F1 How Kubica secured his remarkable return

F2 Britain's next star seals crown with victory

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ONE CHAMP SETS A NEW CHALLENGE AS ANOTHER LEAVES

In 2015 and '17 Lewis Hamilton went distinctly off the boil after securing the championship, but not this year. If his Brazilian Grand Prix win could be considered a tad fortunate, there was no doubt about the result in Abu Dhabi last weekend. Hamilton controlled the race beautifully to score his 11th win of the season, a tally that seemed unlikely at the height of his battle with Sebastian Vettel.

Not one to miss out on a psychological advantage, Lewis was keen to point out that he viewed the race as a start to his 2019 campaign. The gauntlet has already been thrown down.

Not joining that battle will be Fernando Alonso. Whatever you think of the double champion, it's impossible to deny that he has been one of Formula 1's top performers for a decade and a half. He will be missed, as Hamilton and Vettel acknowledged following the trio's emotional slow-down lap.

As Alonso leaves, the driver who should have been the fourth top driver of the era is set to make his race comeback. Quite how competitive Robert Kubica will be on his return with Williams (see page 4) is open to question, but the fact that he has made it back at all after his serious rally crash is a great story of drive and tenacity.

There are always new drivers to step in too, of course, and it's great news that the top three in this year's Formula 2 standings — George Russell, Lando Norris and Alexander Albon (p5) — all have F1 seats for 2019. All are also former McLaren Autosport BRDC Award finalists (with Russell winning in '14 and Norris in '16), and the 30th victor will be announced at the Autosport Awards this weekend. Turn to p48 to see how 2017 winner Dan Ticktum got on in his prize F1 test, and p52 for an insight into how this year's four finalists were put through their paces.







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Motorsport Images/Mark Sutton/Sutton; Hoyer/JEP

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since the 2010 season finale after being signed to partner George Russell. The '08 Canadian Grand Prix winner suffered severe injuries to his right arm in a rally crash in early '11 that stopped him from racing for several years.

Kubica, who now drives "70%" lefthanded, has not raced a single-seater since the last of his 76 grand prix starts. But he has finally landed the Williams seat he had originally targeted for this season before having to settle for a reserve-driver role.

The 33-year-old reckons the rule changes being introduced for the 2019 season are coming at the "perfect" time for his return. The cars will feature new wings, brake ducts and bargeboards as part of a raft of aerodynamic rule changes aimed at making it easier for cars to follow each other closely. "I have quite a lot of experience with racing in F1, so I know what it takes to be a top F_1 driver -I'm

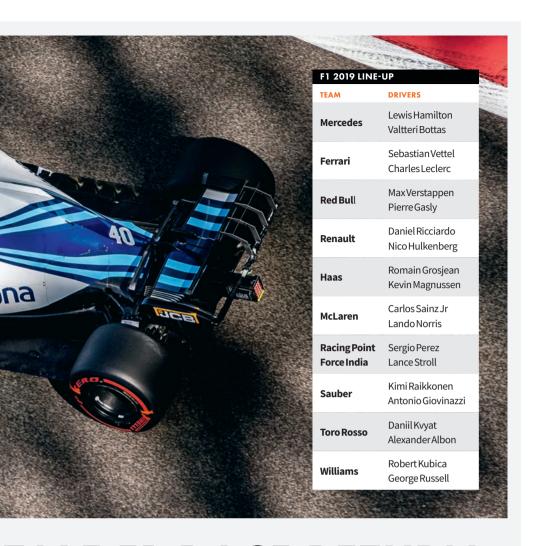
testing at the end of the year, comparing to the drivers who know the cars and tyres. In years. I know what it takes. If I do my job well, I'm sure everybody will be happy."

Team doubts understandable

Kubica first returned to competitive action in rallying before making a circuit-racing comeback in the 2016 Mugello 12 Hours GT race. He then completed a successful F1 test with Renault last year in a 2012 car before driving contemporary Renault and Williams machinery in Hungary and Abu Dhabi respectively.

That left him close to sealing a Williams race seat for this season before the team

"THIS DAY SHOWS THAT SOMEHOW NOTHING IS IMPOSSIBLE"



TALE F1 RACE RETURN

opted to run former GP2 frontrunner Sergey Sirotkin alongside Lance Stroll, but he has now done enough to prove to Williams he can perform in F1 again.

Kubica said he understood why people had doubts about him. "I see the point — it's a story which probably nobody has believed," said Kubica. "The only ones that probably never gave up were myself and the people around me, who I would like to thank. We all knew that it might be something unachievable and this day shows that somehow nothing is impossible.

"From a driving point of view it's very simple. You just need to wait two months and you will see. If I think I will not be able to drive competitively fast I would not be here. People see my limitations and they ask how it's possible that I do it. I know that it's hard to believe but I think Williams has seen it this year and I have seen it for the last 16 or 18 months.

"If I would be a team principal I would also have doubts."

Sirotkin backer 'surprised'

Kubica will replace Sergey Sirotkin at Williams. The Russian driver's backer SMP Racing stated that it chose to split because of Williams's poor performance and lacked faith that it would be a worthwhile investment next year.

"We were unpleasantly surprised by the team's performance level at the start of the season," said SMP Racing chief Boris Rotenberg in a statement. "And the car's development rate also turned out to be not high enough. Despite this, Sergey managed a good season in the circumstances, gave 100% and fully accomplished the tasks set in front of him. We are satisfied with his work and are currently evaluating options for his racing career going forward."

When Kubica was announced as a Williams driver on the eve of the Abu Dhabi Grand Prix, Sirotkin said he could not believe he was out of F1 for 2019. "I would strongly hope for [a second season] and it looked like it was the case," said Sirotkin. "It looked quite obvious it would be the case for quite a while. But it's F1 — it's a difficult world. To get success there are many, many different parameters which unfortunately most of the time aren't up to the performance of the driver."

P21 OPINION

Albon gets Toro Rosso vacancy

FORMULA 1

Formula 2 race winner Alexander Albon has joined Toro Rosso to partner Daniil Kvyat for 2019 and fill what was effectively the final vacancy on next year's Formula 1 grid.

The news means that 19 of the 20 seats have been revealed, with the yet-to-be-made official announcement of Lance Stroll's move to Racing Point Force India the only anomaly.

Albon moved to the top of Toro Rosso's list in October, but the former Red Bull protege's situation was complicated by the fact that he had already committed to joining the Nissan e.dams ABB FIA Formula E Championship team.

He therefore required extricating from that contract, a situation that caused consternation at Nissan — particularly as the push for him to move to F1 happened just as FE pre-season testing was beginning.

But the final obstacles to Albon parting with Nissan were cleared, and official confirmation of that by Nissan was swiftly followed by Toro Rosso announcing Albon's signing.

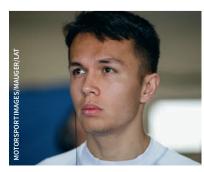
Toro Rosso team principal Franz Tost said 22-year-old Albon's performance in Formula 2 this year — when he was third behind fellow F1-bound drivers George Russell and Lando Norris — led to his chance.

Albon's return to the Red Bull fold comes six years after he was dropped from the drinks firm's junior scheme.

"It's such an amazing feeling to know that I'm in Formula 1 next year," he said. "Throughout my single-seater career I went through a few ups and downs. I worked really hard and tried to impress every time I got in the car, and I have to say a big thank you to Red Bull and Dr [Helmut] Marko for giving me a second chance."

Nissan is expected to replace Albon with Oliver Rowland in its FE team.

MATT BEER



Raikkonen back in a Sauber

FORMULA 1

Kimi Raikkonen returned to the wheel of a Sauber Formula 1 car for the first time in 17 years as this week's Abu Dhabi test kicked off just before we went to press. Raikkonen, George Russell (Williams), Lance Stroll (Racing Point Force India), Charles Leclerc (Ferrari) and Carlos Sainz Jr (McLaren) also drove for their 2010 teams for the first time



Renault: We're not going, going Ghosn



FORMULA 1

Renault Formula 1 boss Cyril Abiteboul insists that Carlos Ghosn's departure as the road car company's chief does not pose an immediate threat to his team's future.

Ghosn (left), who was Renault's CEO and chairman and a key figure in bringing it back to F1 as a works team, has been forced to stand down after being arrested in Japan over financial irregularities relating to a role he had with Nissan. The management change at Renault, with chief operating officer Thierry Bollore taking over as CEO on an interim basis, has prompted speculation that new chiefs could cut the F1 programme.

"It is a substantial piece of development for the Renault group," admitted Abiteboul about the impact of Ghosn's departure.

"My message is simply

that there is a continuity plan of all the operations of the Renault group. F1 is part of this operation. It is a project and an activity that is well known, generating a lot of exposure with clear expectations about a return on investment. There is no reason that those factors are suddenly going away in case of any development for which I don't want to speculate at this point."

JONATHAN NOBLE



Haas loses Force India case

FORMULA 1

The Haas Formula 1 team protested Racing Point Force India ahead of the 2018 season finale in Abu Dhabi as the row between the two squads escalated.

Haas alleged that the new Force India entry, accepted by the FIA at August's Belgian Grand Prix after the original entity fell into administration, is not a constructor because it used a design from a different company and team.

The American team asserted that Racing Point Force India was therefore ineligible to enter those cars in the championship. After a long, disrupted hearing that ran across two days in Abu Dhabi, the stewards ruled in favour of Force India and dismissed the protest, a verdict Haas is considering whether to appeal.

Nine decisions were published in response to the hearing, with the chief verdicts based on F1's rules over 'listed parts'. These are parts that teams are asked to design themselves, but they can outsource the design/manufacture provided those processes are not carried out by a competitor.

Haas contested that Racing Point Force India had neither designed nor outsourced the parts. The stewards ruled that the original Force India team could not be considered a "competitor or constructor" because it no longer exists and stated there is no regulatory support to declare that listed parts cannot come from a former or excluded team.

Force India ceased to meet the FIA definition of both a competitor and a constructor on August 16, when its assets were sold to allow the formation of the

new Racing Point Force India organisation. The stewards thus determined that the procurement of the listed parts was allowed. As they are satisfied that Racing Point Force India meets the definition of a constructor and a competitor of the 2018 world championship, they have ruled that it is a valid entry.

Although the protest was over a sporting matter, the row is a legacy of a dispute over whether the new Force India team should be eligible for prize money. Haas does not believe the team should be allowed to immediately qualify for 'Column 1' payments, for which teams need to finish in the top 10 in two of three seasons to be eligible. It argues that as Haas had to wait for those payments after it joined the grid in 2016, then the new Force India entry should do the same. Team principal Gunther Steiner said he had received "no answer at all" from the powers-that-be, "so we decided to protest".

He said Haas is "seeking equality for all the teams", but Force India team boss Otmar Szafnauer hit out at the "irony and hypocrisy" of that claim "when we are the definition of a constructor, and they aren't".

The two teams first started rowing at the start of the year, when Force India hit out at Haas's relationship with Ferrari and its use of non-listed parts from Maranello.

In their verdict, the stewards made it clear that Force India is a "new team" and a "separate and different legal entity", and therefore "cannot be considered the same team as the former Force India". Steiner had not read the verdict in full and was unable to comment on whether it could boost his hand against F1 owner Liberty.

IN THE HEADLINES

FLORSCH FLIES HOME

Formula 3 racer Sophia Florsch flew home on Monday, one week after a lengthy operation on a spinal fracture sustained in her horrific Macau Grand Prix crash. The German posted "let's focus on 2019" on her Facebook page, indicating that she is planning a return to the cockpit. She is tipped to remain with Van Amersfoort Racing for a campaign in the DTM-supporting F3 series, which will be run for the ex-F3 European Championship cars.

TICKTUM'S F2 DEBUT

Two-time Macau GP winner Dan Ticktum finished one place outside the points on his Formula 2 debut in last weekend's Yas Marina finale. The Red Bull Junior was 11th in the opening race with Arden International. before posting an early retirement in race two with gearbox problems. Ticktum, who will race in Super Formula next season, is planning to compete in the Toyota Racing Series in New Zealand or the Asian F3 Winter Series in order to gain the superlicence points necessary to put him on standby for an F1 seat. He said it would be "whichever one doesn't clash with any Super Formula [testing] commitments. The [superlicence] points are the same in both."

DARUVALA'S GP3 TASTE

F3 European Championship race winner Jehan Daruvala made his GP3 Series race debut in the final round at Yas Marina last weekend. Daruvala, who is expected to lose his role as a Force India protege in the wake of the team's new ownership, took a best of 13th with MP Motorsport. The Mumbai racer is expected to line up in the GP3-replacing FIA F3 Championship for 2019 with Prema Racing, alongside Ferrari proteges Marcus Armstrong and Robert Shwartzman.

HONDA STARLET IN F3

Newly crowned Japanese Formula 4 champion Yuki Tsunoda will step up to the FIA F3 Championship in 2019. The 18-year-old, who is one of the brightest prospects on Honda's junior programme, will drive for Jenzer Motorsport.

INFINITI SCHOLARSHIP

An engineering student from Dubai is heading to the UK for an F1 work-experience placement at Renault as the final winner of the 2018 edition of the Infiniti Engineering Academy. Fahim Choudhary, 23, was unveiled as the victor of the Middle East finals and will begin a work placement in the New Year, along with the six other regional winners. In addition to his work at Enstone for Renault, he will also spend six months at Infiniti's Technical Centre Europe in Cranfield.



Toyota signals intent to stay on for final season of LMP1

WEC

Toyota has sent out the clearest message yet that it intends to race on in the World Endurance Championship next season with the TSo50 HYBRID. The Toyota Motorsport GmbH squad in Cologne has revealed that it is already preparing to be back on the grid in the first season of the WEC run to a 'winter series' format in 2019-20.

A formal decision has yet to be taken on what would be Toyota's eighth WEC campaign, but TMG race director Rob Leupen has stated that the team is beginning to draw up plans for the 2019-20 season, which kicks off at Silverstone next September.

"We are preparing the budgets and generally getting ready for next season," he said. "It's all going in that direction and we are nearing a decision to continue after the current [2018-19] superseason – we should be there next season."

A decision is likely be made in January ahead of Toyota's normal early-February announcement of its forthcoming motorsport programmes, according to Leupen. Toyota has always intimated its desire to continue in the WEC next season in

preparation for its likely entry into the hypercar concept prototype formula due to come into force for the 2020-21 season. The latest statements offer a clear indication of its intent to keep racing as it develops a replacement for the TSo50 LMP1 contender.

Toyota is also understood to have its sights on a hat-trick of Le Mans 24 Hours victories. Adding a further two wins in the French enduro with the TSo₅o appears to be regarded as a readily achieveable goal by the Japanese manufacturer in the absence of any factory opposition in LMP1.

Leupen suggested that there could be limited development of the TSo50 for 2019-20, which would be the fourth season for the car, but that Toyota "would not do any big things".

A commitment to race under the new rules from the autumn of 2020 could come at the same time as confirmation of its 2018-19 campaign. "We hope this happens because we have to start the programme," said Leupen. "We're very involved in the rules development group and we are doing studies. Whether we do it is not decided, but it looks very positive."

GARY WATKINS

Schumacher in step up to F2

FORMULA 2

Formula 3 European champion Mick Schumacher will step up to Formula 2 for next season, and should be joined in the category by newly crowned GP3 Series title winner Anthoine Hubert.

Schumacher's (below) deal to join Prema Racing the sister team to the Prema Powerteam squad with which he claimed F₃ honours – was announced as Autosport went to press on Tuesday. He will join Sean Gelael in the line-up to replace Nyck de Vries, who looks set to shuffle across to ART Grand Prix for next season to partner GP3 runner-up Nikita Mazepin. The German gets his first taste of F2 power in this week's Abu Dhabi test, from Thursday to Saturday.

Frenchman Hubert – who is affiliated to the Renault Formula 1 team but is not vet a full junior of the squad – had previously claimed that impressing Renault was key to stepping up to F2. He has used the team's simulator this year and joined the team for fitness training. He will drive on all three days of the Yas Marina test with Dutch team MP Motorsport.

"I think it's really close to being sure that I will be on the grid next year — there are not many other opportunities in other categories," said the 22-yearold on his title-clinching weekend in Abu Dhabi. "I think I will be there – I'm just not sure what team."

Elsewhere in the test, new McLaren protege Sergio Sette Camara is to join DAMS after his season with Carlin, and is understood to be almost certain to join the French squad for next season. He will run at the test alongside the experienced Nicholas Latifi.

Carlin, which wrapped up the F2 teams' title with Sette Camara and Lando Norris in Abu Dhabi, has already confirmed one signing for 2019: Hondabacked Nobuharu Matsushita returns to Europe after one season competing in Super Formula in his native Japan. According to sources, he will be joined in Carlin's test line-up by Louis Deletraz.

Russian Time is understood to have sold its entry after six years at GP2/F2 level and will be replaced by a new squad. This will be represented at the test by Luca Ghiotto, with F3 graduate and Ferrari protege Guan Yu Zhou tipped to join the Italian.





FORMULA 1/NASCAR Fernando Alonso took part in a drive swap with NASCAR superstar Jimmie Johnson at Bahrain International Circuit on Monday. While Johnson drove a 2013 McLaren-Mercedes, Alonso took the wheel of a Chevrolet stock car. Johnson's first run was terminated when his helmet started lifting on the straights! Alonso, meanwhile, is understood to be close to a Daytona 24 Hours return, with Wayne Taylor Racing's Cadillac. **Photograph by LAT**

Monger plans move to new FIA Formula 3

FORMULA 3

BRDC British Formula 3 Championship racer Billy Monger has set his sights upon competing in the FIA F3 Championship next year, and carried out extraction tests with the halo at last weekend's Abu Dhabi Formula 2/GP3 season finale.

Monger finished sixth in the Brtish F3 points in his first full season of racing since losing both legs in a Formula 4 crash at Donington Park in April 2017. Carlin, which ran Monger this season and will compete in the new GP3-replacing FIA F3 series, hosted the extraction test with its F2 car. This was not an official FIA test, for which it is mandatory that drivers are able to get out of their cars in under eight seconds. It is understood that Monger took less than three to alight from the F2 machine.

"It would be a great step for me to make," Monger told Autosport. "That's Plan A. It offers a lot — being on the F1 package obviously helps, but also it's a new series, which I think will help me.

"In these kind of categories you often find a big team finds the edge and they keep hold of that for years. I think with it being a new



car and a new championship it will be a more even playing field. That's what I want."

Monger confirmed that he had been worried to see if he could escape a car quickly enough now that the halo has been introduced to F3. "I have to prove I can get out with the halo, and hopefully in a couple of weeks that should be confirmed," he added. "I've tried it and practised with the Carlin F2 car and it was very easy for me; it was probably easier than the [British] F3 car. I can use the halo as leverage to push myself up and over."

The new F3 Dallara was unveiled in the Yas Marina paddock last weekend (above). The chassis, based on the current GP3 machine, features the 3.4-litre V6 Mecachrome engine and six-speed Hewland gearbox, with safety boosted by the steel halo and anti-intrusion side panels.

Initial testing has already taken place over two weeks at Magny-Cours, with teams scheduled to receive their first cars in mid-January. The remainder are timetabled for a February delivery.

JACK BENYON



BTCC

The Toyota GB name will return to the British Touring Car Championship grid next season as Speedworks Motorsport steps up to become a manufacturer-backed entry with a new Corolla model for Tom Ingram.

It marks a big step forward for Speedworks, which has run a privately funded Avensis in the championship since 2011, taking two Independents titles and this year's overall runner-up spot with Ingram.

The new Corolla will be launched in the UK in 2019 and a version of the car is currently in build at Speedworks' workshops. It is due to be ready to begin testing in early February.

Ingram, 25, said: "To have this new challenge in front of us and a new car on the horizon is something special and the realisation of a dream. It was where Speedworks and I wanted to go. It is a huge

responsibility for us because we are not just looking after our own brand now, we are looking after the Team Toyota GB name."

It will be the first time that Speedworks, formed in 2005 by principals Christian and Amy Dick, has built its own race car.

Toyota was a mainstay of the BTCC during the Super Touring years with the Carinas from 1991-95. It won titles with the Corolla GT in '82 with Win Percy and '86 and '87 with Chris Hodgetts.

MATT JAMES

TOP 3

TRIPLE EIGHT CHAMPIONS

The name of Triple Eight Racing, arguably the BTCC's all-time most successful team, has been dissolved by Companies House. Time to look back at its three 'winningest' drivers...



#1 YVAN MULLER

The Frenchman was Triple Eight's first 'overseas' signing and was a winner in his maiden season with the squad when he drove the Vauxhall Vectra in 1999. He stayed with the team for a further six seasons, and was in the top two of the points five times running, winning the crown in 2003. He left after one season with the unloved Astra Sport Hatch in '05.



#2 JASON PLATO

Switched to Triple Eight when Renault withdrew from the BTCC in 2000 to drive the Vectra, but his relationship with team-mate Muller was tempestuous as Plato clawed his way to the championship trophy in '01.

The team and driver were reunited for three seasons between 2012 and '14 when

Triple Eight ran the MG factory programme.



#3 FABRIZIO GIOVANARDI

The Italian was signed as a replacement for WTCC-bound Muller. Giovanardi struggled initially in the Vauxhall Astra Sport Hatch in his maiden season but things really clicked when he drove the new Vectra and he was the dominant force. He took back-to-back titles in 2007-08 before finishing third in '09. Contested one round in '10 before funding fell through.



WEC in pitstop rules U-turn

WEC

The World Endurance Championship will perform a U-turn on the rules governing pitstops for next season. Tyre changes will not be able to take place at the same time as refuelling after what has turned out to be a one-season experiment.

