No, no, no... I will say the best part of it is competing. I will be 60 in January – yes, I'm a little bit Jurassic – and people ask me why I am still racing especially when I have been quite successful. It is because when you start Dakar for 15 days you are under the power of your own itinerary. Generally speaking this is probably what everybody loves because when I come back from Dakar I am already missing it. When you are racing you are on such a high for good and bad reasons. Also when you are crossing different countries you are discovering new things. Bolivia will be good. Even though you are under racing conditions we will see things that will never be forgotten.

MINI: In a few words, describe the highs and lows of a co-pilot.

MP: When you are sometimes able to achieve a good situation on some days you can be proud of yourself. What will happen for 2017? I think there will some days hopefully like this. But I'm sure there will be some days where I will not be happy with myself – and I will not be the only one. Co-pilot is a tricky job. Unlike WRC, we do not have any recce of the route; they do not have the question mark of where will I get stuck, where will I get lost, where will I make a big mistake, where will I try to be sharp on my navigation? The end risk of making a big mistake in WRC is a crash because they drive so fast. We have more possible mistakes to deal with while driving fast!

MINI: How long is your racing day?

MP: When I was 35 years old, I raced Paris to Beijing. I was co-pilot and we arrived 27 days later in Beijing: we won. The average sleep time over 27 days was three hours. I was, as you can imagine, pretty much dead. Today my policy is now quite clear: I must sleep for a minimum of four and half hours a night. If I don't, two days later I am not able to make a good job.

Whatever the time is when I arrive in the bivouac after the day's race, I need to be in bed 30 minutes after midnight. Six, seven or eight hours is needed working on the road book before then. The days are very long. You have to shower quickly; eat quickly, go to the toilet very quickly. Everything has to be done quickly. I suspect for 2017, we will be back in the bivouac in the evening. Normally, we finish 3-4:00pm, but I think it will be 6:00pm this year. For sure some competitors will be arriving in the dark.



03/ PEOPLE.

Drivers and Co-Drivers

X-raid Team MINI John Cooper Works Rally #303



Driver:
MIKKO HIRVONEN 31/07/1980, Kannonkoski/FIN

CAREER HIGHLIGHTS

2016: 1st Hungarian Baja
3rd Baja Aragon
3rd Abu Dhabi Desert Challenge
4th Dakar Rally
2015: 5th Rallye du Maroc, Morocco
3rd Baja Aragon, Spain Test MINI ALL4 Racing
2014: 4th WRC
2013: 4th WRC
2012: 2nd WRC
2011: 2nd WRC
2010: 6th WRC
2009: 2nd WRC
2008: 2nd WRC
2007: 3rd WRC
2006: 3rd WRC
2005: 10th WRC
2004: 7th WRC
2001: 2nd Finnish Rally Championship
2000: 7th Finnish Junior Championship



Co-Driver:
Michel Périn 19/01/1957, Saint-Mihiel/FRA

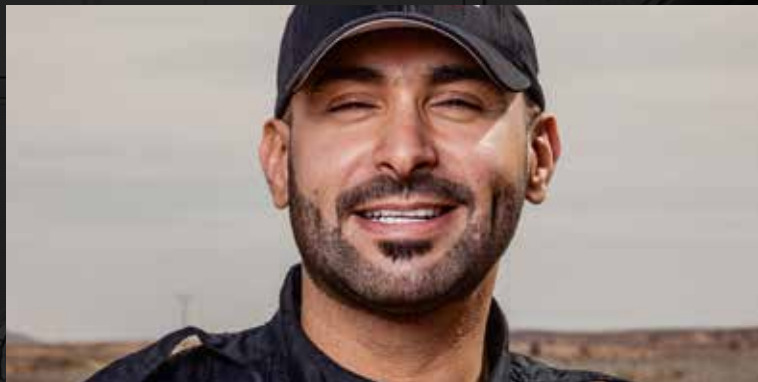
CAREER HIGHLIGHTS

2016: 1st Hungarian Baja
3rd Baja Aragon
3rd Abu Dhabi Desert Challenge
4th Dakar Rally
2015: 5th Rallye du Maroc, Morocco
3rd Baja Aragon, Spain
2014: 1st Desafío Inca, Peru
1st Baja Aragon, Spain
1st Dakar Rally
2013: 1st Hungarian Baja
1st Baja Aragon - Spain
1st Desafío Ruta 40, Argentina
1st Abu Dhabi Desert Challenge
2009: 1st Baja Spain
2008: 1st Central Europe Rally



