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## ADVANTAGE VETTEL AND FERRARI AT A 'HAMILTON' TRACK

Few people expected that, particularly Mercedes. On a power-hungry circuit where Lewis Hamilton has won six times, Ferrari and Sebastian Vettel were dominant last weekend.

Not only did Vettel's 5oth Formula 1 victory put him back into the lead of the drivers' standings - by a single point - but it also showed that Mercedes is still not on top of its troubles, particularly with the softer Pirelli tyre compounds, though Hamilton's weekend was also compromised by an old engine.
The gaps in qualifying demonstrated how close the top three teams currently are. Just 0.173 seconds covered the best laps from Ferrari, Mercedes and Red Bull, while sixth-placed Daniel Ricciardo was 0.352 s off pole. That promised a good race, but last Sunday's event will not go down as one of Montreal's finest.
Dull Monaco GPs are never really a surprise, but Canada often throws up an entertaining spectacle. It didn't this time, as many fans pointed out, but a balanced response is necessary.

There have been some good races this year - the Chinese GP in particular - and F1 has rarely provided wheel-to-wheel battles throughout a season. But it's also true to say that the current cars, which are among the fastest in F1 history, do not encourage overtaking. 'Dirty air' has been a problem for more than two decades and is not as easy to fix as it first appears, but F1 has at least accepted there is a problem by looking at rules tweaks for 2019, ahead of the big regulation changes in '21.

Overtaking is unlikely to be such a problem at Le Mans this weekend, thanks to the long straights of the Circuit de la Sarthe. Following our bumper preview last week, in this issue Gary Watkins looks at the LMPı privateers chasing Toyota (page 50) and outlines why he thinks an LMP2 car has a real chance of an overall win.



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AUTISFDRT
Anver -5


COVER IMAGES
Mauger/LAT Images, Lord Photography
PIT+PADDOCK
4 World Rallycross goes electric for 2020
6 Renault gives Red Bull an ultimatum
8 Motor racing returns to Switzerland
11 F1 technical focus
12 In the paddock: Edd Straw
13 Feedback: your letters

## RACE CENTRE

14 cover story
Canadian GP report and analysis
30 Vettel's 50 Formula 1 triumphs
34 Formula E: di Grassi takes Swiss victory
38 Neuville snatches late Rally Italy win
43 World of Sport: World Rallycross; NASCAR Cup; IndyCar
46 BTCC: Turkington takes charge

## INSIGHT

50 Le Mans: battle of the LMP1 privateers

## CLUB AUTOSPORT

64 Champ Morris makes British GT return
66 New GT3 Aston to debut at Le Mans
68 National reports: Oulton Park; Silverstone; Brands Hatch; Rockingham; Mallory Park; Mondello Park

FINISHING STRAIGHT
80 What's on this week
82 Pit your wits against our quiz

## SUBSCRIPTION OFFER

83 Subscribe for $£ 1$ for first six weeks and get a 2018 Mercedes F1 hat


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latest Autosport Performance.



## ES ELECTRIC FOR 2020

we can do it together," he said. "How it will be done, we don't know yet."

Moving away from the current steel-bodied Supercars, a single-make 'silhouette-type' carbon-monocoque chassis kit will be supplied by French firm ORECA, while Williams Advanced Engineering will supply a common battery pack. Manufacturers will fit their own composite bodyshells to the chassis, with increased aerodynamic freedom, similar to the current WRC rules. Constructors will install their own powertrain, with a 250 kW motor at each axle, based on Formula E regulations with some restrictions aimed at controlling costs.

The WMSC also confirmed that privateers will be able to homologate their own vehicles, using the same common battery and chassis as the manufacturers, but instead of having a road-car body they will design their own bodywork from a 'generic car model' from the FIA.
But while the WMSC has approved the switch to electric technology at rallycross's highest level, manufacturer commitment is required before the change is set in stone.
"We are very excited about the future," said WRX managing director Paul Bellamy. "The next stage of the process is July 30 - that's the deadline for manufacturers making their decision to enter. The FIA has said there needs to be four manufacturers to make it happen in 2020.

If there are three, there will be discussions between the three manufacturers that have committed, and the other interested manufacturers. Then a decision will be taken as to how to move forward."

Solberg and Ekstrom have confirmed to Autosport that they expect VW and Audi to continue in WRX in 2019, for what should be the final year for internalcombustion machines in the pinnacle category. Peugeot has already committed to 2019 and is the marque to have made the most noise about involvement in EWRX.

Peugeot driver Sebastien Loeb said: "I know on the performance side they [electric cars] can be lighter and more powerful. I just hope it will be still interesting for the show. For my generation I prefer the kind of engine noise that we have, but maybe for the future generation the young guys don't care, maybe they just want the show. It can be interesting for me to live [through] the transition of normal cars to electric cars."

There is currently much discussion about the future of the existing Supercars and whether there will be an expanded calendar on top of the current five-round European Rallycross Championship from 2020 for them. "There will be a future for the current Supercars; they are important to the sport and we are working on that project at the moment," said Bellamy. HAL RIDGE

## 'Hyperboost' gets the go-ahead

FORMULAE

Apart from its confirmation that World Rallycross will go electric for 2020, the FIA World Motor Sport Council also firmed up the temporarily titled 'hyperboost' plan for the new Gen2 Formula E car, which makes its competition debut this December.

With the standard race setting set at 200 kW , the higher power mode $(225 \mathrm{~kW})$ will be activated once a driver goes through an activation zone. It is understood that the zones will be away from the racing line in order to slow the drivers down, with digital screens placed to signal the area to spectators.

It had previously been suggested that the system would be available twice during FE races and that the duration would last four minutes each time. But it has now been confirmed that "the number of activations and the duration of the use of the higher power mode will be determined at each race by the FIA, according to the individual features of the circuit". This would be a barrier towards teams all gravitating towards the same strategy

The FIA has also announced that FE races will no longer run to a set number of laps, but will now have a maximum time limit of 45 minutes plus one lap. The current point for fastest lap will be replaced by a new reward for the driver in the top five positions who uses the least amount of energy. The superpole segment of qualifying will be expanded to six cars after the addition of the HWA team in 2018-19, with the grid rising to 22.

The WMSC also approved a new breed of prototype cars to replace LMP1 for the World Endurance Championship from the 2020-21 season, with a "freedom of design based on a hypercar concept". More details about the rules, which have the working title GTP, will be released this week at the Le Mans 24 Hours.
ALEX KALINAUCKAS



## Bigger wheels to make F1 cars look meaner from 2021

FORMULA 1

A switch from 13 -inch to 18 -inch wheels is set be part of F1's 2021 rules package that is currently being formulated by a team of engineers under Ross Brawn - and this is what it could look like.

Pirelli has pushed for the change for several years and has demonstrated concept tyres, with Charles Pic running them on a Lotus at Silverstone in 2014 and Martin Brundle trying them on a GP2 car in Monaco in '15.

The tyre manufacturer believes that low-profile tyres, which are already used in the World Endurance Championship and Formula E, have more in common with road-car technology than the current 13-inch spec and would be better for marketing purposes.

One F1 insider told Autosport it is now "more likely than not" that the move will be made. When asked if that was the case, FIA race director Charlie Whiting said: "I would say so. It's part of the package that we are discussing."

The argument against a change has always been that it would have a major impact on suspension design, and therefore add to development costs, but opinion has now swung. Some teams have suggested that the move should be made as early as 2020, with the current generation of cars,
but the consensus is that it would be logical to wait for the bigger package of changes that will come in ' 21.

Pirelli's exclusive supply contract runs out at the end of 2019, and a move to 18 -inch wheels would be built into any future tender, which will be open to rival manufacturers. The complication for any newcomer is that they would likely have to develop smaller tyres for a single season in 2020 before a change the following year.

Pirelli CEO Marco Tronchetti Provera said last month in Monaco that the Italian company is ready to make the change. "We are open," he said. "They have to find the right regulation, and have the teams ready to adopt it. There are a number of issues of aerodynamics, of suspension and so on. When the teams are ready, we are ready.
"For us it's always technology. We are happy with 13 -inch [tyres], we are happy with 18-inch. The bigger they are, the better it is. But the technological challenges are different."

The priority for Pirelli will be to organise a suitable test programme, which will require a 'mule' car or one with modified suspension. "At the moment we haven't discussed this in detail yet," Pirelli F1 boss Mario Isola told Autosport. "It's not just the tyre regulations that are missing, but all the regulations." ADAM COOPER

# Red Bull is given an ultimatum 

## FORMULA 1

Renault insists that Red Bull has to make a decision on its 2019 engine choice before next week's French Grand Prix, although the Milton Keynes team says it wants to wait until after the Paul Ricard event.

Red Bull has been evaluating Honda's progress with sister team Toro Rosso since the start of this season. After initially saying that it would make a call in the summer break, more recently the team has cited the Austrian GP (June 29-July 1) as the time for a decision, allowing it to evaluate the latest specs from the two suppliers in both last weekend's Canadian GP and the looming French race.

But now Renault Sport Fi boss Cyril Abiteboul (below, right, with Red Bull chief Christian Horner and Alain Prost) says that Red Bull has already had plenty of time, and if a decision is not made soon the French manufacturer will withdraw its offer, leaving the team with Honda as its only option.
"I guess they have all the information that they need now," Abiteboul told Autosport in Montreal. "I don't see why they are going to further delay the decision, as far as we're concerned. Past a certain date we will not be in a position to maintain the offer that we've made. It's very clear. As per the regulations, it was May 15, and then we accepted to extend that a little bit on the back of 12 years of good collaboration.
"As far I'm concerned it was Montreal that they wanted to wait for our new spec, Honda's new spec. They have all the information, I see no absolutely no reason to delay that any further. And frankly, we will not be able to maintain the offer for very long."

Red Bull has made clear that it wants to stick to its schedule. Asked by Autosport about Abiteboul's desire for an answer before the French GP, the team's Helmut Marko said simply: "He won't get it."

Marko said the team needs time to study the data from Canada: "It's in the bank, and we'll have a look at it, and that's why we won't come to a decision until Austria. We will have facts which we are waiting for, and we want to make the right decision."
ADAM COOPER



F O R M ULA 1 Jacques Villeneuve drove a Ferrari 312T3, raced by his father Gilles, at the head of the Canadian GP drivers' parade to commemorate the 40th anniversary of Villeneuve Sr's maiden grand prix win in the first F1 race held at Montreal. "I needed to cool the engine," he said. "I had no other choice than to pass the two trucks ahead of me. The idea was for me to lead the parade but their cars were running way too slow!" Photograph by Sutton/LAT

## Lorenzo to Honda; Pedrosa could retire

## MOTOGP

A shock move to Honda for three-time MotoGP champion Jorge Lorenzo headlines a raft of 2019 rider moves that have been confirmed in the past week.

After nearly 18 months of struggles, Lorenzo (right, top) took his first victory for Ducati on the Bologna marque's home turf at Mugello earlier this month.

Speculation had been rife that Lorenzo was poised for a return to the Yamaha fold after his Ducati stint, most likely in a new Petronas-backed, Sepang-owned satellite operation. But on the Tuesday after Mugello, Honda announced it would not be retaining Dani Pedrosa (right, bottom) beyond the end of the 2018 season, with confirmation of Lorenzo's arrival at the squad alongside Marc Marquez following the next day.

Replacing Lorenzo at Ducati is Danilo Petrucci, who steps up to join Andrea Dovizioso on a full works bike on a oneyear deal, with Moto2 points leader Francesco Bagnaia having already been confirmed to take Petrucci's place at the satellite Pramac Ducati squad.

Pedrosa's future, meanwhile, remains unclear, and there have been suggestions that he will announce his retirement at his home race at Barcelona this weekend.

Elsewhere, Suzuki has formalised its 2019 line-up, signing rising star Joan Mir to partner Alex Rins. Andrea Iannone, who revealed at Mugello that he would not be staying with the Japanese manufacturer, has firmed up a move to Aprilia, where he replaces Scott Redding.

With all 12 of the premier class's factory seats for the 2019 season now filled, attention will turn towards the few remaining privateer rides still up for grabs.

Tech3 has firmed up its riders for next year, retaining Hafizh Syahrin alongside Moto2 graduate Miguel Oliveira on its KTMs, while LCR is highly likely to retain Honda protege Takaaki Nakagami alongside the already-contracted Cal Crutchlow.

That leaves the hypothetical Petronas Yamaha team as the most attractive seat still up for grabs, with current Marc VDS Honda rider Franco Morbidelli expected to take one of its bikes.
JAMIE KLEIN


## IN THE HEADLINES

## NORRIS FI SEAT DENIED

McLaren has turned down a bid from Toro Rosso for its protege Lando Norris to replace Brendon Hartley for the remainder of the Formula 1 season, it emerged last week. Norris currently leads the Formula 2 points.

## KUBICA, ROWLAND TEST

Williams will give its reserve Robert Kubica and young driver Oliver Rowland another runout in the F1 test at the Hungaroring on July 31 and August 1. The test for Rowland follows his first pukka F1 outing in the Barcelona sessions last month.

## PROST OUT, ABT REMAINS

Renault e.dams Formula E stalwart Nico Prost will not remain with the team for the 2018-19 season, when it will switch its allegiance to sister make Nissan. Prost says he is "busy working on my new programme, which I hope to announce soon". Meanwhile, recent first-time FE winner Daniel Abt will remain with Audi alongside Lucas di Grassi.

## LLOYD IN FOR NASH

TCR UK points leader Dan Lloyd has replaced James Nash in the BTC Norlin Racing Honda team for the remainder of the British Touring Car Championship season. Nash has had an unsuccessful return to the BTCC this year, while increased work commitments have made life harder. Lloyd is expected to complete the season in both TCR and the BTCC, as there are no date clashes.

## 919 ON NORDSCHLEIFE

Remember Porsche's incredible F1-beating run at Spa recently with the unrestricted 'evo' version of its 919 Hybrid LMP1 car? Timo Bernhard has been testing the car at the Nurburgring with the aim of attacking the Nordschleife by the end of the month. .

## RENAULT PRIZE WINNER

Engineering student Chase Pelletier has won a six-month work placement at the Renault F1 team during a competition held at the Canadian Grand Prix weekend. The 22-yearold emerged from a final of 10 to become the Infiniti Engineering Academy 2018 Canadian winner. Renault technical director Bob Bell said: "The Infiniti Engineering Academy provides us with a constant source of talent. We get an extremely high calibre of people through our doors - it's a real benefit."



## Racing back in Switzerland

FORMULAE
"Did you know that before last weekend it had been 64 years since motor racing last took place in Switzerland as a consequence of the 1955 Le Mans disaster?"

That statistic was trotted out a lot throughout the build-up to the inaugural Zurich ePrix, as well as in the aftermath and, despite that snarky first sentence, rightly so. This was a big moment for motorsport and Formula E deserves credit for pulling it off, seeing as it even required a change of law in one of the planet's most fastidiously-governed countries.

The historical significance was clearly not lost on the competitors. On Monday morning, race winner Lucas di Grassi was tweeting pictures of the start of the 1954 Swiss Grand Prix at Bremgarten alongside the Zurich race start. Audi team principal Allan McNish "sent an email to the main heads of department in Audi after [the race] with a picture of it just saying 'look, it's a historic moment'".

The two full-season Swiss FE drivers - as well as nearby resident Nick Heidfeld, who travelled in by train just because he could - were also clearly pleased to finally have a race on home soil. Sebastien Buemi - running a modified helmet design to prominently display the Swiss flag, a big plus for the local fans recalled how he "could never dream" of a Swiss-based race while climbing the single-seater ladder. Edoardo Mortara, who was enjoying his second home event of the season after Rome thanks to his dual nationality, said it was simply "amazing to be racing here".

In practical terms, the event came together at the very last minute, but this was purely to keep the disruption to the city and its residents to an absolute minimum. The race ran on a Sunday so that the road closures needed to put the final walls and barriers in place, as well as allow the shakedown running, could come into effect. Extra seating areas and fan amenities popped up overnight on Saturday, and everything appeared to be in place come race day.

It was a busy paddock - sponsor tours regularly packed the pitlane - and the organisers claim that 160,000 attended the eVillage fan zone, which was free to enter. When the sessions were in action, people crammed against the barriers to watch - only reserved grandstand seating required tickets - and others watched out of windows in the office buildings and homes that lined the 1.531-mile circuit.

Naturally, there were some complaints reported about the disruption to locals, but the vibes for motor racing's return to Switzerland seemed pretty positive.

Zurich mayor Corine Mauch described the race as a useful way to highlight the benefits of e-mobility to the city's residents, while event CEO Pascal Derron said it "surpassed our expectations". The number of people visiting the eVillage was "a great success for all involved," he continued. "We are happy."

Overall, and even though the race was tame by FE's standards, the first Zurich ePrix was a hit - particularly for the electric championship's many Swissbased sponsors and their guests. ALEX KALINAUCKAS

## Martin Birrane 1935-2018

## OBITUARY

Martin Birrane was a kind of motorsport polymath. He started out as a driver, a handy amateur good enough to win his class at the Le Mans 24 Hours, but was also variously a team owner, a race track proprietor, and latterly a constructor after bringing Lola back from the brink. Above all, though, he was an enthusiast.

His passion goes a long way towards explaining everything he did in motorsport. The Irishman may have insisted that he was a hard-nosed businessman, but he verged on philanthropy. He bought Mondello Park in 1986, he insisted, because he couldn't "leave it to the cows". His decision to take over Lola in 1997 after it went into administration owed much to a love of a marque with which he'd already had an on-off involvement for a quarter of a century.

What became Lola Cars International wasn't a plaything for Birrane. He helped diversify the company into new fields, aerospace and defence included. But he also propped it up in the lean times with a personal fortune accrued in property.
"He approached Lola very much as a business," says Keith Wiggins, the first company boss Birrane installed at Lola. "He knew the risks and was happy to take them because he could afford them. Lola needed someone like Martin with the right mix of business acumen and passion."

There were good times and bad times for Lola under Birrane's proprietorship. In the early years, it won the contract to continue building Formula 3000 chassis, reasserted itself as the dominant force in CART single-seaters in North America, and took MG back to Le Mans. Then it


built 50 A1GP cars for the fledgling World Cup of Motorsport in 2005.
The bad times included failing to land the deal to build the one-make IndyCar that came on stream in 2012. That was followed by changes to the tax incentives offered for research and development, which coincided with the economic downturn and a period of ill health for Birrane. The doors were closed on the manufacturing arm of the organisation in May 2012.
Birrane's passion for Le Mans took Lola back into sportscar racing for the first time since 1992 with the B98/10 LMP9oo and then the SR2-class B2K/40. The marque was ever present for the next 15 years, building more than 70 prototypes in that time.
It was as a team owner in the sportscar arena that Birrane first became involved with Lola. The Crowne Racing Team he established to run his Porsche 911 Carrera RSR moved into the European 2-Litre Championship of Makes with a Lola-Ford T292, with Chris Craft driving. The team
beat, among others, the works-entered car raced by Guy Edwards to the title.
Birrane became a regular at Le Mans, starting the race 10 times between 1973 and ' 87 , three times at the wheel of Lola or Lola-based machinery. The class victory, in the Group B GT category, came aboard Helmut Gall's BMW M1 (bottom) in 1985.
He was also active in the historic ranks and claimed his final victory after his 7oth birthday when he won the Denny Hulme Trophy at the Silverstone Classic in his beloved Lola-Chevrolet T7o Mk3B, sharing with Ron Cumming in 2007.
Birrane's multifaceted motorsport career included a stint as a NASCAR team owner and a successful Irish Land Speed Record assault on an unopened section of motorway in the De Cadenet Lola he'd raced at Le Mans in 1981. Few know that he also bailed out the Pacific Formula 1 squad on two occasions in its brief life, buying its cars and then leasing them back to the team for $\$ 1$ so it could pay its freight bill.
gary watkins





PIT + PADDOCK

## DRAWING BOARD

## GIORGIO PIOLA

## FERRARI BARGEBOARDS

Ferrari's small changes on the bargeboard assembly for the Canadian GP add up to a decent performance gain. As you find a little problem with the airflow attachment on one surface, you might need to alter the chord length of that component (blue arrows).

Ferrari has continued the concept of slot gaps further rearward (red arrow). The trailing edge is now curved as opposed to vertical (white arrow), and Ferrari has also altered the footplate area (black arrow), so now has an optimised bargeboard package. GARY ANDERSON


## HAAS TEAM'S MONTREAL UPGRADE

Haas introduced what it called a major aerodynamic upgrade package in Canada, and part of this was the bargeboard area. The red arrow highlights the
small turning vanes on the leading edge of the underfloor. These are very similar to what Red Bull runs (inset, right), and each one is designed to set up a vortex that

goes underneath the flat area of the underfloor to improve its overall performance. The outboard horizontal louvre section outboard is fairly similar to what Haas ran before, just a bit more detailed and aggressive. This area picks up the turbulent wake from the trailing edge of the front tyre and reduces its negative impact on the airflow to the undercut sidepod. Other than Ferrari, this is reasonably different from what the rest run.

Haas also introduced a revised front wing and underfloor, and some of the developments of these components would have been to make the mountings

stronger. For quite a few races, Haas has suffered from small aerodynamic components falling off its cars. The team has confirmed that some parts have been strengthened with more layers of carbonfibre. GARY ANDERSON

## RED BULL'S FRONT-WING SOLUTION

When you get to a circuit that requires less downforce, the first thing you do is fit a smaller rear wing. As a result, the biggest problem is balancing the car with the front wing, and teams go about this in different ways. Instead of just reducing the overall front-wing angle, which would change the trailing-edge airflow and aerodynamic-stall characteristics - and in turn affect the rest of the car's aerodynamic
performance - Red Bull simply trims the trailing edge of the rearmost wing flap.

The area inboard of that has also had a gurney flap fitted. This will make this area work that little bit harder, but more importantly it helps produce more front downforce at lower speed. Because of the low corner speeds in Montreal, this is critical to overall performance. GARY ANDERSON


# COMING TO AMERICA 

## A full-scale tilt at next year's IndyCar title makes a lot of sense for Fernando Alonso, McLaren and motorsport fans

## EDD STRAW

When Fernando Alonso's 2017 Indianapolis 500 assault was announced, he offered a very clear explanation for his desire to do it that stretched beyond simply wanting to win motorsport's'triple crown'.
Even though Alonso stated several times back then that he had no intention of racing in IndyCar fulltime, what he said supports the idea that he must compete there next year should McLaren's bid for a permanent presence in the US come to fruition.
"If I want to be the best driver in the world, there are two options," he said."I win eight Formula 1 world championships, one more than Michael [Schumacher], which is very unlikely. The second one is to win different series in different moments of my career and be a driver that can race and win in any car, in any series."

So here's what Alonso should do. First, make sure Zak Brown's ambitious plan for a McLaren IndyCar team comes off. While not yet a done deal, it's more likely than not, with both Michael Andretti's and Bobby Rahal's teams in discussions with McLaren. Alonso can then launch a focused assault on

## "THIS IS THE PERFECT HAVE-YOUR-CAKE-AND-EAT-IT SCENARIO FOR ALONSO"

attempting to repeat Nigel Mansell's achievement of 1993 and win the IndyCar crown at his first attempt. Ideally, doing so while managing something Mansell never achieved: winning the Indy 500.

This will also allow McLaren to keep Alonso on its books in the hope of bringing him back to F1 when its car is good enough to win. Alonso would be able to keep tabs on the team, certainly test the 2019 car and perhaps even turn up for some races to keep his hand in and monitor progress.

In doing so, Alonso would remain a contemporary F1 driver and race-sharp should an opportunity arise for him at an established frontrunning team. And if McLaren gets its act together, more likely for 2021, he'd still be young enough to come back and win some more races, even though he hits 40 in July that year. This is the perfect have-your-cake-and-eat-it scenario for Alonso.

An IndyCar deal would also allow him to see out the World Endurance Championship superseason with Toyota. That would give him a second crack at ticking Le Mans off the bucket list should he not win it this weekend.

He's already in with a strong chance of taking the WEC title, provided he completes the superseason. But IndyCar is another kettle of fish. There, he will be up against seasoned, high-level professional teams and drivers, all with a vast depth of experience to draw upon. While the comparison with Mansell's achievement in 1993 is an easy one, it will actually be even harder for Alonso to pull it off.
The field was more spread out back in 1993, and Mansell was only up against another 12 full-season entries with the latestspecification cars. That doesn't devalue Mansell's achievement, it merely makes what Alonso is up against even more difficult.

But we cannot underestimate the 'Alonso factor'. He will be incredibly diligent. Both for his Indy 500 assault and his Le Mans attack, he has devoted huge amounts of time to watching video footage of races, both broadcast and onboard, as well as spending endless hours in simulators. Alonso is a driver who leaves no stone unturned.

He will also be able to build up a team around him that works his way. At Indy, he saw plenty of potential to bring F1 approaches and knowhow to the race, and with McLaren's involvement it would be possible to create a very tight, efficient and focused operation around him.

While it will likely effectively be a satellite operation, it will be as much‘Team Alonso’as‘McLaren'. This is what will give him a chance of beating high-quality opposition. It would be ridiculous to say he would definitely win the title in one attempt - but he could be in the mix. And given that McLaren's focus will increasingly turn to 2021, when F1's rules are reset, perhaps he could even have a two-year run at it...

Alonso racing in IndyCar would solve another problem for McLaren, that of what to do with Stoffel Vandoorne and Lando Norris. There's every chance Norris will win Formula 2 this year, so McLaren will have to use him in F1 or lose him. So with Alonso off to IndyCar and WEC, McLaren can run Vandoorne and Norris.

In Alonso's dream scenario, he would have the chance to complete the triple crown and tick off both the WEC and IndyCar titles before returning to F1 and winning the third world championship he covets so much.

If he is serious about that desire to prove himself to be the best driver in the world, what better way to do it than to build the kind of topline racing CV that seemed to be a thing of the past? Sounds a lot more fun than being mired in the F1 midfield - both for Alonso and for motorsport fans. $\boldsymbol{L}^{\prime}$

## Why are we treated to shots of celebrities who we don't care about, accompanied by fawning commentary? <br> ANDY BRADSHAW

## Had your fill of too much filler?

I am all for a build-up and interviews/features etc, but it seems like there's endless hours of this on Sky F1. Just how many people can devote well over three hours on a Saturday and over four hours on a Sunday to watch two and a half hours of action? I rarely watch more than half an hour of build-up and 15 minutes post-race, assuming the action hasn't made me nod off.

Do we really need Brundle doing a lap in an Aston or Kravitz demonstrating his ability to bench press with Nico Rosberg? Like football, it's got to the point where it's no longer insightful.
DanielHeathcote

## Byemail

## Focus on the action

What terrible TV coverage of the Canadian GP. I don't suppose Sky is fully to blame, but why do they fail to show why Hamilton had a slow stop? Why do they show Vettel on a boring solo lap when there is an exciting moment with Bottas trying to lap two Renaults?

Why are we treated to shots of celebrities who we don't care about, accompanied by fawning commentary? And why, oh why, do they give the chequered flag to a 'supermodel and activist' and allow her wave it before the end of the race?

## Andy Bradshaw

Guildford, Surrey

## Montreal picks up where Monaco left off...

The Canadian GP? Three DRS zones? Was there a single overtake on the track the entire race? I've never in my 49 years seen a disappointing Canadian GP - until Sunday. A continuation from Monaco's 'train' race...

## Ronald Mclsaac

Saint John, New Brunswick

## So much for technical progress

I note with some concern that the fastest race lap in the Canadian GP (1m13.864s) has yet to eclipse the current record (1m13.622s) set 14 years ago [by Rubens Barrichello, pictured].


Doesn't say much for technical progress, does it?!
Rob Barnett
EastSussex

## Would Alonso complain if he was winning?

Alonso says F 1 is predictable. If he was driving a car that was capable of winning a race, I wonder if he would be saying the same thing. He doesn't mention the WEC in the same vein - could that be because he is in a winning car?
Chris Davis
Byemail

## Save the British Grand Prix

I hope Liberty Media, besides looking at future engine specifications and rule changes, is also in negotiation with Silverstone about extending the contract to run the British GP beyond next year and for many years to come.

Hopefully they can do a deal on more favourable terms to all concerned, as it will benefit everyone. I'm sure I speak for all F1 fans - everyone knows this is great track, the drivers love it, and we must not let this go.

## Andy Turner

Cheshire

## HAVE YOUR SAY, GET IN TOUCH

## Autosport editorial

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FORMULAE
$\stackrel{\rightharpoonup}{\bullet}$


After what Vettel called a "disaster" in Friday practice, he and Ferrari were able to claim pole and then dominate the race ahead of Mercedes EDDSTRAW, GRAND PRIXEDITOR

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1973


SEBASTIAN VETTEL DESCRIBED FRIDAY PRACTICE FOR THE CANADIAN GRAND PRIX as "a disaster". The balance of the Ferrari wasn't right, Max Verstappen set the pace for Red Bull, and Vettel brushed the wall at the end of practice one, then sat out the first 34 minutes of the second session while waiting for the car to be repaired.

What's more, Montreal specialist Lewis Hamilton looked strong. Although his Mercedes was down in fourth place, Hamilton had set his fastest time on the slowest, supersoft, tyre compound and he looked very quick on the long runs.
Cue some serious work overnight, both in Montreal and at Ferrari's Maranello base, with reserve driver Antonio Giovinazzi putting in the miles in the simulator. The result was a car good enough to take pole position from Valtteri Bottas by o.093 seconds, win comfortably and give Vettel the lead of the world championship.
"Friday was a disaster for me," confirmed Vettel."But on Saturday morning the situation was much better and the car proved in qualifying that the set-up was very good. Today, we confirmed the job was done in the right direction. With the new power
unit, I think we made a quite good step."
While F1's three grandee teams - Ferrari, Red Bull and Mercedes are in a different class to the rest of the field, the competition between the three is ferocious. Tiny differences can lead to big swings, and the upgrade to the Ferrari V6 engine was one such factor.

Reliability concerns led to Mercedes postponing its upgrade until the French GP later this month, forcing both Hamilton and Bottas to use engines that had previously been slated to have their final race at the twisty, and less power-hungry, Hungaroring at the end of July.

That wasn't the only factor. Mercedes allocated only five sets of hypersofts for each of its two drivers, preventing them before Saturday from trying the compound that would decide pole position. Others had eight sets available, so ran them in Friday practice too. That was a

decision made three months ago, yet it had implications here. And, had slightly different set-up decisions been made for Hamilton's car, perhaps the mistake under braking for the hairpin wouldn't have happened, and he could have taken the pole position he claimed was possible. And what if he hadn't suffered cooling problems in the race and resulting power dropouts, which forced an early pitstop to allow several louvres to be opened and left Hamilton vulnerable to an overcut overtake by Daniel Ricciardo's Red Bull?
Every grand prix weekend is about millions of ifs and buts. In the case of Canada it added up to a pace advantage of about a tenth of a second per lap for Vettel and Ferrari when it mattered on Saturday and Sunday. What is unquestionable is that Ferrari made far more right calls than wrong ones. This, combined with Vettel's virtuosity, added up to a crucial win in the world championship fight.

Debate rages about which of 2018's leading cars is the best one there's an argument that the Red Bull is, if you eliminate engine performance from the equation - but nobody can question that Ferrari is the best team so far. And Vettel had more in the bank than it appeared in qualifying. He wasn't happy with his pace in the first half of the lap on his first Q3 run, then lost time in the final sector on his
second. His theoretical best was 0.088 s faster.
So even though both Mercedes drivers had reasons to kick themselves - Bottas because he failed to pick up the pace on his second Q3 run there's no guarantee that if all the frontrunners had perfect runs the result would have been different. The one thing we can be certain of is that Verstappen, who qualified third and 0.173 s down, was losing around a third of a second thanks to the Renault engine package, even with the latest upgrade, falling short as anticipated.
Once he had pole position, Vettel just needed to make sure his start was right. He did that to perfection, making a clean break while Bottas and Verstappen battled through Turns 1 and 2. Initially, it seemed Verstappen would come out ahead, but Bottas toughed it out around the outside of the first left-hander, then squeezed between Verstappen and the inside kerb in the slower right-hander that follows immediately.
"On the right-hand side [of the grid], the grip didn't feel that great," said Bottas."It was quite dusty and most of the other categories this weekend have had rolling starts instead of standing starts, so there was no rubber at all and the other side was clean.
"I had some wheelspin initially so Max got inside. The only opportunity for me was to go on the outside and try to carry as >>

much speed as I could to get into position for Turn 2. We touched a little bit but it was OK, and I kept second place."

Frustratingly for Vettel, the safety car was deployed when he had already checked out thanks to Brendon Hartley's Toro Rosso being hit by Lance Stroll's Williams at the Turn 5 right-hander. This pushed the left side of Hartley's car up onto the barrier, with the two machines remaining locked together until they came to rest in the wall at Turn 6. Hartley was dispatched to hospital via the medical centre for checks, and subsequently cleared and released.

This meant Vettel had to do it all again at the restart. He did so, although perhaps with Bottas a little too close for comfort. Both Ferraris and the two Mercedes started on the ultrasoft Pirellis, having

used them to set their Q2 times, while Red Bull pairing Verstappen and Ricciardo were on the hypersofts, and there were no concerns about being forced into an early pitstop.
"It was important to open the gap straight away," said Vettel."I was very happy with my first lap, but then there was a safety car. I had a good restart so stayed out of trouble, and then I was able to open a gap gradually. We had the right strategy, the right tyre, so we could stay out and control the race from there, keep the gap stable to Valtteri."
Bottas knew his one chance to take the lead was to be as close as possible before the pitstops, so he attacked during the first stint to try to stay in contention. This strategy didn't pay off, and he was six seconds behind when he dived into the pits at the end of lap 36 of the 70 to take supersofts.