The regulation preventing work on the cars taking place while fuel is going in, which dates back to the 1994 Le Mans 24 Hours, was done away with for the current 2018-19 superseason in an attempt to make pitstops faster and more dramatic. But the rule change will be reversed for the 2019-20 season, starting next September, in order for the stops to play a more strategic role in the races.

The move was agreed by the FIA Endurance Commission earlier this month and is due to be signed off by the governing body's World Motor Sport Council next week.

The WEC has yet to talk openly about the move ahead of its sign-off, but series officials have privately conceded that the move for the 2018-19 superseason has stifled strategy. This is because a set of

tyres could be changed in the time in took for a car to be refuelled, which is strictly controlled by the regulations.

The teams appear to support the move, because it means that the crew on each car will be able to make a difference by changing tyres faster than their rivals.

"This will let the teams compete again in the pits; the mechanics doing the pitstops will be in the competition," said Ford Ganassi Team UK team principal George Howard-Chappell. "It means that their efforts could allow us to jump the car in front, which has to be good. Now it's just about how long it takes for the fuel to go in, because everyone can change all four wheels in that time."

The new hypercar concept prototype rules due to come into force for the 2020-21 season appear still to be on course to get the approval of the final WMSC of the year. They weren't signed off, as scheduled, at this month's Endurance Commission meeting, but participants in the meeting have revealed that only a handful of details need to be finalised before going to the FIA for final approval.

GARY WATKINS

IN THE HEADLINES

FERRUCCI'S INDY DEAL

Ex-Formula 2 bad boy Santino Ferrucci will contest a full IndyCar Series season in 2019 after joining Dale Coyne Racing. Ferrucci, who made four IndyCar starts this year, will join Sebastien Bourdais in the Honda-powered squad's line-up.

RICHARD PHILIPPE 1990-2018

A former starlet of North American junior single-seater series, Richard Philippe was one of five people killed in a helicopter crash last week in the Dominican Republic. He was 28. Frenchman Philippe, younger brother of Indvcar racer Nelson, was just 15 when he beat a field that included Robert Wickens to the 2005 Formula BMW USA title. He raced in the Atlantic series before returning to Europe to compete in Formula Renault 3.5 with Fortec Motorsport in 2007 and the Formula 3 Euro Series with Carlin in '08. After participating in Indy Lights, he wound down his racing before returning in GT competition.

EKSTROM'S END OF ERA

Former DTM and World Rallycross champion Mattias Ekstrom has stepped down from full-time competition in WRX - just one year after he did the same from the DTM. The Swede, who won the WRX title in 2016 with his own EKS Audi team, bowed out following last weekend's season finale at Cape Town. "I had a fantastic five years as a driver here, and I think for the moment it's time for me to close the chapter off and look for some other challenges," said Ekstrom. He has yet to make public the future of the EKS team.

HYMAN'S ASIAN F3 TITLE

Ex-GP3 Series race winner Raoul Hyman clinched the F3 Asian title last weekend at Sepang at the end of the inaugural contest for FIA Regional F3 cars. The London-based South African cleared the score of Hitech GP team-mate Jake Hughes – who was absent on GP3 duty – by two points after scoring a third and two fifths. Hughes, who missed two of the five rounds, won all nine races he contested, to the solitary victory of Hyman. All three races at Sepang were won by New Zealander Liam Lawson on his series debut after finishing runner-up in German F4.



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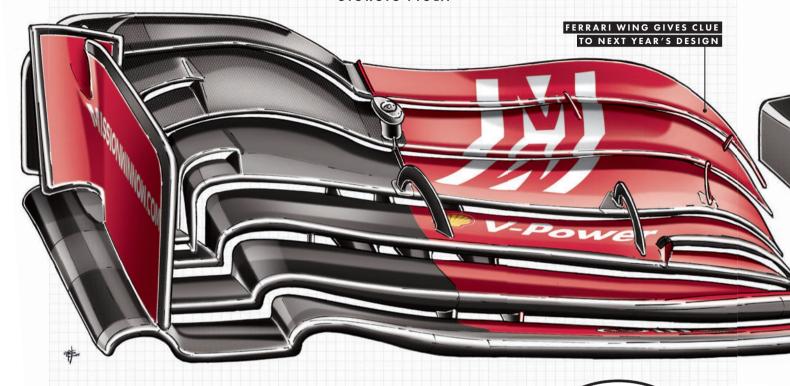
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FERRARI ASSESSES 2019 FRONT WING RULES

Ferrari briefly ran a modified version of its front wing during free practice in Abu Dhabi to simulate the aerodynamic changes for next year. The simplified front-wing endplate and the removal of the turning-vane furniture achieved this, although any information gleaned will need to be taken with a pinch of salt. But some information is better than nothing.

It was quite a bold move, as other teams can see what Ferrari's initial design direction is, but I'm pretty sure what we see in Melbourne next year will be nothing like this. Pity, because it's a nice, simple package.

For 2019 there are lots of changes, but the good thing is that most of them are visible. They include a wider and slightly taller front wing, with a reduction to a maximum of five closed wing elements.

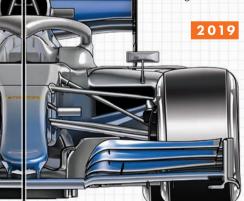
2018

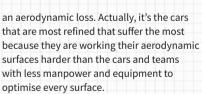
That means the removal of all the forward-mounted turning vanes and much simpler wing endplates.

These changes are an attempt to reduce what's called the aerodynamic outwash. Basically, all these components turn the airflow that would normally hit the front tyre and go between the tyre and the chassis, upsetting the airflow to the bargeboards and leading edge of the underfloor, and force it around the outside of the front tyre.

The regulation-makers believe this outwash causes lots of turbulence for following cars, but I'm not so sure. Any open-wheeled vehicle with

> wide tyres will create a low-pressure turbulent wake behind it and any car following will suffer





WING ENDPL WILL BE MUCH SIMPLER

The overall downforce loss that these regulation changes will bring will be minimal. I would estimate 5% to start the season, reducing to around 2% by mid-season when the aerodynamicists get on top of the situation.

But I don't believe that the following car will lose quite as much; not because of the reduction in the leading car's wake, but mainly because all the cars won't have quite as many trick bits to optimise. So the aerodynamic surfaces will need to be that little bit more robust.

GARY ANDERSON

FIFTH COLUMN

OUT WITH THE OLD

As Lewis Hamilton signs off on his most accomplished season yet, Fernando Alonso shuffles into retirement — and he's not all we've lost...

NIGEL ROEBUCK

ove him or not, none can deny that Lewis
Hamilton's season has been imperious,
unquestionably his greatest to date. As with
Michael Schumacher, the statistics long ago
ceased to register — that tends to happen
when a driver wins more than he loses — but what has most
impressed me this year, what has been different about it, is
that, while his team-mate has been quicker the odd time,
Lewis has shed those mysterious 'off' weekends that had
previously been a hallmark of his career. At no stage in 2018
has he gone missing, even winning races after clinching the
world championship; in times past, he didn't bother.

Hamilton's 11th victory of the season came in Abu Dhabi, and if the race was a pretty humdrum affair that was no surprise, for in 10 years Yas Marina has produced little in the way of memorable racing — in Formula 1, anyway. As at so many tracks, the relatively simple aerodynamics of Formula 2 provide a better show, to the point that a friend recently questioned the wisdom of running the series at grand prix weekends.

"You wouldn't have thought the Liberty lot would want to remind people of how racing can be, would you?" he said. "It's the same with the F1 two-seater — whenever I've heard it out on the track it unsettles me, because it brings back how engines used to sound. Then the

current cars go out, with their anaemic sound, and it hits you again what we've lost..."

Not even the most fervent hybrid believer — and I'm told there are such people — can take issue with that, although I'll concede that I never had much enthusiasm, either, for the last iteration of conventional engine in F1: the 2.4-litre V8s of 2006-13 may have been loud, but they didn't have much horsepower, and their sound — identical from one manufacturer to another — came across as so much screaming white noise.

The muscular three-litre V10s that preceded them, though, were a different matter, as Fernando Alonso or Kimi Raikkonen can tell you. Before Max Mosley's FIA banned them, the best V10s were giving close to 1000 horsepower — and the cars of the time were 150kg lighter than the leviathans of today.

Amazing now to think that Mosley justified going to the smaller engines on grounds of safety: with the V10, he argued, it was all getting a little too fast, but in the no-holds-barred turbo era horsepower had been on another level again. "In 1986," recalled Williams technical director Patrick Head, "Honda couldn't tell us how much power we had, actually, because they didn't know themselves! Their dyno only registered up to 1000 horsepower — which they were reaching at 9300rpm. We were revving them to 13,500 or so..."





On qualifying boost, the best turbo engines yielded as much as 1500bhp, which is why those who experienced them — Keke Rosberg, Nigel Mansell, Gerhard Berger *et al* — roll their eyes at the memory, but as an engine to *use* most preferred the instant response of the V10.

"The turbo era was before my time," said David Coulthard in a chat earlier this year, "but I loved the V10 cars. Adrian Newey recently reminded me that in my McLaren years the car weighed 605kg — and carried 20-odd kilos of ballast... Those cars felt fast, felt like *grand prix cars* — now the hybrids are up around 1000 horsepower, like the V10s, but we're at more than 740kg, for God's sake, so to get back to the lap times of 15 years ago they've massively increased downforce — which of course has been

"AS AN ENGINE TO USE, MOST PREFERRED THE INSTANT RESPONSE OF THE V10"

detrimental to the racing.

"These really are very silly cars we have now," he went on, "and it's a consequence of all the hybrid, 'save the planet', road relevant, bullshit that attaches to Formula 1 these days. As well as being frighteningly expensive, the power units are incredibly heavy, with MGU-H and MGU-K and whatnot — all storing energy to *overcome* that weight, bringing you back to where we were on horsepower in 2005.

It's absolutely ridiculous — like everyone carrying a backpack of 20kg all the time, because it contains something that makes your heart live longer — but the downside is that you need extra muscles in your legs, which will make you heavier, so you'll need more blood pumped to your legs, which will make your heart work harder.

"Now we've got 743-kilo cars, with all the hybrid technology that some people want to celebrate — but because of them we've lost a lot from the show that Formula 1 is supposed to be. To me it's crazy..."

You'll have no argument from me, DC — nor, I suspect, from anyone else with memories of F1 before the sledgehammer superseded the rapier. Recently I chanced to see one of Sky's *Classic Races* series — the 1998 Hungarian Grand Prix — and got a stark reminder of how the F1 world has changed.

Twenty years ago we had refuelling, of which I was never a fan, and this was also the era of grooved tyres, which the drivers loathed, but on the plus side the cars, as Coulthard stressed, were vastly lighter than now, and as well as that — devoid of ugly bargeboards and absurd front wings — were not glued to the road. Running at the limit, Schumacher's V10 Ferrari looked deliciously edgy and alive, Michael constantly correcting incipient slides, and isn't that what we all love to see?

Interestingly, when I asked Ross Brawn to choose a single grand prix from all his years of working with Schumacher at Ferrari, it was this race at the Hungaroring that he selected. In qualifying Michael was unable to match the McLarens of Mika Hakkinen and Coulthard, which started from the front row, and in the opening stint of the race was obliged to follow them.

It was only at the time of the Ferrari's first stop, on lap >>

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"MORE THAN FIVE YEARS HAVE PASSED SINCE ALONSO'S LAST GRAND PRIX VICTORY"

25, that Brawn took the decision to change the strategy from two stops to three, having concluded that this — allowing for Schumacher's virtuosity — would be the quickest way to complete the 77 laps. Once back out, Michael was stuck behind Villeneuve's Williams for several laps, and found himself wondering if Ross's call had been the right one, but once Jacques had made his own stop, the road was clear and he put his mesmeric skills to work.

"I never did a deep analysis of all the races," Brawn told me. "With Michael, there were so many you thought exceptional that picking one out is difficult, but I especially remember that day in Hungary because I was closely involved in the race, so it gave me a lot of personal satisfaction.

"I remember saying to Michael, 'We're changing the strategy, and to make it work you've got to make this time up — end of story', and he put in, sort of, 20 qualifying laps. He had to make up something like 19 seconds in 19 laps — had to go at least a second a lap faster than the opposition for that period. I told him what was needed, and he just said, 'OK'. There was no, 'Oh Christ, there's no chance...' The thing about Michael was that he just enjoyed it so much, and people didn't always see that —

I mean, he loved driving a racing car."

In the end Schumacher beat Coulthard to the flag by nine seconds, his fastest lap 1.3s quicker than either McLaren.

"Looking back to that time with Ferrari," said Ross, "I went to every race thinking there was a chance of winning, and unless you have that it's very difficult to get motivated — that's why I've so admired Fernando these last few years. What I've always said — and I mean it — is that it's *much* tougher at the bottom than at the top..."

A

s he takes his leave of Formula 1 after 17 seasons, Alonso knows all about that. More than five years have passed since his last victory, at home in Barcelona, and in that time Hamilton's Mercedes has won 52

grands prix. "Put Fernando in a competitive car," commented Sergio Perez the other day, "and he'd be world champion again — his leaving shows what a state Formula 1 is in..."

Recently Hamilton was asked if he had any regrets that Alonso had not had a competitive car in recent years, and he said no — he's not daft! Fernando, he argued, could have had better equipment if he had made better decisions along the way, and if that's beyond question, on a daily basis Lewis must celebrate that back in 2012 Niki Lauda talked him into leaving McLaren for Mercedes: astonishing as it now seems, at the time many thought it a mistake.

Hamilton went on to say that he thought Alonso the best driver he had competed against, and, given that both men are warriors, through and through, there must surely be a part of him that regrets missing the seismic battles they would have had in the last few years, had Fernando opted to remain with Ferrari. For all Sebastian Vettel's qualities, fundamentally >>>



PIT + PADDOCK OPINION

neither Hamilton nor Alonso has ever considered anyone else — save Robert Kubica — on their level.

Undeniably, though, since the retirement of Nico Rosberg, it is Seb who has offered the greatest challenge to Lewis, and if he can find a way to calm down, to eradicate the silly mistakes, he will take an even greater fight to Mercedes in 2019. The loss of this year's championship has affected him profoundly, but he has borne it with dignity, and all were touched by the impromptu display of respect shown by both championship protagonists to Alonso on the slowing down lap in Abu Dhabi.

Twenty-five years ago, in Adelaide, we saw something similar with Senna and Prost. For all the ferocity of their rivalry, as soon as Alain's last race was done, Ayrton embraced him on the podium, and later frankly allowed that without him his motivation wasn't the same.

It won't be like that for Hamilton, for Alonso has been no threat in recent years, but — admitted or not — both he and Vettel are aware of their good fortune that embarrassingly slow McLarens have kept him on the sidelines. As Fangio said of his 1954 world championship, "I had the Mercedes, which was the fastest car — and Alberto Ascari was out of the picture..."

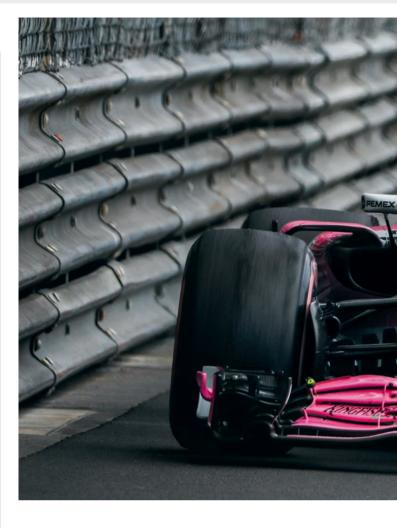
"MAGNUSSEN WELL KNOWS HOW CLOSE HE CAME TO F1'S PITILESS SCRAPHEAP"

If Alonso leaves F1 on a downbeat note, it is perhaps not for ever, and at least he has had many days in the sun, which is more than may be said of his team-mate: Stoffel Vandoorne utterly dominated the junior formulas en route to joining McLaren, but now, after two dispiriting years in lamentably uncompetitive cars, has been cast aside.

The same fate very nearly befell Kevin Magnussen, who had a single season with McLaren in 2014, then — after a last-minute change of plan, in favour of retaining Jenson Button — lost his drive at the time of Alonso's return to the team. Relegated to the role of test/third driver, Magnussen was a despairing figure the following season — and more than that at the end of it when Ron Dennis dropped him altogether, in favour of Vandoorne.

Fortunately for Kev, a lifeline materialised, in the shape of a drive with the returning Renault team, and that in turn led





to an offer from Haas, where very happily he still resides. That said, he well knows how close he came to F1's pitiless scrapheap, and told me of his sympathy for Vandoorne.

"It looks as though his F1 career's over — he's had an even tougher run with McLaren than I did, because at least I had one decent season with Mercedes engines, and got out with some sort of reputation, whereas his has been ruined because of the lack of support. I feel very sorry for him.

"The thing is, even a very, very, good driver — which I think Stoffel is — can look bad without being bad. Through no fault of his own, he's had terrible cars for two years, and that's the end of him — bring on the next guy! It's not fair, but it's the way it is."

Patience is indeed short in F1, and so much hangs on the way you arrive. When Hamilton made his debut, in 2007, a McLaren was the thing to have, and by half-season he was winning races; when Vandoorne came in, 10 years later, it was the car nobody wanted, and he raised barely a blip.

People have always slipped through the net, and many do not so much as touch it. Forty years ago I asked Gilles Villeneuve which of his fellow drivers he rated, and after going through the expected names, he added another: "In Formula Atlantic I raced against a guy called Tom Klausler — he was quiet, not as pushy as perhaps he needed to be, and probably most people in Europe have never heard of him, but for pure talent he was as good as anyone I've seen."

Fortunately comebacks, while rare, do come about, and it pleases me that Red Bull, whose ladder of apprentices is not what it was, are bringing Daniil Kvyat back to Toro Rosso in 2019. I thought him shabbily treated last time round.

Sometimes, too, a driver leaves the scene in the sure knowledge that it is only temporary. It may be an indictment of contemporary F1 that a potential superstar like Esteban Ocon will be confined to simulator work in 2019, after losing



his Force India drive to Lance Stroll, but nothing speaks louder than gelt, and anyway even if Valtteri Bottas raises his game, the widespread assumption is that the Mercedesowned Ocon will be Hamilton's team-mate in 2020.

Whether Lewis will welcome that, any more than Vettel does the arrival at Ferrari of Charles Leclerc, one doesn't know. As with Seb's support for Raikkonen, he has described Bottas as the best team-mate he has ever had, and why not? Like Kimi, Valtteri is an equable and non-political team player — more important is that rarely has either constituted a threat. Could be very different with Esteban and Charles.

For me the shining moment of the Interlagos weekend came in the closing minute of Q2, when rain was falling, and Sauber suggested to Leclerc that he come in. No, no, he said, taking matters into his own hands, he was staying out — and that lap, on an unpredictable surface, was enough to get him into Q3. Like Pierre Gasly, Charles is now promoted to the Elite Class in Formula 1, to one of the three teams able to think about winning: there are those who believe that, even in his first season with Ferrari, he will contend for the championship, and I'm with them.

Given the current state of competitiveness at McLaren and Williams, Lando Norris and George Russell face a tough Formula 1 baptism, but both have exceptional potential, and one hopes they will be given time enough to realise it: the cruel fate of Vandoorne will not have escaped them.

In looking ahead to 2019, though, it is the return of Kubica that most pleases me. Like everyone else, times without number I have wondered how different Formula 1 might have been these last few years had he not been devastatingly injured in that minor rally back in February 2011. At the time he was contracted to Renault, but all was in place for him to join his buddy Alonso at Ferrari in 2012, and what a team they would have made. "In my opinion,"

Fernando told me, "Robert had the best talent of all of us."

Given his physical limitations, Kubica knows he can never again be the driver he was, and as well as that is making his return with Williams, completely out of the picture this season past. All that said, if comebacks are not unknown, there has never before been one remotely like this: eight years — and 158 grands prix — have gone by since Robert last went to the grid, and his droll humour has been missed almost as much as his driving.

Think of that press conference at Indianapolis in 2007, five days after his monumental accident in the BMW at Montreal: before asking his question, a local journalist went through an interminable blow-by-blow description of the shunt, as if acquainting Kubica with what had happened. "I know," Robert said, "I was there..."

Similarly, when I talked to him about it, he said that while the first impact had been light, a glancing blow, the second was rather different: "I was still travelling at 260km/h [160mph], and from 260 to zero into the wall was not ideal.

"I think," he went on, "when something like that happens — whether you are injured or not — during the time you are away, you are not the same person: you are looking forward to coming back, you are *much* more motivated. I remember when I had a road accident, and broke my arm, and wasn't able to race. It was incredible: I was training seven or eight hours a day — it was like I was a different person. I would like to be so motivated every day of my life!

"I'm quite sure that some of the difficult times I had in the past made me stronger — as a driver and as a person. One thing I believe is that there are always positive things about a situation which seems negative."

As with Niki Lauda's return to racing, following his fearful accident at the Nurburgring, this is an extraordinary triumph of the human spirit. $\ensuremath{\mathcal{W}}$







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KUBICA'S TRUE GRIT

Extraordinary fortitude, determination and self-belief have propelled Robert Kubica towards what once seemed an impossible target: a Formula 1 race seat

EDD STRAW

egardless of how Robert Kubica fares on
his Formula 1 return with Williams in 2019,
he will likely always be regarded as a world
champion who should have been but never was.
With most drivers, you have to caveat such
a statement. In particular, there's the question of how they

a statement. In particular, there's the question of how they would stand up mentally to the intensity of a season-long battle for supremacy, for many great 'talents' have crumbled under such pressure. It takes a special mindset to thrive consistently in elite sport, and that can only be tested in battle.