2007: 1st FIA World Cup for Cross Country Rallies
1st Rally Transiberico
2nd UAE Desert Challenge
2005: 1st FIA World Cup for Cross Country Rallies
1996: 1st FIA World Cup for Cross Country Rallies
1st Dakar Rally
1995: 1st FIA World Cup for Cross Country Rallies
1st Dakar Rally
1994: 1st FIA World Cup for Cross Country Rallies
1st Dakar Rally
1993: 1st FIA World Cup for Cross Country Rallies

X-raid Team MINI John Cooper Works Rally #306



Driver:
YAZEED AL-RAJHI 30/09/1981, Riad/KSA

CAREER HIGHLIGHTS

- 2016: 2nd Silk Way Rally
6th Italian Baja
2nd Qatar Sealine Cross Country Rally
2nd Abu Dhabi Desert Challenge
3rd FIA World Cup for Cross Country Rallies
- 2015: First participation in Dakar Rally (1 stage victory)
1st Jeddah Rallye (Saudi-Arabic Championship)
1st Hail international Rally (Saudi-Arabic Championship)
- 2014: 3rd FIA World Cup for Cross Country Rallies
1st Cypres Rally (ERC)
1st Pharaons Rally
1st Italian Baja
1st Baja Russia Northern Forest
1st Jeddah Rally (Baja)
- 2012: 5th Gesamtwertung WRC2
5th Gesamtwertung Middle East Rally Championship
1st Rally Schweden (WRC2)
- 2010: 1st Jordan Rally (Middle East Rally Championship)
1st Sharqia Rally (Saudi-Arabic Championship/
Middle East Rally Championship)
1st Hail Rally (Baja) (Saudi-Arabic Championship)



Co-Driver:
TIMO GOTTSCHALK 28/08/1974, Neuruppin/GER

CAREER HIGHLIGHTS

- 2016: 2nd Silk Way Rally
6th Italian Baja
2nd Qatar Sealine Cross Country Rally
2nd Abu Dhabi Desert Challenge
3rd FIA World Cup for Cross Country Rallies
11th Dakar Rally
- 2014: 3rd overall FIA World Cup for Cross Country Rallies
(Co-Pilot of Yazeed Al-Rajhi)
- 2011: 1st Dakar Rally
- 2010: 2nd Dakar Rally
2nd Silk Way Rally
- 2009: 6th Dakar Rally
- 2008: 3rd Central Europe Rally car-category
- 2004: 2nd overall Asia Pacific Rally Championship
- 2002: 6th overall (1st in class) German Rally Championship
- 2001: 4th overall (2nd in class) German Rally Championship



X-raid Team MINI ALL4 Racing #308



Driver:
Orlando Terranova 11/10/1979, Mendoza/ARG

CAREER HIGHLIGHTS

- 2016: 4th Rallye du Maroc, Morocco
5th Baja Aragon
- 2015: 2nd Baja Aragon, Spain
1st Desafío Ruta 40
6th Abu Dhabi Desert Challenge
- 2014: 2nd OiLibya Rallye du Maroc
3rd Hungarian Baja, Hungary
2nd Baja Aragon, Spain
5th Dakar Rally
- 2013: 1st OiLibya Rally of Morocco
2nd Baja Aragon - Spain
2nd Desafío Ruta 40, Argentina
5th Dakar Rally
- 2012: 1st Desafío Litoral (Dakar Series)
1st Ruta 40, Argentinien
- 2010: 9th Dakar Rally
- 2009: 1st Rally OiLibya Tunisia
- 2007: 2nd production car-category, Patagonia Atacama
- 2006: 4th Pharaons Rally, Egypt