Vettel followed a lap later and came back out with an advantage of over five seconds. Bottas did threaten during the second stint, at one stage closing to just three seconds behind. But the need for the Mercedes to preserve fuel in the closing stages meant Vettel was able to pull away again.

Bottas reckoned the one-tenth gap to Ferrari in qualifying was representative of the pace difference, so he wasn't surprised to finish, unofficially, 6.5 s behind. 'Unofficially', because the final two laps of the race never happened, thanks to the chequered flag being waved early and the results being counted back to the lap before - lap 68 - as a result of a miscommunication between race control and the starter. This led to the Canadian model, Winnie Harlow, being told to put the chequered flag out prematurely.
"Ferrari had pace in hand, so they could start fuel saving in the first stint," said Bottas. "At that time, we were trying to push and get closer to them and worry about it later. I don't think I finished with any fuel

at the end of the race. Even with the big lift before the start/finish line, which is why Max got really close, we were so critical on fuel. That was the best chance to win the race, we had to worry about it later."
The results declared the gap between Bottas and Verstappen to be 0.984 s , but on the phantom 7oth lap the gap at the line was just 0.117s.

Vettel, up ahead, had little to worry about save for a flurry of settings changes to ensure good management of the Ferrari engine package.
"After the stop, I had to change a lot of things on the steering wheel," he said. "At some point I was close to saying,'When am I able to drive again?''because I was looking down and changing something and changing back. We were managing something in the background."

Verstappen was delighted to have a shot at nicking second, but admitted there was no chance to get by other than with Bottas's lack of fuel. Had he been able to get ahead, who knows whether he could have done something about Vettel on a weekend where he was comfortably the stronger of the Red Bull drivers?
While the top three were static throughout, the battle for the bottom half of the top six was more dramatic. Hamilton held fourth from the start, but was visibly not happy with the balance of the car, on one occasion having a big opposite-lock moment as the rear got away from him in the middle of Turn 1.
This was compounded by complaints of a loss of power, which turned out to be because of overheating. This was the result of an unspecified part failure, which forced Mercedes to call him in for his first stop on lap 16 - earlier than anticipated and in the expected range for the first stop on hypersofts, rather than the ultrasofts Hamilton was running at that time.

Extra cooling louvres behind the driver's shoulders were opened up in the stop, which helped but did not completely solve the >>


DURING THE BUILD-UP TO THE CANADIAN GRAND PRIX weekend, Fernando Alonso suggested Formula 1 had become predictable. Qualifying suggested otherwise, with the top three teams covered by less than 0.2 seconds and the identity of the driver on pole position in doubt right to the end of Q3.

In the end, Sebastian Vettel set two laps good enough for pole position - one on each of his two Q3 runs using hypersofts - and he could easily have gone a tenth faster.
"I was very happy with the first lap, but I thought that maybe in the first half of the circuit there's a bit more," said Ferrari man Vettel after improving by 12 thousandths of a second on his second run. "The second attempt in Q3, I found that little bit and it was, 'OK, now I just need to repeat what I did before, because it was really good.' I struggled and I lost a little bit of time."

Vettel gained 0.083 s in the first sector, then 0.017 s in the middle, but lost time in the final sector. But it didn't matter anyway, because nobody was able to challenge him.

Mercedes' Valtteri Bottas came closest, but failed to improve on his second run and complained of understeer that cost him in the first and second sectors. That added up to a deficit of 0.093s to Vettel.

Max Verstappen jumped to third with his second run, leaping ahead of both Lewis Hamilton and Kimi Raikkonen. The Red Bull looked
"ITHOUGHT MAYBE IN THE FIRST HALF OF THE LAP THERE'S MORE" VETtel stunning on track, and he lost around a third of a second to Vettel on the long straights, even with Renault's engine upgrade.

Hamilton reckoned he should have had pole, but ended up fourth and 0.232 s down after problems at the hairpin. "Constantly, today, going into that corner I was struggling to get the car stopped, be it front locking, or rear locking," he said. "So it was quite messy. There was a good chunk of time there. Definitely just in that corner alone was pole position for sure, if I figured out how to fix it."

He was nip and tuck with Vettel in the first two sectors, albeit a tiny fraction behind. But even with the error it was enough to be ahead of Raikkonen, who understeered his Ferrari onto the grass out of Turn 2 and had to abandon his second Q3 run.

Daniel Ricciardo in the second Red Bull lost much of Friday afternoon practice with an electrical problem. Lacking rhythm, he struggled to sixth, almost 0.9s clear of Nico Hulkenberg's Renault.
EDD STRAW

Montreal's Circuit Gilles Villeneuve offers one of the best 'first' corners on the grand prix calendar. Despite the short run to the medium-speed left-hander, which then becomes a long, slow right-hander, battles can ebb and flow in a matter of seconds.

Standing opposite the elongated exit of Turn 2, the speed the field carries into the first left-hander at the start of the race is unbelievable. As you attempt to process the 20 flashes of colour cascading into the turn, contact between the Mercedes of Valtteri Bottas and Max Verstappen's Red Bull seems inevitable. A brief puff of smoke and the duo makes it through, the rest of the field a frenzy behind them.

At the restart after the unwelcome appearance of the safety car, Sergio Perez's Force India flies sideways across the runoff area after contact with Carlos Sainz at the entry to Turn 1 , before returning to the track in the middle of Turn 2. On the television coverage it looks calm, but from a few metres away it seems inevitable he will be collected.

Amid the sensory overload of the early laps of a grand prix, it's one of so many breathtaking moments that the drivers make look simple and straightforward when you are watching from

distance or on screen.
As the race settles down, the difference between Bottas and Lewis Hamilton through this sequence is striking. It was clear in practice, but in the race it's more pronounced. Hamilton is visibly struggling with the rear end, which makes him hesitant as he goes from left lock to right.
A few laps later the rear end steps out, forcing a very big application of opposite lock. He goes very wide, which compromises him through
the second right-hander.
Both in practice and during the race, the Red Bull looks sublime through this sequence. Verstappen in particular can carry in tremendous speed and seems able to kiss the inside kerb on entry without destabilising the car. He made the transition from left lock to right beautifully here during free practice three. But the big difference to Daniel Ricciardo, Red Bull's number two driver during this weekend, is on exit during
practice. For whatever reason, Verstappen is better able to control the wheelspin and keep the rear of the car in check - essential for the launch onto the straight that follows, especially in a Renaultengined car that still lacks power.

Sebastian Vettel just looks imperious and serene, hitting his marks and never looking like making mistakes lap after lap early on in the race. It was that kind of afternoon for the Ferrari driver.
EDD STRAW


problems. Verstappen was just over two seconds ahead at this point, and there was a space for him to drop into traffic, so Red Bull also called him in to protect him from an undercut attack.
"It was huge, I thought the engine was going to fail," said Hamilton. "Straight from the start, we got out of Turn 2 and the power started dropping out. There were lots of hesitations, the engine dropping in power, so I thought it was going to blow."
Hamilton complained about the timing of the stop over the radio, and that's understandable as it allowed Ricciardo to complete an'overcut'pass. Ricciardo stayed out for a lap, and emerged between Verstappen and Hamilton.
Ricciardo had a lacklustre weekend by his standards. An electrical problem in Friday practice stymied his progress, and he admitted to not having found a good rhythm come qualifying. Even in the race, Verstappen had the clear pace advantage, as the duo were separated by less than two seconds after the stops. By the finish, Ricciardo had faded to 12 s behind.
The frustrated Hamilton was right on his tail for much of the second stint before backing off on the final couple of laps after overdoing it into the hairpin, locking up and running wide - but the official results

## "MONTREAL CONFIRMS THE

## SUSPICION THAT MARANELLO HAS

 THE SHARPER RACE OPERATION"counted back two laps and gave a much more representative 0.667 s gap. He was satisfied just to finish, with the power dropouts continuing in the closing laps.

Last in the'top-six'class was Kimi Raikkonen, who had a disappointing weekend for Ferrari. He started fifth after understeering onto the grass on his key Q3 lap, then Ricciardo got alongside him into Turn 1. After running together through Turn 2, Ricciardo came out ahead and that was that.

Raikkonen, without any pressure from behind thanks to a gap to Nico Hulkenberg that was over 1 mios at the finish, stayed out until lap 32 and did a good job to emerge right on the tail of Hamilton and Ricciardo. He then lost interest in that battle, with his 16-lap tyrelife advantage over Hamilton on supersofts translating into a gap of just under six seconds by the finish.

Ferrari still ended the race delighted, with Vettel letting his emotion show in parc ferme as he celebrated an unlikely win. The Mercedes camp seemed disproportionately angry about the defeat, but that's because Canada is regarded as its territory. What Ferrari and Vettel did in Montreal confirms the suspicion that Maranello currently has the sharper race operation.
"It is a strong track for us, but all weekend long we made little mistakes from the beginning," said Mercedes team boss Toto Wolff."We have to wake up."

Things weren't that bad for Mercedes, it was just on the wrong side of many small choices and mistakes that added up to a swing in Ferrari's favour. That's how it has been all season, and on current form it may just be the same all the way to Abu Dhabi. $\boldsymbol{K}^{(k)}$

## McLaren pointless after poor weekend

McLaren failed to score in the Canadian Grand Prix as it struggled with the long straights and low-speed corners of Circuit Gilles Villeneuve. But it would have salvaged a point had Fernando Alonso not retired with an exhaust problem while running ahead of Sauber's Charles Leclerc, who went on to finish 1oth. Alonso started 14th, ahead of team-mate Stoffel Vandoorne, and ran in that spot in the early laps before getting ahead of Sergio Perez, Sergey Sirotkin and Kevin Magnussen to hold 11th. He then undercut his way past Leclerc and was set to take 1oth when Romain Grosjean finally made his stop, before Alonso toured
back to the pits. The failure was caused by a pipe to the charge air cooler breaking.
"We have some problems with the car that we need to keep improving and see what happens in the next couple of months," said Alonso.
"It was definitely disappointing and frustrating. We were not competitive this weekend, but at the same time we overtook a couple of cars at the restart and we were in the points."

Vandoorne picked up a puncture on debris on the opening lap and went on to finish 16th, with McLaren slipping to 16 points behind Renault in the battle for fourth in the constructors' championship.


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## BIG NUMBER

# 300 

Fernando Alonso celebrated his 300th grand prix entered in Canada - but only his 297th start. He failed to start Belgium 2001, USA '05 and Russia '17.


The result of the Canadian Grand Prix was declared after 68 instead of 70 laps thanks to a miscommunication between local officials and race control leading to the chequered flag being shown one lap too early.
The official on the start/finish stand, who carries the title of starter, thought race leader Sebastian Vettel was on his 7oth and final lap, and mistakenly told model Winnie Harlow to wave the flag when the Ferrari
driver was actually completing lap 69.
Drivers continued to race for the extra lap, despite the fact that at some points on the track marshals were waving multiple flags in the traditional end-of-race salute.
The situation was treated in the same way as a red flag, so the result was called based on 68 laps. There were no place changes in the top 10, although Daniel Ricciardo lost his fastest lap to Red Bull team-mate Max



Verstappen and Sergio Perez was relegated from 13th to 14th.
Race director Charlie Whiting said: "The guy that they call the starter here, who starts and finishes the races, thought it was the last lap. He asked race control to confirm it, they confirmed it, but they thought he was making a statement when he was asking a question. He just showed it a lap early, or he told the flag waver to show
it a lap early, so it wasn't anything to do with the fact that it was a celebrity flag waver."

Whiting told drivers to race to the scheduled end of the race, meaning 70 racinglaps were completed. But winner Vettel subsequently raised concerns about safety given that marshals and fans believed the race to be over.
The FIA intends to modify its procedures to prevent this happening again.

## Renault takes one-two in 'Class B'

Renault pairingNico Hulkenberg and Carlos Sainz won the midfield battle in the Canadian Grand Prix, finishing seventh and eighth to consolidate the team's fourth place in the championship. Force India had the pace to prevail, with Esteban Ocon splitting the Renaults in qualifying, then passing Hulkenberg at the start to run seventh. But he lost a couple of seconds with a problem attaching the rear jack at his sole pitstop, allowing both Renaults to jump ahead of him after they stopped.

Ocon went on to finish ninth while pressuring Sainz. Team-mate Sergio

Perez ran ninth early on, but went off at the first corner following contact with Sainz at the safety-car restart. After switching to a two-stop strategy, he was classified 14th on countback - he had passed Kevin Magnussen for 13th, but the chequered flag was shown early.
Perez was attempting to pass Sainz on the outside when he turned in, with the duo making contact. Stewards investigated the incident, but took no action.
"I was surprised that we didn't see any penalty because I was ahead and Itried to give as much room as possible to make sure both cars went into the corner," said Perez.
Q\&A TOTO WOLFF
Mercedes team boss after Lewis Hamilton lost the lead in the world championship to Sebastian Vettel.

## Mercedes has been dominant in the past, but there is a new dynamic now. How does that feel?

There's not really a pattern. On some tracks we were dominant but then others we struggled. The margins have become so tight - five cars within a tenth. This is why this year's championship is going to be decided by the ones who make the least mistakes and bring the best development on every single weekend. That is the new reality. It's a three-way fight, six cars can win races.

## Are you worried that more errors are creeping into the team due to more pressure?

You need to get the right balance between pushing development very hard and adding performance to the car and keeping reliability. This team has been extremely strong in the past at keeping the reliability at high levels. That is not a part that worries me. It is more that we have seen that Ferrari was the stronger car. Stronger in qualifying, stronger in the race. At no time did we have a real chance to fight for the win.

## Did you have high expectations coming here?

We came to Montreal expecting our car to be really strong and we are leaving seeing we haven't been where we thought we should be. I still think we are not pretty good in Monaco or Singapore, that may be the odd outlier, but you need to expect people to be strong everywhere.

Are you confident everything is now sorted on the upgraded engine you didn't bring here?
I'm the opposite of confident. I think this is - and we've had it in the past a major wake-up call for every single member of the team. Everybody needs to assess how to improve performance in order to optimise those marginal gains because they are going to make all the difference.

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# Hartley sent to hospital after shunt 

BrendonHartley was given the all-clear after being transferred to hospital following his first-lap crash during the Canadian Grand Prix.
The under-pressure New Zealander was battling with Williams driver Lance Stroll as the duo went through the Turn 5 right-handkink. Stroll left room for Hartley on the outside, but the rear end stepped out and as he corrected it sent the car wide and into Hartley.

The resulting contact pushed Hartley's Toro Rosso up against the wall, with the left side being lifted onto the barrier. After dropping off the end of the barrier, the Toro Rosso remained locked to the Williams and both endedup in the wall at Turn 6 .
Because of the severity of the crash, both drivers were sent to the medical centre, with Hartley dispatched to hospital for two electrocardiogram tests. Both came up normal
andHartley subsequently returned to the track.
"Ihad a good start, similar to the drivers around me, but I got left abit on the outside of Turn 2, which lost me a position," said Hartley."I got a good run on Lance out of Turn 4 on the outside, but he lost the car, which put us both into the wall. It's very disappointing as there was room to make the overtake."
Stewards investigated the incident but took no action. Although Stroll's error caused the clash, the collision was a result of the rear stepping out while he was trying to leave room and it was deemed that no driver was wholly or predominantly to blame.
"I was side-by-side with Brendon going into Turn 5, the car got loose on me and I corrected it, but there was not much room for both of us,"said Stroll. "By the time I corrected it, we touched and went into the wall."


## Latifi makes F1 weekend debut

Formula 2 race winner Nicholas Latifi made his first on-track appearance on a grand prix weekend, running in free practice one for Force India.
The 22-year-old Canadian took over Sergio Perez's car, completing 28 laps and ending the session 19th. He lapped 2.074 seconds off team-mate

Esteban Ocon's pace during the session, having previously driven the 2018 Force India in last month's Barcelonatest.
"Lap times were not really my goal today and I was just focusing on doing my job for the team," said Latifi."For example, we did lots of aero runs to give the team the data we needed."

## Engine upgrades for Canada

Renault,Ferrari and Honda all introduced engine upgrades during the Canadian Grand Prix weekend.

All three brought modified V6s, with particular focus on the performance of Honda and Renault given Red Bull's imminent decision on whether to switch to the Japanese manufacturer for 2019.

Toro Rosso hit trouble with one of its'phase 2'engines, with Gasly forced to switch to the old spec before qualifying. The team then decided to take a grid penalty to put in a new version of the phase 2 engine for the race to maximise the data gathered a sensible move given Brendon Hartley in the other Toro Rosso crashed out on the opening lap.
"From what I hear they've made a good step this weekend and


Renault have brought what they advertised as well,"said Red Bull team principal Christian Horner. "So we have a lot of data to go away and analyse and look at the performance."

Mercedes had planned to introduce an upgrade, but delayed this after concerns during dyno testing. Both Lewis Hamilton and Valtteri Bottas used the engines they had run since the start of the season, which were originally scheduled to be brought back and raced for the final time at the Hungarian GP in July.


| FREE PRACTICE 1 |  |  |
| :---: | :--- | ---: |
| POs | DRIVER | TIME |
| 1 | Verstappen | 1 m 13.302 s |
| 2 | Hamilton | 1 m 13.390 s |
| 3 | Ricciardo | 1 m 13.518 s |
| 4 | Vettel | 1 m 13.574 s |
| 5 | Bottas | 1 m 13.617 s |
| 6 | Raikkonen | 1 m 13.727 s |
| 7 | Alonso | 1 m 13.900 s |
| 8 | Sainz | 1 m 14.116 s |
| 9 | Vandoorne | 1 m 14.311 s |
| 10 | Gasly | 1 m 15.004 s |
| 11 | Ocon | 1 m 15.071 s |
| 12 | Grosjean | 1 m 15.119 s |
| 13 | Ericsson | 1 m 15.386 s |
| 14 | Leclerc | 1 m 15.439 s |
| 15 | Magnussen | 1 m 15.579 s |
| 16 | Hartley | 1 m 15.756 s |
| 17 | Sirotkin | 1 m 15.768 s |
| 18 | Stroll | 1 m 16.259 s |
| 19 | Latifi | 1 m 17.145 s |
| 20 | Hulkenberg | $n o t i m e$ |

WEATHER 21C, sunny

| FREE PRACTICE 2 |  |  |
| :---: | :--- | ---: |
| POs | DRIVER | TIME |
| 1 | Verstappen | 1 m 12.198 s |
| 2 | Raikkonen | 1 m 12.328 s |
| 3 | Ricciardo | 1 m 12.603 s |
| 4 | Hamilton | 1 m 12.777 s |
| 5 | Vettel | 1 m 12.985 s |
| 6 | Bottas | 1 m 13.061 s |
| 7 | Grosjean | 1 m 13.620 s |
| 8 | Ocon | 1 m 13.747 s |
| 9 | Perez | 1 m 13.754 s |
| 10 | Alonso | 1 m 13.866 s |
| 11 | Leclerc | 1 m 13.884 s |
| 12 | Hartley | 1 m 13.889 s |
| 13 | Magnussen | 1 m 13.956 s |
| 14 | Hulkenberg | 1 m 13.967 s |
| 15 | Ericsson | 1 m 14.108 s |
| 16 | Vandoorne | 1 m 14.167 s |
| 17 | Sainz | 1 m 14.433 s |
| 18 | Gasly | 1 m 14.486 s |
| 19 | Stroll | 1 m 14.703 s |
| 20 | Sirotkin | 1 m 14.782 s |

WEATHER 24C, sunny

FREE PRACTICE 3

| POS | DRIVER | TIME |
| :---: | :--- | ---: |
| 1 | Verstappen | 1 m 11.599 s |
| 2 | Vettel | 1 m 11.648 s |
| 3 | Raikkonen | 1 m 11.650 s |
| 4 | Hamilton | 1 m 11.706 s |
| 5 | Ricciardo | 1 m 12.153 s |
| 6 | Bottas | 1 m 12.255 s |
| 7 | Perez | 1 m 12.903 s |
| 8 | Hulkenberg | 1 m 12.946 s |
| 9 | Grosjean | 1 m 13.014 s |
| 10 | Vandoorne | 1 m 13.034 s |
| 11 | Ocon | 1 m 13.064 s |
| 12 | Hartley | 1 m 13.076 s |
| 13 | Alonso | 1 m 13.225 s |
| 14 | Sainz | 1 m 13.331 s |
| 15 | Gasly | 1 m 13.334 s |
| 16 | Leclerc | 1 m 13.452 s |
| 17 | Magnussen | 1 m 13.488 s |
| 18 | Sirotkin | 1 m 13.818 s |
| 19 | Ericsson | 1 m 13.925 s |
| 20 | Stroll | 1 m 13.968 s |

WEATHER 24C, sunny

| QUALIFYING 1 |  |  | QUALIFYING 2 |  |  | QUALIFYING 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| pos | DRIVER | time | POS | DRIVER | time | pos | DRIVER | time |
| 1 | Vettel | $1 \mathrm{ml1.710s}$ | 1 | Ricciardo | 1 m 11.434 s | 1 | Vettel | 1 ml 10.764 s |
| 2 | Raikkonen | 1 m 11.725 s | 2 | Verstappen | 1 m 11.472 s | 2 | Bottas | 1 m 10.857 s |
| 3 | Hamilton | $1 \mathrm{ml1.835s}$ | 3 | Bottas | 1 m 11.514 s | 3 | Verstappen | 1 m 10.937 s |
| 4 | Bottas | $1 \mathrm{ml1.950s}$ | 4 | Vettel | 1 m 11.524 s | 4 | Hamilton | 1 m 10.996 s |
| 5 | Verstappen | 1 m 12.008 s | 5 | Raikkonen | 1 m 11.620 s | 5 | Raikkonen | 1 m 11.095 s |
| 6 | Ricciardo | 1 m 12.459 s | 6 | Hamilton | 1 m 11.740 s | 6 | Ricciardo | 1 m 11.116 s |
| 7 | Ocon | 1 m 12.577 s | 7 | Hulkenberg | 1 m 11.916 s | 7 | Hulkenberg | 1 m 11.973 s |
| 8 | Hartley | 1 m 12.587 s | 8 | Sainz | 1 m 12.097 s | 8 | Ocon | 1 m 12.084 s |
| 9 | Magnussen | 1 m 12.680 s | 9 | Ocon | 1 m 12.141 s | 9 | Sainz | 1 m 12.168 s |
| 10 | Sainz | 1 m 12.689 s | 10 | Perez | 1 m 12.395 s | 10 | Perez | 1 m 12.671 s |
| 11 | Perez | 1 m 12.702 s | 11 | Magnussen | 1 m 12.606 s | WEATH | R 23C, sunny |  |
| 12 | Hulkenberg | 1 m 12.795 s | 12 | Hartley | 1 m 12.635 s |  |  |  |
| 13 | Leclerc | 1 m 12.945 s | 13 | Leclerc | 1 m 12.661 s |  |  |  |
| 14 | Alonso | 1m12.979s | 14 | Alonso | 1 m 12.856 s |  |  |  |
| 15 | Vandoorne | 1 m 12.998 s | 15 | Vandoorne | 1 m 12.865 s |  |  |  |
| 16 | Gasly | 1 m 13.047 s |  |  |  |  |  |  |
| 17 | Stroll | 1 m 13.590 s |  |  |  |  |  |  |
| 18 | Sirotkin | 1 m 13.643 s |  |  |  |  |  |  |
| 19 | Ericsson | 1m14.593s |  |  |  |  |  |  |
| 20 | Grosjean | notime |  |  |  |  |  |  |

SEASON STATS

| DRIVERS' $\mathbf{C H A M P I O N S H I P}$ |  |  |
| :---: | :--- | ---: |
| 1 | Vettel |  |
| 2 | Hamilton | 121 |
| 3 | Bottas | 86 |
| 4 | Ricciardo | 84 |
| 5 | Raikkonen | 68 |
| 6 | Verstappen | 50 |
| 7 | Alonso | 32 |
| 8 | Hulkenberg | 32 |
| 9 | Sainz | 24 |
| 10 | Magnussen | 19 |
| 11 | Gasly | 18 |
| 12 | Perez | 17 |
| 13 | Ocon | 11 |
| 14 | Leclerc | 10 |
| 15 | Vandoorne | 8 |
| 16 | Stroll | 4 |
| 17 | Ericsson | 2 |
| 18 | Hartley | 1 |
| 19 | Grosjean | 0 |
| 20 | Sirotkin | 0 |



| CONSTRUCTORS'CHAMPIONSHIP |  |  |
| :---: | :--- | ---: |
| $\mathbf{1}$ | Mercedes |  |
| 2 | Ferrari | 206 |
| 3 | Red Bull | 189 |
| 4 | Renault | 134 |
| 5 | McLaren | 46 |
| 6 | Force India | 40 |
| 7 | Toro Rosso | 28 |
| 8 | Haas | 19 |
| 9 | Sauber | 19 |
| 10 | Williams | 12 |


| QUALIFYing battle |  |  |  |
| :--- | :--- | :--- | ---: |
| Hamilton | 4 | 3 | Bottas |
| Vettel | 6 | 1 | Raikkonen |
| Ricciardo | 2 | 4 | Verstappen |
| Perez | 2 | 5 | Ocon |
| Stroll | 3 | 4 | Sirotkin |
| Hulkenberg | 5 | 2 | Sainz |
| Gasly | 3 | 3 | Hartley |
| Grosjean | 2 | 4 | Magnussen |
| Vandoorne | 0 | 7 | Alonso |
| Ericsson | 2 | 5 | Leclerc |


| wins |  |  |  |
| :--- | :--- | :--- | :--- |
| Vettel |  |  | 3 |
| Hamilton |  |  | 2 |
| Ricciardo |  |  | 2 |
|  |  |  |  |
| FAStESTLAPS |  | POLE POSITIONS |  |
| Ricciardo | 3 | Vettel | 4 |
| Bottas | 2 | Hamilton | 2 |
| Verstappen | 2 | Ricciardo | 1 |

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RACE RESULTS 68 LAPS-185.52 MILES

| pos | DRIVER | time | GAP | LAP |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Verstappen | 1 m 13.864 s | - | 65 |
| 2 | Vettel | 1 m 13.964 s | +0.100s | 57 |
| 3 | Bottas | 1m13.992s | +0.128s | 51 |
| 4 | Raikkonen | 1 m 14.075 s | +0.211s | 59 |
| 5 | Ricciardo | 1m14.159s | +0.295s | 59 |
| 6 | Hamilton | 1m14.183s | +0.319s | 66 |
| 7 | Perez | 1 m 15.100 s | +1.236s | 64 |
| 8 | Magnussen | 1m15.401s | +1.537s | 65 |
| 9 | Grosjean | 1m15.470s | +1.606s | 56 |
| 10 | Leclerc | 1 m 15.480 s | +1.616s | 65 |
| 11 | Hulkenberg | 1 m 15.588 s | +1.724s | 64 |
| 12 | Ocon | 1 m 15.610 s | +1.746s | 61 |
| 13 | Sainz | 1m15.666s | +1.802s | 61 |
| 14 | Gasly | 1 m 15.699 s | +1.835s | 67 |
| 15 | Vandoorne | 1 m 15.765 s | +1.901s | 55 |
| 16 | Sirotkin | 1 m 15.924 s | +2.060s | 53 |
| 17 | Alonso | 1m16.180s | +2.316s | 33 |
| 18 | Ericsson | 1 m 16.403 s | +2.539s | 62 |
| - | Hartley | notime | - | - |
| - | Stroll | notime | - | - |

WEATHER20C, cloudy TYRES n -New set U-Used set Available| SH-Superhard H-Hard M-Medium S-Soft SS-Supersoft US-Ultrasoft HS-Hypersoft Int-Intermediate W-Wet WINNER'S AVERAGE SPEED 124.90 mph FASTEST LAP AVERAGE SPEED 132.08 mph



# NOBODY'S PERFECT ON THE CANADIAN SCOREBOARD 

Bottas, Vettel, Verstappen, Leclerc and a back-on-form Grosjean all stood out, but no-one shone brightly enough to rate full marks

MERCEDES


7Looked good on Friday, but life got harder even though he reckoned pole position was achievable but for struggles on the brakes at the hairpin. But he should certainly have been on the front row. Power dropouts compromised his race, but did a solid job even though he lost a place to Ricciardo.

FERRARI


A very strong weekend, with the sole criticism that he perhaps should have got another tenth or so out of the car in qualifying. Not that it mattered, given he set two laps good enough for pole. Controlled the race superbly, and translated a slender pace advantage into a comfortable victory.
 run he ran wide out of Turn 2 and had to abort the lap. And, after doing a good job in his first stint to emerge from the pits on the tail of Ricciardo and Hamilton, he faded despite a significant tyre-age advantage.

## RED BULL



7Was very much the second Red Bull driver, which can only be partly explained by losing track time on Friday to an electrical problem. Admitted he never got into a good rhythm, and was not as fast as his team-mate in race conditions, but executed his overcut on Hamilton well to secure fifth.

because he could easily have refused to cede to Bottas at Turn 2 after briefly getting ahead off the line. This is exactly what he needed after a run of mishaps. The high rating reflects how much pressure he had to deliver under.

## FORCE INDIA



6Disappointing in Q3, and his race came undone when he tried a move on Sainz at the restart, but then turned in when the Renault was unable to disappear on his inside and played a part in their collision. Didn't deserve to lose a place to the chequered-flagerror countback.


9Became only the second driver to outqualify Hamilton in the same equipment at Montreal, which is an achievement in itself. Also did a good job to stay ahead of Verstappen despite some wheelspin at the start, then hold him off while fuel-saving late on, which ensures he gets such a high rating.

## WILLIAMS



$\square$Outqualified Sirotkin, although he admitted he lost a quarter of a second to an error on his final run. Was to blame for the crash that ended his race on lap one, but at least was trying to leave room when the rear stepped out, forcing a correction and flicking him into Hartley's Toro Rosso.


Lost out to Stroll in qualifying and said he was unable to get the tyres in the window in Q1. But made a good fist of the race, holding off some quicker cars in the early stages before gradually regressing to the Williams mean in last. In the slowest car, he did well to run ahead of others for a while.

RENAULT


1Bounced back from losing most of first practice to a gearbox problem and a shunt. Took 'Class B' pole, converting that into a race 'win'. Sole criticism was he fell behind Ocon at the start, which wasn't too costly because the Force India driver's slow stop allowed him to jump back ahead.


7A good weekend for Sainz, but one on which he was slightly slower than his team-mate in qualifying and therefore behind in the race. He did well to survive the clash with Perez, and once he got back ahead of Ocon in the stops he held firm under pressure in the closing stages.


## TORO ROSSO



1Showed a good turn of pace, but didn't deliver in qualifying, with traffic and an enforced return to the phaseone Honda engine holding him back. Equipped with the phase-two engine on Sunday, he came from the back to finish just 4.3 s off the points. A decent weekend's work.


1Toro Rosso's bid to replace him didn't affect his performance, and he did a tidy job in qualifying to take 12th on the grid. You could argue he took a risk leaving his car on the outside of Stroll in Turn 5, but it was far from an unreasonable place to be and it was Stroll's error that took him out. Unfortunate.

## HAAS



1 This won't have been obvious, but Grosjean was back on form in the revised Haas. Bad luck hitting a groundhog in Friday practice, then suffering a turbo-related failure at the start of qualifying - sent him to the back, but he showed he had the legs of Magnussen in the race.

The race showed Grosjean's pace advantage as he reeled in Magnussen and finished ahead thanks to running longer in the first stint. His least-convincing performance of what has been a strong season so far.


## McLAREN

7Matched Alonso in qualifying, but lost places through the first two corners and then picked up a puncture. Thereafter, played a game of catch-up without the car to make a success of it, especially with some ERS problems that condemned him to an afternoon at or near the back.


8 On a weekend when McLaren was struggling, Alonso only shaded Vandoorne in qualifying. But he was on course at least to grab a point before an exhaust-related problem forced him out. Even though the car wasn't anywhere near its best, this was a slightly subdued performance.

$\qquad$ Alon problem forced him
$\qquad$
$\qquad$

## SAUBER



1 Continues to do a decent job in the races, but is being badly let down by his qualifying performance relative to Leclerc. This time, his Q1 exit was down to hitting the wall. Lost time in traffic in the race, but still didn't look as strong as Leclerc. Is now seeking set-up changes to rediscover his form.


1Another excellent performance for Leclerc, making Q2 for the fourth time out of seven and bagging a couple of points. Given the car looked a handful at times, this was a very good performance, as it wouldn't have taken much for him to have finished a place or two lower.