But in the case of Kubica, we can now say definitively that he would have been world champion. That's assuming he would have got into a title-worthy car, which is likely given he was destined to move to Ferrari in 2012.

Why so sure? Simply because of the nature of his return. If he can come back to compete at the top level from the dark years of surgery, slow and painful recovery and the apparent loss of his F1 dream, then coping with a title fight would have been no problem.

The details of the accident are horrific. After sliding into a barrier on a right-hand turn during the Ronde di Andora rally in February 2011, the left side of his Skoda Fabia ran along it,

"THROUGHOUT HIS RECOVERY HE RETAINED AN INDEFATIGABLE DETERMINATION TO COMPETE"

pushing one length of it back and exposing the leading edge of the next segment. This pierced the engine compartment and penetrated the car, inflicting serious injuries on Kubica.

The details don't make pleasant reading: a sub-amputation of the right forearm, a double fracture of the radius and ulna, a compound fracture of the right elbow and shoulder, a new fracture of the right humerus (previously broken in a road crash in 2003), multiple-fragmented fractures to the right shinbone and fibula, cut tendon in right knee. The recovery from these injuries means he now drives "70% left handed".

There is no need to rake over the full details of his recovery, but it's important to understand just how serious the starting point was and the resulting damage to the right hand and arm. Repeated surgeries and a long, slow recovery inevitably take a toll, and throughout Kubica has retained an indefatigable determination to compete.

You wouldn't blame him for never wanting to see another rally car after his accident, but what happened next proves his fortitude. On September 9 2012, 19 months after the crash, Kubica returned to competition in the Ronde Gomitolo di Lana rally. He won, of course, and even though it was a minor event it was a significant landmark. It started what he called the 'more active phase' of his recovery.

He went on to focus on rallying at the top level, showing prodigious speed but inevitably battling an experience deficit. After running out of backing following the Monte Carlo Rally in 2016, Kubica set his sights on a return to the circuits when many would have given up and accepted their lot rather than putting themselves through what would be needed to race in F1 again.

Encouraging simulator runs for Mercedes F1 turned into a racing return, finally, in March 2016 contesting the Mugello 12 Hours. A year later he tested for Renault, then Williams — he suffered another setback when he missed out on a race seat to SMP-backed Sergey Sirotkin, accepting a reserve role for '18.

A couple of months ago, a race seat seemed desperately unlikely and a move to Ferrari as simulator driver was on the cards; but then things changed, a budget reckoned to be around £12million was raised and he was in. So after all that work, missing out a year earlier, he still had the determination to raise a substantial sum of money.

Over a period of years, Kubica has watched his career be ripped away from him, had to go through the pain, discomfort and psychological stress of multiple surgeries, changed the way he lives his life and still go through what a rookie might do to get back into F1. Time and time again, he has faced the choice to accept his lot or to take the tougher road — and every time he's gone the hard way. A Williams drive is his reward for phenomenal persistence.

Now Kubica is back, he can only be judged on his performance. He has shown time and time again that he can drive a Formula 1 car very well, at a decent pace, so set aside any doubts about that. But this is elite sport, and in this company you can be very good indeed but still look average. This is exactly the challenge that motivates a character like him.

While his incredible recovery and rehabilitation are an important part of Kubica's story, we now have to park that and judge him on his merits. But what we can be sure of is that the same grit and determination that should have made him world champion, and that have allowed him to make this unlikeliest of comebacks, will be a big advantage to him.

Whatever happens, even to compete and do a solid job at this level is a remarkable achievement. To do more than that will be very difficult. But this is Robert Kubica — a man capable of doing the impossible. **

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THE ULTIMATE REVIEW OF 2018

Whilst rival F1 annuals come and go, AUTOCOURSE – The World's Leading Grand Prix Annual – is proud to have reached its 68th year of publication as the indisputable leader in its field.

The 2018 season once more saw the continuing domination of Mercedes-Benz as Lewis Hamilton reached new heights in winning his fifth world driver's championship.

The 21-race Formula 1 Grand Prix season is covered with its usual meticulous attention to detail. The vastly experienced and much-respected Tony Dodgins and Maurice Hamilton – both long-time paddock insiders – bring you all the drama and intrigue that is Formula 1. Supporting their race commentaries are detailed results spreads that include specially prepared lap charts and tyre strategies.

Mark Hughes once more analyses the successes, frustrations and failures of each of the constructors in his Team-by-Team review, which includes key personnel, sponsors and technical specifications of the F1 cars, highlighted by the specially commissioned F1 car illustrations of Adrian Dean.

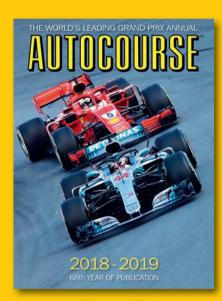
The sport's other leading categories are also given ample coverage, including the single-seat ladder from Formula 3 up to Formula 2, which showcases the pool of rising talent, all aiming to make their way into Formula 1.

Also described is the continuing rise of Formula E, sports car racing, with Toyota finally winning at Le Mans, in their domination of the World Endurance Championship, and the typical door-banging combat that is Touring Cars, in all their respective categories.

Veteran scribe Gordon Kirby gives his usual no-holds-barred assessment of both Indycar and NASCAR during the racing year in the United States.

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I was blown away by Billy Monger's attitude, plus how he has come to terms with his life-changing injuries and getting on with it with a can-do approach

CHRIS HAMLIN

Maximum respect for BillyWhizz

I watched the BBC Two programme on Billy Monger this week. Blown away by his attitude, plus how he has come to terms with his life-changing injuries and getting on with it with a can-do approach. I hope he gets the financial support now and in the future to enable him to continue his quest moving up the formulas. Maximum, maximum respect!

Chris Hamlin By email

We agree. Take a look at our views on the programme on p84 - ed

Drag racing satisfies need for speed

The front cover of the November 22 issue of Autosport proclaims that the Porsche 919 Evo is the fastest car in the world. Sorry, but Top Fuel dragsters reach speeds of 100mph more than that achieved by the Porsche. Autosport has a section on MotoGP — no objections to that, better overtaking than F1, but what isn't! — but it would be nice to have some mentions of drag racing. After all, the clue is in the title — racing.

Mark Medhurst Woking, Surrey

Can't promise a return of drag racing, but here's a picture of a Top Fuel car from our archives. Now, how would that fare on the Nordschleife? — ed

The end of the affair

So, after 40 years our deep and meaningful relationship can never be the same. I have to accept that the almost life-long love came to a close on November 25, when you broke off from me.

We successfully lived together in many locations, in loving harmony, moving a number of times, but with no upset to our equilibrium — remember when we first met at Be-bee Sea, being greeted by the lovely (if a bit loud) Mr Walker and, later, were introduced to wayward nephew James. We then moved to Aye Teevee, but still kept in contact with Mr Walker. And of course in recent years we have had some great times at Chan el Fore.

Wherever we were, I always found you vivacious, colourful,



like the most exotic bird, using your attractions to flirt with as many people as possible, ruffling your feathers to ensure all eyes turned your way. I was not jealous; I knew you craved, even needed, the attention.

And now, having met Sky P Wall, you've moved on. I do fear for your future — I fear you will feel isolated in the more rarefied environs Mr Wall inhabits, frustrated that, despite your efforts to maintain appearances, so few will be around to admire you. You might even find your new home claustrophobic, leaving you struggling for the oxygen on which you and those around you depend. I will, where possible, make use of my limited visitation rights, but any sense of our previous intimacy is inevitably lost.

Graeme Innes-Johnstone Elland, West Yorks

What would've happened if...

You kindly published a letter from me in the correspondence columns of your November 8 edition on the hyperbole and hoopla surrounding the world drivers' championship.

Should you be so inclined, I would be very interested to read an article commissioned to analyse possible outcomes of recent championships had, for example, Lewis Hamilton stayed with McLaren — and Fernando Alonso moved to Mercedes!

William Pender Salisbury, Wiltshire

HAVE YOUR SAY, GET IN TOUCH

Autosport editorial

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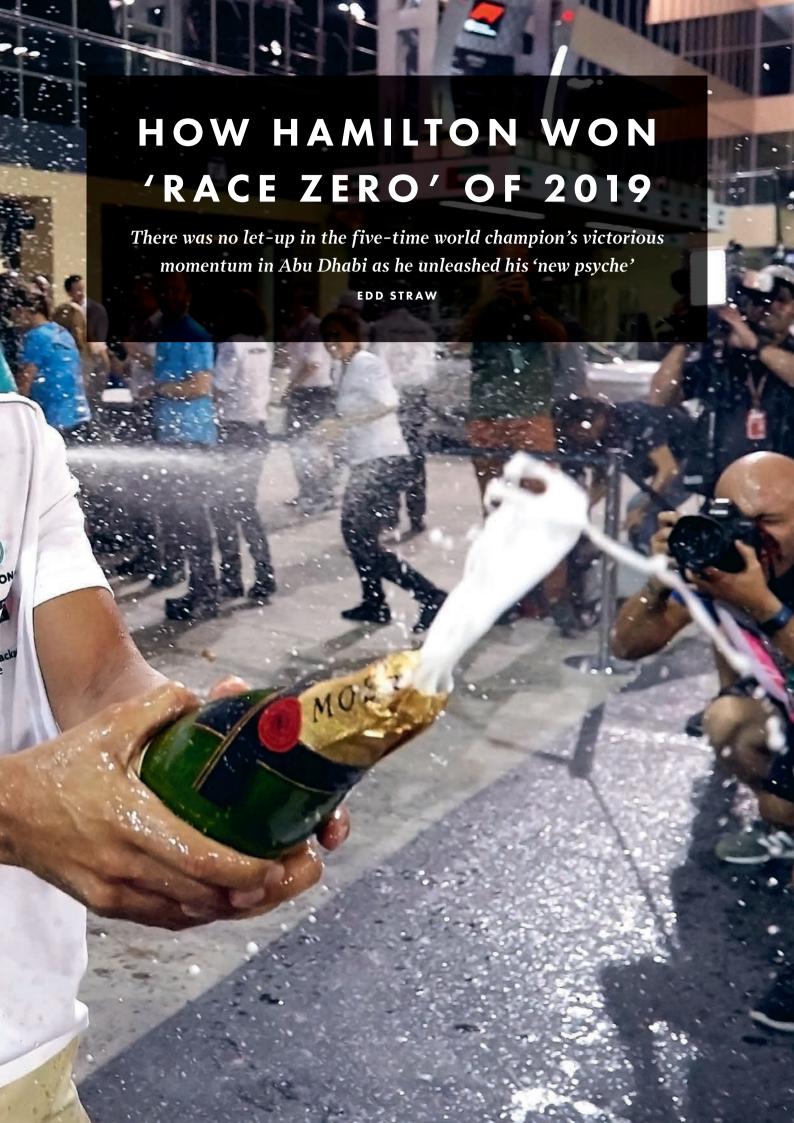




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YOU WOULDN'T HAVE BLAMED LEWIS HAMILTON FOR USING THE FINAL TWO RACES OF THE 2018 Formula 1 season to wind down, revel in the glory of championship victory and drop his guard. But this is a driver at his peak and, after spending much of the season grinding the opposition to dust, his Abu Dhabi Grand Prix triumph was not a valedictory one. Instead, it was the start of the next campaign.

For Sebastian Vettel, who chased him in vain, Max Verstappen, who ended the race with a faceful of oil from the Honda engine he's placing his title hopes in, and Valtteri Bottas, who finished more than 45 seconds down, there was little hope to draw from what happened. This was Hamilton underlining that, far from being more vulnerable next year or resting on his plethora of laurels, he intends to be unbreakable.

"I really wanted to end the season strong, and on a personal note I was able to do that," said Hamilton. "I wanted to end the way that I plan to start next year; that was kind of the new psyche. It's been a strong weekend, which I'm really happy with."

Hamilton with a new, better psyche? Any of his rivals hearing that comment cannot fail to carry it in the backs of their minds

throughout the winter. And perhaps that's not only the point of Hamilton's determination to finish powerfully, but also the reason why he pointed it out, because psychological warfare is something he also does very well. Hamilton, in his present form, leaves no stone unturned, knows he cannot relent even for one moment and that the next battle starts before the last war even ends.

The Mercedes driver clinched the world championship in Mexico, with two races to spare. But after his Esteban Ocon-assisted victory in Brazil two weeks earlier, he signed off with an emphatic 11th win of the year in Abu Dhabi. It was a triumph that encapsulated much of what has made Hamilton so extraordinary this season, making things look far more straightforward than anyone else would.



Several of the key characteristics that have made Hamilton's season the best of his career were showcased around the twists and turns of the Yas Marina circuit. A brilliant qualifying lap, finding half a second on his final run in Q3, blew Mercedes teammate Bottas out of the water and left Vettel a distant third. He then made a perfect start to hold onto the lead, repeating that at the safety-car restart necessitated by Renault driver Nico Hulkenberg's world being turned upside down on the opening lap.

Then there was the decision to pit under the virtual safety car triggered by Kimi Raikkonen parking his Ferrari on the main straight, which relegated Hamilton to fifth place and a spell at the back of the lead battle. As we've heard many times this season, he questioned the call and wondered if the team realised just how much traffic he had been plunged into. But he didn't let his head drop, as he occasionally did in his younger days, and spent the next 26 laps patiently staring at the rear end of a Red Bull, first Verstappen's, then Daniel Ricciardo's. His reward was the lead once his rivals pitted.

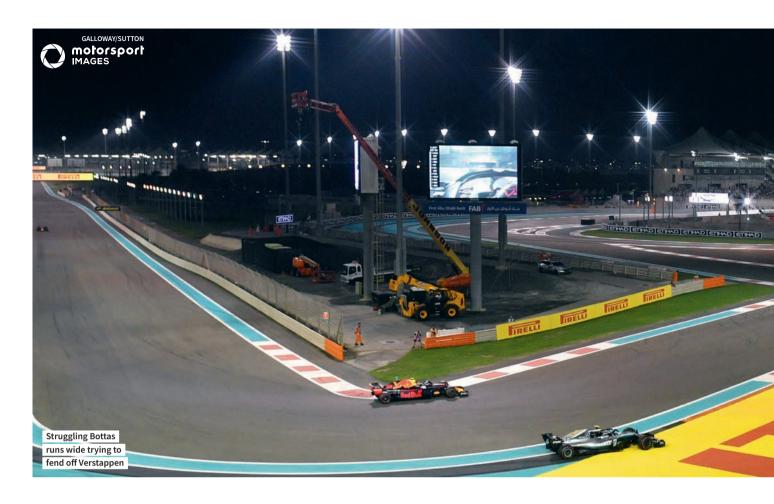
And amid repeated questions about whether his set of supersofts would last to the end of the race, and protestations that he didn't have the same pace as Vettel — the former 2018 title rival who passed Bottas

to close to within 2.6s at the chequered flag — Hamilton managed those concerns brilliantly. This was measured, calculated, a classic example of the great making their achievements seem almost mundane.

Just to underline how good Hamilton was, Bottas ended up a distant fifth — robbed even of fastest lap by the Ferrari of Vettel late on — proving that a driver who can be described as 'very good' can easily end up with a far less spectacular result. It shows how difficult it really is to win a race like this, something Hamilton does routinely.

The key moment came when Raikkonen ground to a halt with an electrical failure, parking on the start/finish line at the end of the sixth lap. The virtual safety car was deployed, and Mercedes decided to call in leader Hamilton, who was then running comfortably ahead of Bottas. He was the only driver not to have started on hypersofts to stop (Charles Leclerc and Romain Grosjean also came in), so by definition this was the alternate strategy. But it made sense for Mercedes to split its cars, and had he not come in there's every chance Vettel or a Red Bull would have done.

"We knew that the supersoft would go to the end," said Mercedes team boss Toto Wolff. "It could actually cover a whole race distance, so we wanted to cover against an undercut or no VSC/safety car later >>



on. Knowing that the tyre could go to the end with a little bit of management, it was the safer strategy."

This put Hamilton back to fifth place behind Verstappen and he set a justifiably conservative pace. The only demand the team put on him was to ensure he didn't fall 10 seconds or more behind new leader Bottas, for this would have allowed the other Mercedes to stop under the safety car and stay ahead. It wasn't a difficult task, and Hamilton just had to be patient and wait for the cars ahead to pit.

Vettel blinked first at the end of lap 15 and pitted from third place, meaning Mercedes responded with Bottas a lap later to insure against a Ferrari undercut. Once Verstappen, who was complaining extensively about his front-right Pirelli, came in from behind team-mate Ricciardo on lap 17, Hamilton was up to second and behind only the Australian.

Hamilton inevitably closed in on Ricciardo, who was in his



farewell outing for Red Bull, but held the gap at around 2.5s to avoid getting close enough to suffer any tyre damage. He had Bottas covered, and just needed to wait for Ricciardo to stop. The arrival of light rain threw a potential curveball into the mix, but it was never anywhere near heavy enough to make a switch to intermediates a possibility.

Red Bull opted to extend Riccardo's stint while the lap times held up in the hope of getting safety-car assistance, which at one stage could have earned him second place, and to increase his tyre advantage in the second stint. But he was called in after 33 laps, once Bottas and de facto third-place man Vettel moved inside that window.

At this point, a Mercedes one-two seemed likely but Bottas was in trouble. When he emerged from the pits, he had an advantage of 3.6s over Vettel. He was comfortably keeping the Ferrari at arm's length when he locked up into the first chicane, just before the hairpin, and lost time. This allowed Vettel to pass him on the long run out of the hairpin with the assistance of the DRS.

Once Vettel had taken second from Bottas, he was 6.9s behind Hamilton but had to spend a couple of laps regrouping thanks to the amount of battery energy used to chase and pass the Mercedes. But he did have a pace advantage, and with the gap at 7.68os at the end of lap 36, he had 19 laps — on supersofts eight laps younger — to make an impression on the leader.

"I tried everything until the last lap, I really enjoyed it," said Vettel of the chase. "Catching a little bit, a little bit, but he controlled the pace at the front."

And he certainly threw the kitchen sink at it. For the first 18 of those laps, Vettel was the fastest on track and lapping an average of 0.206s quicker than Hamilton. But it wasn't enough, and he started the final lap still 3.981s behind. Hamilton gave away a further 1.4s cruising to the flag, meaning the final gap of 2.6s exaggerated the closeness. He had it absolutely in hand.

"Lewis had the pace, you could see it at the end when he saw Vettel coming closer," said Wolff. "He was able to increase the pace just in the way it was necessary."

Behind, any hope of two Mercedes drivers on the podium ended



when Verstappen attacked into the left/right/left at the end of the second back straight. Bottas held the inside line and got into the corner ahead, believing himself to have covered the move, only for Verstappen to carry great speed into the corner and get around the outside of the Mercedes in the right-hand part. Bottas turned in on the Red Bull at the left-hand element and contact was made, but the Red Bull driver was through. When Ricciardo then took fourth place, it made sense to bring Bottas in — especially given concerns about his right-rear wheel. As a result, he finished in no man's land between the top four and the best of the 'Class B'runners — Carlos Sainz Jr's Renault.

"Overall, the race sums up the season quite well," said Bottas. "It started off quite well and then everything turns to shit. I had initially a lock-up into Turn 5, when Sebastian got close, and then he got DRS and overtook me. Initially, I thought it was purely my mistake — which in the end it was — but the wind suddenly turned around, so for the wind I would've had to brake a bit earlier.

"But at the same time the team could find on the rear-right brake some vibration and some issue, so sometimes the front brakes had to work harder than the rear brakes to compensate and that meant there were sudden lock-ups. Same thing happened when I went straight and Verstappen got close. So we still need to investigate what was exactly the issue with the brakes. And when I touched with Max there was quite big floor damage."

So, if your first title rival is your team-mate, Hamilton has reason >>



HAD YOU TOLD VALTTERI BOTTAS BEFORE THE FINAL RUN OF qualifying that he'd improve on his initial Q3 time by almost half a second, he'd have confidently expected to be celebrating a second consecutive Abu Dhabi pole position. But it wasn't enough, for Mercedes team-mate Lewis Hamilton found a fraction over half a second to ensure an 11th pole of the year.

"The first lap wasn't spectacular – there were some excursions and a bit of movement on the rear end," said Hamilton. "That last one, it started off quite calm and then just got more and more aggressive as I went through. The last sector was the killer for me; that's where I really was able to make a difference."

Hamilton was 0.501s faster on his second run than his first, although he didn't actually set the benchmark time of the session in any of the three sectors. Bottas shaded him in the middle sector, albeit only by 0.024s, but lost ground on the rest of the lap. In particular, he cited time lost in Turns 17-18, the 90-degree right and left-handers taking the car under the hotel, as a problem. But even before that, while up on Hamilton's first-run time,

he was already behind and ended up 0.162s down.

Sebastian Vettel also improved on his second run, but it was only enough for third place – 0.331s off the front. Team-mate Kimi Raikkonen had a final qualifying outing for Ferrari best described as solid, as he was a quarter of "THE LAST
SECTOR WAS
THE KILLER;
THAT'S WHERE
I REALLY MADE
A DIFFERENCE"

a second off Vettel. But he did enough on his final run, finding 0.089s, to jump ahead of Red Bull's Daniel Ricciardo. If Hamilton's final sector was "killer", then Ricciardo's was even better as he set the best time of the session – almost a tenth quicker than the Mercedes driver – through this part of the lap.