Co-Driver:
Andreas Schulz 03/03/1955, Munich/GER

CAREER HIGHLIGHTS

- 2016: 4th Silk Way Rally
4th Abu Dhabi Desert Challenge
10th Dakar Rally
- 2015: 8th Rallye du Maroc, Morocco
7th Baja Poland
Sealine Cross Country Rally, Qatar
3rd Abu Dhabi Desert Challenge
- 2014: Sealine Cross Country Rally, Qatar
5th Abu Dhabi Desert Challenge
- 2013: 1st FIA World Cup for Cross Country Rallies
1st Baja Portalegre 500
2nd Hungarian Baja
4th Baja Aragon - Spain
2nd Sealine Cross Country Rally Qatar
5th Abu Dhabi Desert Challenge
2nd Italian Baja
- 2012: 4th Dakar Rally
- 2012/10: 1st FIA World Cup for Cross Country Rallies
- 2003/01: 1st Dakar Rally



X-raid Team MINI ALL4 Racing #314



Driver:
Boris Garafulic 11/07/1963, Santiago/CHL

CAREER HIGHLIGHTS

- 2016: 9th Rallye du Maroc, Morocco
9th Baja Poland
- 2015: 5th Baja Portalegre, Portugal
- 2014: 6th OiLibya Rallye du Maroc
- 2013: 4th OiLibya Rally of Morocco
- 2012: 4th OiLibya Rally of Morocco
3rd Desafío Litoral (Dakar Series)
- 2011: 3rd OiLibya Rally of Morocco
4th OiLibya Rally of Tunisia



Co-Driver:
Filipe Palmeiro 11/07/1977, Portalegre/PRT

CAREER HIGHLIGHTS

- 2016: 9th Rallye du Maroc, Morocco
9th Baja Poland
- 2015: 5th Baja Portalegre, Portugal
- 2014: 6th OiLibya Rallye du Maroc
5th Italian Baja
4th Baja Russia - Northern Forest
9th Dakar Rally
- 2013: 2nd Baja Portalegre 500
8th Abu Dhabi Desert Challenge
- 2012: 1st Baja Poland
- 2011: 2nd Rallye dos Sertões
- 2010: 10th Dakar Rally
- 2009: 1st Rally Tunisia
2nd Rally Transiberico
2nd World Cup
- 2005: First participation Dakar Rally

ORLEN Team MINI ALL4 Racing #316



Driver:
Jakub 'Kuba' Przygonski 24/03/1985, Warsaw/POL

CAREER HIGHLIGHTS

- 2016: 5th Rallye du Maroc, Morocco
4th Baja Poland
5th Abu Dhabi Desert Challenge
- 2015: 7th Baja Poland - first rally in the car category
1st King of Europe drifting
- 2014: 6th Dakar Rally
- 2013: Guinness world record for speed in drifting - 217.97 km / h
3rd World Championship for Cross Country Rallies
- 2012: 3rd World Championship for Cross Country Rallies
- 2011: 2nd World Championship for Cross Country Rallies (450 cc)
1st Merzouga Rally
- 2010: 2nd World Championship for Cross Country Rallies (450 cc)
8th Dakar Rally



Co-Driver:
Tom Colsoul 20/04/1976, Tinen/BEL

CAREER HIGHLIGHTS

- CAR**
- 2016: 4th Baja Poland
5th Baja Aragon
5th Italian Baja
7th Platz Qatar Sealine Cross Country Rally
5th Abu Dhabi Desert Challenge
- 2015: 9th OiLibya Rally Maroc
3rd Baja Poland
2nd Baja Hungary
7th Dakar Rallye
- 2014: 4th OiLibya Rally Maroc
2nd Dakar Rally (Truck)
- TRUCK**
- 2013: 1st Baja300 Germany
4th Dakar Rally
- 2012: 1st OiLibya Rally Maroc
1st Dakar Rally
- 2011: 2nd OiLibya Rally Maroc

X-raid Team MINI ALL4 Racing #322



Driver:
Mohamed Abu Issa 21/06/1990, QAT

CAREER HIGHLIGHTS

- 2015: 1st Pharaons Rally - Quads
- 2015: 2nd: Sealine Cross Country Rally
- 4th: Dakar Rally - Stage Four, Copiapó, Chile
- 2014: 1st: Sealine Cross Country Rally, Qatar
- 3rd: Abu Dhabi Desert Challenge, Abu Dhabi
- 4th: Rally Dakar, South America
- 2013: 3rd Sealine Cross Country Rally, Qatar
- 1st Abu Dhabi Desert Challenge, Abu Dhabi