#### Abstract

號


## VETTEL'S HALF CENTURY

The four-time world champion scored his 50th F1 victory - from 205 starts - in Canada, becoming only the fourth driver to reach the milestone

KEVIN TURNER




21
Indian GP
2011
Car Red Bull RB7
Started 1st
Winning margin 8.433 s (Jenson Button)
$22^{\text {Eaharain } 6 P}$ 222012
Car Red Bull RB8 Started 1st
Winning margin 3.333 s (Kimi Raikkonen)

## 2 Singapore GP 132012

Car Red Bull RB8 Started 3rd Winning margin 8.959s (Jenson Button)

## - 4 Japanese GP <br> - 2012

Car Red Bull RB8
Started 1st
Winning margin 20.639s (Felipe Massa)

## - Korean GP 12012

Car Red Bull RB8 Started 2nd Winning margin 8.231 s (Mark Webber)

## $26^{\text {Indian } 6 P}$ 26

Car Red Bull RB8
Started 1st
Winning margin 9.437s (Fernando Alonso)

## 7 Malaysian GP <br> - 2013

Car Red Bull RB9
Started 1st
Winning margin 4.298 s (Mark Webber)

## 28 Bahrain GP $28^{2013}$

Car Red Bull RB9
Started 2nd
Winning margin 9.111s (Kimi Raikkonen)

## $\mathbf{2 9}_{2013}^{\text {Canadian GP }}$ <br> 292013

Car Red Bull RB9
Started 1st
Winning margin 14.408 s
(Fernando Alonso)

## $30_{2013}^{\text {German GP }}$ <br> Car Red Bull RB9

Started 2nd
Winning margin 1.008 s (Kimi Raikkonen)

## $31^{\text {Radegincep }}$ 2013

Car Red Bull RB9
Started 2nd
Winning margin 16.869s (Fernando Alonso)

## $32_{2013}^{\text {Italian } G P}$

Car R Started 1st
Winning margin 5.467 s (Fernando Alonso)

## 33 Singapore GP 32013

Car Red Bull RB9
Started 1st
Winning margin 32.627 s (Fernando Alonso)

## 34 Korean GP - 2013

Car Red Bull RB9
Started 1st
Winning margin 4.224 s (Kimi Raikkonen)

## $35^{\text {Japanese GP }}$ $35_{2013}$

Car Red Bull RB9
Started 2nd
Winning margin 7.129 s
(Mark Webber)


his was bound to happen eventually. Lucas di Grassi finally won a Formula E race for the first time in the 2017-18 season, and longtime championship leader Jean-Eric Vergne eventually ran out of luck.
That di Grassi and fellow FE grandee Sebastien Buemi were still to score a season-four race win heading to Zurich was a glaring anomaly for the electric series. But while Buemi's wait for a victory goes on, di Grassi turned his season around in style.
He'd come close before. After the inverter problems that blighted the opening races of Audi's championship were fixed, he began a remarkable run of form, with four runner-up spots in a row from Punta del Este to Berlin. Only a penalty for clipping a bollard in qualifying in Punta, and Vergne's sterling defence from an inherited pole, denied him what would almost certainly have been a duck-breaking season-four triumph in Uruguay.
For Vergne, a trio of fifth places in

Marrakech, Mexico City and Rome represented his worst finishing positions of the season so far as he arrived in Zurich. But, along with his good fortune in Punta, two of those fifths had only been possible thanks to other drivers retiring or dropping down the order late on. The Techeetah Renault driver seemed to be enjoying the classic motorsport cliche of 'championships are won with good results on off days', and could have conceivably clinched the title last Sunday had things played out differently.
"I said before this that we were probably going to be thrown a curveball in Zurich -
> "We knew where we were on race pace, but in general the others were slower than we expected"
we had to have our turn of the Formula E craziness," said Techeetah team boss Mark Preston. "We seemed to get all of it in one." Indeed they did.
After a soggy and last-minute build-up - the lateness of the track's completion necessary to keep the race's impact on the city to an absolute minimum - the 1.531-mile Zurich Street Circuit made a rather glorious FE debut. It featured the longest straight in the championship's history on the run from the classically FE-tight chicane to Turn 10, and many drivers were also predicting new top-speed records - although some were less hopeful as the teams had had to submit their gearratio choices ahead of the campaign.
It was roasting hot right from the off on race day, which meant "we knew it was going to be tough because of the temperatures" and battery cooling would be a key limiting factor, according to di Grassi. The Brazilian topped FP 1 , which still stood as the morning's fastest time following FP2, but the recent Audi trait of not carrying form

from practice through to qualifying - where di Grassi ran in group two - and which was banished in Berlin, returned. The 2016-17 champion had to settle for fifth on the grid. By missing the points for pole, his already minuscule chances of a successful title defence were finally extinguished for good.
But things were worse for Vergne. The Frenchman was the first driver out on track in group one and he endured a "nightmare" session as his time left him bottom of the opening group and staring at a lowly grid spot. As the hour wore on, he was shuffled down to 17th place - his worst position of the season so far and the joint-worst of his FE career. Compounding matters for Vergne, who reportedly had to take a quick dip in the lake to cool off ahead of the race, his nearest championship challenger Sam Bird made it through to superpole and lined up third behind Andre Lotterer and Mitch Evans.

In what was a first piece of FE history for Jaguar (see panel, right), Evans was simply scintillating against the clock in Zurich, riding the track's prominent bumps in
confident and attacking fashion, and ending up with his first category pole after also topping the group qualifying times.
"Going last in superpole, that's a pressure situation, but he dealt with that well and absolutely smashed a fantastic lap together," said Jaguar team director James Barclay.

But while Evans was the star of qualifying, di Grassi made the race his own. After a low-key start - the former Virgin Formula 1 driver did make it up to fourth by passing another qualifying hero, Dragon's Jerome d'Ambrosio, on the second lap, but remained behind the top three for the next 11 laps - he then began his charge.

Bird, who had harried Lotterer as they pursued Evans in the early stages, the duo methodically eroding the New Zealander's early two-second advantage throughout the first third of the race's 39 laps, was his first victim. Heading into Turn 10 on lap 13, di Grassi sent his car down the inside of Bird's DS Virgin Racing machine to clinically seal the move at the hairpin.
One of the Audi's main strengths is the strong efficiency of its powertrain, which handed di Grassi an energy advantage over his rivals that he put to good use. Lotterer, already one of FE's fiercest defensive drivers despite his rookie status (although that is somewhat unsurprising given his vast motorsport experience), looked as if he would stunt di Grassi's progress. But the triple Le Mans winner could only defy his former Audi stablemate for so long, and di Grassi forced his way to the inside of the fast Turn 1 right-hander at the beginning of lap 16 to take second.

From there, he romped after Evans and, at the start of lap 18, he blasted by on the start-finish straight to move into the lead. It looked almost too easy. "We knew where we were on race pace, but in general the others were slower than we expected," said Audi team principal Allan McNish. "In qualifying they were a bit quicker than we expected, and they were a bit slower in the race."

While di Grassi had been making his way to the front serenely, Vergne was slicing through the order in swashbuckling style. By lap nine he had carved his way up to 1oth, setting a swathe of fastest laps as he did so, and making good on his pre-race promise not to "drop my weapons" in wheel-to-wheel combat. What was even more impressive was that he did so while maintaining similar energy levels to those running at the front of the race.

But, again, things got worse for Vergne. As he attempted to pass Felix Rosenqvist for eighth place at Turn 1 on lap 17, the Swede "just tried to let him go", but Vergne was still alongside at the apex. Rosenqvist therefore felt he had no choice but to hit the outside barrier to avoid a collision.
"In the last moment he was just there, so to avoid touching him I just had to take a line to leave him the room, and with that line being in the dirt I couldn't make the >>

CELESTIALEVANS


Motor racing's return to Switzerland wasn't the only bit of history that took place in Zurich, as Jaguar finally scored its first Formula E pole position, thanks to Mitch Evans.

It was a superb lap from the New
Zealander. He went noticeably wider than most of his rivals on the bumpy approach to Turn 1 and then effortlessly carried speed through the ensuing tight 90 -degree turns. He lagged slightly behind Sam Bird and Andre Lotterer through sector one, but a fastest split in the second segment provided enough momentum to pip Lotterer also seeking his first FE pole - to the top spot by 0.137 seconds.
"He did a fantastic job," Jaguar team director James Barclay said of Evans. "Running last in superpole, he kept his cool and that was a really nice thing to see - a driver who's gaining maturity, building confidence in his ability."

Evans didn't have the race pace to escape his pursuers early on, which left him somewhat defenceless when Lucas di Grassi cruised up behind him.
"It maybe looked quite straightforward for Lucas, but we didn't want to create complexity at that point," Barclay explained.

Barclay reckons
Formula E-style
"AREALLY NICE
MILESTONE,
A NiCE
BOOST"
BARCLAY
circuits (bumpy,
with tight-radius corners) such as Zurich play to the Jaguar's strengths. The team still has work to do to improve its race pace and energy management compared to its rivals - particularly Audi - but this was nevertheless an important moment for the team.
"A really nice milestone," said Barclay. "A nice boost - we know what we can do now, and we know what we're capable of, and that's a nice thing to have in the locker as we move forward."

## IN THE HEADLINES



## POINTLESS PROST

## DENIED SCORE AGAIN

Nico Prost's run of races without a point is now up to six, but the e.dams Renault man (above) deserved more than he went away with in Zurich. He qualified a commendable 0.023 s behind team-mate Sebastien Buemi, and was running close to Jerome d'Ambrosio when "the battery cut out under braking at the hairpin" and he went straight into the barriers, where "I couldn't restart the car".

## BATTERY SENSOR IS

 LATEST LYNN DRAMAAlex Lynn finished a lapped last after "we had a battery sensor fail with 10 laps to go in the first stint". He had to nurse the car to the pitstops, and after that "strategically the race was done". It was a tough day for Lynn as he was also given a three-place grid penalty for leaving his pitbox too early in qualifying.

## UMBRELLAS CREATE HIGH-TECH SOLUTION

The enormous wooden structure that housed the teams' garages and a host of corporate guests created a potential competitive advantage for some squads, as it shielded their cars from the sun. To ensure parity, and ward off complaints, the FIA allowed the other teams to cover the wheels of a car that made it through to superpole with umbrellas.

## ABT ZAPPED BY PIQUET, AND WING FALLS OFF

Berlin winner Daniel Abt was brought down to earth with a bump from Jaguar's Nelson Piquet on lap one. The duo collided as they went through the tight Turns 7/8 chicane, which caused the Audi driver's rear wing to fall off and damaged Piquet's front equivalent, and both were forced to pit for repairs. After an impressive 13-second rear-wing change, Abt rejoined but could only finish 13th, while Piquet retired after 20 laps with a broken driveshaft.
corner, so I just crashed in the wall," said the Mahindra Racing driver, who is also now officially out of the title hunt.

Rosenqvist reversed out of the barrier and escaped, but lost his front wing a few corners later. On the next tour, Vergne hit the debris as he fought past d'Ambrosio for seventh - which he survived seemingly without issue - but it forced the race officials to throw a full-course yellow that ignited controversy a short while later.

The leaders piled into the pits, where things, yet again, got worse for Vergne. As he jumped into his second car it "didn't slot into gear and I lost six, seven seconds", which dropped him back to ninth.

When the racing resumed, di Grassi held a commanding 2.5 s lead, and his situation looked even better when it was announced that Lotterer (now ahead of Evans in second), Evans, Buemi, Jose Maria Lopez and Vergne were under investigation for FCY infringements. Sure enough, the first four of those were hit with drivethrough penalties, and then a little while later things got worse again for Vergne when he too had the same sanction confirmed.

In the immediate aftermath of the race, confusion reigned over exactly what had caused such a high number of FCY infractions. Was it to do with the different software required for Zurich's $30 \mathrm{~km} / \mathrm{h}$ cobbled pitlane interfering with the usual $50 \mathrm{~km} / \mathrm{h}$ FCY speed setting? Had the drivers misheard the five-second countdown or misread the trackside boards? No-one seemed quite sure.

It later transpired that Lotterer, Evans and Lopez had failed to slow sufficiently in time for the FCY coming into effect, while Vergne and Buemi were pinged for hitting the accelerator too early at the end of the suspension period.

Ultimately, what all that chaos meant was that with eight laps remaining - as the guilty parties served their penalties - di Grassi had a 7.9s lead over Bird, with d'Ambrosio up to third. The trio held these positions to the finish, with di Grassi sealing his first FE win since Montreal last July by 7.5 s, while d'Ambrosio recorded his first podium finish since Battersea Park in July 2016.


Lotterer finished fourth ahead of Buemi, who at one stage before the FCY fun had demoted Bird to fifth and was running well in the mix in fourth. Nick Heidfeld, another penalty beneficiary, was sixth from Evans, who faded late on in both stints. Antonio Felix da Costa finished eighth ahead of Oliver Turvey, who defied Vergne's final charge back from 11th after his penalty. Lopez placed 12th after nosing into the barriers at Turn 1 in the final laps.

It may not have been quite as dominant as it was in Berlin, but McNish was still delighted with his squad's historic performance to seal the first victory in a motor race in Switzerland in 64 years almost as pleased as he was to hear Scotland had beaten England in the cricket one-day international in Edinburgh the same day.
"To come away with the victory as the first team to have done it, and Lucas as the first driver to have done it, is really special," he said, still wet from a celebratory dip in the lake.
"Winning this race was easier than finishing second in Paris or Rome, but of course winning is always good and



I had a fantastic car today," said a delighted di Grassi. "We've been very unlucky the first half of this season and now the luck has turned - five consecutive podiums I think is a record, and to win in Zurich is the cherry on the cake."

Despite all that happened to him over the course of the day, Vergne was bullish about his performance, calling it "the best drive I've ever had in Formula E". But, even with all his efforts, his pre-event 40-point lead has been slashed to 23. And Bird won both races in New York - where FE heads next for its climax - last year.
"It feels very frustrating to score only one point knowing I could have finished second - but on the other hand I have a lot of margin in the championship," Vergne reflected. "I have a very good car - I am very motivated to put this weekend [behind me ] and have the next one very good. Last year in New York we were very quick, so I'm feeling very confident."

Bird had not been giving too much away ahead of the Zurich race on his championship chances, but it was clear he'd adopted a never-give-up approach. He was frustrated at the "missed opportunity to get three extra points for pole", but gave it his all in the race, profiting from the penalties, which he acknowledged gave him a "little bit of luck". But he rightly pointed out: "There are rules in motorsport and if you don't abide by them, then you can get penalties".
Buemi's Montreal meltdown in 2017 may have been unthinkable last season, but his plight offers Bird hope in the title fight, and FE the tantalising prospect of a fourth successive championship going to the wire. For Bird, it's clear what he needs to do next.
"I need to beat him in the first race in New York, end of story," he said. "I need to put the pressure for race two, and if I can do that then there's a chance." $\boldsymbol{*} \boldsymbol{*}$


| pos | DRIVER | team/CAR | time |
| :---: | :---: | :---: | :---: |
| 1 | Lucas di Grassi (BR) | Audi SportAbt/Audie-tron FE04 | 51m19.811s |
| 2 | Sam Bird (GB) | DSVirgin Racing/DSVirgin DSV-03 | +7.542s |
| 3 | Jeromed'Ambrosio (B) | Dragon Racing/Penske EV-2 | +16.822s |
| 4 | Andre Lotterer (D) | Techeetah/RenaultZ.E. 17 | +20.295s |
| 5 | Sebastien Buemi (CH) | Renaulte.dams/RenaultZ.E. 17 | +26.692s |
| 6 | Nick Heidfeld (D) | Mahindra Racing/Mahindra M4ELECTRO | +28.059s |
| 7 | Mitch Evans (NZ) | Jaguar/Jaguarl-type 2 | +30.631s |
| 8 | Antonio Felix da Costa (P) | Andretti/Andretti ATEC-03 | +31.301s |
| 9 | Oliver Turvey (GB) | NIO/NextEVNIO 003 | +32.180s |
| 10 | Jean-Eric Vergne (F) | Techeetah/RenaultZ.E. 17 | +32.833s |
| 11 | Maro Engel(D) | Venturi/VenturiVM200-FE-03 | +34.604s |
| 12 | Jose Maria Lopez(RA) | Dragon Racing/Penske EV-2 | +35.206s |
| 13 | DanielAbt (D) | Audi SportAbt/Audie-tron FE04 | +46.222s |
| 14 | Stephane Sarrazin (F) | Andretti/Andretti ATEC-03 | +1m09.505s |
| 15 | Felix Rosenquist(S) | Mahindra Racing/Mahindra M4ELECTRO | -1 lap |
| 16 | AlexLynn (GB) | DSVirgin Racing/DSVirgin DSV-03 | -1 lap |
| R | Nicolas Prost(F) | Renaulte.dams/RenaultZ.E. 17 | 31laps-battery/accidentdamage |
| R | Luca Filippi (I) | NIO/NextEVNIO003 | 20 laps-brakes |
| R | Nelson Piquet Jr (BR) | Jaguar/Jaguar --type2 | 20 laps-driveshaft |
| R | Edoardo Mortara (1) | Venturi/VenturiVM200-FE-03 | 6 laps-suspension |

Winner's average speed 69.825 mph . Fastest lap Lotterer $1 \mathrm{~m} 14.730 \mathrm{~s}, 73.786 \mathrm{mph}$.

## SUPERPOLE

1Evans 1m12.811s; 2 Lotterer 1m12.948s;3 Bird 1m13.022s;4d'Ambrosio 1m13.096s;8Lopez 1m13.927s*.

## QUALIFYING

Evans1m12.594s; d'Ambrosio 1m12.857s;Lopez 1m12.877s;Lotterer 1m12.906s; Bird 1m12.981s;5diGrassi1m13.042s; 6Buemi $1 \mathrm{~m} 13.061 \mathrm{~s} ; 7$ Prost $1 \mathrm{~m} 13.084 \mathrm{~s} ; 9$ Abt $1 \mathrm{~m} 13.107 \mathrm{~s} ; 10$ Rosenqvist $1 \mathrm{~m} 13.214 \mathrm{~s} ; 11$ Piquet $1 \mathrm{~m} 13.380 \mathrm{~s} ; 12$ Heidfeld 1m13.405s; 13 Mortara $1 \mathrm{~m} 13.413 \mathrm{~s} ; 14$ da Costa $1 \mathrm{~m} 13.422 \mathrm{~s} ; 15$ Lynn $1 \mathrm{~m} 13.393 s^{*}$; 16 Sarrazin $1 \mathrm{~m} 13.500 \mathrm{~s} ; 17$ Vergne $1 \mathrm{~m} 13.524 \mathrm{~s} ; 18$ Engel $1 \mathrm{~m} 13.541 \mathrm{~s} ; 19$ Filippi $1 \mathrm{~m} 14.067 \mathrm{~s} ; 20$ Turvey 1 m 14.139 s . ${ }^{*}$ grid penalty.

CHAMPIONSHIP
1Vergne 163;2 Bird 140;3di Grassi 101;4Buemi 92;5 Rosenquist 86;6Abt 85;7Evans60;8 Lotterer 56;9 Turvey 46; 10 Piquet 45 .

# Neuville pips Ogier in epic Italian duel 

# The Hyundai and Ford drivers headed to Sardinia with something to prove, setting up a rally to remember 

DAVID EVANS
ALL PHOTOGRAPHY McKLEIN

his was sport at its absolute best. Two teams, two crews and two cars absolutely going at it. With 190.46 miles down and 4.32 to go, they were separated by 0.8 seconds. Ahead was one more stage, but that was Sunday in the sun. Let's rewind to Friday and the rain.
The intensity of the stare was incredible. Barely blinking, Sebastien Ogier stared straight ahead, drinking in the detail of the road before him. Such was the focus on stage six, he almost missed his mouth with a spoonful of fruit salad.
The Frenchman is old school and very French when it comes to lunchtime. It's for lunch, not watching telly. But on Friday (and Saturday) a toe-to-toe battle with Thierry Neuville forced a rethink. It was time to get the laptop out.
Last week's Rally Italy wasn't just about who could win round seven of this year's World Rally Championship. It went deeper than that. There's needle between these two. Ogier's ruled this world for the past five years and nobody wants the king's crown more than Neuville. And there's needle between M-Sport and Hyundai - the teams of Ogier and Neuville respectively - in the tit-for-tat quarrel over penalties and appeals.
Of the two drivers, it's usually Ogier who makes it more overtly personal. When asked if he wanted to talk about Neuville running at the front of the field in Sardinia, he said: "We saw when he was first on the road before, he was nowhere."
Thierry let his times do the talking in Portugal last month and then prayed for rain ahead of the flight out to the Mediterranean island of Sardinia for Rally Italy. As the recce progressed, and the rally neared, the threats of rain grew stronger and stronger until Friday morning arrived and the downpours began. Right on cue."I have been doing a rain dance all week," Neuville grinned, letting that line loose every time his rival was within range.
"He's clearly better at dancing for the rain than I am," said Ogier. "I have been doing this for a long time when I have been running at the front, but I have
never been so lucky."
As already outlined, last week's Algherobased event was about more than the potential 30 points on offer. It was the latest chapter in a thriller of a championship story, and one that is running under two working titles right now: 'Six and counting' or 'The Belgian won'.

It's no exaggeration to describe Rally Italy as potentially career-defining for both. Ogier's coming to the autumn of another season, wondering whether he has the motivation for another seasonlong campaign. Neuville's drive and determination have never been higher as he nears the ultimate goal. But what was closer to the forefront of both minds was the next six weeks. Both knew a win would make for a far, far better summer holiday than the alternative.

The top two elevated themselves above and beyond the chasing pack by late afternoon Friday. Even in the rain, the cream, it seems, still rises.

The accepted thinking on gravel rallies is that when it rains the front of the field is the best place to be. Put simply, the moisture binds the stones together to offer better grip for the first cars through. Even when it stopped raining, the heat of the Sardinian summer sunbaked a hard crust onto the surface, once again delivering more traction for the first Michelins through. Further back, the roads rutted and made muddy puddles.

Other than the top two, Andreas Mikkelsen deserves a mention for Friday morning. His time through SS2 was quite extraordinary. Running fifth on the road, he took 14.2 out of a problem-free Esapekka Lappi, the man directly ahead.

Finally, it looked like the Hyundai driver might be emerging from beneath the cloud - his izo Coupe WRC was turning in and the rear was holding the line.

Neatness can be a trademark of the Norwegian when the ducks are in a row. They were neatly aligned first time through Tula. Same story through the ensuing Castelsardo test. The margin may have been smaller, but still he eased his way to
a 15.5 s lead over nearest rival Neuville.
Another two stages and it was back to Alghero for lunch and a look at the clouds. Mikkelsen was 14s to the good from his team-mate, with Ogier fifth, 23s down and not best pleased.
But first stage out of service and Mikkelsen's gearbox began to give trouble, locking itself in reverse in the next test. He was out. Those black clouds also returned, but they didn't sit solely over the \#4 izo. Instead they wrung themselves out over the top of Tula.

Ahead of the start, the drivers had identified Tula as the trickiest of the lot. The first part's not too bad, but then up on top of the mountain among the windmills it becomes a real maze as you pick your way through. Trouble is, this section has been used so many times there's a chance that familiarity could breed contempt.
And then there's the final downhill dash to the finish - extended a bit for this season. Seb Marshall described this as Corsica on gravel. It's corner, corner, short straight, corner. Except on Friday

> "It's no exaggeration to say Rally Italy was potentially careerdefining for both Ogier and Neuville"

afternoon, when it was Corsica on mud. And the fog had finished any chance of familiarity. Rather unkindly, the service park echoed to Welsh analogies.

The conditions were pretty awful, but Neuville flicked the wipers up a speed, selected stage mode and dived in. Diving in was about right. Used to service the surrounding fields, tractors had rutted the Tula tracks and those ruts were now full of water. The Hyundai skipped and aquaplaned its way through, with its driver knowing full well he was handing something of an advantage to the man behind. In the three minutes between him and Ogier,
the rain would gather again, but not to the same extent that he had experienced.

This gravel stage had provided a different kind of poisoned chalice for the championship leader.

Ogier was masterful. The first hint we were onto something special came at split two - six miles down and Ogier was four seconds up. A couple more miles and the margin was 15.5 s to Neuville. By stage end, the Belgian was smashed to the tune of 17.5 s .

First through, Neuville was away by the time Seb finished, so his reaction to the champ's time was kept between himself and co-driver Nicolas Gilsoul. Next to the stop line and first to react to Ogier's time, the look on Ott Tanak's face was a fair reflection of what had probably gone on inside the i2o.

He was stunned. Nobody saw that coming. Not even Ogier. In the fog, the rain and the mist, trying to gauge your own speed is hard enough, let alone thinking about what your rivals could be doing.
"It's the sort of stage where somebody could have told me I'd dropped 20 seconds and I would say, 'Yes, maybe...' It's so hard >>

IN THE HEADLINES


## CITROEN STRUGGLES...

There was plenty of debate about Kris Meeke's departure from Citroen between rounds six and seven. The French firm's headline on its Saturday night press release spoke volumes: 'Mads Ostberg now in contention for fourth place.' Would it have managed more than a fifth and sixth for Mads Ostberg and Craig Breen (above) with Meeke? Impossible to say, but the ball would likely have been kicked a bit harder.
... TOYOTA TROUBLES
Toyota suffered a similarly troubled event to its French counterpart, with Rally Argentina winner Ott Tanak retiring for the second event in succession after damage sustained to the Yaris WRC (admittedly landing the car on its nose over a particularly vicious jump didn't help), while Jari-Matti Latvala ran out of juice after an electrical issue, which may or may not have been caused by a rock impacting underneath the car. Esapekka Lappi made the podium for the first time this season with third.

## PADDEN FOURTH

Despite still feeling the effects of his hefty Portuguese shunt, Hayden Paddon helped Hyundai ease further clear of M-Sport in the makes' race with fourth place. Gearbox problems ruled Andreas Mikkelsen out.

KOPECKY'S WRC2 WIN
A third WRC2 win of the season earned Jan Kopecky a shot at this year's WRC2 title with the factory Skoda team. The Fabia R5 driver confirmed he would take on a full programme on the back of his class win on Sunday. Ole Christian Veiby made it a one-two for the team.

## FRANCESCHI'S WRC3

Jean-Baptiste Franceschi scored a fine WRC3 class win in his Ford Fiesta R2T. Caught out by a Sunday morning boulder, he nursed his motor through the final two days with damaged steering.

to know where you are, the visibility was so tough," said Ogier. "I tried so hard to drive clean, but the grip was changing all the time. I saw some of Thierry's line going wide and going into the bank. I managed to be cleaner than him, no mistakes.
"I watched the onboards for this stage a little bit at lunchtime - Andreas showed this morning that it was possible to make a difference."

It worked. In just under 14 miles, Ogier had leapfrogged four cars to go from fifth and 23 s down to a 3.5 s lead.

The rest of the afternoon was classic Ogier. He built and built the advantage to come back to service in the evening 18.9 s ahead.

Neuville, by his own admission, had gone backwards. Backwards to 2015. His approach to Monte Baranta was wild to the point of irresponsible.

Sliding wide on a fast right approaching a tighter left, the rear of the izo disappeared into the bushes, reappearing without the rear wing. Unknowingly shorn of downforce, Thierry went harder still, flying spectacularly across a late-in-the-stage jump.

Coming to the finish slightly flustered, Neuville talked of fitting a new frontright and left-rear, and the way that might have upset the balance.

An hour or so later and looking slightly bashful, he admitted to an alternative possibility. "That was the Thierry of three years ago," he grinned, "maybe it was a bit wild in places. I had driven for three stages with the same tyres and then I had the great idea to cross my two new tyres for the last stage in the loop. It was difficult - the car was undriveable with the diffs spinning."

With the sun coming to make for more consistent conditions through the weekend, it was difficult to see Ogier dropping this one. Neuville nibbled 1.4 s out of that lead first thing Saturday but, when Ogier hit back
> "That was the Thierry of three years ago - maybe it was a bit wild in places"

on the first of the morning's two longer stages, the M-Sport driver looked to have control.

Then came Monte Lerno. Starting just 600 metres down the road from the finish of the previous test, the road's similar in nature, so more of the same from Ogier could be expected. It was anything but.

From the start, he was shipping time to Neuville. By the finish, Neuville had slashed into that lead, cutting it to 4.9 s . Ogier had no explanation. "Wrong rhythm... lost the rear a little bit..."

Right there, on the road north towards the town of Oschiri, Neuville took flight. Momentum moved. If the first half of the rally had been all about Ogier's demon Tula 2 time, the second half was all Neuville.

Stalling on the line of a fairly
meaningless superspecial cost Ogier another 2.3 s . He fought back to win Coiluna, rebuilding the buffer to 6.8 s . But that would be his last stage win of the rally.

Neuville had punctured the front-right, the tyre knocked off the rim a couple of miles before the finish. He was furious. And now he'd got no spare for the next two stages. Would he measure his approach? "No!"

Instead, he was sensational, a paragon of controlled aggression. The very antithesis of his panel-beating self 24 hours earlier.

One day, four stages and 3.9 s was what stood between Neuville and a third win of the year. His Sunday morning words: "We can do this."

Ogier's: "We're going to push."
The prospect of a 19-point deficit mushrooming to 49 points if he made a mistake was certainly not far from the front of Ogier's mind, but he simply struggled to get on the wave Neuville rode so beautifully through Sunday.

The complication of the \#1 Fiesta leaving the penultimate stop line without Julien Ingrassia's timecard was indicative of the Ogier mindset. He looked and probably felt like a man under siege. His door remained shut. He had nothing to say to the world


after another Neuville stage win.
All this time, Thierry's grin got wider and wider. He talked of making a couple of mistakes here and there, he couldn't get the car into the ruts, sliding wide on the loose on top instead. Still he smiled.

Leading by o.8s, Ogier offered a wave to the camera at the start of the powerstage. The impetus was, however, elsewhere.

Or was it? With 1.22 of the 4.32 miles done, Ogier's advantage was 1.5 s . Neuville had already stuck his car on two wheels at a left-hander on the descent towards the beach. Was that the beginnings of a sigh of relief coming out of M -Sport?

Best not speak too early. And it would have been too early. Ogier dropped o.9s in the next split, then halved the following one. With 990 metres to go, it was Ogier's by six tenths.

Across the line, Neuville had turned that into the joint third-closest win in the history of the WRC: victory by seven tenths.

Hyundai went bananas. Neuville appeared to standing-jump the roof of his i20, where he and Gilsoul turned the moves they'd learned rain dancing a week earlier.

Back at the service park the team hadn't stopped cheering, dancing and throwing each other in the air. Team principal Michel Nandan paused only to offer four words: "This is the best." He then returned to delirium. It was that sort of result.
"We had to decide at the start of the last stage, what do we do?" said Neuville. "We didn't have the best tyres, but we said we would go for it. We did. There was a small mistake when I came out of the ruts and the car went onto two wheels, but it was OK. This is incredible. What a fight."

Unfortunately, due to Ogier's timecard issue, some then decamped to the stewards' room. But forget that, forget the politics, focus on the best battle since Argentina last year. Neuville won that one too... $\overline{\prime \prime}$


## DRIVERS' CHAMPIONSHIP

1 Neuville 149;2 Ogier 122;
3Tanak 79;4Lappi 70;5 Sordo 60; 6Mikkelsen 56; 7 Evans 46;
8 Meeke 43;9 Latvala 37;
10 Breen 34.

MANUFACTURERS' CHAMPIONSHIP 1 Hyundai Shell Mobis WRT 212; 2M-Sport Ford WRT 184; 3 Toyota Gazoo Racing WRT 161; 4 Citroen Total 129.


STAGE TIMES

| StAge | FASTEST | Leader | SECOND |
| :---: | :---: | :---: | :---: |
| SS1IttiriArenaShow (1.24miles) | Ogier2m02.7s | Ogier | Mikkelsen +0.1 s |
| SS2Tula 1(13.87 miles) | Mikkelsen 18m28.1s | Mikkelsen | Ostberg+10.9s |
| SS3Castelsardo 1 (9.04 miles) | Mikkelsen 10m43.3s | Mikkelsen | Neuville+15.5s |
| SS4 Tergu-Osilo 1 (8.79 miles) | Tanak8m58.4s | Mikkelsen | Tanak+14.2s |
| SS5 Monte Baranta 1 (6.88 miles) | Neuville 8 m 12.8 s | Mikkelsen | Neuville+14.0s |
| SS6Tula 2 (13.87 miles) | Ogier 19m24.0s | Ogier | Mikkelsen+3.5s |
| SS7 Castelsardo 2 (9.04 miles) | Suninen 10 m 34.8 s | Ogier | Neuville+10.9s |
| SS8 Tergu-Osilo 2 (8.79 miles) | Neuville8m53.5s | Ogier | Neuville +10.5 s |
| SS9 Monte Baranta 2 (6.88miles) | Latvala8m07.2s | Ogier | Neuville +18.9 s |
| SS10 Coiluna-Loelle 1 (9.29 miles) | Tanak7m51.4s | Ogier | Neuville+17.7s |
| SS11 MontidiAla 1 (23.18 miles) | Ogier 16m38.9s | Ogier | Neuville+19.5s |
| SS12 Monte Lerno 1 (13.42 miles) | Neuville 17m59.1s | Ogier | Neuville +4.9 s |
| SS13Ittiri Arena ( 0.87 miles) | Lappi1m29.0s | Ogier | Neuville +2.9 s |
| SS14Coiluna-Loelle 2 (9.29 miles) | Ogier7m42.8s | Ogier | Neuville +6.8 s |
| SS15 MontidiAla 2 (23.18miles) | Neuville 16m27.3s | Ogier | Neuville +4.3 s |
| SS16MonteLerno 2 (13.42 miles) | Neuville 17m49.1s | Ogier | Neuville +3.9 s |
| SS17CalaFlumini 1 (8.74 miles) | Neuville8m40.7s | Ogier | Neuville +3.1 s |
| SS18Sassari-Argentiera 1 (4.32 miles) | Neuville4m55.4s | Ogier | Neuville +1.3 s |
| SS19 Cala Flumini2 (8.74 miles) | Neuville8m28.9s | Ogier | Neuville +0.8 s |
| SS20 Sassari-Argentiera 2 (Powerstage) (4.32 miles) | Neuville4m52.9s | Neuville | Ogier+0.7s |


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## Polo continues mint season

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WORLD RALLYCROSS
HELL(N)
JUNE 9-10
ROUND 5/12
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Domination by Johan Kristoffersson isn't unusual, but for a driver to win every single competitive session in a World Rallycross round is almost unheard of. In the 53 events since the series began in 2014, the feat had only been achieved once - before the trip to Norway last weekend.
Points leader Kristoffersson had been given increased confidence in his PSRX Volkswagen Motorsport-built Polo Supercar during a pre-event test ahead of the visit to Hell, where the Swede executed a crushing performance to win his fourth race from five in 2018 by leading throughout.

As Kristoffersson stormed to another
victory, fellow Swede Mattias Ekstrom had to work hard to fight back from qualifying 1oth. A pair of good starts in the semi-final and final lifted the former DTM star's Audi into second on both occasions, and he scored his first podium of the season.