Max Verstappen had a troubled qualifying session and ended up sixth at the back of the leading group. Firstly, he was unable to lap quickly enough on his ultrasoft run in Q2, meaning he had to set a time on hypersofts to reach the final segment of qualifying. In Q3 he complained about tyre temperatures being too high on his first run, and was shocked when they were even higher at the start of his second run. He had an off, abandoned his second run and ended up nowhere.

Romain Grosjean turned in a superb lap to take 'Class B' pole for Haas, just pipping Sauber driver Charles Leclerc.

EDD STRAW



TRACKSIDE VIEW

THROUGHOUT THE HISTORY OF grand prix racing, there have always been troublesome objects littered around the edge of the track for drivers to have problematic interactions with: walls, trees, straw bales, buildings, railway sleepers, gravel, catch fencing, tyre barriers - all sorts. These days, aside from the odd wall if you search for it hard enough, the most troublesome enemy is the sausage kerb, lying in wait to cause problems, sometimes even car damage, for the unwary.

During Friday practice, plenty of drivers hit trouble with the new 50mm sausage kerb laid at the exit of Turn 20. This right-hander, which leads almost directly into the final corner, is deceptively fast – taken in fifth gear on a quick lap - and carrying speed through it is worth a decent chunk of lap time. Since the first grand prix here in 2009, abuse of track limits here has been a problem, so this was an obvious solution.

Red Bull driver Max Verstappen was the most troubled on the first day of the event, running wide and ending up with one side of the car on each side of the kerb and skating down it on the underfloor plank. But he wasn't the only one to struggle there, with Romain Grosjean suggesting the kerb



wasn't up to F1 standard.

So where better to watch during Saturday's one-hour free practice session than at the exit of this corner? It's clear how easy it is to run a fraction wide here given the speed carried through Turn 20. It's not helped by the camber of the track surface, which is initially slightly favourable to the car, creating a very slight banking of the corner through a reasonable proportion of the exit phase, before dropping away. It's not a profound effect, but it could

easily make all the difference. Doubly so given that the rapidfire sequence of corners through the final sector puts a lot of heat into the tyres and means rear grip could be going away from drivers.

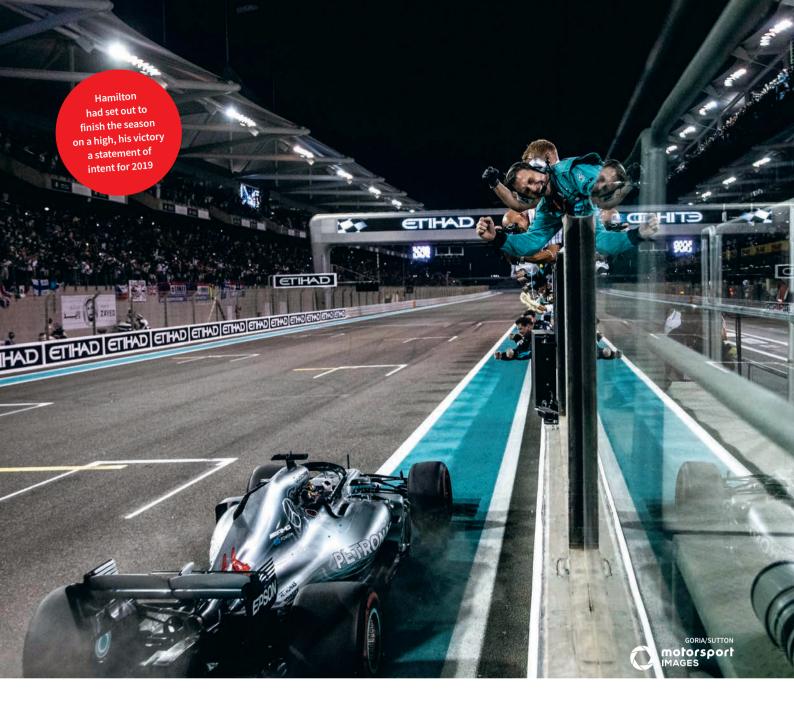
It's clear that some are happier to risk running the kerb than others. Fernando Alonso, never a classicist behind the wheel, consistently monsters this kerb but never oversteps the mark. Lewis Hamilton is among those who overdo it, at one stage straddling the kerb and

producing a cloud of dust from the floor grinding along the top of it.

The kerb had to be repaired several times during the weekend because of the top 1cm of the concrete crumbling thanks to the oil-based paint being ground off and taking the concrete with it. A couple of layers of epoxy resin, then fresh paint, tidied things up and, although some parts of the kerb were slightly lowered, mostly it remained unchanged.

EDD STRAW





to be happy to have comprehensively outperformed him in what we might call 'race zero' of the 2019 season. As for Vettel, his biggest title rival this season, the Ferrari driver is already thinking about how much progress needs to be made to get onto the same level as Mercedes and its spearhead next year.

"It's a big operation, so a lot of small things need to come together, but I think everybody's there," said Vettel. "Obviously, we lost our path a little bit halfway through the year. Things didn't come together so we did a step back towards the end of the year, which enabled us to be more competitive again, but I think we've understood what went wrong. We'll obviously try to do a better job in the future.

"On the other hand, we had a lot of lessons. It was a tough year in general and I think the team is strong and the team has potential, but surely it was a lot of things that happened inside the team. The passing of our chairman, Mr [Sergio] Marchionne, had an impact so it's up to us to look into every single detail and make sure we come out as a stronger group, enabling us to build a stronger package for next year and for the future."

And that stronger package includes Vettel raising his game.

"I THINK WE'VE UNDERSTOOD WHAT WENT WRONG. WE'LL TRY TO DO A BETTER JOB NEXT YEAR"

Having been outclassed by Hamilton over the season, he needs to recharge over the winter and come back not just at his best, but better than he has ever been before, to have a chance of beating Hamilton. As for Verstappen, who celebrated a fifth consecutive podium finish, spending the closing stages of the race struggling to see through oil on his visor spilled by Toro Rosso driver Pierre Gasly's failing Honda engine is a reminder that the Japanese manufacturer needs to make a big step.

"I find that a really difficult question, because you're so dependent on the package in F1," said Verstappen when asked about his prospects of a title push in 2019. And with the Red Bull RB14 probably the strongest chassis of this season, that means the ball is in Honda's court. But at least it was a strong race to finish the season after tyre troubles in qualifying, then a slow start — caused by the engine overheating following a long hold on the grid — briefly relegated him to 10th.

Of the six drivers who finished behind Hamilton, down to Leclerc — who also gave a taste of 2019 by dicing with the leaders early on — in seventh place, all but Sainz have realistic designs on toppling the Mercedes driver either next year or, in the case of Ricciardo, further down the line with Renault. But what Hamilton has done by dominating what he sees as the first race of next year is avoid giving any of them any more hope than they already have, or show the slightest chink in his increasingly impregnable armour.

"Next year, we fight back," said Vettel on the slowdown lap, speaking for everyone defeated by Hamilton and Mercedes in 2018. What Hamilton did this weekend proves just how hard it's going to be to get close to him, let alone knock him off his perch. **



Verstappen's bad start caused by power-unit temps

Max Verstappen's slow start, which dropped him from sixth to 10th at the start of the race, was a result of his Renault engine going into a more conservative mode owing to high temperatures.

The Red Bull driver complained about the issue as the race started, and had to spend the early stages of the race recovering.

"It was a long holding grid today — the engine temperatures started to creep and creep," said team principal Christian Horner. "All the alarms were supposedly disabled, but I think Renault have put a couple of extra safety issues — software stuff — in. So he initially made a very good start then went into safe mode. It was only when things got running properly that the temperatures came under control and by that point Renault were able to disable the alarm."

Verstappen's third-place finish elevated him to fourth position in the world championship ahead of Valtteri Bottas, the best result of his career. Had he finished one place higher in Abu Dhabi, he would have beaten Kimi Raikkonen to third position.



Sainz's marathon stint nets 'Class B' win on Renault exit

Carlos Sainz Jr signed off his stint at Renault with a superb drive to sixth place, which was founded on a long first stint on ultrasoft tyres.

Sainz started 11th having struggled with rear-end stability during qualifying, in which he failed to make Q3. He held 11th in the early laps, moving up to 10th thanks to Kimi Raikkonen's engine failure. He extended his stint on ultrasofts to the end of lap 37, by which point his remarkable pace had allowed him to build up enough of a gap to make his mandatory stop and rejoin ahead of the Sauber of Charles Leclerc, which had led the Class B runners in the early stages of the race. Sainz's strategy

and pace also allowed him to finish ahead of Romain Grosjean and Sergio Perez.

This was the first time Sainz had won the midfield battle during 2018. He described it as "payback" for losing sixth-place finishes in France and Mexico.

The result means Sainz finishes second in Autosport's unofficial Class BF1 classification, behind Renault team-mate Nico Hulkenberg.

Renault clinched fourth place in the constructors' championship in the race, delivering on the target set at the start of the season. Sainz took 10th place in the world championship ahead of Fernando Alonso.

Nico Hulkenberg suffered a dramatic exit from the season finale when his Renault rolled out of the race on the opening lap and landed upside down.

Hulkenberg attacked Romain Grosjean into Turn 8, the left-hander at the end of the first long back straight, but Grosjean hung on around the outside as he was forced to the edge of the track.

Hulkenberg turned in to the apex of the righthander that immediately follows and made contact with Grosjean's front-left wheel, which pitched the Renault into a barrel roll. It came to a rest upside down against the outside barrier, briefly caught fire, and the unhurt Hulkenberg had to wait for trackside staff to arrive and reposition the car before he could extract himself.

Although critics of the halo subsequently blamed the cockpit safety device for leaving a frustrated Hulkenberg "hanging here like a cow" in the car, FIA race director Charlie Whiting says it did not compromise Hulkenberg's extraction.



"Quite clearly that's one of the sort of accidents the halo was designed to help with," Whiting said. "It provides more space for the driver once the car is upside down. That was one of the things we wanted to make sure was still possible [during the prove-out phase for the halo]. When you have an accident like that the radio from the car is automatically routed to race control so we get immediate information.

"Drivers normally say'I'm OK'or'I'm fine', and we relay that to the doctors on their way to the scene. Then they can take their time to get the car righted and let him get out."

When asked about any criticism of the situation, Whiting added: "We knew he was OK and there was nothing to worry about. The routine under those circumstances is to put the car back on its wheels, which has to be done carefully of course.

"Once back on its wheels he was able to get out by himself. It was very controlled from what I could see, and our medical delegate was more than happy with the way it was done. It all worked exactly as it should."

Neither driver was deemed at fault by the stewards and Hulkenberg said it was a racing incident.

"We both locked up, I went wide, he went even wider, so I thought he ran off the track and I had Turn 9 to myself," said Hulkenberg.

"But obviously he was still there and wheels made contact and the rest we've seen — just a couple of flips, which obviously look spectacular, but nothing really dramatic. It looked spectacular, but not a hard crash — no heavy gimpact — so no problem from that point of view."



Leclerc gets his nose into the leaders

Charles Leclerc will be fighting among the frontrunners when he moves to Ferrari next year, but got into the leading group a race early in the opening laps in Abu Dhabi.

On his final outing for the Sauber team, Leclerc started eighth but passed Romain Grosjean through the first corner, as well as getting ahead of Max Verstappen, whose Renault engine briefly went into a safe mode moments after his Red Bull had launched.

Leclerc then got ahead of Daniel Ricciardo just before the safety car was deployed, meaning he held fourth place. But an early stop to change from hypersofts (which he had qualified on in Q2) dropped him behind a group of longerrunning midfielders, including Fernando Alonso.

Carlos Sainz's prodigious pace on ultrasofts enabled him to use this opportunity to run long and jump the Sauber. But Leclerc still claimed seventh place and second-best of the midfield runners. It was his 10th points finish of the season, and his fourth seventh place in the final six races.

Leclerc felt it would have been possible to beat Sainz had he not stopped so early. "There was more in the race for us today, but we rounded of the season with a decent P7 and some more points," he said. "I would like to thank the Sauber team for this incredible year and everything they have taught me."

Q&A CHRISTIAN HORNER

Red Bull team principal

Red Bull finished the season with third and fourth place for Max Verstappen and Daniel Ricciardo, signing off its partnership with Renault. The

team is migrating to Honda power next year after 12 campaigns with Renault. It was also Ricciardo's final race after five seasons with the team, during which he has won seven grands prix.

Why has Red Bull finished the season so strongly?

We made some good progress and development with the car. Really since just after the summer break we were strong – there's been a strong sequence of podiums there. So we did make a lot of progress



with the car in the second half of the year, and the car was very strong at the beginning. We lost ground around Montreal time when engine upgrades were

introduced. We fell back from Mercedes and Ferrari, but after the summer break we managed to get into a competitive position again.

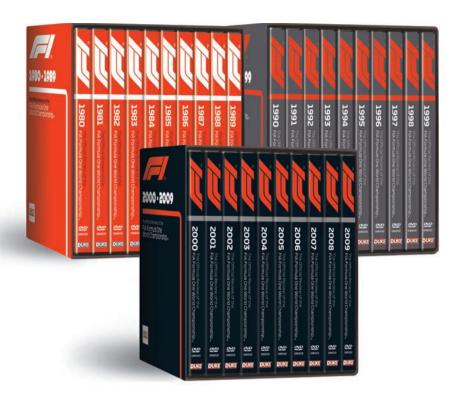
How much would you have liked to see Daniel on the podium in his final race for the team?

We were all hoping that Dan would be there. Last race with the team, we wanted him to do a 'shoey' for the final time. It wasn't to be in the end. After the pitstop I thought it might not just be a podium. His race

ran out of steam a little bit over the last 10 laps.

There was a nice radio message from you to Daniel at the end of the race, which seemed heartfelt.

Absolutely. He's been a pleasure to have in the team the last five years. He's been with Red Bull since 2007, and it's been great to see him grow and evolve. When we were first faced with the question of who do we replace Mark Webber with, there was Jean-Eric Vergne, Daniel Ricciardo and Kimi Raikkonen. And our biggest concern about Daniel wasn't his pace, it was we hadn't seen him race wheel to wheel. And ever since he got in a Red Bull Racing car he's done nothing but overtake, and arguably has become the best overtaker in the business.



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Ocon denied in final Force India outing

Esteban Ocon retired from his final outing for the Racing Point Force India team while on target to finish in ninth place.

Ocon, whose place as Mercedes reserve driver in 2019 was confirmed during the race weekend (he will be replaced by Lance Stroll alongside Sergio Perez next season), started ninth but had to pit at the end of lap 18 thanks to starting on hypersofts, after being passed by team-mate

Perez. This dropped him into traffic, and allowed Renault driver Carlos Sainz Jr to run long and also jump ahead of him.

Ocon then suffered a problem with an oil pipe, which forced him to retire from the race after completing 44 laps. He was also hit with a five-second penalty for gaining an advantage for leaving the track while passing McLaren racer Stoffel Vandoorne, although this was

never added to his time as he failed to finish.

The team finished only seventh in the constructors' championship, 10 points behind McLaren and ahead of Sauber. Team principal Otmar Szafnauer blamed this on its own errors.

"I think sixth was possible, but we just made some mistakes in the last few races,"he said. "Singapore was a big one, and we had a brake failure in Mexico. So that cost us sixth."

Alonso's farewell... and triple short-cut penalty

Fernando Alonso was hit by three five-second penalties for short-cutting the track on his final Formula 1 appearance – for now.

Alonso was chasing Haas driver Kevin Magnussen for 10th place in the closing stages of the race when his McLaren first went off at Turn 9 and

attracted the attention of the stewards. He did the same thing on the next two laps, incurring a trio of 5s penalties that were added to his race time. It did not cost him a position as Brendon Hartley was 21.779s behind at the flag.

Alonso said he had tried as hard as he could to make progress in his final race. "We gave it all,"he said."We were fighting with the two Haas until the last couple of corners.

"The in-lap was very emotional. It was a very touching weekend from F1, from my team, from the fans. I had a lot of support and a lot of respect and I feel honoured."





Engine woe costs Gasly top-10 finish

Pierre Gasly was unable to end his first full F1 season with a points finish after a Honda engine failure struck in the closing stages.

Gasly started 17th on the grid after his engine dropped a cylinder on his final Q1 lap, but climbed to 13th in the early stages before moving to 12th when Kimi Raikkonen retired, then gaining another position thanks to Marcus Ericsson's engine failure. He opted to stop at the end of lap 29, which allowed him to jump Haas driver Kevin Magnussen.

He was running a couple of seconds ahead of Magnussen, and chasing Romain Grosjean, when the engine problem started to manifest itself.

"When we had the issue we were fighting with Grosjean for P9," said Gasly.



FRE	E PRACTIC	E 1	FRE	E PRACTIO	CE 2	FRE	E PRACTIO	E 3	
POS	DRIVER	TIME	POS	DRIVER	TIME	POS	DRIVER	TIME	
1	Verstappen	1m38.491s	1	Bottas	1m37.236s	1	Hamilton	1m37.176s	
2	Ricciardo	1m38.945s	2	Verstappen	1m37.280s	2	Raikkonen	1m37.464s	
3	Bottas	1m39.452s	3	Ricciardo	1m37.428s	3	Vettel	1m37.587s	
4	Hamilton	1m39.543s	4	Hamilton	1m37.443s	4	Verstappen	1m37.747s	
5	Ocon	1m40.102s	5	Raikkonen	1m37.461s	5	Bottas	1m37.933s	
6	Magnussen	1m40.235s	6	Vettel	1m37.569s	6	Ricciardo	1m38.090s	
7	Raikkonen	1m40.417s	7	Grosjean	1m38.060s	7	Grosjean	1m38.304s	
8	Vettel	1m40.453s	8	Hulkenberg	1m38.230s	8	Hulkenberg	1m38.850s	
9	Sainz	1m40.588s	9	Magnussen	1m38.318s	9	Sainz	1m38.970s	
10	Grosjean	1m40.663s	10	Ocon	1m38.402s	10	Ocon	1m39.011s	
11	Gasly	1m40.671s	11	Gasly	1m38.506s	11	Perez	1m39.053s	
12	Hulkenberg	1m41.023s	12	Sainz	1m38.511s	12	Hartley	1m39.074s	
13	Perez	1m41.075s	13	Alonso	1m38.725s	13	Leclerc	1m39.282s	
14	Hartley	1m41.137s	14	Perez	1m38.806s	14	Magnussen	1m39.612s	
15	Stroll	1m41.493s	15	Leclerc	1m38.831s	15	Gasly	1m39.740s	
16	Giovinazzi	1m41.662s	16	Hartley	1m38.957s	16	Alonso	1m39.974s	
17	Ericsson	1m41.928s	17	Ericsson	1m39.502s	17	Ericsson	1m39.997s	
18	Vandoorne	1m42.114s	18	Vandoorne	1m39.938s	18	Stroll	1m40.117s	
19	Alonso	1m42.313s	19	Stroll	1m40.046s	19	Vandoorne	1m40.233s	
20	Kubica	1m42.992s	20	Sirotkin	1m40.935s	20	Sirotkin	1m41.182s	
WEATHER 35C, sunny			WEATH	WEATHER 26C, sunny/dusk			WEATHER 31C, sunny		

SPEED TRAP		
Sauber		2 08.7mph
Ferrari		208.1mph
Force India		207.4mph
Haas	205.0mph	
Renault	Output 204.8mph	
Williams	204.3mph	
Toro Rosso	204.3mph	
Mercedes	203.2mph	
McLaren	202.4mph	
Red Bull	200.8mph	
•		

QU	ALIFYING	1	QUA	LIFYING :	2	QUA	LIFYING 3	
POS	DRIVER	TIME	POS	DRIVER	TIME	POS	DRIVER	TIME
1	Vettel	1m36.775s	1	Hamilton	1m35.693s	1	Hamilton	1m34.794s
2	Bottas	1m36.789s	2	Verstappen	1m36.144s	2	Bottas	1m34.956s
3	Hamilton	1m36.828s	3	Vettel	1m36.345s	3	Vettel	1m35.125s
4	Ocon	1m36.936s	4	Bottas	1m36.392s	4	Raikkonen	1m35.365s
5	Raikkonen	1m37.010s	5	Leclerc	1m36.580s	5	Ricciardo	1m35.401s
6	Ricciardo	1m37.117s	6	Hulkenberg	1m36.630s	6	Verstappen	1m35.589s
7	Leclerc	1m37.124s	7	Grosjean	1m36.732s	7	Grosjean	1m36.192s
8	Verstappen	1m37.195s	8	Raikkonen	1m36.735s	8	Leclerc	1m36.237
9	Perez	1m37.255s	9	Ocon	1m36.814s	9	Ocon	1m36.540s
10	Hulkenberg	1m37.569s	10	Ricciardo	1m36.964s	10	Hulkenberg	1m36.542s
11	Grosjean	1m37.575s	11	Sainz	1m36.982s	WEATH	ER 28C, sunny/dusk	
12	Ericsson	1m37.619s	12	Ericsson	1m37.132s			
13	Sainz	1m37.757s	13	Magnussen	1m37.309s			
14	Alonso	1m37.890s	14	Perez	1m37.541s			
15	Magnussen	1m37.934s	15	Alonso	1m37.743s			
16	Hartley	1m37.994s						
17	Gasly	1m38.166s						
18	Vandoorne	1m38.577s						
19	Sirotkin	1m38.635s						
20	Stroll	1m38.682s						

	SEASON STATS	,
DRIVE	ERS'CHAMPIONSHIP	
1	Hamilton	408
2	Vettel	320
3	Raikkonen	251
4	Verstappen	249
5	Bottas	247
6	Ricciardo	170
7	Hulkenberg	69
8	Perez	62
9	Magnussen	56
10	Sainz	53
11	Alonso	50
12	Ocon	49
13	Leclerc	39
14	Grosjean	37
15	Gasly	29
16	Vandoorne	12
17	Ericsson	9
18	Stroll	6
19	Hartley	4
20	Sirotkin	1
CONS	TRUCTORS'CHAMPIONSHIP	
1	Mercedes	655
2	Ferrari	571
3	Red Bull	419
4	Renault	122
5	Haas	93
6	McLaren	62
7	Racing Point Force India	52
8	Sauber	48

*Team lost its 59 points scored in rounds	
1-12 as Force India due to its name chang	e.