Co-Driver:
Xavier Pansare 21/05/1971, Lons Le Saunier/FRA

CAREER HIGHLIGHTS

- 2015: 9th Rallye du Maroc, Morocco
- 8th Baja Poland
- 3rd Dakar Rally
- 2014: 2nd Rallye Monte Carlo, WRC
- 1st Baja Poland
- 2009 1st Polish Championship
- 2008 1st Polish Championship
- 2007 1st Polish Championship
- 2006: 5th European Championship
- 2nd 2wd category (S1600)
- 2005: 1st French Championship (S1600)
- 1991: first rally as a co-pilot

X-raid Team MINI ALL4 Racing #325



Driver:
Stephan Schott 15/10/1952, Frankfurt/GER

CAREER HIGHLIGHTS

- 2014: 8th Baja Poland
- 5th Abu Dhabi Desert Challenge
- 2013: 8th Abu Dhabi Desert Challenge
- 2012: 10th Abu Dhabi Desert Challenge



Co-Driver:
Paulo Fiúza 19/04/1975, Mafra/POR

CAREER HIGHLIGHTS

- 2014: 5th Dakar Rally
- 2013: 1st OiLibya Rally of Morocco
- 2nd Baja Aragon - Spain
- 2nd Desafío Ruta 40, Argentina
- 5th Dakar Rally
- 2012: 7th Dakar Rally
- 1st Desafío Litoral (Dakar Series)
- 1st Ruta 40, Argentina
- 2011: 4th Baja Portalegre 500
- 7th Dakar Rally
- 2010: 7th OiLibya Rally of Morocco
- 2008: Vice Champion National Off-Road Championship (T2)
- 2007: 1st Dakar Rally T1.1 Amateur Diesel category



03/ PEOPLE.

We are Family

For the 2017 Dakar Rally, there are seven MINI crews competing. Every MINI racing car and their two-man crew (driver and co-driver) are fully supported by MINI Motorsport partner X-raid and its excellent staff – technicians, medical staff, service vehicle drivers, media officer and more. In reality it is a big family, with everyone assisting and sharing at all times in order to achieve the goal of completing and winning the Dakar Rally. Welcome to the MINI Family.

In order to make the MINI Family a completely fully functioning unit – to get better acquainted, develop awareness and share needs, and learn more about the technical side of their cars – every year ahead of the Dakar Rally teambuilding exercises are organised by X-raid and played out by the 'MINI Family'.

For the last round of the FIA World Cup Cross Country Rally, Baja Portalegre (Portugal), it was a case of role reversal for team staff and crews. X-raid's CEO Sven Quandt transformed into team physio and photographer. Stephan Schott swapped the controls of his car for the role of media officer. Meanwhile, driver Mikko Hirvonen shared technician duties with co-driver Paulo Fiúza, while fellow co-driver Tom Colsoul was placed in charge of event logistics.

As it happens, role reversal was a good plan because the combined years of experience being used in other roles and to good affect reached a successful conclusion: the MINI ALL4 Racing of Ricardo Porém and Filipe Palmeiro won the Baja Portalegre! Not surprisingly, everybody was overjoyed with the result. Mikko Hirvonen was just as pleased as the winning crew: "My work as a mechanic was great fun for me. Even I found out for myself you can improve all the time."

Another teambuilding exercise ahead of the 2017 Dakar Rally occurred in Lisbon. For this session, the Family took to the controls of four classic original Minis. Time spent working on them in a workshop at the start was well spent because the drivers and co-drivers then had to set off on a road trip.

It was many kilometres later and at night time when the Family arrived at their stopover point and erected their tents. Not surprisingly, the camping adventure was very similar to a Dakar Rally Marathon Stage, where the family fend for itself by doing all the required car servicing and cooking. The only real difference was this night involved even less sleep!



Over the next few days the Family's road trip involved many other 'tests' and new experiences. Visiting Delta Coffee's roasting house to learn about coffee selection eventually led to the family producing its own unique blend of coffee.

Team kayaking on a river was next on the list. It wasn't just a fun event either. The Family had to transport by kayak all the materials required to build a pontoon bridge across the river. This 'bridge' was not a simple affair to enable the Family to walk across, but a strong bridge to enable them to drive across the river in their classic Minis.

The next event saw the Family arrive at the famous horse stud farm Coudelaria de Alter do Chão, which involved horse 'taxi rides' followed with racing a 45-year-old Mini against a horse. Of course, the Mini won.