Kristoffersson's team-mate Petter Solberg moved to second at the first corner of the final from the third row, but dropped behind Ekstrom when he took his joker lap on lap five. Kevin Hansen equalled his personalbest finish in fourth, as older brother and fellow Peugeot racer Timmy Hansen plus Ekstrom's team-mate Andreas Bakkerud dropped out on contention after contact in the run to Turn 1. Sebastien Loeb was missing from the podium for the first time this season - he was fourth in semi-final two after forgetting to take his joker in Q3. hal Ridge

## Rain makes Clint's day

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NASCARCUP
MICHIGAN (USA)
JUNE 10
ROUND 15/36
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"I was $100 \%$ sure two tyres [rather than four] was the right call," said Clint Bowyer's Stewart-Haas Racing crew chief Mike Bugarewicz after victory. "We got about three quarters of the way down pitroad, I was about $70 \%$ sure. When he slid into the pitbox, I was about $50 \%$ sure." Thankfully for SHR, the rain would prove
the call correct, although Bowyer was on form anyway, climbing from 12th on the grid to take third and second in the opening two stages.

With his tyre disadvantage, Bowyer expertly defended the lead from favourite Kevin Harvick on the restart, before Ricky Stenhouse Jr's crash led to a caution that became a red flag as the rain returned.

He headed an SHR Ford 1-2-3, completed by Kurt Busch, whose Toyota-driving brother Kyle was quick to say he had brought a "knife to a gun fight" in fourth.

WEEKEND WINNERS

WORLD RALLYCROSS
HELL
Johan Kristoffersson
PSRX Volkswagen Sweden Volkswagen Polo R
NASCAR CUP
MICHIGAN
Clint Bowyer
Stewart-Haas Racing Ford Fusion
NASCAR XFINITY SERIES
MICHIGAN
Austin Dillon
Richard Childress Racing Chevrolet Camaro
NASCAR TRUCK SERIES
TEXAS MOTOR SPEEDWAY
Johnny Sauter
GMS Racing Chevrolet Silverado
EUROFORMULA OPEN
SPA
Race 1 Felipe Drugovich
RP Motorsport
Race 2 Felipe Drugovich RP Motorsport

INTERNATIONAL GT OPEN
SPA
Race 1 Alessandro Pier Guidi/Mikkel Mac
Luzich Racing Ferrari 488 GT3
Race 2 Fran Rueda/Andres Saravia Teo Martin Motorsport BMW M6 GT3

TCR EUROPE
SPA
Race 1 Jean-Karl Vernay
Leopard Lukoil Team Audi RS3 LMS
Race 2 Julien Briche
JSB Competition Peugeot 308 TCR
ADAC GT MASTERS
RED BULL RING
Race 1 Marvin Kirchhofer/Daniel Keilwitz Callaway Competition
Chevrolet Corvette C7 GT3
Race 2 Marvin Kirchhofer/Daniel Keilwitz Callaway Competition
Chevrolet Corvette C7 GT3

## ADAC FORMULA 4

RED BULL RING
Race 1 Enzo Fittipaldi
Prema Powerteam
Race 2 Lirim Zendeli
US Racing
Race 3 Liam Lawson
Van Amersfoort Racing


## Stealthy Dixon becomes the man to beat

## INDYCAR SERIES

TEXAS (USA)
JUNE 9
ROUND 8/16
In the first six races of this season, Scott Dixon had not so much as led a single lap, although he had been fabulously consistent. Now two wins in the space of eight days have vaulted the four-time champion to the top of the 2018 points standings, and he and the Honda-powered Chip Ganassi Racing team are looking a formidable combo once more.
Some felt Dixon deserved it, as much as anything, for approaching the race in a positive frame of mind, despite the three Team Penske Dallara-Chevrolets lining up on the grid 1-2-3. At Texas Motor Speedway IndyCar had increased the allowed rear-wing angle of the spec aerokit compared with Indianapolis two weeks earlier, to create more downforce. A softer tyre compound from Firestone had also created more mechanical grip, but the tyres would go off more rapidly. In fact, they would blister according to set-up and driving style. Through the two practice sessions, some teams/drivers got it right, others didn't, and predicted it would be a boring race because there'd be no passing, despite the tyre degradation.
Yet last year, the race had been at the other end of the scale - a fearsome pack race where the cars had far too much grip and could follow closely with impunity. Dixon was among the many grateful for having that situation radically altered for 2018.
After evening practice, he commented: "Personally, I'd rather it be on the driver
side of it and safety side of it as opposed to having a big pack race and a lot of yahoos that are trying silly things."

What he didn't say was that he and race engineer Chris Simmons had found a set-up that would allow him to reach the end of a fuel stint without tyres blistering. Penske drivers could only dream of such things. Polesitter Josef Newgarden, who had led the first 59 laps, had to make a very early second stop when he felt blisters forming on his right-front tyre and, with the 6 mph pitlane speed limit extended down the warm-up lane all the way to the back straight, that put him two laps down. He would eventually suffer more blistering issues and then a drivethrough penalty that would consign him to 13th place.

Will Power had gotten around Simon Pagenaud for second, but would then drop back, desperately needing more front
wing to deal with traffic. Even eventual runner-up Pagenaud had major drop-off at the end of his second stint.
By contrast, Andretti Autosport's Alexander Rossi and Schmidt Peterson Motorsports' Robert Wickens had moved forward right from the drop of the green and, like Dixon, they were unhampered by tyre issues. So they passed the troubled Penske drivers and each took turns at the front - Wickens for a total of 31 laps. Yet when a great stop from Dixon's \#9 crew put him in the lead just past midway, it was game over. Now in clean air (except when passing backmarkers), he had even fewer tyre issues and no-one else led for the remaining 118 of 248 laps.

Wickens should have finished second, but while he was lapping Ed Carpenter the veteran squeezed down on the rookie, and the pair spun up the track and into the


wall, Carpenter accepting full blame.
The third and final yellow was caused by sixth-placed Power colliding with rookie Zachary Claman DeMelo. Having just received instructions to go for it and ignore his fuel consumption, Power swung up the track to pass Ryan Hunter-Reay for fifth, but due to another communication from pitwall he didn't hear the simultaneous call from spotter CR Crews that there was a fast-moving DeMelo on his outside. The collision was relatively minor considering they were running 200 mph , but Power's second impact with the wall cracked a rib.

The full-course caution allayed the only dilemma the frontrunners had regarding fuel, of whether to run hard and bank on another yellow coming or to eke out fuel to the end. The top six - Dixon, Pagenaud, Rossi, James Hinchcliffe, Hunter-Reay and Graham Rahal - all stopped for fresh rubber. Rossi's refueller - who'd struggled to deliver fuel on the previous stop was fault-free but it wasn't enough to jump his driver ahead of Pagenaud, even though he was potentially faster. Dixon disappeared up the road, while Pagenaud put up a masterful defence of second place, which he held to the flag.
Dixon now holds third place alone in the all-time Indycar winners' list, with 43 victories - nine behind Mario Andretti. But long before he passes the greatest all-rounder of all time in terms of Indycar wins, he may have beaten him in Indycar titles by scoring his fifth. We're nine races down with eight to go... DAVID MALSHER



| 1 | ScottDixon(NZ) | Chip Ganassi Racing/Dallara-Honda | 2h00m53.2155s |
| :---: | :---: | :---: | :---: |
| 2 | Simon Pagenaud (F) | Team Penske/Dallara-Chevrolet | +4.2943s |
| 3 | Alexander Rossi (USA) | AndrettiAutosport/Dallara-Honda | +4.5670 |
| 4 | James Hinchcliffe (CDN) | SchmidtPeterson Motorsports/Dallara-Honda | +5.0869s |
| 5 | Ryan Hunter-Reay (USA) | AndrettiAutosport/Dallara-Honda | +6.7301s |
| 6 | Graham Rahal (USA) | Rahal Letterman Lanigan Racing/Dallara-Honda | +7.2744s |
| 7 | Takuma Sato (J) | Rahal Letterman Lanigan Racing/Dallara-Honda | +8.3457s |
| 8 | Sebastien Bourdais (F) | Dale CoyneRacing/Dallara-Honda | $+9.4523 \mathrm{~s}$ |
| 9 | Ed Jones (UAE) | ChipGanassi Racing/Dallara-Honda | +25.09385 |
| 10 | Charlie Kimball (USA) | Carlin/Dallara-Chevrolet | -1 lap |
| 11 | Spencer Pigot(USA) | EdCarpenter Racing/Dallara-Chevrolet | -1 lap |
| 12 | Max Chilton (GB) | Carlin/Dallara-Chevrolet | -1 lap |
| 13 | JosefNewgarden (USA) | Team Penske/Dallara-Chevrolet | -4laps |
| 14 | Marco Andretti (USA) | Andretti Herta Autosport/Dallara-Honda | -4laps |
| 15 | Gabby Chaves (CO) | Harding Racing/Dallara-Chevrolet | -8laps |
| 16 | Zach Veach (USA) | Andretti Autosport/Dallara-Honda | -10laps |
| 17 | Zachary Claman DeMelo (CDN) | Dale CoyneRacing/Dallara-Honda | 205laps-accident |
| 18 | Will Power(AUS) | Team Penske/Dallara-Chevrolet | 204 laps-accident |
| 19 | RobertWickens (CDN) | SchmidtPeterson Motorsports/Dallara-Honda | 171 laps-accident |
| 20 | EdCarpenter (USA) | EdCarpenterRacing/Dallara-Chevrolet | 168laps-accident |
| 21 | Tony Kanaan (BR) | AJFoytEnterprises/Dallara-Chevrolet | 31 laps-accident |
| 22 | Matheus Leist(BR) | AJFoytEnterprises/Dallara-Chevrolet | 5laps-fire |

Winner's average speed 177.250 mph .

Fastestlap Newgarden $23.4197 \mathrm{~s}, 221.352 \mathrm{mph}$.

Qualifying
1Newgarden 220.613mph;
2 Pagenaud 220.311 mph ; 3 Power 220.194 mph ;

4Wickens 219.561 mph ; 5Bourdais 219.302 mph ; 6Kanaan219.157mph; 7 Dixon 219.112 mph ; 8Rossi218.894mph; 9 Sato $218.578 \mathrm{mph} ; 10$ Hunter-Reay 218.553 mph ; 11Andretti 218.430 mph ; 12 Kimball 218.145 mph ;

13 Jones 218.120 mph ; 14 Carpenter 218.057 mph ; 15 Hinchcliffe 217.590 mph ; 16Veach 217.473 mph ; 17 Chaves 217.149 mph ; 18 Pigot $216.895 \mathrm{mph} ; 19$ Leist $216.607 \mathrm{mph} ; 20$ Rahal 216.092mph;21Claman DeMelo 215.813mph;

22 Chilton 214.275 mph .

CHAMPIONSHIP 1 Dixon 357; 2 Rossi 334; 3Power321;4Hunter-Reay 308;5 Newgarden 289; 6Rahal 250;7 Wickens 244; 8Pagenaud229;9Bourdais 218;10 Andretti213.


# Heavyweight Turkington stakes his title claim 

The rear-wheel-drive BMWs are always strong at Oulton. But they weren't supposed to be this good with extra ballast on board for 2018

MATT JAMES<br><br>ALLPHOTOGRAPHY<br>LAT IMAGES/JEP

0ulton Park is supposed to be a boon for rear-wheel-drive cars in the British Touring Car Championship - and so this was the weekend when Colin Turkington was supposed to power his WSR BMW 125i M Sport back into title contention.

Turkington did, and he put himself back at the head of the points table, but it was far from easy. The traction-heavy sections of the Cheshire track are what play to the strengths of the rear-wheel-drive cars, but there was a rule tweak buried in the regulations at the start of the year that has made life a lot tougher for WSR.

An extra 3okg has been handed to the rear-driven cars to even out any perceived advantage. And Turkington arrived with 39 kg of success ballast, which meant he was facing an uphill struggle from the outset. Only Turkington and Andrew Jordan of the rear-wheel-drive contenders could break
into the top 10 in qualifying, and Jordan's BMW (free of success ballast) was the most racy in fourth. The times, it seems, have changed. A competitive grid and the extra ballast on the BMWs mean that the playing field in the BTCC is a lot more level than it has been in previous seasons.

Turkington was still battling to perfect the handling in qualifying and struggled through the opening race - even though he was one of the few to progress, from ninth to sixth - but then it clicked. His charge to victory in the second race featured some excellent overtakes - including robbing Tom Chilton's Motorbase Ford Focus of the lead on lap five - and it launched him to the top of the points. A third place in race three, which completed a WSR podium lockout, was the perfect sign-off too.
"As soon as we started race two I could feel that the car was in a much better place," said Turkington. "I could race forward. We just looked at the data after race one and
worked hard on getting a balanced car rather than one that is dominated by one axle over another. Even in race three, it was tougher with the weight. But I maximised my strengths where I was strong. Jack Goff [Eurotech Racing Honda Civic Type R] behind me was much quicker in the fast corners, but I accentuated where I was strong, such as in the traction areas, to maintain my advantage. You have to enjoy weekends like this, because they don't come along very often."

It was a great weekend for WSR, with Jordan adding second in the finale (collected after Rob Austin's HMS Alfa Romeo broke its gearbox) to a third and a fourth in the opening two events. He wasn't on the ultimate pace last weekend, but walked away with only one point fewer than Turkington.
Rob Collard claimed the win in race three to complete the rout for WSR. The former Independents Trophy winner hadn't scored a single 2018 podium until last weekend,

and he thinks that he has now turned a corner personally as well as with the car.

Collard's win was preceded by ninth and sixth in the opening two races, boosted by a solid qualifying session, in which he was 12th. Like Turkington, he was another to overtake (which was a rarity last weekend) and he looked like he's back to his old self.
"It was a big thing to bounce back from the accident I had at Silverstone last year, and perhaps it took more out of me than I thought at the start of the season," said Collard, who suffered concussion in a monster accident in the penultimate round in 2017, which ruled him out of the season's showdown. "We've just been a little bit on the back foot. And in this championship, with the way it is at the moment, you just can't afford that. I'm very pleased and I've got my mojo back. I'd never won here either, so this has ticked another box for me."

While the BMWs made hay, the other big winners of the weekend were the Motorbase Performance team, and Chilton in particular. Third place in qualifying was helped by arriving at the track with no ballast (just like team-mates Sam Tordoff and James Cole), and Chilton progressed to second in race one.

Chilton led race two from the start, and used his head to fend off the threat of Turkington and factory Honda driver Matt Neal. The Ford had the softer Dunlops fitted and Chilton knew, with 66kg onboard, that he was likely to be a sitting target.
"I could have defended, but then I would have backed us up into traffic," said Chilton. "I made the decision to let the faster cars go. Colin was too good for me and Neal was lighter. It was all about banking the most points that I could, and a second podium was a success." >>

SIMPSON'S POLEAND WIN: NO SURPRISE?


There was an element of surprise when Matt Simpson took his career-first BTCC pole position at Oulton Park, but there shouldn't have been.

The former hot rod driver undoubtedly has some of the best equipment on the grid in the form of his Eurotech Racingoperated Honda Civic Type R, fitted with the new Honda powerplant. He also arrived at the circuit with no success ballast, so the ingredients were perfect.

But it was perhaps the two-tenths margin over the rest of the pack that raised a few eyebrows. "I really enjoy the circuit," said Simpson. "I like tracks that reward bravery, and I was in a very good place coming here. This is a credit to the lads who work at the team - they've given me a superb car - and l've worked hard on myself away from the circuit. I've done a lot of work on my mental strength, and I've worked out that I deserve to be here, rather than question whether l'm good enough or not. There's been so much going on away from the race track itself, and all of that has helped me to get to
the place where I am now."
Cynics were asking which corner it would be when Simpson would throw it away in race one but, after 15 error-free laps from the polewinner, they were the ones with egg on their faces.
"I was so relaxed going into the race," said Simpson. "On Saturday night I had the best night's sleep I've had in a long time. It's about belief."
It was, and he controlled the race beautifully, even coping with disappearing brakes over the closing stages to fend off Tom Chiton's Ford for a superb win.

There were some worrying signs in the race though, with smoke emanating from the front-left of the car, where the oil-catch tank is situated. The team played it down, but investigations after the race revealed that the motor was about to die a death.
That ultimately ruled him out of the remaining races and robbed Simpson of what would have been pole in race two. It was a bitter pill to swallow, but the impression had already been made. It was a truly memorable weekend for him.


Seventh in the finale made Chilton the third highest scorer over the weekend on which Motorbase bounced back. Cole was in the top 10 in all three races, which included a fifth in race two. Tordoff should have been well in the mix too, but his car erupted into flames in race two when a broken bracket caused a fuel line to rupture, and that put him out of race three too.
Neal's second place in race two was a highlight on a track that hasn't traditionally been kind to him, and he was just happy to keep his challenge ticking over. He fared much better than Honda team-mate Dan Cammish, who was struggling with the fact that he had no experience of the circuit in a front-wheel-drive car. Damage and a puncture also restricted him to just a handful of points.
Beyond the main players at the head of the pack, there was a subsection of drivers who had to use tactics to try to earn anything from the three races. The top three in the points coming to Cheshire were Ciceley Motorsport Mercedes A-Class racer Adam Morgan, Power Maxed Racing Vauxhall Astra ace Josh Cook and Speedworks Motorsport Toyota Avensis man Tom Ingram.
Morgan summed up the problem for the trio: "The weight really screws you. It hurts coming out of the chicane and up Clay Hill it hurts; out of the hairpin and out of Lodge too. It's everywhere."
Morgan hauled his 75kg to 19th on the grid and could only circulate in the pack and improve one place in race one. But then the weekend turned: free from extra lead, the Merc was ready to pounce thereafter.
"In race two we had no weight on and the car came alive," explained Morgan. "I got very lucky and people fell off in front of me and I was able to get my way through to 11th. I was hoping for some luck, but I didn't quite get into the reversed-grid draw. But, when we put the softs on for race three, the car was a total rocketship and I made it to fifth. Given what we were facing coming here, I'm really happy - it's a good haul of points and I've not been on fire [unlike last year, when his car was a mobile bonfire in race two]."
Ingram's strategy had been the same - take the pain in the opening race and then bank on solid points from that point

forward. It worked to a degree, and he scored a 10th in race two and improved to sixth in race three, only jumped by Morgan as the Toyota man got involved with Neal at Druids while battling through the order.

Ingram was, nevertheless, looking at the positives: "We haven't actually lost a lot of points to the leader - I think we're just a few more off the lead leaving as we were coming into the weekend, it's just that there is a different leader now in Turkington.
"We're also now fourth, so we have less weight for Croft in two weeks'time. So I'm going to look at the positives from the weekend in that we haven't actually lost any ground and we are lighter going forward, so these are all good things."

Cook joined his two title rivals in reverse engineering his weekend, but he was the one to fall foul. He collected 17th in race one with the 66 kg of ballast and was ready to mount a charge in race two - until he got to the Avenue on lap one and he was spat onto the grass following unavoidable contact ahead. That totally ruined his weekend and left him with only five points to show from the three races - and these are the fine margins of the BTCC.

Of those carrying big weight into the weekend, Goff was probably the standout performer. Qualifying sixth with 48 kg on the car was a truly stunning lap - although
he was put in the shade by Eurotech Racing Honda team-mate and race-one winner Matt Simpson (see page 47). Eighths in races one and two may not seem like a lot, but he bounced up to fourth in the reversed-grid finale, which meant he scored more than those around him in the title fight. He left the track joint second in the points with Morgan.
But some drivers are never happy. "I'm slightly disappointed with that," said Goff. "I was over the moon with qualifying with the amount of weight that I had on the car. I had a rub with Rob Austin's HMS Alfa Romeo in race two and that lost me two or three places, and if it hadn't been for that I would have been on reversed-grid pole position and it would have been a completely different story."
Given the travails of some of his rivals, his pessimism seems misplaced. After all, Goff is only 12 points away from Turkington at the top of the table.
But the next stop on the tour is Croft in North Yorkshire, which is almost built to play to the BMW's strengths. As Ingram put it at the end of the Oulton weekend: "You never give up, but looking ahead to the next round, we're all aiming to be best of the rest again, aren't we?"
He's not wrong, and that will make Turkington's smile even broader. ${ }^{W}$


| pos | DRIVER | team/CAR | time |
| :---: | :---: | :---: | :---: |
| 1 | MattSimpson(GB) | Eurotech Racing/Honda Civic TypeR | $22 \mathrm{m00.318s}$ |
| 2 | Tom Chilton (GB) | Motorbase Performance/FordFocus RS | $+0.265 \mathrm{~s}$ |
| 3 | Andrew Jordan (GB) | WSR/BMW125iMSport | +0.630s |
| 4 | Sam Tordoff (GB) | Motorbase Performance/FordFocus RS | +1.630s |
| 5 | MattNeal(GB) | Team Dynamics/Honda Civic Type R (33kg) | +2.828s |
| 6 | Colin Turkington (GB) | WSR/BMW 125iMSport(39kg) | +3.165s |
| 7 | James Cole (GB) | Motorbase Performance/FordFocus RS | +5.127s |
| 8 | Jack Goff (GB) | Eurotech Racing/Honda Civic Type R (48kg) | +6.587s |
| 9 | Rob Collard (GB) | WSR/BMW125iMSport | +7.125s |
| 10 | RobAustin (GB) | HMSRacing/Alfa Romeo Giulietta | +7.485s |
| 11 | BrettSmith (GB) | Eurotech Racing/Honda Civic TypeR | +16.644s |
| 12 | Chris Smiley (GB) | BTCNorlin Racing/Honda Civic Type R (9kg) | +16.831s |
| 13 | Dan Cammish (GB) | Team Dynamics/Honda Civic Type R (21kg) | +17.035s |
| 14 | Ollie Jackson (GB) | AmDTuning/Audi S3Saloon | +17.375s |
| 15 | Tom Ingram (GB) | Speedworks Motorsport/ToyotaAvensis (57kg) | +17.423s |
| 16 | Aiden Moffat (GB) | LaserTools Racing/MercedesA-Class | +17.545s |
| 17 | Josh Cook (GB) | PowerMaxed Racing/Vauxhall Astra (66kg) | +18.138s |
| 18 | Adam Morgan (GB) | Ciceley Motorsport/Mercedes A-Class (75kg) | +18.884s |
| 19 | Mike Bushell (GB) | Team Hard/VolkswagenCC | +19.618s |
| 20 | Tom Oliphant (GB) | Ciceley Motorsport/MercedesA-Class | +20.197s |
| 21 | Ash Sutton (GB) | Team BMR/Subaru Levorg (15kg) | +20.554s |
| 22 | Stephen Jelley (GB) | Team Parker Racing/BMW125iM Sport | +20.633s |
| 23 | Jake Hill (GB) | Team Hard/VolkswagenCC | +22.934s |
| 24 | Tom Boardman (GB) | AmDTuning/MG6 | +27.475s |
| 25 | DanielLloyd (GB) | BTCNorlin Racing/Honda Civic TypeR | +27.937s |
| 26 | Bobby Thompson (GB) | Team Hard/VolkswagenCC | +28.173s |
| 27 | Rory Butcher (GB) | AmDTuning/MG6 | +28.342s |
| 28 | Senna Proctor (GB) | PowerMaxed Racing/Vauxhall Astra (27kg) | +28.777s |
| 29 | Michael Caine (GB) | Team Hard/VolkswagenCC | +32.235s |
| 30 | Jason Plato (GB) | Team BMR/Subaru Levorg | +32.779s |
| 31 | Sam Smelt (GB) | AmD Tuning/Audi S3Saloon | +33.643s |
| R | Josh Price (GB) | Team BMR/Subaru Levorg | s-overheating |

Winner's average speed 91.04 mph . Fastestlap Simpson $1 \mathrm{~m} 26.458 \mathrm{~s}, 92.68 \mathrm{mph}$

## QUALIFYING

1 Simpson 1m25.750s; 2 Tordoff 1m25.993s;3Chilton 1m26.082s;4 Jordan 1m26.103s; 5 Neal 1m26.132s; 6 Goff $1 \mathrm{~m} 26.183 \mathrm{~s} ; 7$ Smith $1 \mathrm{~m} 26.207 \mathrm{~s} ; 8$ Cole 1m26.214s;9 Turkington $1 \mathrm{~m} 26.264 \mathrm{~s} ; 10$ Oliphant 1 m 26.296 s ; 11 Austin 1m26.312s; 12 Collard 1m26.336s; 13 Smiley 1m26.363s; 14Cammish 1m26.389s; 15 Sutton 1m26.393s; 16 Moffat 1m26.403s; 17 Ingram 1m26.411s; 18 Jackson 1m26.571s; 19 Morgan 1m26.602s; 20 Cook 1m26.622s; 21 Hill $1 \mathrm{~m} 26.713 \mathrm{~s} ; 22$ Lloyd $1 \mathrm{~m} 26.716 \mathrm{~s} ; 23$ Butcher $1 \mathrm{~m} 26.748 \mathrm{~s} ; 24$ Bushell 1 m 26.749 s ; 25 Caine 1m26.867s;26 Proctor 1m26.879s; 27 Jelley 1m26.882s; 28 Thompson 1m26.947s; 29 Plato 1m26.972s;30 Boardman 1m27.176s;31 Smelt 1m27.419s;32 Price 1m28.552s.



RACE 2 (15LAPS-33.390 MILES)
1 Turkington (33kg) 22m04.333s; 2 Neal ( 39 kg ) $+5.372 \mathrm{~s} ; 3$ Chilton ( 66 kg ) $+7.800 \mathrm{~s} ; 4$ Jordan ( 57 kg ) $+8.598 \mathrm{~s} ; 5$ Cole ( 27 kg ) $+13.121 \mathrm{~s} ; 6$ Collard (15kg) $+13.347 \mathrm{~s} ; 7$ Austin $(9 \mathrm{~kg})+15.304 \mathrm{~s} ; 8$ Goff $(21 \mathrm{~kg})+18.205 \mathrm{~s} ; 9$ Jackson+18.308s; 10 Ingram $+18.493 \mathrm{~s} ; 11$ Morgan +18.582 s; 12 Cammish +18.922 s ; 13 Oliphant +19.497 s ; 14 Butcher +19.798 s ; 15 Bushell +21.984 s ; 16 Proctor +22.438 s ; 17 Lloyd $+23.292 \mathrm{~s} ; 18$ Smiley $+24.115 \mathrm{~s} ; 19$ Smith +24.959 s ; 20 Plato +25.854 s ; 21 Hill+27.549s; 22 Caine +30.056 s ; 23 Sutton +34.586 s ; 24 Price +38.931 s ; 25 Boardman +39.965 s ; 26 Cook-2laps; RThompson 13 laps-accident damage; RSmelt 12 laps-accidentdamage;RTordoff ( 48 kg ) 10 laps-fire; RJelley 2 laps-accident damage; RMoffat 1 lap-accidentdamage; NS Simpson ( 75 kg )-engine.
Winner's average speed 90.76 mph .
Fastest lap Ingram $1 \mathrm{~m} 26.996 \mathrm{~s}, 92.11 \mathrm{mph}$.

## GRID RACE 2

Decided by resultof Race 1. All cars moved up onedue to Simpson non-start.
RACE 3 (12LAPS- 26.712 MILES)
1 Collard (33kg) 17m38.471s; 2 Jordan (48kg) +3.881 s ; 3 Turkington ( 75 kg ) $+7.647 \mathrm{~s} ; 4$ Goff $(21 \mathrm{~kg})+9.333 \mathrm{~s} ; 5$ Morgan $+13.385 \mathrm{~s} ; 6$ Ingram ( 9 kg ) +15.374 s ; 7 Chilton ( 57 kg ) $+16.360 \mathrm{~s} ; 8$ Bushell $+16.786 \mathrm{~s} ; 9$ Cole ( 39 kg ) +18.153 s ; 10 Hill+18.403s; 11 Cook $+18.910 \mathrm{~s} ; 12$ Proctor $+18.974 \mathrm{~s} ; 13$ Sutton +19.206 s ; 14 Neal ( 66 kg ) $+19.559 \mathrm{~s} ; 15$ Boardman +21.584 s ; 16 Jelley +21.944 s ; 17 Smelt $+25.031 \mathrm{~s} ; 18$ Smith $+26.111 \mathrm{~s} ; 19$ Caine +41.924 s ; 20 Moffat +42.622 s ; 21 Jackson (15kg)+1m21.197s;22 Cammish - 1 lap; RPrice9 laps-engine; RAustin (27kg) 9 laps-gearbox; RPlato4 laps-engine; ROliphant 0laps-accident;RButcher0laps-accident;RLloydOlaps-accident;RSmiley Olaps-accident;NSThompson;NSTordoff;NSSimpson.
Winner's average speed 90.85 mph .
Fastestlap Smith $1 \mathrm{~m} 27.012 \mathrm{~s}, 92.09 \mathrm{mph}$.

## GRID RACE 3

Decided by result of Race 2, with top seven reversed.

## CHAMPIONSHIP

1 Turkington 124;2 Morgan 112;3 Goff 112;4 Ingram 103;5 Cook 100; 6Neal98;7 Jordan 93;8 Chilton90;9Collard71;10Cammish69.



# THE PRIVATEERS CHASING TOYOTA 

> The only factory team left in LMP1 starts this weekend's Le Mans as hot favourite. But what are the chances of the smaller teams stealing honours should the TSo5os stumble?

GARY WATKINS

It looks like the race for third place or best of the rest behind the Toyotas - call it what you will. Only it's not, because this is the Le Mans 24 Hours. Strange things happen and, history relates, even stranger things happen to Toyotas. The battle among the new wave of LMP1 privateers to arrive in the World Endurance Championship is to be in pole position behind the Japanese cars should they cough or splutter this weekend.

The five independent teams running nonhybrid P1 machinery in the WEC this year are first and foremost racing among themselves for the final spot on the podium. But there is the hope - perhaps even expectation that they could find themselves a step or
perhaps even two higher should the Toyota TSo50 HYBRIDs run into problems.
But that's presuming that a privateer can have a clean race unfettered by technical issues. That in itself is a big ask given that three of the four cars on the grid are new, with only one race in the Spa WEC opener behind them. Or in the case of the Ginetta, no races.

The best of the privateers edged closer to the Toyota TSoso in the official test day at Le Mans, certainly closer than it had been at Spa. That car, the fastest of the RebellionGibson R-13s, was only 0.6 seconds down.

As slight as it may sound around a circuit measuring eight and a half miles, that's probably too much for Rebellion Racing to be able to $>$
take the fight to the lone manufacturer remaining in LMP1. But it did confirm Rebellion's status as favourite in the battle to be top privateer. Team boss Bart Hayden admits that.
"We have to make ourselves favourites to be best of the rest because of our alignment with ORECA and Gibson," he says. "And we have to make ourselves favourites to put pressure on ourselves."

That in itself is remarkable given the amazingly short gestation period of the R-13. It wasn't signed off until the back end of last
> "As soon as Toyota stops for more than one lap, then we have a chance" REBELLION RACING'S NEEL JANI
year and didn't run for the first time until the week of the official WEC pre-season test at Paul Ricard at the start of April. Yet it was on the privateer pace at the so-called prologue and the two cars, one straight out of the box, finished third and fourth on the road behind the dominant Toyotas at Spa.

Rebellion's form is testament to the experience of the team and its partners. It was the top operation in the privateer ranks of the WEC in 2012-16 before its title-winning foray in LMP2 last year, and ORECA and Gibson have a wealth of sportscar experience going back the better part of 20 years.
"We only had two and a half days of testing before Spa, but what ORECA and Gibson bring to the table are known factors," says former WEC champion Neel Jani, who's back at the team with which he made his name in sportscar racing before signing for Porsche. "That paid out at Spa."

SMP Racing, with its BR Engineering chassis designed and built by Dallara, was the other privateer that Toyota singled out when it suggested in the wake of the test day that the opposition was edging closer. The AER-engined BR1 chassis was the first of the newcomers to hit the track last autumn and racked up significant mileage over the winter, just edging out Rebellion

as fastest privateer at the prologue.
But the team hit a major setback at Spa when Matevos Isaakyan flipped at Eau Rouge at the start of the final hour. The Russian driver was uninjured and the monocoque repairable, but Dallara was forced to make aerodynamic revisions to the car to prevent a repetition. Those changes have blunted the performance of the car at Le Mans courtesy of more drag and downforce.

The SMP squad, which is run by Le Mans debutant ART Grand Prix, is going into the 24 Hours with "humble hopes", according to technical director Gaetan Jego.
"When we finished at Spa, it was the first time the car had run for that long," he says. "Finishing the race is our goal. We also have to concede that it is our first time as a team at Le Mans, which means we are missing some of the detailed knowledge of our rivals."

## THE REST

The ByKolles team is the only P1 entrant continuing in the privateer ranks from last year, and its decision to drop out of the WEC after the Nurburgring last July to focus on testing and development appears to have paid dividends. The team's solo ENSO CLM-Nissan $\mathrm{P} 1 /$ o1 ran reliably to what turned into fourth place at Spa, albeit

## WHY AN LMP2 CAR COULD WIN

An LMP2 car came close to pulling off a remarkable shock by winning the Le Mans 24 Hours overall last year. So surely that was the big chance for a car from the secondary prototype division to win the big race. Or was it?

If a privateer LMP1 can triumph in the 2018 edition of the French enduro, then so too can a P2 car. One of the pack of $P 1$ independents is only going to win if the Toyotas run into major trouble, and what's to say it isn't going
to be an LMP2 that's sitting pretty as best of the rest ready to benefit if that happens?