33

Toro Rosso

Williams

QUALIFYING BATTLE

9

10

Hamilton	15	6	Bottas
Vettel	17	4	Raikkonen
Ricciardo	5	15	Verstappen
Perez	5	16	Ocon
Stroll	8	13	Sirotkin
Hulkenberg	13	8	Sainz
Gasly	13	6	Hartley
Grosjean	11	9	Magnussen
Vandoorne	0	21	Alonso
Ericsson	4	17	Leclerc

Scores ignore sessions if a driver did not participate in qualifying, as happened with Hartley in Spain and GB, Verstappen in Monaco, and Grosjean in Canada.

WINS		FASTESTLAPS	
Hamilton	11	Bottas	7
Vettel	5	Ricciardo	4
Ricciardo	2	Hamilton	3
Verstappen	2	Vettel	3
Raikkonen	1	Verstappen	2
		Magnussen	1
POLEPOSITIO	NS	Raikkonen	1
Hamilton	11		
Vettel	5		

2

2

1

Bottas

Ricciardo

Raikkonen

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RAC	E RESULTS ROUN	ID 21/21, 55 LAPS -	189.75 MILES			F	AS	TEST LAPS			
POS	DRIVER	TEAM	FINISHTIME	LED	TYRES		POS	DRIVER	TIME	GAP	LAP
1	Lewis Hamilton	Mercedes	1h39m40.382s	29	USu, SSn		1	Vettel	1m40.867s	-	54
2	Sebastian Vettel	Ferrari	+2.581s		USu, SSn		2	Bottas	1m40.953s	+0.086s	42
3	Max Verstappen	Red Bull-Renault	+12.706s		HSu, SSn		3	Ricciardo	1m41.249s	+0.382s	35
4	Daniel Ricciardo	Red Bull-Renault	+15.379s	17	USu,SSn		4	Sainz	1m41.351s	+0.484s	54
5	Valtteri Bottas	Mercedes	+47.957s	9	USu, SSn, USn		5	Hamilton	1m41.357s	+0.490s	53
6	Carlos Sainz	Renault	+1m12.548s		USn,SSn		6	Verstappen	1m41.909s	+1.042s	51
7	Charles Leclerc	Sauber-Ferrari	+1m30.789s		HSu, SSn		7	Alonso	1m42.393s	+1.526s	53
8	Sergio Perez	Force India-Mercedes	+1m31.275s		USn, SSn		8	Perez	1m42.816s	+1.949s	53
9	Romain Grosjean	Haas-Ferrari	-1lap		HSu, SSn		9	Magnussen	1m42.822s	+1.955s	53
10	Kevin Magnussen	Haas-Ferrari	-1lap		SSn, USn		10	Leclerc	1m42.876s	+2.009s	54
11	Fernando Alonso	McLaren-Renault	-1lap		USn, SSn		11	Grosjean	1m43.195s	+2.328s	54
12	Brendon Hartley	Toro Rosso-Honda	-1lap		USn, SSn		12	Vandoorne	1m43.249s	+2.382s	53
13	Lance Stroll	Williams-Mercedes	-1lap		SSn, USn		13	Ocon	1m43.591s	+2.724s	41
14	StoffelVandoorne	McLaren-Renault	-1lap		SSn, USn		14	Sirotkin	1m43.831s	+2.964s	54
15	Sergey Sirotkin	Williams-Mercedes	-1lap		SSn, USn		15	Gasly	1m43.988s	+3.121s	42
R	Pierre Gasly	Toro Rosso-Honda	46 laps-oil leak		SSn, USn		16	Stroll	1m44.033s	+3.166s	53
R	Esteban Ocon	Force India-Mercedes	44 laps-oil leak		HSu,SSn		17	Hartley	1m44.174s	+3.307s	53
R	Marcus Ericsson	Sauber-Ferrari	24 laps-engine		SSn		18	Raikkonen	1m45.198s	+4.331s	5
R	Kimi Raikkonen	Ferrari	6 laps-electrical		USu		19	Ericsson	1m46.077s	+5.210s	22
R	Nico Hulkenberg	Renault	0 laps-collision		HSu		20	Hulkenberg	notime	-	-

WEATHER 28C, dusk TYRES n - New set u - Used set Available | SH - Superhard H - Hard M - Medium S - Soft SS - Supersoft US - Ultrasoft HS - Hypersoft I - Intermediate W - Wet WINNER'S AVERAGE SPEED 114.22mph. FASTEST LAP AVERAGE SPEED 123.18mph.

RACE BRIEFING

FP1

ANTONIO GIOVINAZZI replaced Leclerc at Sauber ROBERT KUBICA replaced Sirotkin at Williams

RACE PENALTIES

ocon Five-second penalty and one licence point for leaving the track and gaining an advantage ALONSO Three five-second penalties and three licence points for leaving the track and gaining an advantage

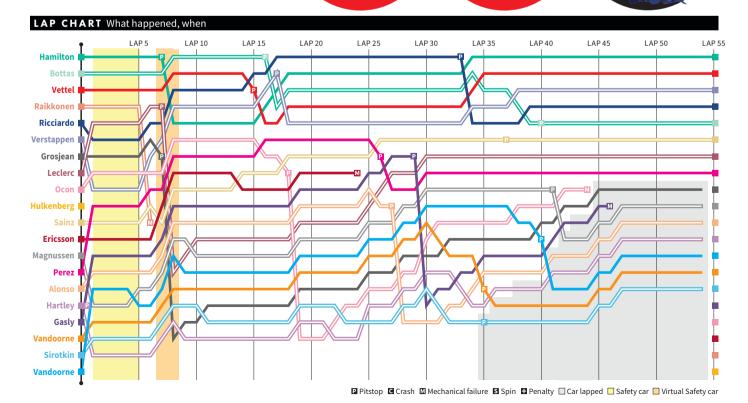
311

Number of F1 races started by Fernando Alonso. He won 32 9.2

Average number of wins taken by Hamilton in his five title-winning seasons

MARCH 17
AUSTRALIAN GP

Melbourne



CLOSE, BUT NO CIGARS FOR STARS OF F1 SEASON FINALE

There are no full marks for the class of 2018, although race winner Lewis Hamilton, Daniel Ricciardo, Esteban Ocon and 'Class B' victor Carlos Sainz come close

EDD STRAW

MERCEDES



A superb qualifying lap, a good start, a patient stint at the back of the lead pack after an early stop and an effortless managing of the gap to Vettel added up to an 11th victory. Not his best win, but Bottas's struggles show how precarious things can be if you don't get everything right.



Can't blame him for being desperate for a break. Couldn't match Hamilton's qualifying pace, but wasn't far off - 0.162s. Started well enough, but an apparent braking issue delayed him and forced a second stop after he'd lost places, resulting in a finish at the back of the lead group.

FERRARI



Ferrari seemed to have its work cut out to beat Red Bull early in the weekend, but Vettel made good progress and there's no sign he could have outpaced the Mercedes drivers in qualifying. His race was an accomplished one, and he did outpace Hamilton by a couple of tenths per lap in the closing stages.



Raikkonen's Ferrari farewell was a subdued one, lapping a quarter of a second off Vettel and then retiring from fourth early on with an electrical shutdown. He didn't have much chance to do anything in the race, so can only really be judged on a so-so qualifying performance.

RFD BUIL



Seventh fourth place of the season was a good one, and it was only strategic reasons that meant he finished behind his team-mate. Outpaced Verstappen in qualifying, but was the last of the leaders to stop in the hope of a safety car and to gain a tyre offset that didn't give an advantage.

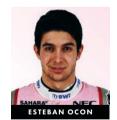


Was perhaps fortunate to finish third, and seemed to find it harder than Ricciardo to keep the rear-tyre temperatures under control in qualifying. Can't be blamed for the poor start, caused by high engine temperatures, but recovered quickly from 10th place, hitting Ocon along the way.

FORCE INDIA

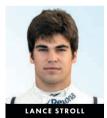


Struggled a little to get things hooked up in qualifying, meaning he started back in 14th place. But that meant he had free tyre choice at the start and took advantage to jump to eighth by the finish. He passed Ocon in the first stint and was threatening Leclerc in the closing stages.



Was the stronger Force India driver, which counted against him in the battle with Perez because he ended up starting on hypersofts. Even so, he would have finished ninth but for an oil pipe becoming detached and forcing him to retire from what may be his last grand prix for a while.

WILLIAMS



Was pipped by Sirotkin in qualifying, which has happened more often than not during 2018, but a great first lap got him up the order. From there, he was able to finish ahead of Vandoorne's McLaren, which was a decent effort given that the Williams struggled badly for pace here.

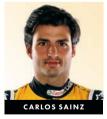


Following news that he wouldn't be continuing with the team next season, Sirotkin had a tough time during practice but did well to get a lap time out of the car in Q1 and beat Stroll. But he didn't make much progress in the race while battling cooling troubles and ended up finishing a distant last.

RENAULT



Performed well in qualifying, outpacing Sainz by 0.352s in Q2. Race lasted less than half a lap after his bid to pass Grosjean ended in a collision that pitched him into a roll. While he said he didn't see Grosjean, having pinned the Haas wide in the first part of the chicane he should have left more space.



Qualifying started promisingly, but went awry in Q2. His race was a brilliant slowburner; he diced with Ericsson early on but extended his first stint on ultrasofts and had enough pace to jump Ocon, Perez, Leclerc and Grosjean. His reward was a comfortable 'Class B' victory.



TORO ROSSO



A strong
weekend, but he
didn't end up
with much to
show for it. His Honda
engine dropped a
cylinder at the end
of his best Q1 lap,
meaning he didn't
make Q2, then in the
race he was on course
for a point when the
power unit again
decided to work
against him.



As has often been the case, he was on just the wrong side of the split in Q1 but did end up ahead of Gasly, thanks to his team-mate's engine issue. Race was compromised by damage from debris caused by the Hulkenberg/Grosjean clash, condemning him to a marathon stint to the end of the race.

HAAS

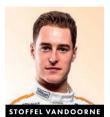


Nailed a brilliant qualifying lap to win the midfield battle, describing it as one of the best of his career. Clash with Hulkenberg on the opening lap damaged his front wing and made the car trickier to drive, but despite an early stop after starting on hypersofts he came through to bag ninth place.

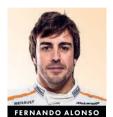


Wasn't quite as comfortable in the Haas as Grosjean, and struggled to match his pace at times. Damage picked up because of a mistake on his first Q1 run compromised Saturday, but he stuck to his task in the race and was rewarded with a solid point for finishing just behind his team-mate.

McLAREN

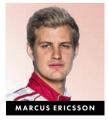


As has become the recent pattern, he qualified poorly but raced decently enough from an unpromising position. Had the air of someone relieved to put the torture of the 2018 season behind him, but it's a shame he wasn't able to nick 13th from Stroll in the closing stages.

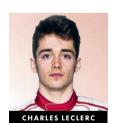


There's something perversely appropriate about his F1 career (probably) coming to an end by just missing out on a points finish. Was close to Magnussen for 10th late on, but showed he was fed up with it all by picking up a trio of penalties for cutting the track while chasing.

SAUBER



Wasn't able to maintain his recent strong qualifying form and failed to join Leclerc in Q3, but was making a decent fist of the race before an engine problem put him out. Was in a position that would have allowed him to take a farewell points finish had he been able to keep going.



Made Q3, but perhaps should have beaten Grosjean to 'Class B' pole. Rendered that irrelevant by climbing to fourth early on in the race and mixing it with the leaders. His stop probably came too early and put him into traffic, but even then it was only Sainz's superb pace that denied him midfield 'victory'.

Verstappen 8.8 Verstappen 8.0 Leclerc 7.9 Vettel 7.8 Alonso 7.7 Gasly 7.7 Ocon 7.6 Sainz 7.6 Ricciardo 7.5 Ricciardo 7.5





FORMULA 2 YAS MARINA (UAE) NOVEMBER 24-25 ROUND 12/12

Most of the Abu Dhabi weekend reflected the Formula 2 season perfectly. George Russell showed searing pace and domination on the track, was able to get into his opponents' heads, and so wrapped up the title. There were start-procedure problems with the series' new-for-2018 car, a fightback for Antonio Fuoco from a bad qualifying to win the sprint race, and tricky tyre management. It had a bit of everything.

Russell's feature-race win means he matches the season record of seven victories shared by Stoffel Vandoorne and Charles Leclerc, and emulates Leclerc's achievement of rookie GP3 Series and F2 title triumphs. He also joins Lewis Hamilton, Nico Hulkenberg and Nico Rosberg as drivers to win the series at their first shot.

You could argue that the hard work was done in qualifying. "Emotionally, I've never felt that way after a pole because I knew how important it was," said ART Grand Prix star Russell. The subsequent four points took his lead up to 41, meaning eighth place would guarantee the crown.

By contrast, Alexander Albon didn't get enough heat into his front Pirellis, and immediately knew his lap was going to be rubbish. He started eighth, knowing his focus needed to turn to Lando Norris, who was set to close the gap to him in the championship in the fight for second place.

The race went awry immediately. Albon stalled from his grid box, as did DAMS team-mate Nicholas Latifi in third. Not only did Albon see his title chances slip away, he had to watch Latifi be hit at high speed by 19th-place starter Arjun Maini. The Trident man couldn't avoid the stranded car, and afterwards praised Dallara for its strong chassis as both drivers were unhurt.

The problems with the clutch stemmed from a warm and sticky track surface, allied to the supersoft Pirellis, which gave the cars more grip and narrowed the start-procedure operating window.

Russell also got a slow start, losing first place to Nyck de Vries. He made his opinion clear on the F2 starting issue after the race, saying: "This is something that absolutely has to change for next year — it's unacceptable." He was clearly impassioned, even though he won't be returning to the

series as he takes up his Williams F1 seat.

The safety car period for Latifi and Maini shortened the running needed on the supersoft tyre, changing the anticipated race strategy. Russell made the decision himself to do the opposite to de Vries on lap eight of 29 and, when de Vries stayed out, Russell dived in. Making a strategy call like that in a title battle takes guts, but there was no hesitation.

A lap later he sailed up the inside of de Vries into Turn 5 as the Prema Racing driver emerged on cold tyres. The Dutchman was not willing to sacrifice his rubber by fighting an in-the-swing Russell.

And with that, the race followed the script. Russell extended his gap, brought the car home and celebrated in style with a deserved title win. He's been the class of the F2 field by a country mile.

Behind, Artem Markelov passed de Vries







with six laps to go and looked menacing. But as soon as he pumped in a flying lap, Russell responded and that was that.

Russian Time man Markelov was lucky to hold on to second. Luca Ghiotto started 16th on the soft tyre instead of the supersofts in an off-sync strategy. He made the change late on and was as much as six seconds per lap quicker than the frontrunners, but a track-limits penalty cost him 5s and the runner-up spot. Not a bad Saturday drive from Campos Racing's Italian, though.

Fuoco (Charouz Racing System) won the sprint race after taking the lead from polesitter Roberto Merhi. Norris pressured Merhi early on, but looked to have dropped away. He then closed in and hounded the Spaniard, forcing him into an error at Turn 8 to take second at the close. That rewarded Norris with second place in the championship, to add to the teams' title that Carlin had won the day before.

It was a just reward for a brilliant team performance throughout the season on Carlin's return to F2/GP2 after a one-year absence. Sergio Sette Camara contributed strongly to that effort in the second car, although he suffered a nightmare weekend in Abu Dhabi, stalling twice.

Merhi settled for third ahead of Russell, who had pulled off the save of the weekend when his car's rear stepped out when he tried to pass Norris up the inside of Turn 1 on the first lap. Had that move gone differently, it could have cost Norris second in the standings, a result he was desperate to secure before stepping up to F1.

JACK BENYON

RESULTS YAS MARINA (UAE), NOVEMBER 24-25, RACE 1 (29 LAPS – 100.010 MILES)												
POS	DRIVER	TEAM	TIME									
1	George Russell (GB)	ART Grand Prix	1h03m33.863s									
2	Artem Markelov (RUS)	Russian Time	+3.301s									
3	Luca Ghiotto (I)	Campos Racing	+8.283s									
4	Nyck de Vries (NL)	Prema Racing	+12.046s									
5	Lando Norris (GB)	Carlin	+19.050s									
6	Louis Deletraz (CH)	Charouz Racing System	+21.964s									
7	Antonio Fuoco (I)	Charouz Racing System	+23.633s									
8	Roberto Merhi (E)	Campos Racing	+27.375s									
9	Tadasuke Makino (J)	Russian Time	+27.840s									
10	Jack Aitken (GB)	ART Grand Prix	+32.786s									
11	Dan Ticktum (GB)	ArdenInternational	+42.485s									
12	Dorian Boccolacci (F)	MP Motorsport	+46.303s									
13	Alessio Lorandi (I)	Trident	+47.809s									
14	${\bf Alexander Albon}(T)$	DAMS	+55.571s									
15	Niko Kari (FIN)	MP Motorsport	+1m10.190s									
16	Sergio Sette Camara (BR)	Carlin	+1m10.766s									
17	Sean Gelael (RI)	Prema Racing	+1m29.971s									
R	Nicholas Latifi (CDN)	DAMS	0 laps-accident									
R	Nirei Fukuzumi (J)	ArdenInternational	0 laps-accident									
R	Arjun Maini (IND)	Trident	0 laps-accident									

Winner's average speed 94.402mph. Fastest lap Ghiotto 1m53.194s, 109.757mph.

QUALIFYING 1 Russell 1m49.251s; 2 **de Vries** 1m49.541s; 3 **Latifi** 1m49.647s; 4 **Markelov** 1m49.869s; 5 Aitken 1 m 49.946s; 6 Deletraz 1 m 50.038s; 7 Norris 1 m 50.059s; 8 Albon 1 m 50.155s; 9 Makino 1 m 50.180s; 10 Sette Camara 1m50 187s: 11 Merhi 1m50 513s: 12 Fuoco 1m50 522s: 13 Ticktum 1m50 580s: 14 Kari 1m50.375s*; 15 **Gelael** 1m50.812s; 16 **Ghiotto** 1m50.892s; 17 **Boccolacci** 1m51.037s; 18 **Fukuzumi** 1m51.048s; 19 Maini 1m51.597s; 20 Lorandi 1m50.855s*. *Grid penalty

RACE2(21LAPS-72.402 MILES)

GRID FOR RACE 2 Decided by result of Race 1, with top eight finishers reversed.

1 Fuoco 42m48.729s; 2 Norris +1.713s; 3 Merhi +3.672s; 4 Russell +8.548s; 5 de Vries +9.458s; 6 Deletraz $+11.050s; 7\,\textbf{Markelov} + 12.960s; 8\,\textbf{Albon} + 15.047s; 9\,\textbf{Ghiotto} + 19.646s; 10\,\textbf{Sette Camara} + 23.052s; 11\,\textbf{Boccolaccial Control Con$ +24.429s: 12 Fukuzumi +27.843s: 13 Aitken +30.535s: 14 Lorandi +33.205s: 15 Latifi +1 m36.014s: R Ticktum 3 laps-accident; R Kari 1 lap-accident damage; R Makino 0 laps-accident; R Gelael 0 lap-accident; NS Maini. Winner's average speed 101.468mph. Fastest lap Russell 1m57.590s, 105.654mph.

CHAMPIONSHIP 1 Russell 287: 2 Norris 219: 3 Albon 212: 4 de Vries 202: 5 Markelov 186: 6 Sette Camara 164: 7 Fuoco 141;8 Ghiotto 111;9 Latifi 91;10 Deletraz 74.





Mazepin error spares Hubert's title blushes

GP3 SERIES YAS MARINA (UAE) NOVEMBER 24-25 ROUND 9/9

One mistake. That's all it took to decide the GP3 Series title in Abu Dhabi. After scoring four points for pole position, Nikita Mazepin cut Anthoine Hubert's lead to 28. But in the feature race, Mazepin's work unravelled quickly.

The rapid young Russian proved his pace with three victories before heading to the season finale — but his ART Grand Prix team-mate Hubert has been much more consistent across the season.

That put Hubert in the lead going into the final weekend, so he could sit back and watch as Mazepin carried the burden of scrapping for points. Through the opening laps Mazepin fought with early pacesetter Leonardo Pulcini — another driver who might have been a contender for the title



but for bad luck as diverse as gearbox failure and a visor tear-off ingested by his radiator.

The DRS effect proved powerful for GP3 machinery and the pair swapped positions twice over four laps. But Pulcini powered ahead at Turn 8 on lap six of the 18-lap encounter, at the bottom of the first of the circuit's long straights. On the second straight, on the same lap, Mazepin tried to go around the outside of Turn 11 and then take the line inside for Turn 12. But he overshot and had to take to the escape road.