Talking about the teambuilding events, Sven Quandt, X-raid CEO said: "We had a lot of fun. On the other hand, I have to admit that the first night out with the Minis was very difficult since we experienced a night like on the Dakar but less sleep. The highlight for me and probably for all was the building of the bridge and the crossing of the river. Here it showed that all of us are able to work together even in stressful situations."

To spectators, it appears the Dakar Rally is a 13-day spectacle of pedal-to-the-metal racing – two men in a car driving and navigating their way to a finish point in a quicker time than the other competitors. They are right... but wrong at the same time. Competing within the Dakar Rally is so, so much more and involves months of planning and preparation by every member of the MINI Family. A family that shares the passion and determination for competing in the world's toughest, longest and most physical motorsport endurance race.

The Family had to transport by kayak all the materials required to build a pontoon bridge across the river. This 'bridge' was not a simple affair to enable the Family to walk across, but a strong bridge to enable them to drive across the river in their classic Minis.





04/ 2017 DAKAR RALLY.

Key Statistics



- With the addition of Paraguay, Dakar will visit its 29th country - the 5th in South America.
- Argentina, which has been a part of every edition since 2009, will be the theatre for the final battle decided in Buenos Aires.
- Start: Asunción, Paraguay (altitude 43m).
- Finish Buenos Aires (altitude 25m).
- Stage 4 is the day when the teams will reach a 'cruising altitude' of 3500m. They will stay above 3000m for 6 days before the route will take them lower.
- Stage 6 will see the groups pass by Lake Titicaca which stretches across the borders of Bolivia and Peru and is the world's highest navigable body of water and the largest lake in South America.
- Longest stage: Stage 9, Wednesday 11th January - 977km in one day.
- 7 selective sections will be over 400 kilometres with one of more than 500 kilometres.
- 12 stages (including 6 stages above 3,000m)
- 1 marathon stage
- Nearly 9,000km and more than 4,000km of special stages
- The rally will take part across three countries: Paraguay, Bolivia and Argentina.
- 1200 programme content hours broadcast in 5 continents.
- In almost 190 countries, a total of 70 TV networks will broadcast the race.
- Every day three TV helicopters will capture images of the special stage and send them in a race against the clock.
- A total of eight hours of programme content will be broadcast daily.
- 1460 journalists have been accredited to cover the Dakar Rally this year.
- New for 2017, the European vehicles will undergo scrutineering before setting off for South America in Port du Havre.

- In all, more than 600 vehicles (organization, media, competitors) will take to the sea for the three-week crossing of the Atlantic: **** (info as of 8/11/2016) ****:
- 491 competitors for 316 vehicles in the race
- 146 bikes
- 37 quads
- 83 cars
- 50 trucks
- The Dakar will take a pause in the highest altitude capital in the world - La Paz. In order to enjoy this break in the best conditions, the bivouac will be installed at the lowest altitude site of the city - 3,300m above sea level.
- 4.4 million spectators in 2016
- 22,000 personnel (gendarmes, police, military) for the security of the public and the rally
- 51 secured spectator zones
- Up to 7 medical helicopters and 32 vehicles on track, including 10 paramedic vehicles.
- A 60-member medical team.
- The Dakar Rally compensates 100 % of its carbon footprint.
- Authorised companies will process specific types of waste. During the 2016 edition, 14,300 tonnes of aluminium, 5,660 tonnes of cardboard and paper, 7,050 tonnes of glass, 6,980 litres of oil and 49,200 tonnes of filters, tyres and a variety of mechanical parts were processed.
- This year there will be a Dakar Rally mobile video game launched with the rally.





4.4
million
spectators
in 2016



1200
programme
content
hours broadcast
in 5 continents



1460
journalists will
cover the 2017
Dakar Rally



491
competitors
316
vehicles



Dakar Rally
mobile
video
game to
launch

STAGE 9:
Longest stage:
977km
in one day
Wednesday
11th January



7 medical
helicopters

10 paramedic vehicles



60 member
medical team



STAGE 4:
Cruising altitude of **3,500m**
and will remain above **3,000m** for six days.

STAGE 6:
The groups pass
Lake Titicaca

the highest navigable
body of water and
largest lake in South
America





05/ 2017 DAKAR RALLY.