That's certainly how United Autosports co-owner Richard Dean sees it. "All the privateer P1 competitors are unproven,"

says the Briton, a class winner at Le Mans in 2006. "If you were a betting man, there isn't enough of them to say with any confidence that one is going to get through the race without problems.
"There are enough P2s, and good P2s with strong driver line-ups, to get through the race without issues, which is what we saw last year. One of those is just as likely as a privateer P1 to be in third place if the Toyotas have to spend an hour and a half in the pits, crash out or whatever."

Dean reckons this Le Mans is going to be a race in which "anything can
happen". That could be a one-two for Toyota with the pair of TS050 HYBRIDs 20 laps to the good. Or it may be something altogether more surprising.

He points out that last year the United LigierGibson JSP217 shared by Filipe Albuquerque, Hugo de Sadeleer and Will Owen finished fifth overall, and fourth in P2, despite being more than three seconds off the pace of the best of the ORECA 07s ahead of it.
"Le Mans is all about having a clean run," he says. "It was just our luck to have that kind of run last year when we didn't have a competitive car."

three laps down on the Rebellion that was classified third.
Traffic prevented the $\mathrm{P}_{1} / \mathrm{o} 1$ showing its true potential at the test day, but the team concedes that the 3 m 19 s lap posted by the best of the Rebellions is well out of range. It does, however, have a growing confidence over the car's reliability.
"We ran six hours at Spa without any problems," says driver Oliver Webb. "We are happy with our reliability and haven't had any major issues in the lead-up to the race. If we can do 3 m 21 s for 24 hours, I'm confident that we've got a chance of being third."
There isn't much confidence in the camp at the Manor Ginetta team that runs under the CEFC TRSM Racing banner. It's looking beyond this weekend's race for its pair of Mecachrome-engined G6o-LT-P1s after enduring a torrid build-up to the race resulting from cashflow problems, which prevented it from racing at Spa. The car has only tested in anger on three occasions and, without its definitive Le Mans aerodynamics, wasn't anywhere near the pace at the test day.
"We've got to be realistic with a car that has so little mileage on it and just target a finish," says Manor sporting director Graeme Lowdon. "We're looking at Le Mans as the first step in a long-term project."



The DragonSpeed squad has also been up against it in the lead-up to Le Mans. It received its customer BR1, powered by the Gibson V8, only a week before the prologue and then had to rebuild it around a new monocoque after Pietro Fittipaldi, standing in for Renger van der Zande, crashed at Eau Rouge in qualifying at Spa.

DragonSpeed's aspirations are different from those of the other privateers. Henrik Hedman, who drives and funds the programme, is a true amateur who's out racing in the premier class at Le Mans just for the hell of it.

## THE PRIVATEERS' CHANCES

Toyota has been given three key advantages over the privateers or rather not had them taken away. The TSoso HYBRIDs will be faster on track, pit fewer times and spend less time stationary when they are in the pits.

They add up to a significant margin after 24 hours in favour of Toyota should it replicate the pace advantage it had over Rebellion at the test day. Presuming they both had trouble-free races, Japanese cars would be somewhere between two and three laps in front.

An advantage of six tenths each time over the 300-plus laps that are likely to be run under full green-flag conditions makes for a deficit of just over three minutes. So that's one lap, give or take.

The Toyotas will be going a lap longer between fuel stops - 11 rather than the 10 of the privateers - so that means they are likely to stop three or four times fewer over the course of the 24 hours. A stop, including the slowing-down and speeding-up parts, should cost a car just under a minute now that refuelling and tyre changes can take place at the same time. So that's around about another lap.

Each time the Toyota stops it will gain approximately five seconds on the privateer cars in the time it takes for a stint's worth of fuel to go into the car. Multiply that by 30-something stops, and you get another lap.

All that is a simplistic explanation of what could happen presuming a Toyota and a Rebellion have perfect races and can hit something approaching their ultimate lap time every time around the Circuit de la Sarthe. That doesn't happen, but it's more likely to happen for a hybrid TSo5o than for a non-hybrid Rebellion-Gibson.

The boost from the Toyota's energy-retrieval systems gives it a key advantage in traffic. The drivers of the TSo5o can use a bit of electric energy to get past a slower car at key points of the circuit to avoid losing time.

Jani reckons that the six-tenths margin is just close enough for Rebellion to be able to profit from a Toyota hiccup. "It's not like before when they would have had to be in the pits for more than half an hour," he says. "As soon as they stop for more than one lap, that's realistically when we have a chance."

Hayden said he was "encouraged rather than hopeful" after Rebellion's test-day performance. He knows a victory for his team, or any privateer, is a long shot. "All the stars would need to align for that to happen," he says, "or rather Toyota's stars to unalign." , "'

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# LATE DASH FOR CHAMP MORRIS AS HE MAKES BRITISH GT RETURN 

## BRITISH GT

Reigning British GT champions Rick Parfitt and Seb Morris were reunited at short notice at Silverstone last weekend, after Morris made a late dash to the track to deputise for Ryan Ratcliffe.

Parfitt and Ratcliffe had qualified the number one Bentley a season-best sixth, but a bout of food poisoning on Saturday ruled Ratcliffe out of driving after a medical inspection on Sunday morning.

Following Ratcliffe's withdrawal, Parfitt put a call into his 2017

## "I HAD TO BLAG MY

WAY IN, RUN TO SCRUTINEERING AND GET IN THE CAR!"

team-mate Morris, who is now racing a similar Team Parker-run Continental in the Blancpain Endurance Series.

Morris made the 164-mile dash from his home in Chester to the Northamptonshire track, arriving five minutes before he was due to take over the car from Parfitt an hour into the race.
"I'd got up, been for a run and was in the shower when Rick called," said Morris. "I immediately jumped in the car at 1130 and managed to get to the track just after 1400, then I had to blag my way in without a pass, run to scrutineering, chuck my lid on and get in the car! It was an experience, to say the least!"
Morris and Parfitt managed to bring the car home fourth on the road, but were pinged back to sixth post-race for a yellow flag infringement.
"I'm a genuine Pro driver now, so it's not hard jumping in and out of cars," added Morris. "The British car is set up a bit differently to the one I race in Blancpain, so it took a few laps to get into it, but then I was bang on the pace again and didn't feel like I'd been away."

Parfitt said: "I'd like to thank the Ratcliffe family as they made this possible by agreeing to let Seb race in Ryan's place. Ryan and I are pretty much the only ones in GT3 that have to find sponsorship to go racing, so keeping the car running is critical." ROB LADBROOK

## Browning to appeal after losing Oulton victory

GINETTA JUNIOR

Ginetta Junior title contender Luke Browning is set to appeal to the National Court after being stripped of his race one victory at Oulton Park last weekend.
The Richardson Racing driver led throughout the opening race but was excluded after failing post-race scrutineering as there was not enough oil left in his differential. But he and the team intend to appeal the decision to the National Court.
"I went over a kerb and cracked the differential - then oil started to come out," Browning explained, adding that he gained no performance advantage.
"We're going to appeal and that [if

successful] would give me five wins and put me in a good position in the championship."

Despite taking a commanding victory in race two, he is now 31 points behind leader Adam Smalley, despite having entered the meeting just 12 behind. If the appeal is successful he would take the top spot.

- Browning wasn't the only Ginetta Junior driver to lose points over the Oulton Park weekend. Scholarship driver James Taylor and rookie James Hedley were both docked six championship points for their parts in causing collisions during a chaotic second race. STEPHEN LICKORISH



## Rules mix-up leaves Barnicoat on the sidelines

BRITISH GT

Euan Hankey made a surprise return to British GT with the Track-Club McLaren team after its regular driver Ben Barnicoat was substituted out for last weekend's Silverstone 500 event following a rules mix-up.
Hankey stepped in to share Adam Balon's McLaren 570S GT4 for the three-hour outing after Barnicoat fell foul of the series' testing rules.
Autosport understands that Barnicoat's employer, McLaren, used him for a development test for the GT4 machine at Silverstone recently, breaching British GT rules that bar drivers from testing at a race venue prior to an event.

Had Barnicoat raced, the car would have had to start last in GT4. As a result, both Track-Club and McLaren opted to switch drivers instead.
"It was a bit of a late call after a mix-up, but it's good to be back," said Hankey, who was forced to retire the car after two punctures and an electrical issue.
"Racing a GT4 is very different to the GT3 or GTE cars I've been racing recently. You have less aero and grip, so you can't carry as much speed into corners. Ben will be back on regular duty for the rest of the season, so it's likely a one-off for me."

After the Silverstone non-finish, Balon and Barnicoat are now eighth in the GT4 drivers' standings. rob ladbrook

## Top team boss given paddock ban



RENAULT UK CLIO CUP
Leading Renault UK Clio Cup team boss Mark Hunt was banned from the Oulton Park paddock last weekend after reckless behaviour.

Autosport understands Hunt (above) - boss of the Pyro squad that has fielded a Clio champion in eight of the last 10 years - was banned after an incident on Saturday night, involving a fire extinguisher.

The stewards decided to ban Hunt from the paddock for a spell on Sunday, as well as handing the Pyro team a suspended ban from the category.

Pyro has been fielding five drivers in this year's championship, including title contender Max Coates - who took victory in Sunday's race at Oulton, Pyro's first since the opening weekend of the year at Brands Hatch. The squad also currently tops the teams' standings.

Clio Cup championship manager Will Fewkes refused to make any comment on the situation.

- One of Pyro's drivers, Dan Rowbottom (below), withdrew from the second Oulton race for financial reasons. It had already been a difficult meeting for Rowbottom as he was only able to qualify 11th for the two races after suffering from a misfire. Despite this, Rowbottom remains fourth in the standings. Stephen lickorish



ASTON MARTIN FESTIVAL RACE The new Aston Martin Vantage GT3 announced last month will be revealed to the world when it races on the Le Mans 24 Hours undercard this weekend. Ross Gunn, the marque's test and reserve driver, will race the development car in the Aston Martin Racing Festival one-make event, which takes place on Saturday morning. Martin Brundle is also in the race, sharing a Vantage GT4 with cycling legend Sir Chris Hoy.

## New meeting to replace snowed-off event

## 750 MOTOR CLUB

The 750 Motor Club has added a new fixture at Anglesey this September in an effort to rearrange the majority of the races lost in its March meeting, which was abandoned due to snow.

The Donington Park season opener on March 1718 was abandoned on the opening day with sporadic blizzard-like conditions, and forecasts suggested more on the way. No races had been completed.

The club has been able to replace many of the lost races by slotting them into three September meetings.

Hot Hatch and Bikesports races have been added to the existing 750MC Donington event on September 1-2, RGB Sports 1000 and Club Enduro will run in the new meeting at Anglesey on September 8, while MR2 races will be added to the Grand Finals event at Castle Combe on September 15.
This was done even though the 750 MC was not obliged to replace the lost running as qualifying sessions were originally completed.
"We're trying our best to rearrange as many of the races as possible, but it's quite a challenge as finding circuits with track time
available at such late notice is quite difficult," 750 MC competitions secretary Giles Groombridge said.
Competitors from the abandoned event will not be charged extra for the rearranged rounds.
Reigning MR2 champion Shaun Traynor was delighted: "They didn't have to do it. It's part and parcel of the regs we signed up to that we've done qualifying so our money's gone. For them to give us a chance to rearrange it was really good. I know they [750MC] lost a lot of money, especially with rearranging this." GRAHAM KEILLOH


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## Budd to return after crash

## MINI SETEN

Mini Se7en racer Daniel Budd has vowed to get back behind the wheel of a racing car as soon as possible following his nasty crash at Thruxton recently.
The 36 -year-old was competing at the Hampshire track's 50th anniversary meeting earlier this month when his car was launched into a high-speed series of rolls along Woodham Hill.
Budd's Mini spiralled over the barrier and collided with a marshals' post. Miraculously, neither he nor any marshals were injured.
"I don't know how many rolls we did, but it came to rest facing the wrong way on the other side of the barrier," recalled

Budd, who is competing in his first full season of the Mini Se7en Championship.
"When I got out, a marshal said,‘You hit a marshals' post' so I was worried that there were going to be people underneath the car. The accident was horrendous, the back and passenger side of the car were crushed and there were two holes in the roof.
"It has split and bent the cage, but the car was very well built and it did what it needed to do. It did scare me when it happened - I was genuinely upset looking at my car afterwards."
Budd now plans to compete in the next round of the Mini Se7en Championship at Zandvoort on July 8 using brother Charlie's spare car. STEFAN MACKLEY

## Polley's title bid dented

## CLIO 182 s

Clio 182 Championship contender Ryan Polley's title hopes were hit last weekend at Rockingham after multiple engine problems meant he missed the first of the three races.

Polley was also forced to start race two from the back of the grid as the order was based on the fastest laps in the previous race.
"Friday was a bad day - I blew an engine in testing," Polley explained. "I then went out in qualifying and did a head gasket, and missed race one because of that. I was trying to work out what to do and
then I found another engine that someone offered me, so I went and picked that up, and put it in last [Saturday] night."
From the back, Polley was able to finish 1oth in the second race and he then finished ninth in the finale.

Championship leader Patrick Fletcher, who entered the weekend eight points ahead of Polley, took two wins and a second place.

- MR2 racer Josh Brooks has admitted he is considering his racing future after being nudged out of the lead of the second race at Rockingham by Paul Cook. "I've got a lot of thinking to do," Brooks said. GRAHAM KEILLOH

IN THE HEADLINES

HSCC'S WHITE TO RETIRE
Grahame White will retire as chief executive officer of the Historic Sports Car Club at the end of this year to take a new consultancy role with the club. White has been CEO for over 20 years and will now switch to a new position to ensure the HSCC continues to benefit from his experience and expertise. White said: "It has been a privilege to work for the HSCC and all the members, and I will continue to help in planning its future."

## MINI CHALLENGE CHAOS

The start of last weekend's second Mini JCW race at Silverstone was delayed after Ollie Pidgley and Jac Maybin collided with each other on the formation lap at the exit of The Loop. Maybin stopped his car at Luffield. It needed to be recovered, and he was fined and issued three penalty points on his licence.

## COMBE SINGLE-SEATERS

The Castle Combe Racing Club is set to run an allcomers Open Single-Seater race for the first time at the end of the 2018 season. The race will form part of the CCRC Finals meeting on September 15 and will be run over 15 minutes. Entrants will be split into four classes based on engine capacity. The competition is open to any single-seater machinery, with tyres also being unrestricted.

## SHEPHERD'S STRIFE

Reigning M3 Cup champion Adam Shepherd looks set to miss the coming Ginetta GT4 Supercup rounds due to a lack of budget, after a brace of podium finishes at Oulton Park last weekend. "That result may be our last," he said. "Fingers crossed these results will help because we need more sponsors to carry on."

## HIBBERT PLOTS RETURN

Tom Hibbert plans to make his return to the Ginetta GT4 Supercup in the season-ending round at Brands Hatch in September. Hibbert, a three-time Supercup winner, took part in the opening three races of 2018 at Brands Hatch but was hindered by car problems throughout. The completion of a new G55 is now in progress.

## JEWISS'S APPROACH

British F4 points leader Kiern Jewiss admits he may think again before pulling off any late overtaking moves after being penalised last Saturday at Oulton Park. He grabbed the lead on the penultimate lap, colliding with Dennis Hauger at the hairpin, and was relegated to second post-race. "If you don't go for those gaps, then you're not a racing driver," said Jewiss. "t'll not change me, although I might think more about how far back I am."


# A weekend of two halves for Browning at Oulton Park 

## GINETTA JUNIOR

The only similarity between the two Ginetta Junior contests at Oulton Park was that Luke Browning won both on the road. In one race he was stripped of the victory, the other he won by a mammoth 11 seconds. And while one race was a snoozefest, the other was a chaotic thriller.

The opening race was the dull one. Browning resisted title rival Adam Smalley's attempts to grab the lead at the start and that was how it stayed
to the finish. Except that Browning's Richardson Racing car failed post-race scrutineering and Smalley was handed the win from Elite Motorsport teammates Fin Green and Louis Foster.

Race two was completely different. There was more action in the opening half a lap than in the whole of the earlier encounter.

Smalley jumped front-row starter James Hedley into Old Hall, but this proved to be a bad move because by the hairpin he was facing the wrong way, becoming the victim after contact with James Taylor sent an out-of-control Hedley clattering into

Smalley. This dropped Smalley and Hedley out of contention.

On the next lap it was Taylor - who had earlier missed out on third in race one after jumping the start - and Patrick Kibble's turn to tangle at Old Hall as they fought for second. This ultimately brought an end to Kibble's challenge.

On lap four there were yet more collisions, with Taylor, Ruben Del Sarte and Green coming together at the chicane. This dropped Taylor and Green out of contention.
While all of this was going on, Browning had scampered into the distance and was over 11s clear by the chequered flag.
When asked if that made up for the race-one disappointment, he smiled: "Yeah, it does. To win by that margin was something on my bucket list."
Behind were the tiny number of cars that had stayed out of trouble. A move at Lodge on Greg Johnson with three of the eight laps to go sealed second for Foster, despite starting all the way down in 11th.
"I was disappointed with qualifying after taking a pole and fastest lap at Thruxton," admitted Foster. "Oulton isn't one of my favourite tracks and this is only my third time here.
"Finishing third yesterday was good but finishing second today was great the race was just manic, there was a lot happening! I had nothing to lose but was surprised to take second."
Johnson held on for third from Del Sarte, Jonny Wilkinson and a recovering Smalley after a frenetic contest.
After the uneventful opener it was further proof that calm is definitely not the Ginetta Junior norm. STEPHEN LICKORISH

## Jewiss penalty gives Hauger maiden win

BRITISH F4
Dennis Hauger's wait for a British Formula 4 victory ended at Oulton Park, while Kiern Jewiss came away with the championship lead.
Hauger's maiden triumph came after a penalty for Jewiss in the first of three races after a race-long battle between the pair.
'Clutch-biting-point' eagerness meant Jewiss stuttered and surrendered his pole position advantage, with the fast-starting Hauger defending grimly until Jewiss made his lunge at Island hairpin on the penultimate lap. Contact was made, and the result was later reversed in the Arden-run Norwegian's favour.

Ayrton Simmons struggled for qualifying pace and lost his championship lead despite a hard-fought race two victory ahead of Thruxton winner Jack Doohan - who picked up a troublesome chicane marker post - and a charging Jewiss, who dived inside Paavo Tonteri at Old Hall to complete the podium.

Simmons's reversed-grid win was sandwiched by results of sixth and eighth, race-three contact with Johnathan Hoggard delaying him at the hairpin.

Double R Racing ace Jewiss picked up the pieces by dominating race three from pole. Patrik Pasma tailed him to add to his third place in race one
DAN MASON


## Wrigley, Harper seal victories

PORSCHE CARRERACUP GB

For the past five years, no more than five drivers have won races in any Porsche Carrera Cup GB season. That run is now over after Tom Wrigley and Dan Harper joined the winners' circle at Oulton Park to make it six different victors from the opening eight races.
Wrigley claimed his maiden win in the opener after getting a good getaway from pole, with Lewis Plato the only threat to his supremacy.
Race two was a similar story as again poleman Harper made a good start, an area he has been focusing on after difficulties earlier in the year, and had to defend from

Plato. He was able to stay ahead throughout, with even Fraser Robertson's spun car at the chicane not stopping his charge.
"It was great to break my duck," enthused Porsche Junior Harper. "I was just trying my best to avoid it [Robertson's car] - it wasn't the nicest end to the race!"

While Wrigley and Harper were celebrating, erstwhile points leader Dino Zamparelli was full of gloom. A marker post cracking his radiator cost him third place in race one, and then a spin on the opening lap of race two - following contact from Shamus Jennings - restricted him to 1oth and allowed Tio Ellinas to claim the points lead. STEPHEN LICKORISH


## Coates denies Dorlin record

RENAULT UK CLIO CUP

James Dorlin was unable to equal the record for most consecutive Clio Cup wins after Max Coates denied him a sixth straight victory.

When Westbourne Motorsport driver Dorlin qualified on pole for both races by a quarter of a second it looked like he had a good chance to make history, especially with Oulton being a tough circuit to overtake on.

But a great getaway by Coates allowed him to snatch the lead off the line in race two, which was then paused after Jade

Edwards rolled out of Cascades following contact with Sam Osborne.

Once the safety car pitted, Dorlin was all over the back of Coates, but a failed move at Lodge allowed Paul Rivett to sneak ahead across the line. Dorlin then had to turn his attention to keeping Bradley Burns behind and that was how it stayed to the flag.

Earlier, Dorlin had scampered to victory in a very dull opener as secondplaced Rivett kept a queue of seven cars, headed by Coates, behind him throughout the race.
Stephen lickorish


CINETTA JUNIOR (both 8 laps)
Race 11 Adam Smalley; 2 Fin Green +6.624 s ; 3 Louis Foster; 4 Ruben Del Sarte;
5 James Hedley; 6 Patrick Kibble. Fastest lap Smalley 1m44.893s (76.39mph). Pole Luke Browning. Starters 17. Race 21 Browning; 2 Foster $+11.353 \mathrm{~s} ; 3$ Greg Johnson; 4 James Taylor; 5 Jonny Wilkinson; 6 Smalley. FL Smalley 1 m 45.394 s (76.03mph). P Browning. S 17.
Points 1 Smalley 241; 2 Foster 232;
3 Browning 210; 4 Del Sarte 187; 5 Kibble 161; 6 Johnson 152.

BRITISH F4 (all 15 laps)
Race 11 Dennis Hauger; 2 Kiern Jewiss +0.791s; 3 Patrik Pasma; 4 Paavo Tonteri; 5 Jack Doohan; 6 Ayrton Simmons. FL Jewiss 1m22.939s ( 96.62 mph ). P Jewiss. S 14. Race 21 Simmons; 2 Doohan +0.382 s ; 3 Jewiss; 4 Tonteri; 5 Pasma; 6 Hauger. FL Doohan 1m24.516s ( 94.81 mph ). P Simmons. $\mathbf{S} 14$.
Race 31 Jewiss; 2 Pasma +7.776s; 3 Tonteri; 4 Hampus Ericsson; 5 Hauger; 6 Doohan. FL Jewiss 1m24.191s ( 95.18 mph ). P Jewiss. S 14. Points 1 Jewiss 206; 2 Simmons 190; 3 Doohan 137; 4 Hauger 117; 5 Tonteri 107; 6 Pasma 105.

PORSCHE CARRERA CUP GB (both 18 laps) Race 11 Tom Wrigley; 2 Lewis Plato +0.584s; 3 Tio Ellinas; 4 Daniel Harper; 5 George Gamble; 6 Sebastian Perez. FL. Plato 1 m 22.769 s ( 96.81 mph ). P Wrigley. $\mathbf{S} 22$.
Race 21 Harper; 2 Plato +0.967s; 3 Ellinas; 4 Wrigley; 5 Gamble; 6 Dan Vaughan. FL Harper 1m23.181s (96.33mph). P Harper. S 22. Points 1 Ellinas 64; 2 Dino Zamparelli 58; 3 Wrigley 54; 4 Plato 49; 5 Gamble 39; 6 Harper 27.

## RENAULT UK CLIO CUP

Race 1 ( $\mathbf{1 2}$ laps) 1 James Dorlin; 2 Paul Rivett +4.962s; 3 Max Coates; 4 Lee Pattison; 5 James Colburn; 6 Dan Zelos. FL. Dorlin 1m34.589s (84.72mph). P Dorlin. S 18.

Race 2 ( $\mathbf{1 5}$ laps) 1 Coates; 2 Rivett $+0.281 \mathrm{~s} ;$ 3 Dorlin; 4 Bradley Burns; 5 Colburn; 6 Michael Epps. FL Pattison 1m35.244s ( 84.13 mph ). P Dorlin. S 17.
Points 1 Dorlin 164; 2 Coates 160; 3 Rivett 152; 4 Daniel Rowbottom 102; 5 Jack McCarthy 100; 6 Burns 94.

GINETTA GT4 SUPERCUP (both 15 laps) Race 11 Charles Ladell; 2 Carl Boardley +4.530s; 3 Adam Shepherd; 4 Reece Somerfield; 5 Angus Fender; 6 Jac Constable. FL Ladell 1m25.959s ( 93.22 mph ). P Ladell. S 17. Race 21 Ladell; 2 Boardley +2.070s; 3 Shepherd; 4 Tom Roche; 5 Carl Shield; 6 Somerfield. FL Ladell 1m26.791s ( 92.33 mph ). P Ladell. S 17.
Points 1 Ladell 264; 2 Boardley 239; 3 Harry King 159; 4 Roche 150; 5 Shield 136; 6 Constable 136.




## Ladell keeps points lead with clean sweep at Oulton

GINETTA GT4 SUPERCUP

Charlie Ladell's championship advantage grew further in the Ginetta GT4 Supercup thanks to a confident brace of victories at Oulton Park.

The Rob Boston Racing man's cause was helped further by a mixed weekend of fortunes for many of his closest rivals, Harry King losing out most of all after a meeting plagued by car troubles.

Not even a "perfect" lap from Andrew Gordon-Colebrooke could stop Ladell
from going one better to claim pole and victory in race one, Gordon-Colebrooke making a crucial mistake at Old Hall on the second lap to negate his best qualifying effort so far.
"You don't get many races like that," said Ladell after a commanding win over his nearest title contender, Carl Boardley. "We got it really hooked up from qualifying and felt comfortable."
Ladell doubled up with another dominant performance the following day, to make it five wins from the first eight
races, and opening up a 25 -point cushion over the consistent Boardley, who finished second for the sixth time in 2018.
Ladell's cash-strapped team-mate Adam Shepherd shook off budget concerns to round out the podium in both contests.
Tom Roche produced a fine comeback in the third of the Rob Boston Racing cars, meanwhile, after being bumped to seventh on the grid for disrespecting track limits in qualifying.
Roche took evasive action of GordonColebrooke's recovering car in race one, and was forced to pit to remove grass from the car's front splitter. What followed was a fine charge from ninth to fourth place, a late dive to the inside of Reece Somerfield's G55 heading into the high-speed Druids right-hander proving the showpiece of his recovery.
"A great race," he said. "It's hard to overtake here but I went for it!"
King was limited to three laps in qualifying with suspension issues, and a broken toe-link removed him from second in the closing laps of the opening race. Starting 1oth for race two, the Elite Motorsport man's misery was compounded by a brief power failure that limited him to a lowly 1oth.
Dave Brooks earned his first Am class win after the retirement of Michael Crees in race one, sharing the wins with Colin White. DAN MASON

## CREES HOLDS HIS OWN AGAINST THE PROS

In 2016 Michael Crees was an onlooker among BTCC fans watching from the grass banks at Brands Hatch. Two years on, the Century Motorsport rookie is a standout performer in the Ginetta GT4 Supercup's amateur class after three competitive outings.

The ever-smiling Crees admitted he was "living a dream" after mixing it with the Pro drivers at Oulton Park, in a weekend when his results did not reflect his true potential. A race-one mistake at Cascades led to overheating problems and, mired in the pack for race two, a trio of off-track excursions stymied his chase of Colin White, who was one short of 150 Ginetta starts.
"I'm riding the crest of a wave at the minute," says Crees, twice an Am class winner this season. "Two years ago I was watching at Brands Hatch. Now l'm winning trophies."

Qualifying at Oulton Park offered a glimpse into the Kent racer's potential. A minor tracklimits indiscretion meant his best lap - good enough for fourth on the grid - was deleted, but he still outqualified his nearest Am rival
by almost eight tenths of a second.
"I'm hoping that l'll get among the Pros by Snetterton [in late July]," was his response to taking on the theoretically quicker drivers as he aims to cut out his errors.
"This is the quickest l've been. We've made a few mistakes as I'm obviously still learning, but we came through it. Donington was great but we had a bit of bad luck in the end [with gearbox problems], so we've had a bit of everything already really."
Crees made a strong first impression in a karting outing, following in the footsteps of his brother, who was a racer himself.
"When I was a kid, my brother used to race Caterhams, but unfortunately didn't have the budget to carry on. I've always been interested and thought l'd have go, then two years ago I got my lucky break when I was noticed racing hire karts."

Crees graduated to the Supercup after winning the 2017 Ginetta G40 GRDC+ title as a car-racing rookie, swiftly adding more silverware in ' 18 with Am class wins at Brands Hatch and Donington. Experience may not be on his side, unlike

main rival White, who Crees greeted in parc ferme with a handshake after his toughest weekend to date. "I've raced in Ginettas since the start", said 61-year-old White. "When you think about it, I'm up against a lot of young chargers at the moment.
"Michael is very quick so you need to use some racecraft to beat him. He's learning the ropes a little bit still, so we're trying to take advantage while we can."
DAN MASON


## Farmer/Thiim kickstart GT3 title challenge

SILVERSTONE<br>BRITISH GT<br>JUNE 9-10

Mark Farmer smiled slyly when he said: "Yeah, our championship pretty much starts now. Never mind the first two rounds..."
Those words came after the first win for himself and team-mate Nicki Thiim last month at Snetterton. If the seeds of the revival were sown in Norfolk, the pair's title hopes bloomed in Northamptonshire with victory in the Silverstone 500 showpiece.
Farmer and Thiim's second win from three races - and TF Sport's third on the trot in the category - was hard earned, after so
nearly being lost in the first stint when Farmer found himself facing backwards at Becketts after a thump from Graham Davidson's Aston Martin Vantage.
"I genuinely thought that had blown our chance," said Farmer. "I was fuming. But credit to the team, the strategy still played out and things went our way. What a boost this is to our championship hopes!"

Farmer/Thiim's car didn't start the season well, with a litany of issues robbing them of the chance to prove their pace. Those were ironed out by Snetterton, when pole, a win and a podium represented a strong points haul for the new pairing.

Having dominated in Norfolk, the Astons
weren't the fastest marque on the grid this time. All of the Vantages were handed an extra 5 kg of ballast. In contrast, its biggest title challenger, the Lamborghini Huracan ballasted to the max last time out - had 15 kg taken off, leading to a 20 kg swing towards the Italian cars. However, it didn't help Barwell in qualifying, as lead drivers Jon Minshaw and Phil Keen struggled with a balance issue eventually traced to a problem with the differential. The understeering Lambo would only start a lowly 12 th.
Instead, the title of Aston-beater went to the RJN Nissan GT-R of Struan Moore and guest entry Ricardo Sanchez.
"Around the high-speed stuff the car

Century Motorsport celebrated its second British GT4 win in succession, with Jack Mitchell and Aleksander Schjerpen capitalising on heartbreak for the Equipe Verschuur team of Finlay Hutchison and Daniel McKay.

Hutchison and McKay looked untouchable around the fast sweeps of Silverstone as they found "the perfect balance" in their McLaren 570 GT4 - a car that has notably been difficult to set up to find the operative tyre window. But the pair nailed it, taking pole on Saturday and also looking unbeatable for the first two hours on Sunday. And then things took a turn for the worse.

Hutchison admitted to "messing up the start... really, really badly" and slipped back to fourth as the fast-starting Lewis Proctor shot his McLaren into the lead from seventh on the grid on the first lap.

Undeterred, Hutchison fought back to secure the lead again shortly before handing over to McKay, who consolidated the advantage to the best part of 20 seconds. Hutchison then took over again and continued to romp clear. That was until his front-right suspension gave way, robbing the crew of a 35 -second lead and a sure victory.

With the long-term leaders out, a frantic battle behind took on more significance. Ben Tuck/Ben Green led the way in the sister Century BMW M4, but
slipped back to third after serving their 20-second success penalty from their win last time out.
That handed the lead to Mitchell/Schjerpen, who had kept things clean to climb up the order, having lost time with a radio glitch early on.
"We did qualifying laps for the best part of two-and-a-half hours, but it feels mega to win," said Mitchell of the race.

Jordan Albert brought the McLaren he shares with Proctor home in second, defying its extra 15s in the pits, to replicate its result from the last race.

The fight for third was a thriller. Tuck held on gamely on worn tyres but succumbed to both

BRITISH GT
GT3 (85 LAPS) 1 Mark Farmer/Nicki Thim (Aston Martin Vantage); 2 Jon Minshaw/ Phil Keen (Lamborghini Huracan) +3.533s; 3 Flick Haigh/Jonny Adam (Vantage); 4 Ricardo Sanchez/Struan Moore (Nissan GT-R NISMO); 5 Derek Johnston/Marco Sorensen (Vantage); 6 Rick Parfitt Jr/Seb Morris (Bentley Continental). Fastest lap Sorensen 1m59.725s
( 110.06 mph ). Pole Sanchez/Moore 3m59.849s (combined time). Starters 14.
Points 1 Minshaw/Keen 101; 2 Farmer/
Thim 98.5; 3 Lee Mowle/Yelmer Buurman (Mercedes-AMG) 80; 4 Haigh/Adam 79.5;
5 Johnston/Sorensen 79; 6 Andrew Howard/ Darren Turner (Vantage) 69.5

GT4 (77 LAPS) 1 Aleksander Schjerpen/Jack Mitchell (BMW M4); 2 Lewis Proctor/Jordan Albert (McLaren 570S) +27.584s; 3 Will Moore/ Matt Nicoll-Jones (Aston Martin Vantage); 4 Callum Pointon/Patrik Matthiesen (Ginetta G55); 5 Ben Tuck/Ben Green (BMW M4); 6 Kelvin Fletcher/Martin Polwman (Nissan 370Z). FL Mitchell 2 m 12.263 s ( 99.63 mph ). P Finlay Hutchison/Dan McKay (570S) 4m23.258s (combined time). S 22. Points 1 Pointon/Matthiesen 83.5; 2 Moore/Nicoll-Jones 75; 3 Mitchell 71.5; 4 Michael O'Brien/Charlie Fagg (570S) 65; 5 Tuck/Green 63; 6 Proctor/Albert 59.

For full results visit: www.tsl-timing.com
is amazing and we can finally drive off the slower corners too," said Moore after the car took pole ahead of Farmer/ Thiim's combined effort.