Crucially, after going off Mazepin didn't drive around the bollard that marks the exit of Turn 13, as directed by the FIA. Instead he launched his car over the kerb to the inside of the bollard — with all four wheels off the ground — and one lap later he was given a 10-second penalty that would ultimately drop him to fifth place.

One car back, Hubert was informed on the radio, so he knew that from then on he only had to stroke his car home.

"I was just sitting back hoping they would crash, obviously not getting hurt or anything," said Hubert of his race strategy.

He was passed late on by David Beckmann. The Trident driver squeezed his way by Hubert, who — on very worn Pirellis — was in no mood to fight or risk throwing his championship title away.

In race two, with the championship out of the way, all that remained to be settled was how hard — if at all — Hubert was going to push to prove a point. Would the fact that he had two wins to Mazepin's three (at that point) move him to go out on a high?

We will never know. On lap one, Pulcini edged over and attempted to squeeze Hubert to the inside of Turn 8, but he didn't realise Beckmann was on Hubert's left. The three crashed into each other, Hubert and Beckmann were eliminated from the race, and Pulcini damaged a tyre.

He was fighting for third in the standings and the superlicence points it brings, but the damage ruled him out because he needed to finish ahead of Callum Ilott. Instead he finished 12th.

Out front, Juan Manuel Correa drove the race of his season. But during the virtual safety car period brought about by the Beckmann/Hubert crash, he exceeded the speed allowed — thus earning himself a five-second penalty. Third-place Giuliano Alesi received the same reprimand and dropped down the order, while Correa held off Mazepin on the road until the last lap, when Mazepin dived down the inside at Turn 11 and wrestled the place from him.

It gave Mazepin the fourth win of the season in GP3's 150th and last race — it merges with European Formula 3 next year.

Jake Hughes ended his tough season with second ahead of the ninth-place starter, Pulcini's Campos Racing team-mate Simo Laaksonen. Pulcini started ahead of him, so it was a case of what could have been for the Italian, in both the race and the season.

JACK BENYON

WEEKEND WINNERS

GP3 SERIES

Race 1 Leonardo Pulcini Campos Racing Race 2 Nikita Mazepin

SUPERCARS

Race 1 Scott McLaughlin

DJR Team Penske Ford Falcon FG/X
Race 2 David Reynolds

Erebus Motorsport Holden Commodore ZB

WORLD RALLYCROSS

CAPE TOWN

Johan Kristoffersson

PSRX Volkswagen Sweden Volkswagen Polo R

SUPER TC2000 CORDOBA Mariano Werner

Team Peugeot Total Argentina Peugeot 408



motorsportstats.com



Stewards decide Aussie fate

SUPERCARS
NEWCASTLE (AUS)
NOVEMBER 24-25
ROUND 16/16

For the second year in a row a penalty played a crucial role in the outcome of the Supercars finale on the streets of Newcastle, only this time Scott McLaughlin was on the winning end of the stewards' decision.

Having gone into the weekend separated by 14 points, in McLaughlin's favour, the showdown between him and Shane van Gisbergen looked to be a two-point question in the moments after Saturday's first race.

The 95-lapper had been dramatic enough. Van Gisbergen controlled the early phase before a Fabian Coulthard crash worked wonders for Penske team-mate McLaughlin by forcing almost the entire field into the pitlane. While McLaughlin could take on the remainder of his compulsory 140-litre fuel dump in one go, van Gisbergen had to pit twice behind the safety car and so dropped to seventh.

He then worked his way back to second place, before sweeping into the lead two

corners from home after McLaughlin nearly ran out of fuel.

That set up a winner-takes-all situation for Sunday, at least until the stewards got involved. It turned out van Gisbergen's pitcrew had dropped his car off the jacks before refuelling had been completed on his third stop. After an overnight stewards' enquiry, he was slapped with a 25-second penalty. McLaughlin was gifted the win and only needed sixth or better in the finale.

It was a familiar scenario for McLaughlin, who was required to finish 11th on the Sunday in 2017, but fell foul of the stewards three times and handed a seventh title to Jamie Whincup.

There was no repeat this year, though, as McLaughlin controlled the majority of Sunday's race. Van Gisbergen, meanwhile, never looked in the game, seemingly unable to recover from the demotivating penalty.

That allowed McLaughlin to be cautious in the closing laps on Sunday evening, sacrificing victory to a hard-charging David Reynolds to ensure he got the points needed to seal a maiden title.

ANDREW VAN LEEUWEN

Kristoffersson's fitting sign-off

WORLD RALLYCROSS CAPE TOWN (ZA) NOVEMBER 24-25 ROUND 12/12

In a year during which Johan Kristoffersson has dominated World Rallycross, it was only fitting that he signed off his staggering campaign with another victory.

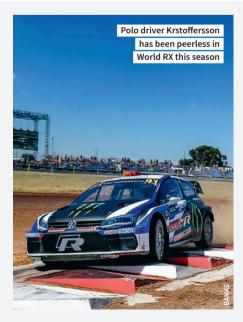
Winning the South African finale took his season tally to 11 out of 12, and it was appropriate too that the latest victory should follow a fightback drive that underlined his status as double champion.

A technical issue meant he spun his Volkswagen Polo on the second lap in Q1. That slowed him for the remainder and he could only manage the 16th fastest time. Peugeot's Sebastien Loeb — the only other competitor to win a WRX round this season — set the benchmark, but for the remaining sessions it was Kristoffersson who pulled out all the stops to be fastest.

He then led both knockout races from lights to flag. Loeb was beaten in the second semi-final by Petter Solberg, and the PSRX team owner challenged for the lead on lap one of the final. But contact with Mattias Ekstrom and then a spin on lap two, where he was collected by Timmy Hansen, meant he finished second. Solberg then announced his full-time World RX retirement.

Loeb completed the podium in Peugeot's last series outing, ahead of team-mate Kevin Hansen.

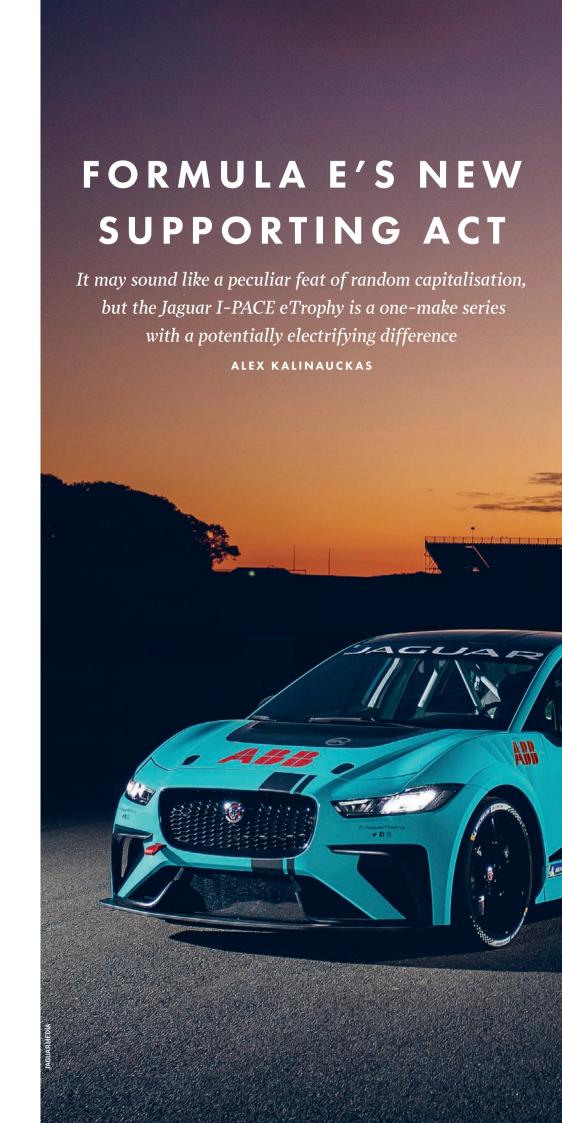
HAL RIDGE



I

DAN TICKTUM'S F1 TEST
 McLAREN AUTOSPORT BRDC AWARD

JAGUAR I-PACE





W

hen the 2018-19 ABB FIA Formula E season gets under way at the Ad Diriyah E-Prix next month, the electric championship will have a proper supporting act for the first time.

Present at nine rounds on FE's season-five calendar, with a 10-race schedule (there will be two at the New York round), the Jaguar I-PACE eTrophy series will run alongside the main championship. The new competition will pit identical I-PACE race models in events lasting 25 minutes plus one lap following dedicated practice and qualifying sessions. The series is an 'arrive-and-drive' competition, for which Jaguar will provide technical and logistical support for its competitors, as well as spares and hospitality.

"We are one-make — they're all identical, they're all run in-house — and it's the world's first electric production vehicle one-make series," explains Jaguar's eTrophy championship manager Marion Barnaby.

The eTrophy race cars are modified versions of Jaguar's recently released I-PACE electric SUV, with a spec body kit and racing set-up. Unlike FE, the eTrophy drivers will be able to push flat-out from start to finish without having to worry about energy saving or battery management.

"We wanted that from-start-to-finish approach, particularly for season one," explains Stuart Adlard, senior vehicle engineering manager at Jaguar Land Rover special vehicle operations. "You've got less communication involved and you haven't got to manage different settings. The car is engineered so that it will maintain its performance from the start to the end of the race."

Although the car is supplied as a standard item for all teams, they will be able to adjust bump and rebound on the dampers, tune rollbar settings — there are two positions available at the front and three at the rear — and tweak front and rear brake balance and ABS intervention. The cars are charged by 50kW portable chargers and have a left-hand-drive set-up for "synergies to the road car and engineering simplicity," according to Adlard.

Though it closely resembles the road car, the racing version of the I-PACE has a completely new front end - a new bonnet and new front wings, plus wider wheel arches and cooling gills. The bonnet is unique and performs in a very different way to the road car, which has a much more closed-off grill because it doesn't need to take in anywhere near as much air. The eTrophy machine also features a wider front bumper, a big carbonfibre front splitter to reduce front-end lift, a rear spoiler and "the completely new rear venturi to help balance what we've done at the front of the vehicle,"

"DRIVERS WILL BE ABLE TO PUSH WITHOUT WORRYING ABOUT BATTERY MANAGEMENT"

says Wayne Burgess, production studio director at Jaguar, who led the creative design team for the I-PACE road and eTrophy cars.

"The road I-PACE really was driven by the aerodynamic performance of the vehicle," he continues. "And you can see that in its aesthetics — it's very sheer sided, it has no Coke bottle, it isn't tapered like F-Type or E-Type. And that's all been about improving the aerodynamic performance of the car, reducing drag. Because of course with electric vehicles, the lower the drag, the better the range potential."

As an all-new championship, and only the second full-electric series to successfully get to the point of racing, the eTrophy is forging its own path in the motorsport landscape. It is particularly novel at this stage — E WTCR has been announced alongside the long-delayed Electric Production Car Series (Electric GT), MotoE and the postponed electric World Rallycross — because »

it straddles both the traditional production-based touring car sphere, albeit with an SUV twist, and electric racing.

"At present, nobody is a competitor", says Barnaby. "But it's coming — every manufacturer, you see announcements every week — as people are saying, 'We're not going to build any more diesel engines by this time.' Electric is coming and the more people in automotive that are coming over to this sector, they're going to be making race cars. We're on the Formula E package so it's more visible, and up and running."

At the time of writing, the competitors announced for the inaugural eTrophy season are Rahal Letterman Lanigan Racing, which will run Katherine Legge and Bryan Sellers, Jaguar Brazil Racing (Caca Bueno and Sergio Jimenez), Team Asia New Zealand (Simon Evans, older brother of Jaguar FE racer Mitch), and Team Germany (Celia Martin). Further multi-car entries are expected from teams hailing from Saudi Arabia and China. These are set to be announced before the first race takes place and the squads featured in the championship's pre-season tests at Silverstone and Rockingham. Jaguar also plans to field its own entry that will be occupied by "famous faces from the world of motorsport and beyond", according to the manufacturer, for one-off outings.

"It's a very international championship — as you see from the flags on the bonnets," explains Barnaby. "The people that are coming through can see this is something you need to be part of from the beginning, because once you have this knowledge of driving an electric vehicle from the start, you can then move on to more things as well."

That potential for career progression in racing raises an interesting question — could the eTrophy actually become a feeder series for FE? Given the high torque, low-grip skills required in both series and the knowledge gleaned from racing on the same unique city-centre circuits, Simon Evans does not rule out an eTrophy driver graduating to the flagship electric series.



"You've got to keep an open mind about it [progression to FE]," says the 2014-15 V8 SuperTourers New Zealand champion. "All the Formula E teams are going to be watching it so I think it's a progression because they're probably going to have very similar driving styles, I'd imagine, between the cars — though no one has done back-to-back tests so far. So if you go well here, it could open up some doors for a future in Formula E."

Given the sizeable proportions of the I-PACE cars and the tight confines of a typical FE street circuit, eTrophy races will no doubt be distinguished by plenty of contact. Evans reckons the action is going to be "super-close" so, with plentiful car-to-car clashes on offer, touring car fans should find plenty to interest them. And since the prize fund is in excess of £500,000, there's a lot riding on it for the drivers too.





"Like any production series around the world there's going to be some contact, and it's on street circuits so I think the racing is actually going to be pretty exciting," Evans says. "It's going to be tough to pass, but drivers from all series try to find a way to pass."

Given the likelihood that the races will feature a healthy amount of touring car-style panel-bashing, Jaguar has designed the eTrophy car with easy repairability in mind. There will also be two spare cars at every race, and Jaguar and the event stewards will decide on allocation should they be needed.

"A lot of the new stuff we've put on the car is easily removable," explains Adlard. "So the front fenders, for example, bumpers, the splitters — all those parts come off relatively easily. That's been a consideration in terms of engineering the new car — how they attach and detach."

The eTrophy was first announced back in September 2017, and Rahal Letterman Lanigan Racing committed to its entry two months later. But, beyond RLLR revealing Legge as its first driver, most of the grid wasn't publically announced until a year later.

Barnaby says the long wait for team and driver announcements was because the concept of the series was so unusual. "The idea was there and the programme was there, but a lot of people are in their racing programmes — because we race in the off-season for a lot of people," she explains. "Also it was about understanding exactly what we're doing, because up until now we've been selling a picture. Now it's real — the cars are out there. It's been a huge undertaking by all the team — we had to get everybody in place — just prepping ourselves and in selling the entries as we've been going."

Since the I-PACE was the first electric SUV from a major European manufacturer to hit the market, the thinking behind the eTrophy series from Jaguar's point of view is obvious. The tie-up with FE, which Barnaby says is "100%" behind the new series, came as a result of Jaguar's existing commitment to electric racing.

"Because we were the first manufacturer into Formula E, it's a natural fit," says Barnaby. "We could see from our racing heritage as well — we needed to build a programme ourselves. And so we were fortunate to be on the programme and to have the foresight to see there was space for a support race."

From an FE perspective, the recent influx of manufacturers to the championship has been a rolling cycle of good news. With the addition of a support series, and one given the full backing and support of a major FE stakeholder, it has found the next logical step.

Ultimately, the start of the eTrophy also represents a good step for motorsport as a new championship featuring interesting and relevant road technology enters the arena. If it fulfils the promise of the tech — and the potential for paint-trading action around nine of the world's major cities — it should be quite a spectacle. **

BEHIND THE WHEEL OF THE I-PACE

In all honesty, I wasn't expecting much from Jaguar's I-PACE eTrophy car. All-electric motorsport is in its infancy, which makes it intriguing, but also underdeveloped compared with conventional combustion technology.

My preconceptions were skewed somewhat by my experience of the other attempt at an all-electric production racing series: Electric GT. That category has some brilliant ideas about sustainable circuits and zero-carbon motor racing, but development has been slow.

The Tesla test mule I drove at Pau-Arnos late last year suffered serious cooling problems that meant it couldn't complete a lap at racing speed without overheating and losing power.

In readiness for launch as a support act to Formula E in its forthcoming fifth season, Jaguar has spent a frantic 2018 developing its car into a reliable prospect. I came away pleasantly surprised and impressed.

First off, it looks the part. Static pictures don't quite do justice to something that wouldn't seem out of place on a TCR grid. The safety features and controls are all proper, as you'd expect from any FIA-sanctioned international series.

The treaded Michelin tyres offer enough support to allow you to attack the corners, but also let the car slide easily. It doesn't feel like it has too much grip for the power.

The I-PACE has the electric equivalent of

435bhp, but weighs nearly two tonnes, so it's not that quick. On Rockingham's National Circuit, we top out at 150km/h before braking for Yentwood. That's not much more than 90mph.

But for amateur drivers racing on narrow street circuits that's probably enough. Where this car needs to score well, and does, is handling. It's responsive under braking (helped by an energy regeneration function and ABS), and the chassis and suspension are refined enough to make the car feel positive and agile, despite its road-car basis. You can also bias power delivery from 50/50 to 35/65 front/rear depending on conditions or your personal preference.

The ultimate point is that it is fun to drive. It just lacks power, which is to be expected of technology that is still so raw in racing. The battery at least seems reliable and durable. There was no noticeable drop-off during our 10-lap run, but the real test will come in the heat of places like China and New York, not the middle of a Corby industrial estate in late October...
BEN ANDERSON





BRITAIN'S LATEST F1 HOPE JOINS THE PREMIER LEAGUE

As his prize for winning the McLaren Autosport BRDC Award last year, Dan Ticktum earned a maiden run in F1 machinery. And he took no prisoners

MATT KEW



ou can't really compare this to any other sport. If you take football, you're kicking a ball as soon as you start playing whether you're in the Premier League or not. But when you start in karting and then get to Formula 1, it's the first time you get

to experience the top echelon of the sport."

As a 19-year old about to head out for his first taste of an F1 car, Dan Ticktum is remarkably composed and articulate. He has plenty of hours in the simulator under his belt owing to his standing as a Red Bull junior but, like he says, that pales in comparison to having a McLaren MP4-28 and Silverstone's Grand Prix circuit all to yourself.

The drive in a car that Jenson Button and Sergio Perez campaigned in 2013 is the now two-time Macau Grand Prix victor's

prize for winning last year's McLaren Autosport BRDC Award. He heads out of the garage on a bitterly cold day for an installation lap on intermediate tyres. Out and straight back in again.

After a systems check and a swap to demonstration-specification slicks, Ticktum's ready to go again for his first of four lots of five-flying-lap runs. Given his unfamiliarity with the 750bhp behind his head, and downforce levels well over twice that of his Motopark Formula 3 European Championship Dallara, you'd be forgiven for expecting a rookie to take it easy.

But in what's known as 'doing an Oliver Rowland' (the 2011 Award winner), Ticktum pins open the throttle in the pitlane. The rears light up and he saws at the wheel, leaving two black lines as he goes. Quite the bold first impression to make.

It'd be wrong to read Ticktum's exuberance as reckless, however.



"TICKTUM SATISFIES THE UNOFFICIAL BENCHMARK OF THE F1 TEST: HE TAKES ABBEY FLAT"

Although Silverstone's nature means viewing is limited, the screaming 2.4-litre Mercedes V8 hides no secrets. That means you can hear all of his throttle inputs over a lap, and they go off without a hitch. He finds an instant affinity — much to the delight of his grandma, who's never watched any of his races before.

McLaren is hugely impressed with his runs too. Ticktum cuts five seconds off his initial time over the course of the morning and satisfies the unofficial benchmark of the Award F1 prize drive: taking Abbey, Turn 1, flat on his final quick lap. This is met by chairman of the Award judging panel Derek Warwick, watching on from the pitwall, punching the air. It's also a visceral reminder for the 2018 Award finalists — Jamie Caroline, Max Fewtrell, Tom Gamble and Kiern Jewiss — of the potential rewards. >>





























A RETURN TO FORMULA FORM

Dan Ticktum's return to competition in 2017 yielded one podium from five GP3 Series races, but he ended the season only seventh in the Formula Renault Eurocup standings. That knockedhis confidence.

He may have only led the 2017 Macau Grand Prix for 300 metres after leaders Ferdinand Habsburg and Sergio Sette Camara crashed at the final corner, but the victory over Lando Norris marked an upturn in fortune.

Following on from winning the 2017 McLaren Autosport BRDC Award, Ticktum joined the Formula 3 European Championship with Motopark and racked up four wins – including a spectacular charge from 10th on the grid at Spa – eight podiums and five poles.

Although he topped the standings for much of August and September, it was a resurgent Mick Schumacher and Prema Powerteam who ultimately walked away with the championship spoils.

"Overall, I think it's been

a good season," Ticktum reflects. "I've learned a lot of lessons. I was a rookie, let's face it. I'd only done Macau and a bit of testing so it meant I had no experience of a lot of the tracks.

"Pace has been great all throughout the year. We started off quite a lot stronger than the second half of the season and that was due to a massive shift in tyre batch. The Hankooks have about three batches every year and the last few races there was a big change, and until we put the car on the rig we didn't notice that change. That really hurt us."

To bookend his year was a return to Macau, now with much more seat-time in the Dallara F318. In total contrast to his last-gasp '17 triumph, Ticktum was peerless around the Guia circuit. He blitzed pole and, despite a red flag and two safety cars, survived the slipstream-fest down to Lisboa corner on four occasions to claim back-to-back wins in the headline F3 event.





Autosport records Ticktum's quickest time at 1m36.6s, compared to Perez's fastest lap in the 2013 British Grand Prix of 1m36.1s and Button's 1m36.4s. In isolation, a half-second gap given Ticktum's inexperience is a hugely respectable effort. But then consider that Ticktum had to spend time heating the tyres, without the use of blankets, and went out on cold brakes. Add in also that he ran with a heavy fuel load and a high-downforce set-up, plus he was on a very hard tyre compound — the demo tyres are far removed from the regular F1 Pirellis to ensure teams can't gather extra data.