Glossary

BIVOUAC: At the end of every stage, this is the camp where all the teams and competitors erect their service spots. In addition to the medical centre and the media centre, the bivouac also features a big catering camp, representing the meeting place for all the members of the Dakar teams. Some bivouacs will be of a Marathon-type, no outside service is authorised; the only authorised service is between competitors still racing.

BRIEFING: During the rally, the organisation will hold a driver briefing on every evening. In this briefing, special incidents of the day will be recounted, and information for the coming stage will be hinted.

CHECKPOINT or PASSAGE CONTROL: At a Checkpoint/Passage Control, competitors must collect a stamp on their time cards to prove that they passed the Checkpoint or Passage Control. Should a competitor miss a Checkpoint or Passage Control (or fail to collect the stamp), he receives a time penalty.

FAST ASSISTANCE: As only competitors are allowed to help one another, in the Dakar, many teams enter a "Fast Assistance". This Fast Assistance is usually a race truck that contests the event in the truck category and provides the competitor extensive support in the case of an accident or a technical problem. The truck has spare parts and tools on board.

FESH FESH: A certain kind of fine-grained Sahara sand, called "Guadal" in Argentina.

GPS: In the Dakar, the GPS is used as control system. In the special stages, the competitors may navigate solely through use of the road book. The GPS only confirms arrival at and passing of the checkpoints or GPS Waypoints.

INTERCOM: Used by the driver and co-driver to communicate road book instructions.

IRITRACK: This satellite-supported system provides position control. With this system, the PC Course can control the position and speed of every competitor. In case of an emergency, the competitors can contact the PC Course using an integrated satellite phone.

LIAISON: The liaison takes the competitors to the start, and from the finish to the bivouac. It must be completed by the drivers in a specified time.

NEUTRALISATION: Time during which the crews are stopped by the Race Direction or Section with allotted time but not timed for classification between two Selective Sections.

PARC FERMÉ: An area in which the vehicles must be parked at certain times during the event. Repairs, refuelling or tyre changes are prohibited there. Cars may only be covered by a transparent protection foil.

PC COURSE: This race control is responsible for sports and safety-relevant aspects and for appeals.

REST DAY: On this day, at rally half-time, no stage is contested, and the competitors and vehicles stay in the bivouac. The teams use this day to perform extensive maintenance work on their cars.



ROAD BOOK: The competitors are provided with the road book when entering the bivouac at the end of a stage. It provides all important navigation information: distances, dangerous passages and special hints for the next stage. The information is displayed using arrows and symbols.

SCRUTINEERING: Racing and service cars are checked to ensure that they meet all technical regulations.

SENTINEL: This acoustic and optical warning system is used to alert competitors that a faster vehicle is approaching from behind, which should make overtaking easier and safer.

SERVICE ROUTE: All service cars – which means all cars apart from the competitors and press cars – will drive from bivouac to bivouac on this route, which is stipulated by the organisation.

SPECIAL STAGE: Competitors must contest this part of the stage as a race against time. Time, from start to the finish of the special stage, is used in evaluating competitors' position in the overall standings.

SPEED ZONE: In a speed zone, competitors must abide by a specified speed limit (30, 50 or 90 kph). These zones were introduced to protect potential spectators and/or specific terrain being driven through.

STAGE: A stage comprises liaisons that take the competitors from the bivouac to the start and/or from the finish to the bivouac and the special stage.

TIME CARD: Start and finish times are recorded on this document. In addition, the co-drivers collect the necessary stamps on this document at the Checkpoints (CPs).

TRIPMASTER: This electronic measuring system is intended to support the co-driver. It measures the total distance and individual stage distances (for instance, between two points in the road book), and can be adjusted by the co-driver.

WAY POINT (WP): These points along the route are determined by the organisation and must be passed by competitors. There are five different types of way points: WPV, WPM (hidden way point), WPE (eclipse way point), WPC, Waypoint Control – the most difficult one to find because visibility radius is only 300 mt – and WPS (safety way point).

X-RAID: MINI Motorsport partner based in Trebur, Germany. Winner of the 2012, 2013, 2014 and 2015 Dakar Rally with the MINI ALL4 Racing. Also competing in the FIA World Cup for Cross Country Rallies. World Cup winner 10-times. Team CEO is Sven Quandt.



06/ 2017 DAKAR RALLY.

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