Being a silver-graded driver within an amateur field, it was little surprise that Sanchez bolted away at the start, leaving Farmer to defend from Davidson, Ian Loggie's Bentley and Richard Neary's Mercedes.

Davidson started his car on a lighter fuel load than the longer-running Farmer, and caught him before trying to pass into


Becketts, only to whack Farmer's rear and spin him out. That earned Davidson's car a 10-second stop-go penalty, and an extra stop to replace the steering arm, which put it out of contention.

At that point the sister TF car came into play. Derek Johnston was one of the first GT3 runners to stop, handing over to Marco Sorensen, whose long and swift stint brought the car into the mix.

When the leading Nissan stopped after the hour-mark, disaster struck. "I pulled away and the seat hadn't clicked into place on the runners, so it slid right back when the car moved," said Moore, who lost significant time to the charging Sorensen, ceded the lead and was then forced into a short stint after admitting: "I could hardly reach the pedals, let alone brake properly!"

Barwell changed the gearbox and differential on the Minshaw/Keen car overnight, and both drivers reported an improvement and raced far better than they qualified. By mid-distance, when the true order emerged, the car was well in play and running second thanks to a great stint from Keen and trouble for their rivals.

As well as the Nissan's issues, Loggie/ Callum MacLeod's Bentley lost time after a tangle with a GT4 runner, while Neary/ Adam Christodoulou's Mercedes suffered suspension damage and retired.


With just an hour to go, the fight for glory boiled down to just four cars - and would be decided by the pitstop success penalties each one carried over from the last race. Johnston/ Sorensen had to serve an extra 2os stationery on their third and final mandatory stop, which dropped them to fifth, behind the recovering Nissan. Farmer/Thiim had to serve 10s, but Farmer managed to craft enough of a gap over Minshaw in the penultimate stint that Thiim managed to bring the car back into the fray in the lead, just 0.5 s ahead of Keen after the two cars pitted together for a pitstop showdown.

Thiim held the lead to the flag as the Lambo came under pressure from Jonny Adam in the Optimum Aston he shares with Flick Haigh for the final 11 laps.

One of the stories of the race came from the number one Bentley, where the reigning champions made a surprise return.

After his late call to action (see page 64) Seb Morris slotted back in alongside Rick Parfitt Jr brilliantly.

The car was dumped to the back of the grid after the Sunday morning driver switch, but Parfitt drove a great first hour-long stint to bring it back into contention, despite a spin at Luffield. Morris then jumped straight in and kept pace with the regulars to help the crew to fourth. They were put back to sixth post-race for a yellow flag infringement. ROB LADBROOK

Matt Nicoll-Jones/Will Moore's Academy Aston Martin and the HHC Ginetta of Callum Pointon/ Patrik Matthiesen in the closing laps.

Matthiesen then launched an audacious lunge up the inside of Nicoll-Jones as the pair ran into Woodcote for the last time and got the place on the road, only to have the positions reversed after contact.

Kelvin Fletcher/Martin Plowman recovered from a time penalty for contact with Charlie Fagg's McLaren to finish sixth and win the Pro-Am division after what Plowman labelled "the best stint of my life" in the RJN Nissan $370 Z$.
ROB LADBROOK



## Lundqvist stars at Silverstone to extend lead

## SILVERSTONE <br> BRSCC <br> JUNE 9-10

Linus Lundqvist once again proved the man to beat in BRDC British F3 at Silverstone, not putting a wheel wrong all weekend and extending his lead in the standings.
The Swede in his words had "the perfect Saturday", taking his first outright pole position and holding off Kush Maini for the duration of the 10-lap race on the Grand Prix layout to claim his fourth win of 2018. He cruised through from 17th on the full-reversed-grid second race to sixth by the flag on Sunday, and enjoyed runner-up spot in the final race to hold a 56 -point lead over Nicolai Kjaergaard at the halfway stage of the season.
"It's been a very solid weekend, I'm
still really happy with getting my first pole position," said delighted Double R Racing man Lundqvist. "It's always good to have that points buffer but there's still so long to go. I can't start playing safe for the championship; I still need to win races."

If Lundqvist left Silverstone the most satisfied British F3 driver, Lanan Racing's Kush Maini was perhaps the most frustrated. The Indian was pipped to pole by just 0.051 s for race one and shadowed Lundqvist throughout, but never had enough of a chance to overtake. He was knocked into a spin on the opening lap of race two by Jamie Chadwick and recovered to 14 th, but had secured a fast enough lap to start from pole in race three.

Maini bogged down off the line and allowed fellow front-row starter Tom Gamble to lead into Copse, though, and an

attempt to repass the Fortec driver into Maggotts and Becketts put Maini on the kerb and he lost another spot to Lundqvist, eventually finishing a frustrated third.
"I came out of Copse in second and I think he underestimated how quick he [Gamble] could go into the corner [Maggotts]. I was bouncing all over the place [on the kerb]," said Maini, who sits third in the standings, now 97 points adrift of leader Lundqvist. "It's motorsport and it can do that to you [bad results], and there's still half the championship left, but I'm definitely not happy."

Kjaergaard also had a weekend to forget, scoring two fourth-place finishes and a sixth as all four Carlin cars struggled through the high-speed corners.
Double $R$ secured its second win of the weekend courtesy of Pavan Ravishankar, who made the most of the reversed-grid second race to take his maiden British F3 win after starting from pole position. The Singaporean put in a faultless drive to beat Carlin's Sun Yue Yang, while Gamble took third before going on to win the final race of the weekend, a change of engine after race one rectifying a lack of straightline speed.
A notable absentee from the British F3 grid were any Chris Dittmann Racing cars, as its two drivers - Briton Harry Webb and Malaysian Chia Wing Hoong - were unable to secure funding to compete.
The Silverstone layout lent itself to the other one-make series on show and produced some titanic slipstreaming battles.
Danny Winstanley extended his lead at the top of the Caterham Seven 420 R standings after winning both races, but had to fight all the way for them. Up to 12 cars

BRDC BRITISH F3 (all 10 laps)
Race 11 Linus Lundqvist; 2 Kush Maini +0.392 s ; 3 Jordan Cane; 4 Clement Novalak; 5 Jamie Chadwick; 6 Nicolai Kjaergaard. Fastest lap Maini 1 m 56.921 s ( 112.70 mph ). Pole Lundqvist. Starters 17. Race 21 Pavan Ravishankar; 2 Sun Yue Yang +3.461s; 3 Tom Gamble; 4 Kjaergaard; 5 Tristan Charpentier; 6 Lundqvist. FL Gamble 1m56.936s (112.69mph). P Ravishankar. S 17. Race 31 Gamble; 2 Lundqvist +2.503s; 3 Maini; 4 Kjaergaard; 5 Cane; 6 Novalak. FL Gamble 1m56.845s (112.78mph). P Maini. S 17. Points 1 Lundqvist 324; 2 Kjaergaard 268; 3 Maini 227; 4 Gamble 203; 5 Cane 159; 6 Krish Mahadik 153.

## CATERHAM SEVEN 420R

Race 1 Danny Winstanley
Race 2 Danny Winstanley

GINETTA GT5 CHALLENGE/G40 CUP
Race 1 James Kellett
Race 2 Shane Stoney
GINETTA RACING DRIVERS CLUB
Race 1 James Crawshaw
Race 2 James Crawshaw

MINI CHALLENGE
Race 1 Jordan Collard
Race 2 Rob Smith
For full results visit: www.tsl-timing.com
battled for the lead at one stage in the first race, with multiple overtakes for top spot on almost every lap. Winstanley was unable to break away but used his experience to beat Sean Byrne and Jack Brown. In race two, front-row starters Winstanley and Byrne worked together to pull away from the rest of the field and the drag to the line went in favour of Winstanley - but only by the small margin of o.0o8s!
A misjudgement when lapping a backmarker on the final lap into Village cost Shane Stoney victory in race one of the Ginetta GT5 Challenge. James Kellett, who'd kept polesitter Stoney honest throughout, pounced up the inside into the right-hander to take the lead and victory.
Stoney made no mistake in the second race, pulling a gap to the gaggle of Ginettas behind to win, while Tom Golding dominated both G40 Cup outings, which were held in conjunction with the GT5s.
Jordan Collard took his maiden victory in the first Mini Challenge race, passing long-time leader Ant Whorton-Eales into Copse with three laps to go.

Only one racing lap was completed in the second race following a delayed start (see page 67 ) and safety-car period to recover several cars from the Northamptonshire scenery - most notably front-row starter Jack Davidson, who spun at Becketts.

Rob Smith took his first Mini win this year from Whorton-Eales and Nathan Harrison in the dash to the flag.
Stefan mackley

A TASTE OF THE UK FOR SWEDE ARENRAM

"It's a little bit easier in Sweden, people are kinder to each other on track."

Sweden's Sebastian Arenram is finding out first-hand just how competitive the UK's Ginetta GT5 Challenge is proving to be this season in only his second full year of competitive racing.

The 35-year-old finished runner-up in the Swedish GT5 Challenge in 2017, taking 10 podiums, of which four were victories, and has his sights set on success in the UK's equivalent championship.

Not only does the Swede commute across from his native homeland for every race, including a two-and-a-half hour flight, but his occupation is arguably not a conventional job for a part-time racing driver.
"I graduated as an architect 10 years ago and the funny thing is there are related programmes to motorsport [that I work on]," he says. "I design tracks and facilities. I'm working on a racetrack at the top of Sweden and one in Finland.
"The GTR Motorpark, it's a hub for vehicle R\&D, a little bit like you have here at Silverstone, but this is going to be a unique thing over there."

The Swede competes with Reflex


Racing - which has run Ginettas for more than 15 years - having looked for British teams to join over the winter in a bid to improve his racing against stronger opposition.
"Reflex Racing have been around for a while and they know how to develop a driver," he adds. "I would say you don't get any second chances here [in the UK] on the track. If someone has the possibility to pass you they will. You have to be very disciplined.
"I'm loving the racing environment and we're starting to expect I should be in the top 10. The drivers are extremely good over here."

With his Ginetta G40 blazoned in the colours of the Swedish flag, Arenram is becoming more of a regular feature towards the head of the GT5 field.

But it has been something of a baptism of fire for the Swede. At the opening round of the season at a wet Oulton Park, he scored his best result to date with eighth place. Since then he's shown glimpses of promise and been on the cusp of the top 10 during the intervening rounds at Rockingham and Thruxton.

Things came together more at Silverstone when, after qualifying 20th for the opening race, he stayed out of trouble and finished 11th. He'd go even better in race two, finishing in ninth.
But regardless of the result, to race at the 'home of British motorsport' is a buzz for Arenram, who has been a fan of the sport since he was a child. "Racing at Silverstone is very special, the tracks back home are more tight and twisty," he says. "Motorsport here in the UK seems like such a big deal."
Stefan mackley


BRANDS HATCH<br>MSVR<br>JUNE 9-10

Victory spoils in the headlining NASCAR Whelen Euro Series Elite 1 double-header were shared between France's Frederic Gabillon and Italian Gianmarco Ercoli as thousands of fans descended upon Brands Hatch for its sixth American SpeedFest.
Gabillon got the jump on the pack from pole in the opener, but hopes of building
up an advantage were promptly slowed due to the intervention of the safety car.

When racing resumed, Alon Day attempted to dive inside third-placed Ercoli. At the same time, former Formula Ford Festival winner Marc Goossens tried to outbrake both as the trio thundered into Paddock Bend. Contact was made, dropping Day down the order and leaving Ercoli's car beached in the gravel. Goossens's role in the incident did not go unnoticed by the officials and, after finishing a close second to the

# Traynor back in MR2 title contention after Rockingham 

## ROCKINGHAM

750 MC
JUNE 9-10
Shaun Traynor took both MR2 wins from a controversial Rockingham meeting to reignite his championship chances.

Victory in race one went to Traynor after leader Josh Brooks - under pressure from Traynor - slid off at Deene hairpin on the last lap after a brake-pad breakage. Traynor then inherited the race-two win after finishing second on the road when Paul Cook was disqualified for nudging early leader Brooks into a spin on lap two. "The handling is what got me where I was today, the power's not quite there," said Traynor.

When asked if this would start a championship tilt for him, Traynor
replied: "That's what my plan is. I think there could be four or five that could get a charge. Out of three rounds, there's five different drivers who have won; I've been in the championship four years and I've never seen that diversity."

Championship leader Ben Rowe finished 1oth in race one after getting "punted off", but then salvaged second place from race two.

Andy Marston/Brett Evans in their BMW E46 M3 took Roadsports victory, again after the winner on the road was disqualified this time the TCR SEAT of Guy Colclough and Stewart Lines, for Colclough passing just after an early-race safety-car period commenced. Colclough disputed this but did not have evidence due to the memory of his in-car camera being full.

The Colclough/Lines pair's three-hour Club Enduro race was also frustrating, with
victorious Gabillon, the frustrated Belgian was later handed a 30 -second time penalty. Dutchman Loris Hezemans inherited the runner-up spot ahead of Francesco Sini.
A three-car pile-up marred the start of race two as Stienes Longin was pitched into a spin along Cooper Straight and was collected by Julien Schell, who in turn was hit by Longin's father Bert. A fire ignited in Schell's car in the aftermath, contributing to a race stoppage. Ercoli led the restarted event from start to finish, despite the close attentions

repeated tyre problems causing them to pull out after an hour. Andy Baylie and Luke Schlewitz won in their BMW E46 M3 after the gearbox broke on longtime leader Martin James's Honda Civic with 40 minutes left.

Joe Stables took a clean sweep of three Bikesports wins in his Radical SR3. Class B championship leader Stables passed Class A leader Lee Torrie on the final lap of the opener, overtook early leader Phil Cooper at half-distance to win the second race, and led from beginning to end in the third. Torrie took all three Class A wins.

Patrick Fletcher extended his Clio 182 championship lead with two wins, as well
of Day. The Israeli almost made a decisive pass at Graham Hill Bend on the final tour, but was forced wide by Ercoli before being pushed back to third by Goossens.

Guillaume Deflandre took a lights-to-flag victory in the opening Elite 2 race, despite driveshaft problems requiring frantic repairs just seconds before he was due to lead the field onto the starting grid. In the duel for second, Florian Venturi appeared to have timed his move to perfection when he dived inside Felipe Rabello at Clearways on the final lap, but Rabello snatched the position back on the drag to the line. Venturi won race two after forcing his way past Guillaume Dumarey at Druids at half-distance.
Multiple Champion of Brands victor Oliver White added two more wins to his tally in his Medina Sport JL17 in a pair of races where backmarkers played an inadvertent, but crucial, role in the final outcome. White passed early leader Michael Eastwell in the opener when Eastwell's Spectrum o11C was boxed in by battling traffic at Druids on lap 12 of 18.

A tangle with Nico Gruber's Ray GR dropped Eastwell out of contention in race two, leaving Luke Cooper to take the fight to White. The tussle lasted for much of the race until Cooper's Swift SC16 was baulked by a slower car at Clearways, offering White decisive breathing space.
John Mickel and Steve Whitelegg were at the centre of the drama in the six Legends races staged. Both drivers won two races each but not without an element of controversy. In Saturday's final, winner Mickel was adjudged to have gained an unfair advantage when he pushed leader


Whitelegg wide at Clearways on the last lap. A time penalty for the three-time champion reversed the positions post-race.

Michael Lyons dominated both 'Anglo American' Formula 5000 contests in his Lola T400. Neil Glover staved off race-long pressure from the Surtees TSi1 of Greg Thornton to claim second in race one. Thornton was denied the spot again by Steve Farthing (Lola T332) in the second race after Glover's Chevron B37 was sidelined by a split hose. mark libbeter

as second place behind Mark Balmer in the opening race of the three.
Fletcher's closest title rival Ryan Polley missed the first race with engine problems, then finished 1oth in the second race after starting from the back, and ninth in the final race after getting caught up in a late incident triggered by David Hitchin.
Another championship contender, Jack Kingsbury, took two fourth places, then slid out in the final race.
Ed Pither rose from the second row to ease to both 750 Formula wins - his fourth victory from five this season. In the first race he touched wheels with championship leader Bill Cowley when taking the lead, Cowley
spinning. Cowley recovered to finish third in that race and second in race two.

Mark Inman in his Vauxhall VX220 took both Armed Forces Race Challenge victories, leading the first all the way, and climbing from fourth in the second after running wide at Deene first time through.

Matthew Booth won both Sport Specials races in his MK Indy RR from Darren Berris's Westfield V8, making it three victories from the four rounds he's entered this year. Berris got the consolation of winning a special race for Army entries - not part of the Armed Forces Race Challenge series. graham keilloh


ANGLO AMERICAN FORMULA 5000
Race 1 Michael Lyons (Lola T400)
Race 2 Michael Lyons (Lola T400)
BERNIE'S V8s
Race 1 Darren Dowling (TVR Sagaris)
Race 2 Darren Dowling (TVR Sagaris)
Race 3 Darren Dowling (TVR Sagaris)
CHAMPION OF BRANDS
Race 1 Oliver White (Medina Sport JL17)
Race 2 Oliver White (Medina Sport JL17)
LEGENDS
Heat 1 Jack Parker
Heat 2 John Mickel
Final Steve Whitelegg
Heat 1 Miles Rudman
Heat 2 John Mickel
Final Steve Whitelegg
NASCAR WHELEN EURO SERIES (ELITE 1)
Race 1 Frederic Gabillon (Toyota Camry)
Race 2 Gianmarco Ercoli (Ford Mustang)
NASCAR WHELEN EURO SERIES (ELITE 2)
Race 1 Guillaume Deflandre (Chevrolet SS)
Race 2 Florian Venturi (Ford Mustang)

## SPEEDFEST SALOONS

Race 1 Alex Sidwell (Holden Commodore)
Race 2 Alex Sidwell (Holden Commodore)
For full results visit: tsl-timing.com

ROCKINGHAM
750 FORMULA
Race 1 Ed Pither (PRS 1b)
Race 2 Ed Pither (PRS 1b)
ARMED FORCES RACE CHALLENGE
Race 1 Mark Inman (Vauxhall VX220)
Race 2 Mark Inman (Vauxhall vx220)
ARMED FORCES RACE CHALLENGE (BAMA)
Darren Berris (Westfield V8)
BIKESPORTS
Race 1 Joe Stables (Radical SR3)
Race 2 Joe Stables (Radical SR3)
Race 3 Joe Stables (Radical SR3)

CLIO 182s
Race 1 Mark Balmer
Race 2 Patrick Fletcher
Race 3 Patrick Fletcher

CLUB ENDURO
Andy Baylie/Luke Schlewitz (BMW E46 M3)

ROADSPORTS
Andy Marston/Brett Evans (BMW E46 M3)
SPORT SPECIALS
Race 1 Matthew Booth (MK Indy RR)
Race 2 Matthew Booth (MK Indy RR)

## TOYOTA MR2s

Race 1 Shaun Traynor
Race 2 Shaun Traynor
For full results visit: 750mc.co.uk

# Anti-clockwise challenge can't halt charging Cullen 

MONDELLO PARK<br>MEC<br>JUNE 9-10

There was a new challenge for the Mondello Park racers last weekend as the meeting was conducted using the anti-clockwise circuit configuration for the first time in over 20 years.

But the new layout did not stop Michael Cullen taking another Fiesta ST win in the opener, despite a late race challenge from Darragh McMullen, with reigning champion Dave Maguire in third.

On the opening lap of race two, Barry John McHenry got out of shape while trying to wrest the lead from Graham McDonnell, setting off a chain reaction behind, eliminating Maguire and dropping Cullen well back. McDonnell made no
mistakes to take a fine win, with McHenry second and Cullen charging to fourth.

Once early leader Pat McBennett dropped out of the Open Endurance Series' debut Mondello appearance, the SEAT Leon of Eoin and Niall Murray was unchallenged. Rod McGovern gradually tracked down Shane Murphy, annexing second in the final stages.

Owen Purcell dominated proceedings in the Fiesta Zetec opener despite a heroic challenge from newbie Colin Murray in the opening laps. In the second race, the top six were reversed on the grid but Purcell fought through for the double, with early leader William Kellett shadowing him home.

Gavin Buckley took the honours in the Vee B/C race, once Luke O'Faolain retired with a broken throttle cable, before O'Faolain dominated second time round. In the first final, polesitter Lee Newsome and reigning

champion Colm Blackburn battled mightily until Blackburn retired with a few laps to run, handing second to Jimmy Furlong. At the second time of asking, Newsome stalled on the grid. Blackburn took the win, but Anthony Cross kept him honest, as Newsome scythed back through the field to cross the line in fourth with the fastest lap.

Steve Griffin was the early HRCA leader, until Jackie Cochrane's rumbling Tiger was up to temperature and he blasted by the Modsport Midget. In race two it was much the same, with Michael Doyle third in both contests in his BDG-engined Lotus Elan.

Cameron Fenton dominated the first Irish Supercar race, crossing the line well

## Barter and 70s Road Sports impress at Mallory


ahead of John Cardoo and Alan Watkins. In race two Fenton once again led away, while a run around the outside at Turn 1 sent Charlie Linnane onto the grass, meaning the podium finishers were the same as in the earlier race.
Rob Savage (Honda Integra) took the first Irish Touring Car race on his class return. Eric Carroll drove superbly to climb from fourth and challenged the leader strongly in the latter stages. In race two, Savage once again came out on top, with fellow returnee Gareth Hayden second and Carroll third.
Series leader Greg Kelly won the first Stryker race by a significant margin with Andy Dalton second and Bill Griffin third.
lap later. But Leverett's race came undone when an oil leak turned into an engine blow-up on the Stebbe Straight, parking his car for the afternoon and allowing Barter to win untroubled.
John Davison did well to put his 1963 Lotus Elan S1 on pole among the mighty Morgan +8 s for the first of the HSCC's Historic Road Sports encounters but, despite having an excellent start, he wasn't able to hold off the +8 pace of Kevin Kivlochan.

It emerged that on the second lap Davison had lost drive on the left-rear wheel, prompting a hasty lunch spent fixing it by cannibalising parts from the Lotus Elan S3 racer of dad Barry. "I was in fourth gear everywhere except second gear in the hairpin," the former Olympic and World Championship-level shooter said. "I was very, very pleased to see the finish - when it happened out of Gerard's I didn't think it would make it to the end."
Davison made his father's sacrifice worthwhile with a storming start to race two. But despite the quick getaway, he couldn't make a move on Kivlochan, thanks to the Morgan's stronger straightline speed.
Oulton Park winner Darrell Woods eased his 1953 Staride Mk3 to a straightforward lights-to-flag win in the first of the 500 Owners Association races, cruising across the line nine seconds ahead of Mike Fowler. Woods looked comfortable throughout the second race until a carburettor failure at the end of the penultimate lap forced him to pull off and back into the paddock.
Squabbling for second throughout were the Cooper Mk5s of Richard de la Roche

A gearbox problem in qualifying meant Nicole Drought could not take up her front-row spot for the opener. But with a new box fitted she just made it to the grid for race two. Kelly did the double, with Drought chasing Griffin down in the closing stages to complete the podium.

David Parks took Formula Sheane race one with apparent ease, and multiple champion Brian Hearty was next up with Richard Kearney third. Race two was remarkably similar, save for the fact that Kearney was closer to Hearty, with Parks well clear once again. leo nulty

and Fowler, that battle settling in favour of Fowler for the win after Woods's retirement.

Ryan Edmonds may have cruised his Ariel Atom to a 7.25 win in the first Motorsports School Sports Saloon Challenge, but it was Tim Foxlow who provided the heroics to get second in his Ford Escort among the other Atoms. Foxlow diced with Darren Edmonds throughout, but held on when it counted. JASON NOBLE

WEEKEND WINNERS

MONDELLO PARK BOSS IRELAND
Race 1 Sylvie Mullins (Dallara)
Race 2 Sylvie Mullins (Dallara)

## FIESTA ST

Race 1 Michael Cullen
Race 2 Graham McDonnell
FIESTA ZETEC
Race 1 Owen Purcell
Race 2 Owen Purcell
FORMULA SHEANE
Race 1 David Parks
Race 2 David Parks
FORMULA VEE B/C
Race 1 Gavin Buckley
Race 2 Luke O'Faolain
FORMULA VEE A
Race 1 Lee Newsome
Race 2 Colm Blackburn
HRCA HISTORICS
Race 1 Jackie Cochrane (Sunbeam Tiger)
Race 2 Jackie Cochrane (Sunbeam Tiger)
IRISH STRYKERS
Race 1 Greg Kelly
Race 2 Greg Kelly

IRISH SUPERCARS
Race 1 Cameron Fenton
Race 2 Cameron Fenton
OPEN ENDURANCE RACE
Niall Murray/Eoin Murray (SEAT Supercopa)
For full results visit: timing.ie

MALLORY PARK
500 OWNERS ASSOCIATION RACING CHAMPIONSHIP
Race 1 Darrell Woods (Staride Mk3)
Race 2 Mike Fowler (Cooper Mk5)

BRITISH THOROUGHBREDS \&
CLASSIC CHALLENGE
Kevin Doyle (Jaguar XJ12 Coupe)
HSCC 70S ROAD SPORTS CHAMPIONSHIP
Race 1 Charles Barter (Datsun 240Z)
Race 2 Charles Barter (Datsun 240Z)

HSCC HISTORIC ROAD SPORTS
CHAMPIONSHIP
Race 1 Kevin Kivlochan (Morgan +8)
Race 2 Kevin Kivlochan (Morgan +8)

MOTORSPORT SCHOOL SPORTS
SALOON CHALLENGE
Ryan Edmonds (Ariel Atom)
MOTORSPORT SCHOOL SPORTS SALOON
CHALLENGE/BRITISH THOROUGHBREDS \&
CLASSIC CHALLENGE COMBINED
Darren Edmonds (Ariel Atom)

For full results visit: tsl-timing.com

ernando Alonso will be trying to add his name to the Le Mans 24 Hours winners list this weekend, but one of his Formula 1 rivals is already on it.

Alonso tried to get into the third Porsche 919 Hybrid at Le Mans in 2015, but that deal fell through. Instead, then-Force India driver and current Renault ace Nico Hulkenberg joined Nick Tandy and Earl Bamber. Unlike Alonso, Hulkenberg was able to make his Le Mans debut in quite a low-key way and it ended with a surprise victory.
"There was not that much expectation for us," says the 30-year old. "We were the third car they brought in for Le Mans, so we were just very free, we didn't expect too much. We took it seriously, but we were just enjoying ourselves and having fun."

They qualified third in a Porsche 1-2-3, but got stronger as the race developed,
"WE TOOK IT SERIOUSLY, but we were just ENJOYING OURSELVES, HAVING FUN"
building a decisive gap during the night.
"How things turned out, it came to us, but we also made it come to us," asserts Hulkenberg. "We won it on merit, we won it on pace. That project with Porsche was a very cool experience that I wouldn't want to miss.
"I'd never been before. I knew it was going to be big - it's a legendary race so I expected it to be what it was. To see it first-hand - how the emotions go up and down, how the race evolves, the night driving - was amazing."

Although the level of performance in WEC is high, Hulkenberg believes top F1 drivers should be able to make a successful transition: "At the end of the day, here are the best drivers in the world and we can be quick in any car. Of course, we need some time to adapt to any car. In the first few tests I was well off the pace, but I had to understand and learn how to get the lap time because it's a completely different driving style. But eventually we will get our head around it and we will be on the pace."
Whereas Hulkenberg only contested the Spa round prior to Le Mans and the 24 Hours itself, Alonso is planning to do the whole World Endurance Championship. Given that there are 21 races on the F1 calendar, Hulkenberg believes that will

be a strain, but that Alonso's experience will help him through.
"For Fernando, it's a busy year - he's put himself up in front of a big challenge because it's a lot of driving, travelling, digesting F1 stuff and analysing that but also LMP at the same time," he says. "But he's so experienced in F 1 , he knows everything."


201724 HOURS OF LE MANS
Ahead of this weekend's big race, relive last year's epic, won by the Porsche 919 Hybrid of Timo Bernhard, Brendon Hartley and Earl Bamber, in the German manufacturer's swansong season in the top echelon of sportscar racing. Check out the new 'moments' feature, which takes you direct to key points of the event. Go to http://bit.ly/2017LeMans

## THIS WEEKEND'S EVENTS



Intermarque, Pre '66 Touring Cars, Pre '83 Group 1 Touring Cars, Pre ' 93 Touring Cars, Pre '03 Touring Cars, Pre '05 Touring Cars, Blue Oval Saloons, Classic and Historic Thunder Saloons

Silverstone HSCC June 16-17 Formula 2, Pre-1980 Endurance, Derek Bell Trophy, Classic Formula 3/Classic FF2000, Historic Formula 3, Historic FF1600, Historic Touring Cars, GT and Sports Car Cup

Knockhill KMSC June 16-17 Northern Sports/ Saloons

Brands Hatch MSVR
June 17
Deutsche Fest:
VW Racing Cup,
Production BMWs,
Racing Saloons,
BMW 330/M3 Cup

## TEST YOUR KNOWLEDGE

QUIZ


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There were lots of early-morning starts, but precious few appearances when it really mattered, forcing him to find a new path. Under the guidance of a three-pointed star he found his way and would be a leading light for more than a decade.

He also ventured on to the international stage in a car that flew in all the wrong ways, but he had taken a title nevertheless.

After deciding to step back from the full-time limelight he found a new role as a hired gun in a test of endurance.

> ON THIS DAY

1 Peter Revson made his world championship F1 debut on this day in 1964. How many such races would he start?

2 Which non-winner recorded his highest F1 finish on this day in the '92 Canadian GP?

3 John Miles was born on this day in 1943. Where/when did he score his only F1 points?
4 Porsche scored its first outright win in the Le Mans 24 Hours on this day in 1970. Who was driving?

5 Today is Tetsuya Harada's birthday. In which year was he the world $250 c \mathrm{c}$ motorcycle champion?

NAME THE HELMET


LAST WEEK'S ANSWERS
Who, what, where, when Darren Manning, Lola-Ford B02/00, Rockingham, September 14 2002. Who is this? Carlos Pace. On this day 1) March. 2) Spa. 3) Toranosuke Takagi. 4) 7. 5) Ricky Rudd. Name the helmet John Watson.

## IN NEXT WEEK'S ISSUE

## 能UTGSPGRT

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## GEAR RATIOS



UP-AND-COMING TEAM-MATE

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# UNEARTHING THE MENTAL CHALLENGE OF FORMULA 1 

Whenever there is a debate about the best drivers on the Formula 1 grid, Marcus Ericsson very rarely enters into the equation. Since making his F1 debut with
Caterham in 2014, the Swede has been a steady, if not spectacular, performer and has yet to fulfil the promise hinted at in the junior categories. The 27-year-old endured a much-publicised 50-race points drought, ended in April by a well-executed one-stop strategy in Bahrain, and has rarely established himself over team-mates Kamui Kobayashi, Felipe Nasr or Pascal Wehrlein. In Ferrari protege Charles Leclerc, Ericsson is now facing arguably his most formidable adversary yet.
But while he is an easy target for criticism, you still have to be at an exceptional standard to race in the top echelon of motorsport and not embarrass yourself. The mental exertion of a modern F1 driver, having to manage multiple processes simultaneously, all while trying to hustle a menacing turbo-powered beast with ultra-complex aerodynamics, is considerable and requires enormous
capacity to ensure each task is met with due attention, while not detracting from the others. As Phillip Horton discovered with a trip to Formula Medicine's impressive facility in Italy (page 8), even the Ericssons of the F1 grid are a cut above the norm when it comes to processing power - and perhaps are deserving of a little more respect.

Mental strength will also be key this weekend at Le Mans. It's a high-pressure event if ever there was one and the attention of the world will be on the endurance classic, not least to see how this year's stellar rookie crop fare. One man who knows just how they will be feeling is 2017 winner Brendon Hartley, who outlines his top tips for rookies on page 7 .

Among the class of 2018 will be his F1 rival Fernando Alonso. He sat down with Edd Straw in Bahrain to discuss advances in helmet safety (page 32) and how his new Le Mans lid was made.


JAMES NEWBOLD PERFORMANCE EDITOR james.newbold@autosport.com © @james_newbold

## CONTENTS

ROB WILSON Mechanical sympathy Looking after your machinery can offer performance benefits as well as reliability

## 07

DRIVER'S EYE VIEW Brendon Hartley
The Toro Rosso man and Le Mans winner explains what La Sarthe rookies need to know

## 08

## FORMULA MEDICINE Mental agility

We pitch a journo against an F1 veteran in a series of mind tasks to see how they compare

## 14

CADWELL TRACK GUIDE Shaun Balfe
The British GT racer and former lap-record holder shares his top tips for a quick time

## 22

SPA 24 MEMORIES The perfect place for an enduro Ahead of the 70 th Spa 24 Hours, some of the event's key players reveal their top memories

## 28

## WRC SAFETY INSIGHT Corsica crash investigation

 Toyota opened its doors to show the safety features that saved Jari-Matti Latvala in FrancePRIAULX BACK TO BASICS Chip off the old block
How Seb Priaulx's quest to emulate his world champion father led him to Rockingham in a C1

## 32

## ALONSO'S HELMET DNA Bell Racing factory tour

We went behind the scenes in Bahrain to see how the Le Mans rookie's helmet is made

## 26

WIN A TRACKDAY AT SPA Autosport competition
Your chance to sample the Belgian Grand Prix venue, courtesy of trackday specialist RSRSpa

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PERFORMANCE


THE ESTEEMED DRIVER COACH EXPLAINS WHY MECHANICAL SYMPATHY ISN'T JUST ABOUT RELIABILITY

Mechanical sympathy has far less of an effect than it used to when it comes to bringing a car home. In days gone by, when cars would break down a lot more frequently and you used to have quite a few transmission failures, it was vitally important to be smooth and look after your machinery.