Understandably, Amelia Lewis, the McLaren graduate engineer tasked with running the programme, is full of praise. "We were obviously really impressed with what he was doing," she says. "As a result, we wanted to make sure that we did everything we could















"IT IS IMPOSSIBLE TO PUT INTO WORDS. I FEEL AS THOUGH I'VE COMPLETED MY LIFE, I'M SO HAPPY"

so that he got the opportunity to do all of his runs. I think everyone in the team was impressed with how he performed.

"Straight away, from the first run he showed that he was going in with a really cool head and a very mature outlook. He was building up his confidence over his runs, so when he left tyre marks in the garage we knew at that point he was comfortable in the car."

Experiencing an F1 car for the first time is a considerable achievement in itself. But Ticktum relished his chance and pressed on to a point where he was having to manage snaps of oversteer through the high-speed Maggotts-Becketts complex. Unsurprisingly, the opportunity left both a lasting and life-affirming impression.

"It is impossible to put into words," he enthuses. "Just over 10 years ago, which is not a very long time, I was at Bayford Meadows [karting circuit] going for my first few tests. At that point, no-one would have thought that I'd get even close to this far. But to get to this point, sat on the front of an F1 car is more than a dream. I feel like I've completed my life almost, I'm just so happy."

And that is one of the Award's main aims, as Warwick concludes: "When he came here last year [for the Award] he was incredible. It was a great job by McLaren — to get four five-lap runs on brandnew tyres is extraordinary. We've never really had that. That gave Dan a better chance to show what he showed. He was absolutely stunning at Becketts and through Abbey he was very impressive.

"It's all about giving him his first experience — that's the way I always look at it. We're privileged to give these great drivers their first chance in a grand prix car. I think that's pretty special." \mathcal{W}

McLAREN'S 'OTHER' RISING STAR

Dan Ticktum was one, and the McLaren Autosport BRDC Award finalists made five. But there was a sixth 'star in the making' at Silverstone for the Formula 1 test, albeit less in the limelight than those in racesuits.

It speaks volumes about Amelia Lewis, who is just 25, that McLaren offered her the chance to run Ticktum's maiden drive in an F1 car.

The mechanical engineering graduate was accepted for the company's engineering graduate scheme in 2016. Through the programme, she has worked stints in the design, aero, strategy and vehicle performance departments "to get a really broad flavour" of what her vocation has to offer.

But being a jack of all trades doesn't necessarily earn you the chance to preside over F1 machinery. Consider then that Lewis undertook a leg in McLaren's marketing department to broaden her horizons, and then you begin to understand her aspirational mentality to succeed.

"I was always interested in F1, always a fan, but then

realised that I was in a pretty good position to get into the industry," she says. "The scheme has taught me that it's really good to go into things with an open mind because you don't really know where opportunities are going to come from or what might come up."

Willingness to diversify means Lewis has been involved with Lando Norris in his role as the team's test and simulator driver as he managed a Formula 2 assault, and culminated at Silverstone for what was not only a life-affirming day for Ticktum, but for Lewis too.

"This is a treat for me, as it has been a treat for Dan," she adds. "I've tried to put myself forward for opportunities to get to this point.

"It's just not the sort of thing you really get to experience nowadays with the reduced testing in F1. It's quite difficult to get trackside experience, so for me to be able to get that race engineering experience with Dan has been fantastic.

"What it showed me is that I absolutely loved being in that type of environment."















CAN THE NEXT F1 STAR PLEASE STEP FORWARD...

The 30th McLaren Autosport BRDC Award winner will be announced this weekend.

Here's what the four finalists faced at this year's Silverstone test days

KEVIN TURNER















ne Formula 1 world championship, 649 F1 starts,
28 F1 wins, four IndyCar crowns, three Indianapolis
500 victories, a trio of DTM titles and a World
Endurance Championship success. That's not a
bad list of achievements racked up by McLaren
Autosport BRDC Award winners in its three decades so far,
and some of those stats will soon grow.

The Award's stated aim is to find British F1 stars and, with Lando Norris (the 2016 winner) and George Russell ('14) joining the grid next year, that means seven of the 29 winners so far have made it to the sport's pinnacle. And many of those who haven't *have* gone on to make successful careers in motorsport, scoring wins that extend beyond those listed above.

The competition has come a long way since David Coulthard became the first winner in 1989. The future 13-time F1 victor didn't have to go through any sort of test, but recently the four finalists have faced simulation and fitness assessments, as well as two days at Silverstone in an array of machinery that's alien to them. This year was no exception.

The first step in 2018 was the judges' meeting to select the finalists. This year the panel included chairman of the judges and former BRDC president Derek Warwick, two-time British Touring Car champion Jason Plato, former McLaren designer Mark Williams, GT team boss and 1997 Award winner Andrew Kirkaldy, McLaren's Amelia Lewis, experienced commentator Ian Titchmarsh, and Autosport's Scott Mitchell and Kevin Turner. Joining the panel full-time was former guest judge, 2008 winner and factory BMW driver Alexander Sims. After much deliberation, the four chosen from the ranks below European Formula 3 were BRDC F3 race winners Jamie Caroline and Tom Gamble, Formula Renault Eurocup champion Max Fewtrell, and British F4 title winner Kiern Jewiss.

The finalists were announced during the first week of October and the F2 seat fittings began immediately. The first part of the assessment took place the week after, when the drivers were put through their paces on 1996 Award winner Darren Turner's Base Performance simulators. The runs, in a Ligier JSP3, were mainly on Silverstone GP, with Fuji thrown in for one session.





Being proficient in the virtual world is an increasingly important part of some professional drivers' careers, and the tests often provide finalists with new insights. "I never really get on with sims, but Darren Turner's was mental — it's the most realistic sim I've tried," reckons Caroline. "When I've got a full season sorted I'll go back."

The following week the finalists' fitness was assessed — in pairs — at McLaren's Technology Centre in Woking. Although rarely a differentiator when it comes to the final prize, the fitness tests do provide excellent information for feedback, which all finalists are offered following the announcement of the winner.

The meat of the Award is, of course, the driving tests on Silverstone's Grand Prix circuit. This year, the finalists got to watch 2017 winner Dan Ticktum's McLaren F1 prize test the day before heading out on track for the first time in Silverstone's new Aston Martins for some sighting laps. Then it was straight into the MotorSport Vision-run Williams-built F2 machines, which produce 425bhp. Each driver got their own, randomly selected engineer to help with data and set-up.

The 1.8-litre turbocharged machines are ideal as all the drivers can be out on track at the same time, and the cars are unfamiliar to all as they are no longer active race cars. They're quick too — the fastest times on day one were in the 1m48s — and twice as powerful as the racers the drivers are used to.

After a familiarisation run, the drivers got three new-tyre runs before turning their attention to the other two cars in the afternoon.

"THE McLAREN IS OFTEN THE CAR THAT TAKES THE DRIVERS FURTHEST OUT OF THEIR COMFORT ZONES"

This year the pair of 500bhp McLaren 650S GT3 cars were joined by the Ligier JSP3 LMP3 machine (see page 54). Benchmark drivers — on hand to provide help for the finalists as well as checking for any track evolution that could influence the times — were Andrew Watson in the McLaren and Sims in the Ligier.

The McLaren is often the car that takes the drivers furthest out of their comfort zones. It's heavier and softer than the single-seaters they're used to, plus it has traction control and ABS for them to get their heads around — and use to their best advantage.

Again, they started with a used-tyre run before being given fresh rubber for a 'qualifying' effort. Finally, they were all given a longer run to see how they dealt with tyre wear. >>



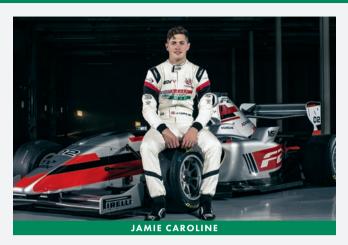








THE 2018 FINALISTS



AGE 19 BRDC F3 RACE WINNER

"It was the final chance to prove myself this year. I love the Formula 2 car on new tyres, the GT car was cool with the ABS and traction control, and the LMP3 car opens up another category for us."



AGE 19 FORMULA RENAULT EUROCUP CHAMPION

"I felt more relaxed this time around [Fewtrell was a finalist last year]; I knew what to expect. The driving part was still challenging – I don't feel it gave me an advantage there. Driving the F2 car is really cool."



AGE 17

MOTORSPORT IMAGES/FERRARO/LAT

BRDC F3 RACE WINNER

"It was very professional and the F2 cars were in stunning condition. It was quite surreal, an amazing experience. Going out for the first time in the F2 car was crazy and I really enjoyed the Ligier."



AGE 16

BRITISH F4 CHAMPION

"It was an amazing experience – the best thing I've ever done. It was a big jump for me, with all the cars. The step was harder to get used to than I thought, but I did the best I could."

A NEW MACHINE TO CHALLENGE THE DRIVERS

The Mercedes DTM car was a highlight of the Award tests for many years, but the German marque's impending withdrawal from the series meant no car was available for 2018.



Into the breach stepped Ligier and parent company Onroak Automotive, providing a JSP3 LMP3.

Although LMP3 is lower-profile than the DTM, the Ligier provided several benefits, not least of which was a fast turnaround when it came to getting













Although the single-seater remains the focus, the other two machines are vital to the test. The overall winners have invariably excelled in one or both. Indeed, some of the most outstanding runs in Award history — Jenson Button (1998 winner) in the Nissan Primera Super Tourer, Sims and Russell in the DTM Mercedes — have come in cars with a roof.

At the end of day one, the McLaren and Ligier teams gave their independent feedback to the judges, leaving day two entirely for more F2 assessment.

The running on day two began very much as on day one, except the drivers were given the 'push-to-pass' to play with in the F2 car. This gave them two brief boosts of an extra 75bhp, on four laps. In one of the sessions, a little over 0.4 seconds covered all four drivers. Not that any of the drivers knew that, as the finalists don't have access to the times set by their rivals. That makes it quite a hard self-improvement test: they have to work out what they could do better with the engineer.

The next two sessions were the fastest of the tests — newtyre runs with boost. No session is necessarily more important than another, but this is the time when the finalists can piece together all that they've learned over the two days and really show their pace. Once again, it was close. In one of these 'qualifying' runs, 0.151s covered the top three.

The final on-track test was a pursuit run over 10 flying laps, using the best worn set of Pirelli tyres each driver had left. The cars were released at intervals so as not to interfere with each other and, after an out-lap and a preparation lap, the timing started. The total time was the important factor, not the best individual lap, and the gap between the fastest to the slowest was a little over four seconds.

The MSV engineers fed back at the end of the day and each of the drivers was interviewed by the judging panel. They were then



"THREE OF THE FOUR DRIVERS TOPPED A SESSION AT ONE TIME OR ANOTHER"

allowed to have their phones, which had been confiscated on arrival at Silverstone, and head home, leaving the judges to go over the data — from lap times to throttle traces — and select the 30th winner of the McLaren Autosport BRDC Award.

There was the odd spin and off, but all the cars were returned in one piece and three of the four drivers topped a session at one time or another. Which left perhaps the most stressful challenge of all: the five-week wait until this weekend's Autosport Awards to find out if they've done enough to win a McLaren F1 test. **



ready for each finalist. It provided a fresh challenge, and it has to be one of the best-sounding cars ever used for the tests, thanks to the 420bhp normally aspirated Nissan V8.

"I probably enjoyed the LMP3 most of all because it's so different to anything I've driven," says returning finalist Max Fewtrell. "It was a good replacement."

After a run on used rubber to acquaint themselves with the Ligier, the drivers were given a set of new tyres to go for a time. As you might expect

given the lack of familiarity, the spread of times was greater than in the F2 cars.

That can be of great benefit when it comes to making a final decision on the winner, but also shows that it could give some finalists an insight into another potential path later in their careers. Just as the test has proven over the years – ask Gary Paffett (1999 Award winner and twice DTM champion), Jamie Green (2002 winner and prolific DTM race victor), and Paul di Resta ('04 winner and '10 DTM champion).

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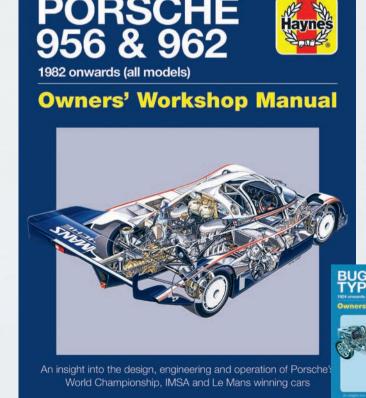
The Bugatti Type 35 Owners' Workshop Manual offers an in-depth look at the design, engineering, operation and restoration of the Type 35, and details the story of the cars, the variants produced and the anatomy of the chassis, with input from engineers, owners and drivers involved with the cars today. A fascinating insight into a car that still wins historic races more than 90 years on from its grand prix debut.

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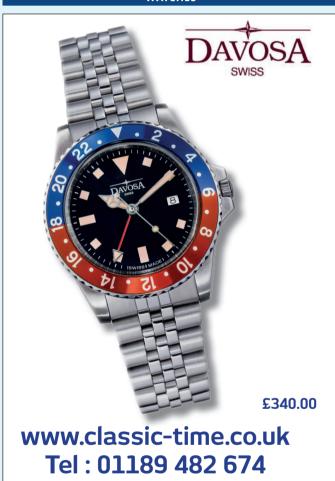
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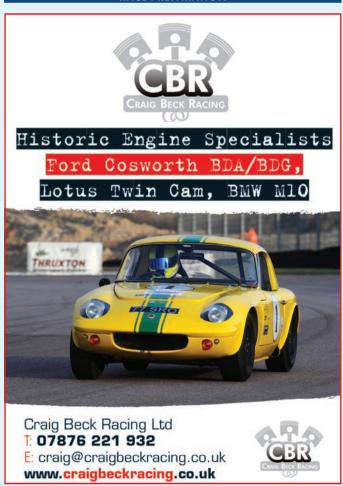
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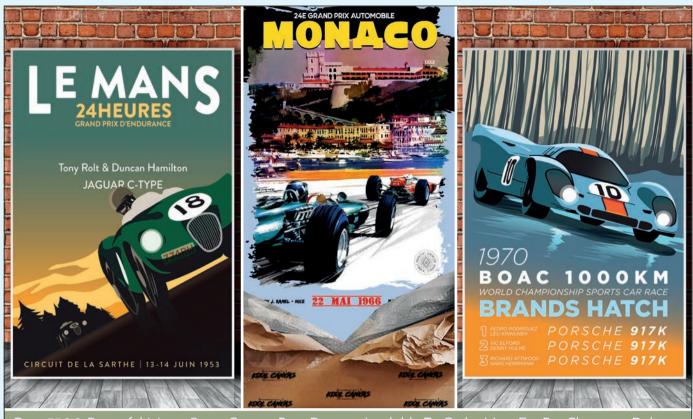




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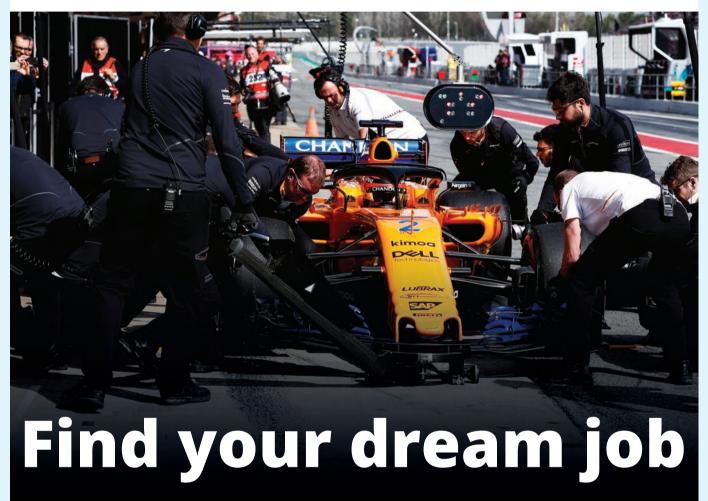


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BEECHDEAN TO MAKE GT4 RETURN IN 2019 WITH NEW ASTON

BRITISH GT

The title-winning Beechdean team will return to the GT4 ranks of the British GT Championship next year in a renewed two-car assault across the GT3 and GT4 classes with Aston Martin.

Martin Plowman and Kelvin Fletcher, 2018 GT4 Pro-Am runners-up, will switch from the RJN Nissan 370Z to join Andrew Howard's Beechdean set-up in the new Vantage GT4. Howard himself will pair up with Aston Martin factory driver Marco Sorensen in a new Vantage GT3.

Macleod/Loggie switch to Merc

BRITISH GT

British GT race winners Ian Loggie and Callum Macleod will switch from Team Parker Racing to RAM Racing next year, and the Mercedes outfit has committed to a full season in the championship for the first time since 2015.

The Silverstone-based team has competed most recently in the 24H Series.

Loggie and Macleod, who beat current Porsche factory driver Nick Tandy to the British Formula Ford title in 2007, have raced Parker's previous-generation Bentley Continental GT3 for the past three seasons in the Blancpain Endurance Cup and British GT.

They endured a difficult second season in the domestic championship this year. A second place at Rockingham was their best result on their way to ninth in the

GT₃ championship standings. The pair will race RAM's Mercedes-AMG GT₃, which demonstrated strong pace in a cameo appearance at Spa with Tom Onslow-Cole and Remon Vos.

"It's been an absolute pleasure to race with Team Parker Racing in the Bentley for the last three years, but I was keen to make sure my skill sets develop," said Loggie.

"After testing the Mercedes-AMG GT3, I think there's a lot I can learn from it. I also think it's a car that will do well in British GT. RAM Racing are an incredibly impressive team — extremely professional and everything is well-prepared.

"I'm looking forward to a new chapter in my racing and can't wait to get to Oulton Park in April."

JAMES NEWBOLD





Beechdean AMR claimed back-to-back GT4 titles with Silver pairings Ross Wylie/Jake Giddings and Ross Gunn/ Jamie Chadwick in 2014 and '15. Howard believes the input of experienced sportscar hand Plowman will be invaluable as the team learns the new car, which replaces the outgoing V8 Vantage.

"Martin has worked at the highest level," Howard said. "His attitude is brilliant, and I'm very excited to be working with him. I've talked to him on-and-off now for the past 18 months.

"We said we would only run a second car if we could be competitive and Kelvin is a very exciting Bronze. He's got some great pace in him, which gives the team

an option of having two cracks at it rather than putting all its eggs in one basket.

"Winning the championship, as we've often proved, is about consistency and bringing the car home. We have got a proven pairing who are coming into a team that is used to operating at the level they want to operate at."

Paired with Darren Turner this season, two-time champion Howard was the only Aston driver not to win a race in the final year for the old V12 Vantage GT3. In teaming up with Sorensen - who took four fastest laps from nine races - Howard is optimistic he can draw level with Jonny Adam, whose third title made him the most successful driver in British GT.

"I've known Marco a long time and I feel very comfortable about racing with him," said Howard.

"Ionny is ahead of me now. It's going to be no easy thing, it should be competitive. There is no pressure and I think that's what probably makes us more dangerous than anybody."

Having stepped back from the European Le Mans Series to a British GT-only schedule this year, and leaving his post as sporting director at Wycombe Wanderers Football Club, Howard added that "the aim is to do a lot more racing than I've done this year" and will announce further plans soon.

JAMES NEWBOLD



A MUSTANG FOR UK

A Ford Mustang GT4 could compete in British GT.

British Touring Car Championship racer Sam Smelt tested the Multimatic Motorsport-built car at Donington Park on Friday.

The 5.2-litre V8-powered Mustang has successfully raced in the USA for the past two seasons. Owned by Ryan Connolly's Race Performance outfit, the Mustang is believed to be the only example in the UK, and will be tested extensively before its 2019 race programme is revealed.

It could become the first Ford to race in British GT since '11. Connolly said the test went "superbly well" and was encouraged by Smelt's times. Photograph by Mick Walker



Track boss disappointed by small Rockingham finale

ROCKINGHAM

Rockingham CEO Peter Hardman knew the venue "wouldn't survive as a track" when he took the job, adding that he was disappointed with the small entry list for its final race meeting last weekend.

The four-time Le Mans 24 Hours starter assumed his role at the circuit five years ago, during which period it has made a profit for

the first time in its 17-year history.

Speaking at the Super Send-Off, he said the writing was on the wall when he took over the day-to-day running.

"I always knew it wasn't going to survive as a track because it's not commercially viable," said Hardman. "It never made any money before I started. But we have gone from a £250,000 loss the year I arrived to making a £450,000 profit this year.

"The owners don't see it as a track, they see it as a piece of land. They've seen the opportunity to remarket it for storage."

When the Super Send-Off was announced at the end of August, it was hoped that Indycars and stock cars would feature in demonstrations — both having raced at the circuit previously. But neither materialised due to the short timeframe between the meeting being scheduled and the onset of winter weather.

"We were trying to organise demos but getting people to bring cars is a problem," said Hardman. "It would have been nice to get some cars out, but they just wouldn't come along."

When asked if he was disappointed at a diminished entry list — the single-seater grids featured just eight cars — Hardman added: "Yeah, we were trying to do a two-day race meeting, but at this time of year a lot of people have wound down. It's a bit of a shame but it was planned late in the day. I'm surprised we got so many people out, in a way."