Jack Brabham was the master at that. Arguably the only reason Cooper didn't win the 1962 world championship, which instead went to BRM and Graham Hill, is because Cooper had lost their chief mechanic, who of course was Jack Brabham.

He was very good at spotting oil on the track, knowing the smells and all the warning signs that would come from the car. Twice in his career, Jack had to pull alongside Jim Clark during the race and point to a deflating tyre at the rear. It used to surprise him that a driver of Clark's sensitivity wouldn't pick that up, but that's because Clark drove around problems.

I don't know whether it is even a factor these days, but at the end of the race I would slow the engine down to 7000 rpm , then to 6500 rpm , then 6000 rpm , then 5500 rpm , so by the time I got to the pits it had cooled down properly. If you were kind to that engine, it would perform better and might last another race, but I doubt anybody even thinks about that anymore - although F1 teams of course have various 'modes' they ask the drivers to use to manage reliability and performance.

You knew there would be drivers who were a little harsher on their equipment and it would turn up in the results. I know during Nigel Mansell's time he was really hard on the car and his point was, 'Make the car stronger, then', so they became much stronger and reliability was generally improved.

Now, in the digital age, where the way you move your feet and your hands doesn't really affect the reliability of the car, you would say

the necessity for a mechanically sympathetic driver is reduced. But it's only the environment of unbreakable cars that has allowed a lack of sympathy to prosper. Drivers today are desensitised to it - unless they are explicitly told to stay off the kerbs!

The clunks that came when we went to sequential gearboxes were jarring and probably still are, but we've developed a breed of driver now that finds the jolts quite normal. I spend a lot of time sitting with all manner of drivers and I'll ask them, 'Does that not offend you?' Some of them don't know what I mean.

'Surely that's what cars are like.'
When I'm coaching, I use a car with an $H$-pattern gearbox and three pedals that enables the drivers to feel what's going on. I teach them all to heel and toe, which often they haven't heard of - and some single-seater drivers won't necessarily need to use heel and toe throughout their careers.

But once they've been schooled into bump sensitivity and understanding how to harmonise the downshifts to make the car stop sooner, they love it because they actually get a faster lap time by transferring the weight at a certain rate and reducing the jolts during downshifts. This kind of sensitivity can be used to improve gearshifts - even in series using high-tech, sequential, paddleshift gearboxes, like Formula 1. These systems still need to be programmed after all.

You could therefore say that mechanical sympathy is less to do with reliability now and instead is about being a faster driver. One can abuse their car and leave energy spikes all over the place, thinking the car is biting, but in fact it could be an energy spike at the rear or not biting properly at the front because you're moving your hands too quickly. The traction control can protect you in certain cases, but it's good practice to learn how to introduce the throttle and feel the weight transferring through the car.


Mechanical sympathy requires a feel that is connected to the rate of input - that is, the rate you go onto the brakes, turn the wheel and decrease the brake pressure. Drivers able to do this will find a performance gain, just in the rate that they transfer weight. That's always been there, but it's not necessarily been that obvious.

Stirling Moss was known as a car-breaker, but I don't think the paddock mutterings were justified - especially when you consider he brought the Lotus 18 home to win on several occasions. Some of it might have just been sour grapes. Perversely, it was Stirling's attempts to not stress the FPF Coventry Climax engine that caused some of his transmission problems, as he would change gears often at lower revs and this would drop the engine into the peak-torque band of the four cylinders and therein begin some of these mechanical problems.

Jackie Stewart was another unfairly maligned in the very early days because he was very quick and people would look for ways to bring him down a peg or two. I remember when Jackie joined up with New Zealand Gold Star champion Jim Palmer to drive a Lotus Cortina in an endurance race in Australia, and Palmer's father came back saying, 'He's a big revver, that Stewart'. The three-time world champion

# "Mechanical sympathy is less to do with reliability now and instead is about being a faster driver" 

actually developed into one of the most mechanically sympathetic drivers on the planet. But a 'mechanically sympathetic' driver now is one who will introduce the brake pedal and concentrate on the rate at which he decreases the brake pressure, so that you're gradually unlocking the wheels - roughly $3 \%$ underrotation down to none - which helps the front-end bite. The rear brakes get the message a bit later than the front (not so much the case with the current electronic brake system in F1), so you leave the rear on the ground for a fraction longer, which gives a little parachute effect. It can also keep the rear diffuser more in touch with the surface.

Fernando Alonso bringing his car to the finish after taking heavy damage on the first lap in Baku is a good example of 'mechanical sympathy' in this more modern form. He would have been delicately feeding it in with the steering, brakes
and throttle to feel what the limits were, because driving a damaged car requires sensitivity and an ability to manipulate. If you know it's going to understeer as the rear anti-roll bar has gone soft, then you'll stay on the brakes that bit longer and guide the steering a bit earlier to at least be able to get the car turned.
On corner exit, it's important to be smooth and increase the throttle application gradually, which reduces the amount of wheelspin, or the amount of time you're likely to activate traction control, as even that is a tiny disadvantage in lap time.
It's all about these tiny details that you won't necessarily see on the telemetry, but nevertheless make the car that little bit faster. Although the driver's effect on reliability is reduced, the influence a driver can have on performance by being mechanically attuned to their car is as crucial as ever.

## TRAINING ON THE PRO-SIM SIMULATOR

DRIVER COACHING AND DATA ANALYSIS WITH HIGHLYEXPERENEEED AND PROVEN DRIVER ON OUR ADVANGED SIMULATOR BASEDNEXTTO GATWIICK AIRPORT LASER SGANNEDCIRCUITSANDINOREDIBLY ACCURATE CAR MODELSCREATED WITH REAL DATA AND FEEDBAGK FROM CHAMPIONSHHP WINNNGGAGE DRIVERS PURPOSE BUILT SIMULATOR USIMG AIGP CARBON CHASSIS, REAL MOTORSPORTDRIVING CONTROLS, 5M DUAL CURVED SCREEN WIH TRIPLEPROIEGTOR DISPLAY

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LAST YEAR'S LE MANS 24 HOURS WINNER EXPLAINS WHAT 2018'S ROOKIE CROP SHOULD EXPECT


Formula 1 (Toro Rosso)
2017 Le Mans 24 Hours winner (Porsche LMP1 team); champion in FIA World Endurance Championship, 4 wins, 8 podiums
2016 4th in FIA WEC (Porsche), 4 wins, 6 podiums

2015 Champion in FIA WEC (Porsche), 4 wins, 6 podiums

2014 9th in FIA WEC (Porsche), 3 podiums

2012-13 European Le Mans Series (Murphy Prototypes), 1 win, 3 podiums; Grand-Am (Starworks), 1 win

2010-11 Formula Renault 3.5 (Tech 1 Racing, P1 Motorsport, GravityCharouz), 5 podiums; selected GP2 races

2009 Formula 3 Euro Series (Carlin), 1 win; FR3.5 (Tech 1)

2008 F3 (Carlin) F3 (Carlin), 5 wins, 11 podiums;
2007 Champion in Formula Renault Eurocup (Epsilon), 4 wins, 8 podiums

e Mans is a trickier circuit than it first appears. When you lay the track out, it doesn't look that complicated, but there are a lot of unique things to consider, such as the long straights and the combination of the purpose-built racetrack and open roads. The last sector is especially important. After such long straights we have the Porsche Curves, one of the highest-speed sections that you can drive anywhere in a Le Mans Prototype.

It's a track that requires respect, especially with the traffic, which adds an interesting dynamic to the race. If you're hitting that traffic at a specific point, what do you do? What are you looking for? What signs do they show that they have seen you? There are all these little details that you don't need to worry about in Formula 1.

The kinks after the Mulsanne Straight can be pretty scary. When you come across a GT car, you don't know how quickly they are going or whether the driver has seen you or not.

In LMP1 it's amazing how many cars you pass per lap. It's about finding that rhythm, that level of patience and understanding of the other
get lonely in the car, but it's rewarding too.
Le Mans was the very first time I ever drove a race car in the pitch black, in total darkness, and that was a bigger challenge than I initially thought because all your marks are gone. As a driver, you're not using all the references that you see in the distance, but when you take them away you suddenly realise how much you do use them in the subconscious

It becomes a completely new track from day to night. The speeds feel so much higher in the night - everything comes in and out of the headlights very quickly, almost like warp-speed.

The key difference from Daytona is that there it's not true darkness; it's very lit-up. The banking is interesting because generally the slow cars stay down the bottom and the fast cars go up top.

There seems to be a very good understanding between the classes at Daytona, whereas I'd say Le Mans is perhaps a bit more freestyle. I found that generally the GT cars were a bit kinder to the prototypes at Daytona; I always had a feeling that they were helping you out more than at Le Mans.

For the guys that are doing the race for the first time, $100 \%$ they will need a chat with their
> "Everything comes in and out of the headlights very quickly, almost like warp-speed"
cars around you. When you start to see the same driver over and over again, you start to learn their habits and understand their body language. My first Le Mans in 2012 was in LMP2, with Warren Hughes and Jody Firth for Murphy Prototypes. I was passing cars and getting passed from behind by the LMP1 cars as well, so it was a real pleasure going to Porsche knowing that I was going to be looking ahead most of the time. I think for the GT guys it's probably the worst because you have to be looking in the mirrors for so much of the lap.
I like the risk-versus-reward factor with the traffic. Do I wait? Do I save some energy? I loved that aspect, staying focused for hours on end into the night. It can
team-mates who have done it before. Having an experienced team-mate is hugely important and I embraced that, I loved the team element. That's the beauty of endurance racing - you are a team and you share everything. There's so much gold that an experienced driver can pass on.

I feel like there's more pressure in F1 because you're one driver rather than three, so it feels like there are more eyes on you. In F1, when you're making a decision on your set-up or balance it's just you and your engineer discussing it, whereas in LMP1 the load can be spread over three drivers and you're all working together.

Obviously the pressure is high at Le Mans too, but I always enjoyed racing there. When the pressure is on, you just have to remind yourself why you do it and it's the same in F1 or any sport when it becomes truly professional. It's very easy to get caught up with all the pressures that are involved and lose sight of the absolute pleasure of it, which of course is why we are all here.

# WHY F1 DRIVERS ARE SM 




#### Abstract

ATIE-UP BETWEEN FORMULA MEDICINE AND PIRELLI OFFERING MENTAL AND PHYSICAL EXERCISES FOR RACING DRIVERS PROVIDED THE IDEAL SETTING TO CONDUCT A UNIQUE TEST. PHILLIP HORTON WAS SENT ALONG TO ITALY AS AUTOSPORT'S GUINEA PIG


## N estled in a nondescript industrial estate between the Ligurian Sea and the Apuan Alps is a building that has had a transformative effect on the motorsport world.

The location of Formula Medicine is ideal for athletes - specifically racing drivers - to conduct year-long physical training, but it's the mental element of the centre that has made it a focal point for numerous drivers and teams.

Founded by the gregarious Dr Riccardo Ceccarelli in 1989, Formula Medicine has used technological developments to pioneer mental advancement for drivers, complementing their physical training, and the Tuscany-based organisation has taken another step through a collaborative programme with Formula 1 tyre supplier Pirelli.

Pirelli returned to F1 in 2011 and was supported by Formula Medicine and its staff, ensuring that its team remained physically and mentally fit across a gruelling schedule of races, tests and private development sessions. The relationship kicked up a notch last year, as an off-the-cuff remark spiralled into a serious concept, which was turned into reality.
"Riccardo was explaining to us this idea of the mental gym," recalls Pirelli head of car racing Mario Isola. "I remember he said, 'We have the degradation of the mind', and I said, 'Yeah, like the tyre', so we started to think about something that was a connection between the mental gym, the wear and the degradation of the tyres."

The first version of the mental assessments followed shortly afterwards, but Isola recognised
that further improvements were required and in the final months of 2017 they were refined, before debuting in early ' 18 . The outcome is that Formula Medicine's mental challenges have been enhanced, with a series of multi-layered tasks enabling the brain to be analysed, the data picked apart, while new concepts are continually produced to ensure constant improvement for drivers that can be carried across to the track.
When guinea pigs were required for testing, Autosport was only too happy to oblige especially with an F1 driver in the form of Sauber's Marcus Ericsson on hand as a reference.

For an afternoon's worth of activities, under the 'Inside the Mind of a Driver' banner, Formula Medicine and Pirelli devised five challenges in its Mental Economy Gym. Time to see how an ostensibly normal person compares to a professional sportsman...

## Concentration Test

| DRIVER | poInts | JOURNALIST |
| :--- | :--- | :--- |
| Marcus Ericsson | 207.9 | 184.9 | Phillip Horton

The opening test initially appears relatively straightforward, although the inclusion of deviously tricky elements is soon obvious. Seated on racing-style seats - to maximise accuracy of brain economy, training is performed while seated, ensuring data is not distorted you stare at a screen, and are equipped with a controller in each hand.
Across three minutes, you have to distinguish between colours and words - for example, the capitalised word 'RED' may appear in red, in $>$


which case you press 'true'. But if the word 'RED' appears in blue, you press 'false'. To complicate matters, it's not simply a case of pressing one corresponding button - 'true' and 'false' also frequently switch between the left and right controls.
The input of Pirelli provides a game-changing influence, with three levels of difficulty posed by supersoft, soft and medium tyres. On supersofts, the words appear at gunfire speed and there are far greater points on offer, but the degradation is higher, meaning the word set fades after around 20 seconds. On mediums, the words appear slowly and points on offer are fewer, but degradation is lower, meaning words fade only after around 90 seconds. On softs, there is a middle ground.
As a consequence, you must execute the optimum strategy and 'pit' (selecting the correct button) to change your tyres (again, hitting the right button), which costs around 10 seconds.
True to life, you must use two compounds across a three-minute race. Do you go SS-M-M? SS-S-S-SS? Therein lies the challenge, and how a seemingly simple task can soon be turned into a multi-faceted brain-mashing prospect.

In a warm-up, Ericsson scores 188.51 with a reaction time of 0.7 s , while I score a not-tooshabby 176.37 with a reaction time of 0.73 s , earning a pat on the shoulder from Ceccarelli for my efforts. Encouragingly, Ericsson also expresses surprise at my score.

Warm-up complete, we get serious. We both start on supersofts, and I edge in front of Ericsson during the first stint, where our strategies diverge. The Sauber man adopts a more aggressive three-stop approach (SS-S-S-

# "Ericsson is more adept at soaking up information, minimising his focus on unnecessary data" 

SS), while I choose a conservative two-stopper (SS-M-S) to minimise the pit loss time.

But it's Ericsson who triumphs on a 207.91 , as I score 184.93 - both of us improve, having fully grasped the nuances of the task and formed pre-race strategies. Remarkably, we face almost the same number of words ( 125 to 126) but, whereas I blunder on seven occasions, Ericsson errs just twice. My reaction time improves to 0.72 s , his lowers slightly to 0.71 s .
"I was keeping an eye on you after that first stint," the Swede concedes. "There's pressure to choose the right strategy."

We also undertake a five-minute version, adding another strategic layer, as well as two extra minutes of concentration. The outcome is similar: I manage 306 points, Ericsson 332.

## Focalised Attention Race

| DRIVER | TIME | JOURNALIST |  |
| :--- | :---: | ---: | ---: |
| MarcusEricsson | $7: 25.03$ | $7: 35.89$ | Phillip Horton |

On first glance, the second task merely involves sitting and screen-watching. Alas, it's not so simple. A headset, including an ear clip, is attached to measure focalised attention as we contest a 25-lap race, where animated cars lap a circuit. On screen is assorted information - tyre
compound (again, three are available, meaning a strategy is mandatory), wear and degradation levels, position and lap chart. Your concentration is measured, which influences car speed, and wear/degradation. It's a complex challenge, as you find yourself second-guessing the machine, which is reflected in the results.

Ericsson completes the task in 7 m 25.036 s ; I follow with 7 m 35.898 s . My quickest lap is faster, but overall his average concentration is 55 per cent and mine 62. Put simply, he is more adept at soaking up information, minimising his focus on unnecessary data, while completing the task in a swifter manner.

Ceccarelli observes that having produced a strong performance in the Concentration Test and a middling display in the Focalised Attention Race, I am someone who "analyses things too much. In this task it is a disadvantage." After just two short tests, it's a strikingly accurate assessment and demonstrates the manner in which Formula Medicine is able to understand the intricate workings of the mind.
While there is room for improvement on both challenges, the results already show that the second is where the greatest gains are possible - and with reams of data, Ceccarelli can grasp the areas to target. For a driver, it's gold dust better focalised concentration and better control of the mind improves your chances of grasping the correct information and minimising the risk of making errors or incorrect calculations.

But it's not just the outright score that's important - drivers who are most engaged and interested into how and why they

reached such a score tend to be more talkative in debriefs at races, and are able to pick up on more minor set-up changes. Those more in control can also be more adept at relaxing their muscles; and again, decades of data analysis has determined that a relaxed muscle state enables drivers (and, more prominently, motorcycle riders) to have a greater feel for their machinery.

It's why Ceccarelli is so eager for drivers to understand that, while the mechanical element of motorsport is fundamental, a controlled mind is also of huge importance. It's also why Ericsson is a regular visitor to Formula Medicine, attending for bimonthly three or four-day stints during Formula 1's ever-expanding season and more frequently in the winter.
"Everywhere in the world you can find experts on the physical side," says Ericsson, who also receives assistance from Formula Medicine's on-location team at grands prix.
"But what is really interesting, and I think they're world-leading in, is the mental side, specifically for a racing driver. These kinds of things which challenge your brain, but also in a combination with your body, it's a big challenge and it's really difficult to get your head around. Then you practise it and get used to it, but you come next time, it's a completely different thing!"

Memory \& Coordination Test

| DRIVER | POINIS | JOURNALIST |  |
| :--- | :--- | :--- | ---: |
| Marcus Ericsson | 31 | 30 | Phillip Horton |

Even Ericsson is initially perplexed by the third challenge. On screen appear three rows, each a different colour (red, yellow and white), and varying numbers of bars are illuminated from left to right. You must memorise this before it disappears, and one of the rows will illuminate, upon which you have to recall how far along the row the bar illuminated and whether the colour corresponds.

Points are awarded for accuracy and for proximity, but deducted should you fail to colour-coordinate, determined by whether you use the left ('true') controller, or right ('false'). As for the other tasks, there are three levels of difficulty that determine points, the speed of bar illumination and 'degradation', which influences strategy. The higher the degradation, the less time you have to memorise and select the colours and patterns.

To complicate matters further, a heart-rate
monitor is fitted, teaching drivers the importance of understanding their heart rate under pressure. Ericsson's resting heart rate is around 45 bpm and is therefore given a threshold of 50bpm - should he exceed that, the degradation will be higher, thus adversely affecting his prospects. My heart rate fluctuates around 85bpm, so I receive a threshold of 90bpm. Clearly, only one of us is an athlete.

A Formula 1 driver's heart rate can average around 170-180bpm across a two-hour race, spiking to over 190bpm during crucial phases. Very few athletes encounter such high rates for a prolonged period. Since race pace is lower than in qualifying, these spikes often occur when quicker pace is required prepitstop, which means an increase in psychophysical stress. Consequently, a driver is unable to drive an entire race at maximum effort as in qualifying, for he would be liable to premature mental exhaustion.

If a driver gets flustered by Ceccarelli's challenging task, then the heart-rate monitor will identify the spikes - and this can be transposed into real-life conditions, risking concentration. Drivers must have exceptional cardiovascular fitness not only to cope with motorsport's physical demands, but also to be as economical as possible with the mental loads. "Every time he pumps 180 bpm , he can send much more blood, which means more oxygen, more energy for the brain and muscle," says Ceccarelli.

Ericsson storms clear in the warm-up with 68 points, while I score 34 , having been regularly caught out by incorrect colours, thus copping minus points. Bizarrely, in the actual head-to-head, we both worsen, Ericsson to 31, and me to 30 . Clearly, this is a challenge at which we can both improve, but time constraints mean we are rushed straight to the next test.

Neuromuscular Agility Test

| DRIVER | AVERAGESCORE | JOURNALIST |  |
| :--- | :--- | :--- | :--- |
| Marcus Ericsson | 67.25 | 60 | Phillip Horton |

This is fundamentally a reaction-time assessment, but also incorporates posture, muscle control and reflexes. A single blue light is illuminated anywhere on a three-by-three wall - sometimes referred to as a 'batak wall' - and Formula Medicine analyses how many lights a driver can respond to in one minute, and their speed to 20 lights.
Across the one-minute challenge, Ericsson starts with 67, then 66, 67 and 69; I begin with a paltry 53 , before upping to 58,64 then 65 . We are both usurped by DTM ace Bruno Spengler, also using the facility that day, who reaches 93 .
On the first to 20, Ericsson starts with a 16.2 s , then $20.0 \mathrm{~s}, 18.8 \mathrm{~s}$, and 16.0 s . I start with a 20.0 s , followed by a $17.6 \mathrm{~s}, 18.0 \mathrm{~s}$ and 18.9 s , later improving to 16.1 s , while Ericsson's trainer Alex Elgh scores a barely believable 12.9s.

There is an acceptance that the sequencing of the lights can be pot luck, positively influencing the score, although, as in previous challenges, the focus is more on improving the methods.

A better posture will minimise body movement, placing the focus on arm movements as opposed to darting all over the shop, strengthening muscle control, and in turn conserving energy. This means a more consistent display across the one-minute timeframe - and such lessons can be transposed into racing.

Ceccarelli emphasises this point further $>$

## MIND MATTERS

The mind is an element of sport that has often been overlooked in recent decades - scour the social-media pages of any driver and you will quickly find posts of them training and it is invariably physically orientated: using gym equipment, running, cycling and swimming.

But drivers attending Formula Medicine typically split their time equally, with 90 minutes of mental and physical training repeated before and after lunch. Its founder, Dr Riccardo Ceccarelli, is a strong advocate of the former
"For me, the percentage of the importance is even more on the mental," explains Ceccarelli, who has attended over 300 grands prix, the memorabilia in his facility a testament to his work. "For me it

## "Drivers have to be

 fit in endurance, fit mentally, strong, there are so many things all together"should be 70-80 per cent mental and 20-30 per cent physical, because when the driver is physically fit, that is the necessary limit.
"But on the mental side, it is best for the performance of the race, so you can drive to the limit in qualifying without making mistakes and be able to extend the maximum performance for the whole race without dropping, like reapplying qualifying performance 70 times in a row. Both of these aspects are mental, not physical."

In no way does Ceccarelli believe physical fitness should be ignored,
more that the mental elements can enable a driver to flourish as an all-round package. The mind-body relationship must be perfectly harmonised to yield success.
"Drivers have to be fit in endurance, fit mentally, strong, there are so many things all together and that makes them special," he says. "Plus, the driver has to be clever, he cannot be stupid.
"There are a lot of sports that if you have the talent, you just go and play, and maybe you are not a superbrain, but you can succeed. In Formula 1, in motorsport, you must be able to have a good relationship with the engineers, with the mechanics, all the people who can change your performance. You have to understand all the data on your car and report to the engineer, so you need to be clever, good in public relations, super-fit, it's a package which is difficult to find in other sports."

Formula Medicine's realisation of the importance of the complete package is why it's a regular destination for athletes - over 75 F1 drivers have visited in the past three decades.

Currently in his fifth F1 campaign, and creeping towards the 100 grands prix mark, Sauber's Marcus Ericsson first attended as a 15-year old and has been able to watch his progress since his early days in Formula BMW UK and F3.
"It helped me a lot when I'm driving to be able to focus on important things, to be able to control myself, not get stressed," he says. "When I do mistakes, if I do a bad corner and a lock-up, I move past that straight away, whereas before, I would think about that for a couple of laps probably and think 'Ah, shit, I shouldn't have locked that tyre.'
"Now I learned through Formula Medicine to delete that from my brain as soon as it's happened, and that's helped a lot."

with an automatic ping-pong-ball dispenser, a tool used to help younger drivers who have been raised to be mechanically savvy but with little focus on mental shrewdness. Upon increasing the distribution intensity of the balls, the youngsters tend to dart across the width of the table - and beyond - thus exerting more energy, losing focus, and increasing the chance of mistakes.

Instead, keeping as static as possible and focusing on arm movement not only conserves energy, but teaches greater muscle control. It's an invaluable lesson in the importance of economising energy usage, and also prods the youngsters towards developing the capability to be self-critical. It's a two-way street; Formula Medicine can only assist a driver if they are willing to make progress.
"It's 50-50," says Ceccarelli. "The ideal is a driver who is self-confident, but also humble."

Retaining self-confidence is crucial for a driver's mental state, but they must have sufficient humility to recognise areas for progress. There is also occasionally the tendency for the super-gifted to struggle with self-analysis and assume their talent comes naturally. It's a difficult mixture to perfect, and can be tricky to balance.
"Last year with Ericsson we found another area where he could improve," Ceccarelli explains. "But he was the first one to say, 'This way I would like to improve a little bit', and we did specific work with the cooperation of a driver."

Optimising the brain comes with age, but Formula Medicine strives to accelerate this process, such that a person aged 22/23 can


have the mental approach of a 30-year old.
"Mental-economy training is made to grow up in maturity. Maturity is self-confidence, self-critical, is to know yourself and how to behave," adds Ceccarelli. "People are not waiting for you. The chance, the train, is passing today and you have to catch it."

## Simulator

## DRIVER

TIME
JOURNALIST
Marcus Ericsson 1:27.56 1:28.75 Phillip Horton
It wouldn't be right to end the day without some actual driving, which comes in the form of a rudimentary 'simulator' - effectively racing seats laid out Hungry Hippos-style in a separate room. rFactor is the application of choice, using a 2015-spec hard-tyre-clad Williams at

Monza, equipped with a headset, pedals, and an F1-shaped steering wheel with manual gears. Ericsson comfortably gets into the 1 m 28 s during a 10-minute practice session while I make minor errors on each lap - running too deep into the Rettifilo chicane, spinning through the second chicane and skating through the gravel into Lesmo - meaning I'm left without a time. Reset. Zone out.

Early in the actual timed session, I get a lap on the board early, gradually getting into the groove and attacking the kerbs more with each passing corner. I'm also getting bolder with downshifts and braking, albeit still hesitant into the tricky Rettifilo with the knowledge that an early mistake will ruin the remainder of the lap. Ericsson sets a 1 m 27.560 s quite early on, and I gradually improve, going from 1 m 31 s to 1 m 30 s , and then end up on a

1 m 28.753 s , just over a second down. Ultimately getting into a rhythm proves crucial, whereas Ericsson is quick straight out of the blocks.

It means I finish the five challenges having got very close once, quite close a few times, and hopelessly off on others - inconsistent, and not as good. It's why only one of us is a Formula 1 driver, although Ericsson is at least effusive, perhaps in kindness as much as anything.
"I think you did well - it's difficult here as there's so many different things," he says. "It's a challenge, which is good. If it would always be the same exercise you would train and become good at it, like you learn to cycle and then you know how to cycle. There are always new things to try, and you can feel how quickly you can improve when you're practising and learning to understand it."

Racing drivers are not normal people - they are more economical in managing their performance, ensuring it can be sustained for a greater period of time. But the lessons learned from such exercises can still be applied to those in various industries.
"It's important for drivers," comments Isola. "But it's important for everybody. For managers, for example, if you have to use your brain for 12 or 14 hours a day at work and you use all your energy in four hours and are completely exhausted, it's not the right way to put effort in that - you learn obviously, it's a good indication."

The physical side of motorsport cannot be underestimated but, as Formula Medicine and Pirelli have shown, getting a grasp on the mind can have an immense impact. $\square$


THE BRITISH GT RACER AND FORMER LAP-RECORD HOLDER SHARES HIS EXPERIENCES IN A RADICAL SR8



## 01

## COPPICE <br> Turn 1

You're going downhill up to the start-finish line. The important thing for Coppice is to not attack it in its own right, as your main aim is to set the car up to be in the right part of the road for Charlies. You've got to make sure you're only about three quarters of the way to the right, instead of opening the exit up like you usually would.

It's a fourth or fifth-gear corner in the Radical, so it's a quick first section. You'll have a comfort brake on the way in just to settle the car as the track starts to climb here.

## 02

## CHARLIES

## Turns 2-3

The entry here is quite blind and your main mission is to make a ' $V$ ' movement from the exit of Coppice right through to the apex of Charlies and the exit. You have to find a marker halfway through Charlies and get the car straightened up as soon as possible, so you can get the power down and get the exit right. It's uphill enough that you can feel the car losing a bit of momentum, so you do really have to attack the second part of it, normally in third gear.

## VBOX <br> MOTORSPORT

## RACELOGIC

The right lines and references are a great starting point, but driver improvement can yield the biggest performance gains. Combine these tips with Racelogic's variety of motorsport equipment to help maximise your development. www.vboxmotorsport.co.uk




## 04 <br> CHRIS CURVE/GOOSENECK

Chris Curve feels like it goes on forever. It's all about your positioning and arrival for the Gooseneck. Keeping the throttle pinned all the way round and having the car squirm underneath you will put you out of shape. So while you may have gained a small margin in terminal speed, you'll be in a pickle for the next corner. You have
to feed the power on smoothly and be prepared to correct the steering as it's not one input. When you're powering on, you're taking lock off to let the car run out wider to the far left as it accelerates. Throttle control is so crucial here.

The Gooseneck comes at you quickly. The trick is knowing how much speed to take off for the
right-hander, which dictates how much you carry through the left. If you're massively on the power on exit, then you've scrubbed too much off at the entry. You need to be smooth on entry and not take the car by the scruff of the neck. The SR8 has huge downforce, so it was a very fast section of track for us, with a quick shift down to third.

## MANSFIELD <br> Turn 8

This is the second big braking point of the lap and it's easy to overshoot, as it's going downhill very quickly from the Gooseneck. The corner is quite tight on entry but then opens up. It's one of the few places where you can experiment on the brakes without much risk, but it's one of those where you can see green runoff ahead of you, so you can easily get fooled into going too deep into it on the brakes.

Because the car is going downhill, the weight is transferred into the nose so if you do brake too hard you're liable to lock up. It looks spectacular, but it's not quick or good for tyre life. The corner has some camber on entry, so it does help you towards the apex, but it's not as extreme as Shell at Oulton, for example. This is taken in third gear.


## KEY CORNER



## 06

## MOUNTAIN <br> Turns 9-10

When I raced Caterhams, this is the place where you'd get some air, but not in the Radical. Getting air is great for the photographers, but not so much for your car! The car goes very light on the exit here.
Because it's a sequence of corners, not one individual corner, you can attack the left-handed first part at the bottom of the Mountain and get that slingshot feeling, but you have to be straight on the brakes to stop the car from going straight on into the tyres.
You want to be hard left after the first section, so a late turn-in is a must and then you flick the car right for the second section and get hard back on the power. It was third gear for the first element and then down to second for the tighter right. The engine note changes dramatically as you hop over the brow depending on how brave you've been!

HALL BENDS Turn 11-14
Hall Bends is a technical section. Back in the day you could sneak a bit of the pit exit on the left before you turn in to the first right-hander to open it out a bit more. Now that's probably frowned upon.

As you go into the corners, everything is higher than you all the buildings and spectator banks - so it almost feels like you're headed into a valley. That makes the section feel tighter than it is. But this whole section is about attacking and using the kerbs to help find the right line. I stay in third and balance the throttle here. It's where you're least likely to be overtaken, so you can concentrate a bit more on your line. This whole section is about making sure the car is in a straight line for the Hairpin.



# PARTNERS' NOTICEBOARD 

## VALETPRO Introducing the trackside range

Car care experts ValetPRO will launch two new kits designed for use in motorsport applications next month.

The East Sussex-based company, which is the title sponsor of the Lotus Europe Cup, will release a Pre-Race Day Preparation kit and Paddock kit for on-site maintenance with limited water supply. Both kits will be sold with an accompanying user guide.
"One of the things that came out of our
conversations with the Lotus Europe Cup was doing a kit that has all the basic products that you need at the track," said ValetPRO director Greg Spink.
"It's a very different cleaning environment than we are used to - you can't go nuts with pressure-washers - and it's mostly about convenience and getting the job done."

ValetPRO tested both kits with BRSCC Mazda MX-5 Championship regular John Langridge at the

recent Cadwell Park round. Langridge (above) was delighted with the effects and marked the weekend by taking his first category victory in race three.
"The Pre-Race kit instantly transformed the look of the car, making it shine fantastically and really helping the sponsor logos stand out," he said.
"This in turn not only made it look great on track, but the car was also easier and quicker to clean with the Paddock kit after each session.
"Although I'm not sure the kits helped with performance on circuit, I was certainly happy that the car was in top condition with everyone watching the front of the race so closely."
The kits will be available from RaceParts, at $£ 56.00$ for the Paddock Kit and $£ 91.00$ for both.

TO FIND YOUR NEAREST STOCKIST, VISIT THE WEBSITE www.valetpro.eu AND INPUT YOUR POSTCODE,
OR CALL US ON +44 (0) 1323287980

## BELL RACING HELMETS FIA 8860-2018 standard released

The FIA revealed its new FIA 8860-2018 standard for helmets, which will be used in Formula 1 from 2019, last week.

The result of intensive FIA research in collaboration with helmet manufacturers including Bell Racing, Stilo, Schuberth and Arai, the new advanced helmet standards build upon existing efforts to improve performance and protection for drivers.

In a bid to further improve protection from debris during impact, the visor opening on helmets certified to the new standard will be lowered by 10 mm to incorporate advanced ballistic protection in the forehead area. Helmets will also have to pass more stringent testing at variable crash speeds and a range of weights to account for different head sizes and feature extended side protection to improve energy management in side impacts.

Bell Racing is the first company to showcase a new 8860-2018 model, with an all-carbon HP77, available in 2019, on show for the launch at the World Motorsport Council in Manila.

Stephane Cohen, Bell Racing Helmets chairman, said: "Bell is honored to collaborate with the FIA to improve helmet technology and create the most advanced standard in the world without any possible discussion."


FOR FURTHER INFORMATION ON OUR PRODUCE RANGE, PLEASE VISIT OUR WEBSITE www.bellracing.com OR www.bellhelmets.eu

## WALERO Merlin Motorsport added to retailer network

Temperature-regulating base layer brand Walero has expanded its retailer network with the addition of Merlin Motorsport.

Based at Castle Combe circuit in Wiltshire,
Merlin is run by John Granger, formerly the circuit manager at Combe, and has 20 years' experience in motorsport servicing a loyal customer base.

Walero's pioneering thermal underwear, which uses Outlast ${ }^{\ominus}$ technology to ensure stable conditions for users at the extreme ends of the temperature spectrum, will now be stocked on-site, among Merlin's expansive range of performance products.

Granger said: "We are delighted to be retailing Walero. They have taken tried and tested NASA technology and applied it to motorsport to create the next generation of flame-retardant underwear. It's an ingenious product and we are excited to get started!"

Walero sales and marketing manager Patrick Grant added: "We are delighted to welcome Merlin Motorsport to the Walero family. We only work with the very best retailers and Merlin certainly fits the bill. They have a reputation for exceptional customer service and their knowledge is second to none."

## RETAILER NETWORK

Alex Reade Motorsport Brands Hatch Circuit

Corbeau Seats
St Leonards-on-Sea, East Sussex

Merlin Motorsport Castle Combe Circuit

Nicky Grist Motorsports Unit 5B Westwood Industrial Estate, Pontrilas, Herefordshire

Race and Rally
7 Cadger Road,
Carryduff

Turner Motorsport
Unit 6B, Caledonia Road, Strathaven, South Lanarkshire

Driver 61
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CORBEAU SEATS

## NANKANG scrapping with the big boys



# THE PERFECT PLACE FOR AN endurance race 

> TO COMMEMORATE THE 70 TH RUNNING OF THE SPA 24 HOURS, JAMESNEWBOLD SPOKE TO SOME OF THE EVENT'S WINNERS AND NEARLY-MEN TO DISCOVER THEIR BEST MEMORIES OF THE POPULAR BELGIAN TRACK
 MARCEL FASSLER Before he was a multiple Le Mans winner with Audi, the Swiss was a persistent thorn in the side of the all-conquering Maserati MC12 at Spa. After a near-miss in 2006, he won the following year with a Carsport Corvette after pressuring Eric van de Poele into a mistake in the closing stages.

HE SAYS 2006 was my very first 24-hour race at Spa, and also my first time in the Aston Martin. At night one of my team-mates had a little contact and after that we had too much toe-out, so the front tyres were wearing too hard, but the biggest issue we had was a broken exhaust, which meant we needed to run rich to cool everything down. This meant fuel consumption was too high, but it was the only way to make it. In the end it was close, but we didn't have a chance because our car was not $100 \%$. I remember it was super-hot in the car

and I was dehydrated in the morning because I was inexperienced at 24 hours, so I was not really drinking after my stints. I got cramps and I had to drink salt water! I was completely fucked after the race...

I wouldn't say we were lucky in 2007; I think it was well deserved because we had the pace to win - and my driving time was 11 hours or something. The conditions were really tough - it was raining a lot through the night, just pissing down the whole time. There was a lot of aquaplaning and it was super-easy to

## TOP TIP

Spa is a lot offun, but a driver has to be prepared for really hard competition there. I wouldn't say it was easier to win in the past than now - any 24-hour race is difficult to win - but now it's superdifficult because you have 60 GT3 cars. Before, the slower cars were also slower in a straight line, but now you can lose lots more time in traffic. Last year we were a bit over four tenths behind pole and we were not in the top 20, which shows how competitive everything is. You have to be $\mathbf{1 0 0 \%}$ focused.
do mistakes, but we did none.
I was much, much faster than everyone else; my pace was sometimes three seconds faster per lap. We were one lap behind the [Michael] Bartels Maserati, knowing if we kept the pace high, we could unlap ourselves and go for the lead. So l overtook, was on the same lap and started catching up. Then van de Poele put himself into the gravel and after that we were leading. It definitely was one of my highlights, the feeling was amazing. It's a win I will never forget.
The Corvette guys were so clever in their design - for every problem they had a solution. I remember in 2007 the right-rear rain light was failing and so we had to pit. The guy just changed the light, put the battery on and we were driving with a battery until the end. If you would have to change the whole light system, we would never have won. The GT1s were really amazing race cars; it was good fun.

## TOP TIP

You can have a very, very good car at Spa, but it's one of those tracks where still the drivers bring quite a lot. It's a special atmosphere and, like we saw in 2016, we could have won the race from four laps down, so never let it go, always keep on fighting. The important thing is where your car is after 24 hours, not where your car is after half a stint. I was looking the other day at the Spa 24 Hours in 1991 and the winner had a 21-lap lead on second place! When you see six or seven cars finishing in the same lap like last year, it's just incredible.

other car was [driven by] Jenson Button, Tomas Enge and David Saelens. Jenson was very inexperienced; Enge and Saelens were doing Formula 3000 and Button was doing Formula 3 in England. He was just a nice young kid - he was not the big star he has become. Then we had a vapour-lock issue; the mounting was upside down and both cars had to retire after a few stints [Saelens made it back to the pits before he was knocked out by the fumes]. Button did not race, so I had a beer with him and his father. I have good memories from Jenson, but especially from John!

I started racing the Viper in 2001 and the next year I remember during the night, it was David [Terrien] in the car and he lost a wheel. Luckily it was in the final sector. The same thing happened the year before to Larbre Competition when they won in '01! David was able to bring the car back, we had no damage and we were able to recover. It was such a nice feeling because the Spa 24 was the goal of my career - it's something I was waiting and hoping for since I was a kid. I prefer to fight for the win in 24 Hours of Spa than to fight for the win in GTE-Pro/Am at Le Mans winning overall is really something special.

2003 was also a very wet race, which Stephane Ortelli won with the Porsche. Everyone says the Porsche was quicker because it rained, but even in the wet we were quite a lot quicker, but we had a gearbox change. It was also the first year we raced with the sequential gearbox. I remember that year taking Eau Rouge in fifth gear and in the right hand we had to do the window with a wooden stick! [He makes a wiping motion with
his arms.] It was terrible. [Patrick] Huisman was unbelievably quick in the wet, but also he was quite often in the gravel...

I didn't have a full-season drive for 2004, so I was with this Italian team [GPC Giesse], running a Ferrari 575 which had no go compared to the 550. Mika Salo was my first team-mate who never clutched to go down with the gears. I was afraid I thought the car would never handle that. But we had a go and after a few hours we were leading the race and we led all the way through to the morning. Then at lunchtime, the floor fell off so we had to pit and lost the lead. I can't remember how much we finished behind, but it was not much behind the 550 of BMS Scuderia Italia.

In 2008 we were on pole with the Saleen before Steve Zacchia crashed in the warm-up. Actually I was not there, I was cutting my grass at home and being relaxed before the race when a friend called me to say, 'I'm standing in front of your car... You will not race.' I was a bit surprised!

When we won in 2011, it was our second attempt with WRT so the team was much smaller. It's an incredible feeling when you are part of the team - there is much more work behind it, so much more hope. And the human side of it. . it's much bigger and nicer to have built that with other people. You feel you are part of all the discussions, resolving problems, all the emotion when you win. The drivers, everyone knows them, but all the guys who are building those wins are just as important.

I would say 2014 was a more special win, because it was a super-dramatic comeback and my wife gave birth during the night between Wednesday and Thursday. My phone was off because the battery was gone and when I got to my office and charged it again, she just texted me, 'I am in hospital.' It was not planned like that...

I stayed all night in hospital between the Wednesday and Thursday, did the qualifying, then went back after qualifying on Thursday to the hospital in Brussels, spent the night there, came back for Superpole on Friday, so going into the race I was already completely dead. The feeling of winning that race with seven seconds to the BMW was just a great feeling.



## STEVE SOPER

 The swashbuckling Soper contributed to one of the most famous finishes in event history in 1992 with his late pass on the ailing Eric van de Poele, then became a two-time winner in '95.HE SAYS It was never a favourite event of mine. I don't like 24-hour races anyway, they're too much hard work! I love the build-up, but when you get in at 8am and you're totally shot, you know you've got another eight hours to go...

The following week I was like a zombie. I've never done fitness training - I just relied on stamina, so it probably took more out of me than a colleague who did an hour in the gym every day.

In 1992 I was irritated to get back in the car for the final stint. The Bigazzi team was great, but had this mentality - even if there were three wheels hanging off and a rod through the side - that they were going to win. I'd showered and changed and went over to say, 'I'm off', and team boss Gabriele Rafanelli said, 'No way, you're getting in the car. We can win this race. The leading Schnitzer BMW has to do another stop.'

I'd heard that sort of thing before and we had a 'consultation' about it. He won and I lost. So I put my soaking-wet overalls back on. I wasn't that impressed and was convinced we weren't going

TOP TIP
The race is only won by staying out of the pits. You've got to be on the lead lap and strategy has to be spoton. You need to have everything scheduled and planned and you have to stick to the plan. l've seen people panic and dive into the pits with a problem when there is no need.

to win, so when I got back in I was motivated and angry. I started driving the car like it was a sprint race - we were either going to win or the car wasn't going to finish.

We were out of sync because l'd collided with a backmarker during the night, knocked the alignment out and had to pit. That little window and fuel the team put in then is, I believe, why we could win in the end without a splash-and-dash. Leader Eric van de Poele had been in the Schnitzer car quite a long time. As I got him in view I started to pick up his pit board and I could see them telling him to limit his revs to save fuel (left). He was going
quickly enough to win until they told him to slow and then he lost his rhythm.

Once you've got someone in your sights, that does motivate you and I caught him. You never know when they're going to throw the chequered flag so I wasn't going to risk waiting behind him. He'd woken up a few corners before and blocked me into the Bus Stop, which I wasn't having so we touched. We were both scrabbling all over the kerbs and I came out ahead. Then he came back at me on the final lap, but I figured it was my race and we won by half a second.

When we won with Schnitzer in 1995 it was a fairly easy race and we were always in contention. Once you win these sorts of races it seems easier to win them a second time. I never had a problem concentrating, it just wasn't as fulfilling as the first time. Jo Winkelhock's a very likeable guy and a very fast driver, so to have him in the car was good, and Peter Kox was good too, so it was a strong car.


## DIRK

 WERNERThe German has suffered more than his share of hard luck at Spa. Three times in five attempts he's been in a position to win, only for mechanical dramas to strike compounded by losing the race in 2015 to the sister Marc VDS BMW.

## HE SAYS My first Spa 24 Hours was in

 2010. We were leading by nearly two laps and I was just bringing it home. We were not driving kerbs anymore, just circling around, and when I turned in to the left at the Esses the toe-link broke and I went straight,nearly into the tyres. In the end we came in P3, but I was very disappointed - somehow it continued a bit like this!

In 2014 we were very close and at the last pitstop we gambled on not taking tyres. The problem was we had already lost a lot of time, because the ABS and the traction control failed on the car with four hours to the end. It was already tough to see the gap getting smaller and smaller, and then the last chance we saw was to not take fresh tyres, but then we were two seconds too slow per lap and it was only a question of time. The race was just too long, it should have been a 23 -and-a-half-hour race! That was a tough one, because it was very close.

2015 was maybe the worst because we were leading - we didn't see any problems coming because it was the last year of the $Z 4$. We thought 'nothing can happen anymore' and then in the
end we had an engine failure. It was like being in a go-kart; the rear axle just stopped and I was spinning off. That was really emotional - it was hard to be in that situation where you just want to leave and go home. You don't want to think about the race anymore but then you see everyone else is happy and they deserved it.

## TOP TIP

Spa is a track that everybody knows well, but what you recognise when you see the quick cars is they use a lot of road and kerbs. This is what you need to do to be really quick. On the other side, it's harder on the car then, but this is what you have to do to be fast. Especially at Les Combes and these kinds of sections, you have to use every piece of road you can get.


STEPHANE ORTELLI

## Ortelli proved his

 outright podium in 2002 with a GT2 Porsche was no fluke by winning overall in the rain-hit '03 event. After taking an early lead with a well-timed switch from slicks to wets, his unconventional fuel-saving tactics behind the safety car have since been written into Spa 24 folklore.HE SAYS When people talk about the race, everybody thinks about the difference in categories, N-GT versus GT1, David against Goliath. Thanks to Dunlop and our good traction, the Porsche was a rocket in the rain conditions and we were very close to GT1 lap times - I could overtake the Lister and I could follow some of the Vipers when we were five or six seconds slower in the dry. But what pops up in my mind is the human aspect, especially the tears from Norbert Singer. He won Le Mans 16 times as an engineer since 1970, so to see him crying at his first ever Spa 24 Hours win for Porsche, you think 'it's not possible'. But we did it.

We just reacted at every single moment of the race without making mistakes and always making good choices, like the first stint when I could see the black clouds - we could already take the lead by just doing the right strategy. The next one is

of course by Norbert Singer, under the safety car. I judged the barrier damage was massive, and Norbert also saw it - our garage was on the downhill part in front of the place where the crash was - and he said a sentence I will remember for the rest of my life. 'I don't want to see you coming back. Stay out, do whatever you want, but don't come back.' Then I drove almost three hours with one tank of fuel.

You can't do it anymore, but I was passing in front of the race director, then going down to Eau Rouge I was leaving a gap big enough that when I turned off the engine at Les Combes, there would be nobody in front of me I could catch. We had an H-gearbox that was easy to put in neutral without damaging the gearbox, so I was switching off the lights, running without power steering. One time I even went close to Blanchimont, then just before the car was going to stop, I put the main switch on again, used the clutch and restarted the car. I did it for more than two hours, so it looked normal in front of the race director. That was clearly something that only happens once in your life - it's not like I was planning it!

Another thing on the human side - Marc Lieb was doing Porsche Carrera Cup at Hockenheim on the same weekend and he was tired, so with Romain Dumas we did quite a bit in the night trying to relax Marc. The year before, in 2002,

## TOP TIP

Bob Wollek took me around on a bicycle trip on the old circuit and he pointed to every corner where
someone was killed. He said, 'We are facing the legend, one of the most dangerous circuits in the world.' Then we went to Eau Rouge and he told me that in this corner, the late Stefan Bellof tried to pass Jacky Ickx on the outside. Of course you have a lot of run-off area, but you can still see a massive crash in Eau Rouge or Pouhon or Blanchimont, so the tip would be to have respect and humility.

Romain did his first ever 24-hour race at Daytona as a Porsche works driver and we were capable of winning overall, but we had to change the front radiator after Romain had a contact with a car that was 40 laps down. I told him, 'You are lucky Bob Wollek is not here anymore because a mistake like that in your first 24-hour race, you are losing your job.' I'm sure if you ask him, he'll say those words were important for him because at Spa he did everything right. He was a class apart in the night and that got us the win also.



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## AND ANSWER THIS QUESTION

Who has won the Formula 1 Belgian Grand Prix at Spa more times than any other?

## A Jim Clark

B Ayrton Senna

c Michael Schumacher

[^0]

MARKUS PALTTALA

## Starting out as

 the touring car era was coming to a close in 2000, the Finn has seen the race morph through GT1/GT2 and now GT3 guises, and broke through in 2015 to give Marc VDS a long-awaited first win after an early tyre gamble went sour.HE SAYS I've done the race 15 times now. I remember in 2002 I drove a Porsche 996 GT2, which had a small but very powerful turbo engine. I think at best we reached a top speed of over $300 \mathrm{~km} / \mathrm{h}$ on the Kemmel straight, but the downforce and all the electronic aids were apparently not invented yet, so it was hairy to drive!
We always came so close in the first few years with Marc VDS. In 2012 we finished fourth because we had some starter issues In '13 we had three cars, all of them ending

with trouble. Nicky Catsburg was in my car when the battery died just passing the pits, then Maxime Martin's car had a fire extinguisher blow up and break some wires. This kind of stuff always happened to us at Spa. And then in '14 we finished second, but we had an ABS failure and finished seven seconds behind - you can't get closer than that. It was pretty frustrating, so it was like a dream come true to finally win it in ' 15 It's always a compliment when the team puts you a little bit too early on slicks in the full wet and says that you can manage it. I did my best, but in the end it cost us almost a lap or something like that. I was on the radio saying, 'When will I see these dry patches you mentioned half an hour ago? I'm just going backwards!' But the good thing was because of that, we basically just threw away all caution and strategy and just went flat-out. It was actually pretty enjoyable - there's always the pressure of going fast but not making mistakes, but when you are coming from behind it doesn't really matter. It was all or nothing - that's how we approached more than half of the race.

We were very fast on Sunday when the heat came up and we had the right set-up and tyre pressures for that. It just all played for us and was pretty cool.

## TOP TIP

At Spa you need to have a knife on your throat. If you back off a little bit, you're too slow. I drove last year with somebody who did it the first time having done the Nurburgring 24 Hours a few times and he totally underestimated how much more challenging it is, both keeping up the pace on the track and the competitive field. You can't have a rest at Spa.

It's physically the hardest of the three big endurance races, including Le Mans, and mentally also. Ten years ago you had maybe five or eight cars capable of winning and now you have 20 or 30 - even the backmarkers are as fast in corners or in a straight line. What has changed a lot is how the traffic is managed, because you have to fight for every track position. It has become a much tougher race than it was.


RAFFAELE MARCIELLO A heroic drive last year in his first ever 24-hour race netted a podium for Jerome Policand's ASP team, but Marciello was too exhausted to spray the champagne with co-drivers Edoardo Mortara and Michael Meadows, instead seeking medical attention.


TOP TIP
I like all the fast, old-type circuits without the run-off areas where still you can see the real driver. It's crazy, but I like it when you are in the danger zone. You have to push and if you make one mistake you're out.


HE SAYS I drove for 14 hours 25 minutes - the maximum was 14 hours 30 , so it was quite a lot but was worth it! The plan was for me to drive 11 hours already, so was quite a lot but we saw my pace was good and my engineer asked me if I was able to drive more, so I said, 'Yeah, of course.' At the end I was super-tired - I did four triple stints and one double, but we had to try for the victory and it was quite close to winning.

If you don't fight for something important,
it's difficult to keep focused for this time, but if they ask me again to drive this year for 14 hours, I will do it. If you are close to winning an important race like this, I think every driver would do that. If you feel able to win, if you feel good in the car, you can do almost everything.

You have to train the mind and try to keep as much concentration as possible throughout the stint. To keep that good pace all through the race was one of my best performances ever. $\quad$

# INSIDE THE COCKPIT that saved latvala 

THE MODERN-DAY WORLD RALLY CHAMPIONSHIP CAR HAS TO BE REMARKABLY ROBUST TO KEEP ITS OCCUPANTS SAFE, AS TOYOTA'S JARI-MATTI LATVALA PROVED IN CORSICA. DAVID EVANS EXPLORES

R
ally car safety has been very much in focus following Kris Meeke's departure from last month's Rally of Portugal but it was Jari-Matti Latvala's side-on shunt in Corsica earlier in the year that answered plenty of questions about the strength of the current generation of World Rally cars.

Latvala braked fractionally too late going into a medium-speed left-hander on the first Saturday afternoon stage, and the rear of his Toyota Yaris WRC started a slide that ended abruptly against a tree.
That crash provided real-life, in-the-field analysis of the FIA's regulations. Latvala and Toyota Gazoo Racing technical director
Tom Fowler were delighted with the results.



## THE CRASH Latvala

"This kind of accident is never nice, when you are sliding and you know the hit is going to come. We were coming from high speed for the braking and the car started to slide. Actually, it wasn't a massive speed when we went off the road. The first impact I saw coming and thought, 'Ahh, this is going to be sharp...' But then it kind of softened - you could feel the panel take the energy. It was incredible. Even my neck was not in any pain the next day."

ACCIDENT DATA Fowler
"Like Jari-Matti said, the speed wasn't very high at the point of

The Yaris stood up well to impact with hefty Corsican tree
impact, but the deceleration against the tree was 14 or 15 g . That's quite high, enough to register the g-sensing lights in the FIA's safety box in the car. The reason for this is because the impact came in a really strong part of the car. There's so much strength where the tree hit, the deflection was small, which gave high energy."

## SEATING

## POSITION Latvala

"We always want to sit well inside of the car and away from any possible point of impact. Since 2005 and the terrible accident for Markko [Martin] and 'Beef' (Michael Park, who lost his life when their Peugeot 307 WRC went off the road into a tree), everybody has been working so hard on safety in rally cars and things have come a very long way. Before that, not much had changed in rallying, but after, the safety is one of the strongest things we have in the sport. When you sit inside the Toyota, you feel good - you know you have a lot of roll cage and safety around you. The extra tubes from the cage might mean more weight, but the safety is so important."

## CAGE STRENGTH Fowler

"We sit the crew as far back in the car and as close together as possible - they couldn't be closer together.


This has obvious safety implications. And we position them close to the main hoop, the strongest part of the cage where you've got door bars coming from the front and the rear, as well as triangulation bars coming from the rear suspension which meet at the main hoop. This means the cage is triangulated forwards, backwards and also laterally across the car. You're putting the bodies of the occupants near to the base of the root of the main part of the cage, which works from a side-impact as well as a vertical-impact aspect."

## FOAM Fowler

"One of the key reasons for the limited outward damage to the side of Jari-Matti's car in Corsica although we did have to retire the car because of rollcage damage we couldn't repair - is because of the safety foam we install down the side between the outer skin of the car and the seats. The foam is very hard and non-compressible, but obviously, when you put enough force into it, it does compress to take energy from the impact. In that crash, it took the peak values down so the occupants didn't receive that shock; the deceleration was absorbed by the foam. Like the FIA requirements for the rollcage, we exceed the volume of foam required down the sides of the car."

## THE SEATS Latvala

"One of the main differences we have with the seats now is not just the strength in them, but also the big ears we have on the seats.
These help so much. When we had the crash, our helmet would hit the inside of the ear or the wing, but that's what they are there for. Even when we are in the stage, when the car is moving laterally, we can feel the helmet touching the side of the seat. But when you think to before 2005, when HANS devices became the rules, the head would move so much - it's incredible to think back to those times."

## THE BELTS Fowler

"The Schroth belts we use in the car are selected primarily for their safety, but also from a performance perspective. The belts are lightweight, but meet and exceed the regulatory requirements from the FIA. The ergonomics of the belt for the crew are so important - you want the driver and co-driver to feel comfortable in the belt. When they feel comfortable, they can pull the belt tighter and doing that removes the potential for slack in the seatbelt arrangement. Any slack in an accident means the body accelerates away from the seat and is stopped suddenly by the belts. That's definitely to be avoided."


# CHIP OFF THE OLD BLOCK 

SEB PRIAULX HAD HIS FIRST EXPERIENCE OF ENDURANCE RACING AT ROCKINGHAM IN THE C1 24 HOURS, UNDER THE WATCHFUL EYE OF WORLD CHAMPION FATHER ANDY. MATT JAMES WAS THERE



seb Priaulx is used to the weight of expectation that comes with his surname. His debut foray into single-seaters in the British F4 Championship yielded victory as early as his second race, but the 17-year old set his sights on a wholly different discipline in May.

The Citroen C1 24 Hours at Rockingham was the Ginetta Junior graduate's first longdistance race, and he had his father, sportscar ace Andy Priaulx, sharing with him, along with British Touring Car Championship series director Alan Gow and Intercontinental Hotel Group boss Richard Solomons.

It was primarily a weekend of fun for the quartet, but it was also another building block in the younger Priaulx's experience and a further opportunity to showcase his ability. "There's always competition - but it was fun," says Priaulx. "I wasn't as nervous as I would be for an F4 race. I was having fun, but I wanted to perform too, especially because of my team-mates."

Having a three-time touring car world champion - and a Nurburgring 24 Hours winner to boot in his corner is a real benefit, and Priaulx Sr's experience in endurance events resulted in some useful pointers for his offspring.
"Every race we do, I get tips," says Seb. "Dad was telling me that I need to be quick, but also to look after the car and make sure I knew what I was doing with the stints and the strategy. It's difficult when you're out on track to know where you are in terms of position - it's not like a sprint race."

It certainly wasn't, but the \#303 car was a competitive proposition. The quartet raced in the top three for most of the event, but a fuel-strategy error meant the car ran out of petrol when Gow was at the wheel and incurred a three-lap penalty.

Eventually, the crew came home in ninth.
For his part, Priaulx Sr was delighted to share a car with his lad for the first time, a stark change from his normal place in the background at Seb's race weekends. As a world champion, a racer and a father, his is an unusual balancing act.
"It's very difficult," explains Andy. "My strategy is to think and stand back before I get involved I'm more with the team than with Seb. I'm quite hard on him though. I have to let him make his own mistakes, but I don't give him anywhere to hide. He is under no illusions of how he has to perform. Every race has to be the most important of his life and he is responding well to that.
by his father, who has been impressed with the data he's seen from his son so far.
"Winning a Citroen C1 race was always going to be really hard because there are guys out there who are doing this the whole time," Priaulx Sr says. "Braking with the right foot not the left, low grip, a slow car and racing in the dark adds so much to his armoury and he needs it all.
"It's hard to make a career now, perhaps harder than it was in my day. When I started in F3, you would work with your engineer closely and find an advantage with your car or in your working relationship. Now everyone is better prepared with time on simulators and everyone knows what

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"I'm not one of the dads who throws all of the toys out of the pram. I'll side with the team before I side with Seb. I help him as much as I can with his preparation before he gets to a track, I talk to him about how to bring tyres in and racecraft and those kinds of things. But when it comes down to pushing him for performance, that has to come from him."

Grassroots events such as the C1 24 Hours may not carry the same pressure, but the younger Priaulx knows anything he can do to gain experience will carry a benefit, even if he "would like to race something a bit faster"! That's echoed

to do, which has made the margins a lot smaller. But it still comes down to the smallest things, even though the job and the process haven't changed. It's a much smaller window, but it's still the same."

Being prepared for a tough climb to the top of the ladder is one thing, but to follow in his father's footsteps and perform at the highest level there are other aspects Priaulx Jr will need to master.
"I won the Race of Champions [Nations Cup in 2015], and that was down to my hillclimbing experience at the start of my career," says Andy. "I learned to be quick out of the box, which is a skill you need if you're trying to win a race drive with someone. You have to be on it straight away, but make no mistakes. That's vital for any racing driver, and it's something I see in Seb."

As for Priaulx Jr, he is dedicated to pursuing a career in single-seaters, but the Citroen C1 24 Hours has opened his eyes to other avenues.
"I would love to do 24-hour races, but I would also love to do Formula 1," he says. "You have to be realistic, but you have to keep your dreams alive - everything is possible if you work hard.
"I've watched dad at Le Mans, so it's totally on the radar. When you hear the cars on the Mulsanne straight, it makes all the hairs on your neck stand up. To be part of it would be very, very special."


# HOW ALONSO'S <br> LE MANS LID TAKES SHAPE 

BEFORE GOING INTO BATTLE IN THE 24 HOURS WITH THE LATEST IN HELMET TECH FROM BELL, FERNANDO ALONSO SPOKE TO EDD STRAW

ernando Alonso is a throwback to the good old days when drivers were able to race in Formula 1 one weekend, then take in a sportscar event the next and even find time for a tilt at the Indianapolis 500. But the days when a driver used to pack away their helmet and take it from one race to the next, regardless of the discipline, are long gone. So when Alonso makes his debut at Le Mans this weekend, it won't be with the same Bell Racing helmet he used to mark his 300th grand prix in Canada last Sunday.

The differences are subtle. For example, there's no need to be as concerned about aerodynamics in the enclosed cockpit of a Toyota TS050 HYBRID LMP1 as in the exposed environment of a grand prix machine. And that allows tiny details to be modified.

Bell Racing, founded by Roy Richter in 1954, has been at the forefront of helmet design throughout its history and is responsible for such landmarks as the first full-face helmet in a world championship grand prix, worn by Dan Gurney at the Nurburgring in 1968.

That spirit of innovation continues today at Bell's factory, a stone's throw from the Bahrain International Circuit. It's here where all of its research and development takes place, and it's also where Alonso's helmets are produced.
"It's a very impressive facility," he says during one of his regular visits. "It's probably the most
sophisticated factory for helmets, and every year I try to come here to say hello. We have a very close and strong relationship with Bell, so it's nice to see how they develop the products and improve our safety.
"There is no other manufacturer that can have this kind of technology. Everything is hand-made, everything is here in the factory - there's nothing coming from the outside that you can't control."

While the helmets are fundamentally similar, Bell is able to tailor the product to suit the demands of each type of racing. Minor changes can make a big difference to a driver operating at the top of their game. Given that Alonso has taken in sportscars and IndyCar in the past year or so alongside his regular F1 commitments, he knows better than most how the designs are tailored.
"Thanks to the experience that Bell has in different series and different categories, you put yourself in their hands," says Alonso. "At Indy there are different aerodynamic issues, so they run a lip on the top of the helmet. In endurance races the visor is probably not so important because you race with the visor open all the time, so you do different things, different adjustments.
"With the experience that Bell has over many, many years of motor racing, you are always perfect in whatever series."

The starting point is to scan Alonso's

head to ensure the helmet is tailored specifically to him. There's no shortcut to this, with the two-time world champion required to go through something akin to a seat fitting for his head. The contours and details of his head are scanned and used to create the perfect helmet. That's just the start of the process of personalisation, which concludes with the addition of his distinctive


blue, yellow and red colour scheme.
"This is unique to the top [motor-racing] categories," says Alonso. "They do a laser scan of your head and make a perfect fit, so the interior of the helmet is your shape. Not only that, the colours, the painting, everything is unique. Every driver has his own preference, and we have our identity on the helmet.
"Having the facilities here to paint the helmet, the designers offering you different versions of what they think will fit your car is a process that I like most of all with Bell, having the painting here in-house and making modifications for the versions we did. We did an Indy 500 version, a Daytona 24 Hours version, we did the Spanish Grand Prix and we do $>$



HOW F1 TECH FILTERS DOWN TO RACING'S GRASSROOTS

There's an old saying in motorsport that goes something along the lines of 'if you have a five-dollar head, then buy a five-dollar helmet?. Fernando Alonso's cranium is one of the most valuable in motorsport, so it's hardly surprising that he places a high value on protecting it. But he also extends that philosophy to others.

Alonso's karting school in Llanera exclusively uses Bell helmets, and the significance of safety equipment forms a key part of the syllabus.
"Thanks to my 17 years in Formula 1, the first thing I wanted was to share that experience," says Alonso. "I wanted to have the best of the best in my karting school, and obviously for the kids' protection they have to have the best. That can only be Bell helmets.
"One of the first priorities for me is to teach them how to wear the helmet, how to tighten the helmet, how to close the visor when they go out on track. The most valued thing they have is their head, and they need to protect it with the best things."

Alonso's extensive experience, which includes suffering concussion in a testing crash in February 2015 that kept him out of that year's season-opening Australian Grand Prix, also means he knows how age changes perception of risk. This adds to his desire to pass that knowledge on.
"When you're young, you are not totally aware of the risks and the danger," he says. "Safety is more and more a concern with the years. Thanks to this experience, you start choosing some different ways, different manufacturers, and that makes you more happy and safe."

different colours for night races as well." But before the painting can be done, the helmet-manufacturing process starts with carbonfibre sheets being cut and placed into a bespoke mould. Subsequently, it's tidied up and laminated, a process that includes the addition of ventilation holes and opening for the eyes.

Superficially, the shell looks flimsy, although of course it's anything but, as the intense strength-testing all helmets must undergo demonstrates. Bell's helmets pass with flying colours, resulting in a helmet that is lightweight and incredibly strong, as well as comfortable and energy-absorbing once the insert is placed inside.

The technology packed inside has evolved dramatically over the years, and arguably the use of carbonfibre has been the biggest advance. Although superficially similar, the helmet Alonso will use at Le Mans is a vastly different product to the kind he used to make his grand prix debut with Minardi in 2001.
"Safety is the biggest step forward," he says. "The helmets look a similar shape, but they are lighter, have better aerodynamics, better ventilation and a better quality of visor as well. When I started, if you put on too many tear-offs, you started losing a bit of quality in your vision, and now it's $100 \%$ perfect all the time.

# "The crash tests they need to go through now would have been unthinkable 15 years ago" 

"The crash tests they need to go through now would have been unthinkable 15 years ago. That's what we need to feel most proud of." Personalisation is also important to many drivers, and Alonso is no exception. His regular colours are distinctive, and he has also run special editions such as the predominantly black version he used at Indy last year and in the United States Grand Prix.
"It's part of your identity," says Alonso. "I always used four colours, the dark blue, light blue, the red and the yellow; those colours represent my region - Asturia - and also the Spanish flag. How you combine these four colours is always difficult because you need to put the sponsors on it as well, so there are requirements from the team, but it's good fun every year to design your own helmet, different little touches every year, and with the one-off helmets for some specific races."

The detailed painting is also handled
in Bahrain, allowing Bell to offer a bespoke, 'turnkey' service that results in a product that looks spectacular. And, while helmets are only very occasionally put to the test - crashing is an inescapable reality for all racing drivers there will be times when it can make all the difference between life and death.

Whether it's in F1, LMP1 or IndyCar, drivers have to have confidence in the expertise and technology of Bell.
"We put everything in their hands because they have the expertise," says Alonso. "We try to know what the latest technology is, what the future of the helmet is, what will be the future of the visor or the zylon panel. We concentrate on safety first, then weight, because we're in a sport where weight is important. With the forces you have on the helmet, a light helmet always helps.
"We know we are in the best hands, so we are happy with that."



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