The final race meeting ended with a fireworks display set to the soundtrack of Queen's *We Will Rock You*, the music that preceded ASCAR races.

This weekend's Rockingham Stages Rally and a trackday will conclude the motorsport action at the venue.

MATT KEW

Concern over FF1600 calendar clashes

BRSCC

Formula Ford 1600 teams are concerned by multiple clashes between the British Racing & Sports Car Club National and Castle Combe 2019 calendars.

A provisional BRSCC National calendar revealed half of next year's rounds will be TCR UK supports, compared to nearly all in 2018. Anglesey returns after a year's absence, while Knockhill has been axed. Two National rounds clash directly with Combe meetings, and another two are on different days on the same weekend.

"It's a disappointing calendar," said Swift Cooper boss Alan Cooper, whose son Luke won this year's Combe title. "As a team that's got drivers who want to run in both series it's making the drivers make a decision. We did have two drivers lined up for the National series, but both are

now considering not doing it because of the clashes."

BRSCC FFord coordinator Ian Smith said end-of-season events such as the Festival mean there is limited potential to hand-pick slots.

"With Formula Ford there's Champion of Brands, Heritage, Northern, National, Scottish [as well as Combe] — to avoid clashes is very hard," he said.

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Teen secures NASCAR seat

EURO NASCAR

A Scottish teenager will race in Euro NASCAR next season after impressing in a test at the Fontenay-le-Comte circuit in France earlier this month.

Ben Creanor, who is just 15 years old but will turn 16 before the start of the season, shone in front of series organisers and secured a place on the category's driver recruitment programme despite having never raced a car before.

Creanor has competed in karts and Ministox in Scotland, and has taken part in Esports.

As well as securing a place on the grid next season, Creanor will receive a package of support from the series, including a part-budget for the year and help with pre-season testing and

sorting a car, team and mechanic.

"I saw an advert for it on Facebook and thought I may as well apply," Creanor said. "What's the worst that could happen? They got back to me and said they were interested — that was quite exciting.

"It [the car] was different — everyone described it as like a go-kart. You expect it to be very big and understeering but it wasn't — it was like driving with a whole heap of downforce. I'd drive that thing every day if I could!

"It's starting to hit now that I'm going to race a NASCAR. It's quite surreal, especially as I'm only 15 now."

Creanor follows in the footsteps of fellow Briton Alex Sedgwick, who was part of the programme this year. The former Ginetta Junior driver finished 12th in the standings.

STEPHEN LICKORISH

IN THE HEADLINES

DYNAMICS TO PORSCHES?

Frontrunning British Touring Car squad Team Dynamics is evaluating a move into the Porsche Carrera Cup GB next season. The team is considering a two-car entry, with its BTCC driver Dan Cammish – a two-time Carrera Cup champion – able to offer coaching to the drivers. "Drivers will benefit from not only Dan's experience, his coaching and mentoring capability, but also our proven technical resource in race vehicle preparation, operation and management," said Dynamics chairman Steve Neal.

JHR'S FIRST F3 TEST

New BRDC British Formula 3 team JHR Developments had its first test with one of its new F3 cars at Donington Park last week. The squad's British F4 racer Josh Skelton – who finished 10th in the standings this year – had a run in the car as he evaluates the series. "It was my first time in an F3 car, but I would really like to race this," he said.

KIBBLE EYES GT MOVE

Ginetta Junior race winner Patrick Kibble is aiming to join the British GT grid next year, having finished fourth in his rookie season of car racing. The 16-year-old competed in the two Sports & GT races at last weekend's Rockingham Super Send-Off meeting in a Ginetta G40 GT5 to gain more signatures towards his senior licence. "It probably won't be in a G55 [GT4 car]; we're talking to some other teams," said Kibble, who finished 25th and 15th in the Rockingham races as the G40 ran with restrictors.

ALFA SERIES EXPANDS

The Historic Racing Drivers' Club will expand its Classic Alfa Challenge in 2019 on the back of the success of a pilot race at Donington Park in October (below). An entry of 33 old Alfas for the Donington race proved that HRDC founder Julius Thurgood has identified a demand for the series, and a three-round schedule has been planned for 2019, starting at Silverstone on April 14. He is looking to add dates at Thruxton and Castle Combe.



Smith switches to Minis

MINI SE7EN

Former British Touring Car driver Jeff Smith will make a full-time return to racing next season in Mini Se7ens.

Smith, 52, was injured in a pile-up during BTCC qualifying at Croft in 2017 and only made sporadic outings this season. He made his comeback driving a Mini at the Silverstone Classic in July and also raced in Super Mighty Minis.

"My aim, of course, is to win the championship but I am really looking forward to just going racing in a more relaxed environment, away from the pressure and stresses of running a top-level BTCC team and with a much more sensible budget," said Smith.

Smith was the owner of the Eurotech BTCC squad, but took the decision to sell the team's Honda Civics and TBL licences at the end of the season.

His partner Jo Polley, who finished fourth in the Super Mighty Minis standings this term, will join him in Mini Se7ens next year.

STEPHEN LICKORISH



Team BRIT to new BMW series

750 MOTOR CLUB

Team BRIT is planning to run four cars for its rookie drivers in the 750 Motor Club's new endurance category for the BMW 1 Series.

The squad, which is made up of disabled drivers and has a target of becoming the first all-disabled team to race at Le Mans, has previously run rookies in the Fun Cup but now feels the new 116 Trophy is a better option.

"This new series is really exciting because it's low budget and has a really reliable car," explained Team BRIT founder Dave Player, who added the outfit will again run an Aston Martin GT4 for more experienced drivers.

"You can buy a 1 Series car for about £1000 — by the time you've put a rollcage and everything in you're only looking at about £5000. That allows us to look at entering four cars.

"Fun Cup is a really fantastic series with some top drivers in it and it's getting more and more competitive. But for some of our rookies it's too much. With the BMW series, it's low budget enough for people to come in as guests for the third and fourth car, and we're offering an arrive-and-drive package with coaching."

The 116 Trophy is open to Mk1 1 Series cars built between 2004 and '06 and it is suggested the category will sit "between the Compact Cup and Citroen C1 Challenge".

James Winstanley of the 750MC said: "The idea is that it's a slightly more powerful car than series like the C1s and [Ford] Kas, it's rear-wheel drive and it's a mini-endurance series.

"We will be starting off with shorter races of about 45 minutes and building up to two or three hours towards the end of the year."

STEPHEN LICKORISH

Anglesey 'Hondurance' race planned

CIVIC CUP

Civic Cup organisers are planning to run a special Honda endurance race at Anglesey next year.

The 50-minute 'Hondurance' contest is set to be held in August and will have a class for Civic Cup cars and another open to other Hondas.

"It's something just for fun, hence the fun name!" explained Civic Cup coordinator Simon Toolan. "Some of our competitors have run them in series like Club Enduro and thought it would be fun to try to get a bunch on track together.

"It's not an official Civic Cup round — we will have a Civic Cup class and a class for other Hondas. It will be 50 minutes, no pitstops, one driver and thought it would be a little bit of fun. The guys have been asking for it and we're happy to help out."

The Civic Cup moved to the British Racing and Sports Car Club this season, having previously been administered by the 750 Motor Club, and had another successful year — grids averaged 25 cars. It will now feature on the undercard for all five of TCR UK's BRSCC-organised meetings next year, having supported it twice this term.

"The cars look great — our drivers put a huge amount of effort into the cars and the liveries — and they look like little touring cars so to align ourselves with TCR is a good thing," said Toolan, adding that with Civics competing in the TCR series it made for a good connection between the categories.

STEPHEN LICKORISH

Clark Cortina up for auction

HISTORICS

A Ford Lotus Cortina raced by Formula 1 champions Jim Clark and Graham Hill will be sold by Silverstone Auctions at Autosport International.

Built in March 1966, the Cortina is one of three works Group 5 cars prepared for what was then the British Saloon Car Championship and was assigned to Clark.

He qualified on pole in a raindisrupted Oulton Park event, before



the car was passed over to Peter Arundell and Jacky Ickx for the rest of the season.

It entered its last works event the following year, ending on a high. Hill topped his class and was classified second overall in the 1967 Race of Champions support race at Brands Hatch.

The Cortina is expected to sell for between £180,000 and £200,000 at the inaugural Silverstone Auctions sale at the January 10-13 show.

MATT KEW



CALENDAR CONUNDRUMS

As clubs negotiate 2019 dates following the demise of Rockingham, there's one successful historic category that has secured a stellar schedule for next season

MARCUS PYE

o sooner has one domestic racing season been brought to a close by its final chequered flag than event organisers are clamouring to unveil the shape of its successor to club members or subscribers. Enthusing them to return, rather than spend their hard-earned cash elsewhere and, crucially, enticing newcomers to join the fray has never been more important. Rising operating costs — the largest element by far being circuit hire — make simply staying afloat increasingly challenging. In an evolving marketplace, the most successful operations are constantly innovating and running lean to keep overheads down, but more difficulties are circling overhead this winter.

Despite investment-reliant announcements of ambitious new multi-faceted motorsport venues in South Wales and Northern Ireland, accompanied by lavish artists' impressions of complexes with bright industrial units, with the promise of local employment and widespread commercial benefits aimed at snaring government grants, no new race circuits have been built in Great Britain since Rockingham opened in 2001. The curious white elephant — which I'm glad I competed at, once,

"F2 IS THE TALK OF THE HISTORIC WORLD AND HAS A DESERVED SILVERSTONE CLASSIC INVITE"

in a Radical SR8 — reached the end of its road last weekend and will become a vehicle storage hub. Now promoters who frequented the Corby speedway's inner layouts must shop around in a bid to replace 'lost' fixtures from a smaller pool.

Supply and demand has always driven the market, but the majority of customers' pockets, on which organisers rely almost exclusively for critical numbers, are only so deep. Racers have to draw a line of affordability somewhere. It's not all bad news, of course, for as heartland alternatives are booked up, opportunities for venues previously regarded by some as 'off the beaten track' open up. Anglesey Circuit (*Trac Mon* to Welsh speakers), for instance, welcomes the Historic Sports Car Club for the first time in 2019, while the Classic Sports Car Club will make a return after three years away the following weekend in July. Long espoused by the 750 Motor Club (as was the late Rockingham), it is carved into the breathtaking setting of

the long-disused Ty Croes army camp overhanging the Irish Sea. Hopefully HSCC competitors will give it a go, to discover not only a new favourite but also the delights North Wales harbours.

What is apparent from several provisional calendars I've seen over the past couple of weeks — like everybody else I have to set my working programme increasingly early, not least to book accommodation at reasonable rates — is that inter-club fixture clashes are at an all-time high, perhaps exacerbated by Easter being as late as it can be. Traditionally the new season's kick-off point, the first bank holiday weekend compresses the mainstream season, which will run at breakneck speed to the end of October. But the timing of the Goodwood Revival and Spa Six Hours, a fortnight apart for the first time in ages, may come as a relief to stretched preparers — unless they have customers at Monza in the interim!

Formula 2 is the talk of the historic world as I write. A seismic shift of interest towards the HSCC-badged FIA International Series for charismatic 1600cc and two-litre cars spanning the 1967–78 era has been noted in recent months. It's long overdue. News that the ill-conceived rival promotion — which drew parlously few drivers to a sideshow at Peter Auto's attractive sports-prototype-centred events in continental Europe — has been discontinued was greeted with respectful decorum by HF2 co-ordinators Roger and Maureen Bevan, but it's galvanised competitors behind the long-established series.

With the cost of running three-litre Historic F1 cars of 1966-85 way beyond most aspirants and entries diluted by series on both sides of the Atlantic, special events such as Monaco's GP Historique and support races at world championship grands prix, which Masters has established, look increasingly likely to spotlight its future. But that draws heavily on logistics, whereas many current F2 racers still prepare and transport their own cars with friends, as some competitors did in period. That and the social aspects make it hugely attractive to a wider audience.

The time is right, so the fact that F2 cars have been selling like hot cakes since this year's finale is no surprise. Prospects of 30-strong grids in 2019 are mouthwatering. As is a stellar calendar of six double-headers, built around a much-deserved invitation to July's Silverstone Classic and featuring classes named for Jim Clark, 1600cc king Jochen Rindt and runaway 1978 champion Bruno Giacomelli. As usual, Hockenheim's Jim Clark Revival kicks it off in April. Visits to Brands Hatch's Masters Historic Festival over the late May bank holiday weekend, Magny-Cours' GP de France Historique, Zandvoort's wonderful Historic GP and Dijon-Prenois' Motors Cup event with HVM Racing follow. All include fixed engine spec FAtlantic classes for Vern Schuppan and Gilles Villeneuve honours, another potential growth area. **



Rockingham finally bids farewell to racing

ROCKINGHAM BARC NOVEMBER 24

If you arrived at Rockingham for the Super Send-Off, the venue's last race meeting before closing for good, expecting to see the cars advertised on the marketing literature, you might have been a little disappointed.

Garlanded with Indycar and ASCAR shots, the Super Send-Off's publicity evoked memories of series that had long since abandoned the £70million oval. Fortunately, a very pleasant national meeting entertained in their place.

The circuit's boss Peter Hardman was clearly out to make hay, winning both Sports & GT bouts, plus the One Hour Race in his Radical SR3.

For Hardman, this brought his involvement in Rockingham's life full circle. Although the circuit's inaugural meeting was held behind closed doors so any teething problems could be unobtrusively sorted, Hardman finished second in the first public race — piloting a Ferrari 246S Dino in the 2001 Coys Historic Festival. Penalties cost him the Citroen C1 24-hour win at the circuit earlier this year, but business last weekend was more straightforward.

Oil at Chapman did send Hardman skating off in the second Sports & GT race, which he started from pole, but a subsequent red flag and reset grid meant he received a second chance.

The brace of white Ginetta G55s driven by GT4 Supercup regulars Lee Frost and Lucky Khera provided the stiffest competition, as evinced by Khera's second place in race two.

He should have equalled that result in the opener, but the pressure from British GT and Formula Palmer Audi champion Jon Barnes was too much and he spun onto the banking, allowing the Caterham 420R through to finish runner-up.

It seemed as though no driver wanted to win the last ever single-seater race at Rockingham, as F1000 runners Dave Wheal and Robert Bailey tried their best to throw away victory over the sparse eight-car field.

Wheal's clean getaway from pole in race two left him unchallenged into Turn 1, as Bailey dropped from fifth to sixth. But late braking into Deene and then a strong run to Yentworth brought Bailey back up to second — assisted by Ewen Sergison's ex-Emanuele Pirro Osella FAF FF2000 car stopping with a misfire.



ROCKINGHAM WEEKEND WINNERS



SPORTS & GT RACES 1 & 2

Peter Hardman (Radical SR3)

ONE HOUR RACE

Peter Hardman (Radical SR3)

SINGLE SEATERS

RACES 1 & 2 Dave Wheal (F1000 Jedi Mk4)

SALOONS

RACES 1 & 2 Andy Baylie (Volkswagen Golf GTI Mk5)



For full results visit: tsl-timing.com

At the end of the opening lap, Bailey had only a 0.2s deficit to Wheal and promptly passed for the lead through Chapman two tours later. But an overzealous application of right foot on the exit of Tarzan spun him round, gifting Wheal a lifeline. That was until Wheal dropped his car onto the grass at Pif-Paf. Bailey then looked comfortable in first, and set a string of fastest laps, until he mistakenly thought a black flag for car #3 was meant for him (#33).

He dived into the pits, realised his error, and then returned to try to make amends. But Wheal held on by 2.8 seconds to claim a fortuitous win. It was not Bailey's day, for in race one he had been the clear leader before making an error and spinning his car into the gravel at Brook. Four marshals managed to retrieve the stricken F1000, but the delay was long enough to allow Wheal a clear run.

Volkswagen Golf GTI Mk5 driver Andy Baylie blew away the opposition in the Saloons encounters, taking two victories.

Seventeen-year-old Daniel Kell capped off his rookie season of car racing in style with second in his Group N Ford Sierra XR4x4. Had he not lost third gear in race two, he was odds on for another trophy. MATT KEW



INCREDIBLE SOUND Although Cheng Lim has raced his RAM Cobra since 1986, it required the incentive of the Super Send-Off Sports & GT race for car and driver to grace the venue. 645bhp from a seven-litre V8 proved to be a handful on the greasy surface and the Malaysian finished 22nd in his one race. Photograph by Steve Jones

Q&A LUKE SOUCH

Saloons & GT driver

LAST TO FINISH A **ROCKINGHAM RACE**



How was your final experience of Rockingham? I was surprised to be put with the sportscars in a 1.6-litre Mazda

MX-5 to start with. I was always going to be last. There was a red flag when someone dropped oil at Chapman. I managed to find that but kept it on the track. I had a fairly good scrap with a Lotus - it probably should have been miles ahead of me.

Why did you decide to enter the **Super Send-Off?**

It's the first time I've raced here. I'm a clerk of the course all over the UK [with the British Racing and Sports Car Club1. From a young age, about 10, I used to marshal

here. I started with making cups of tea, then worked in the assembly area. I've done every official role but never driven it, so I thought, 'Why not?'

What are your first, and only, impressions of the circuit?

My first time going through Turn 1 at Rockingham was scarier than the Craner Curves at Donington. I had a few twitchy moments, the rear end was trying to turn me around. I don't think I want to go through there flat again - well, I won't be able to...

It's never a great feeling to come last, but will this result hold a special place?

I'm going to take away a trophy for being last in the last ever race, even if I have to give it to myself! I was expecting it, so it's all good fun, wherever I came. I'm celebrating that. MATT KEW





GINETTA JUNIOR

STANDINGS

1	Adam Smalley	679
2	Louis Foster	671
3	Luke Browning	648
4	Patrick Kibble	496
5	Ruben Del Sarte	425
6	James Taylor	414

Any driver who goes on a run of winning seven out of eight races is clearly one to watch. Especially when that driver is just 15 years old and contesting their first full season of car racing.

Louis Foster put in a number of quite remarkable performances in Ginetta Junior this year. The Elite Motorsport driver won more races and took more podiums than any of his rivals.

Ultimately, though, it wasn't enough for him to be anointed champion. In the final reckoning he lost 57 points from his total. Twenty-seven were for penalties earlier in the season, as he was still finding his feet, while the rest were as a result of the series' two-dropped-scores rule.

Once they had been taken away, it left his team-mate Adam Smalley as champion. Smalley had also been incredibly consistent during the year and never finished a race outside the top six. That proved crucial.

Early in the year he was neck-and-neck with Luke Browning in the standings, before Browning dropped back. Losing an Oulton Park victory due to a technical issue – insufficient oil in his differential, picked up in scrutineering – didn't help Browning's cause. But while he also put in some exceptional drives, notably at Knockhill when he went from the pits on lap one after a spin to take fourth, Browning didn't quite do enough to keep pre-season favourite Smalley from edging clear.

"After winning the Winter Series, all through the winter I had people saying, 'You're going to be champion', so there was so much pressure,' says Smalley. "Crossing the line at that last moment was such a relief."



PORSCHE CARRERA CUP GB

STANDINGS

1	Tio Ellinas	117
2	Dino Zamparelli	115
3	Tom Wrigley	108
4	Lewis Plato	95
5	Dan Harper	84
6	George Gamble	75

Redline Racing. Team Parker Racing. JTR. There are many outfits in Porsche Carrera Cup GB that have a history of winning top-level series. But this year's Carrera Cup champion wasn't with any of those operations. Instead it was the relatively small Slidesports team – in just its second season in the category – that powered Tio Ellinas to the title.

The Cypriot – also in his second campaign after moving to the squad from JTR – admits the beginning of the season was tough.

"It was a bit of a miracle [to win] because Slidesports is only in its second year in the championship, with no data, and everything was new," says Ellinas. "It was very difficult [at the start] because we didn't have the pace of the others trying to find the best set-up on the car."

But despite those difficulties, a super-consistent display – he only finished off the podium three times – netted him the title.

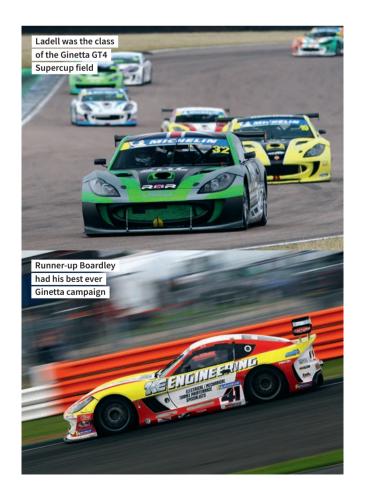
That had a lot to do with misfortune afflicting perennial series runner-up Dino Zamparelli. The Redline racer was the man to beat for the majority of the season and had the best record in the qualifying-based first races of the weekends. But moments of bad luck derailed two of those eight weekends and ultimately meant he again fell short, by two points.

The first was a freak failure at Oulton Park when a marker post flicked up by Tom Wrigley pierced Zamparelli's radiator, causing him to retire. Then in the Brands finale he spun when he was the first to encounter coolant on the track – while leading and in a position to wrap up the title. Both of those affected his race-two performances as well, and cost Zamparelli a huge chunk of points.



"The margin wasn't so much of an issue, it was more the manner in which it was lost that really hurt," Zamparelli reflects. "I did everything right until lap four [of race one at Brands] – it was absolutely spot on. I qualified right up there, got into the lead, was comfortable and was heading into my fifth race win.

"I'm quite philosophical about it – I believe it wasn't meant to be." $\,$



GINETTA GT4 SUPERCUP

STANDINGS

1 Charlie Lade	ll 680
2 Carl Boardley	620
3 Harry King	518
4 TomRoche	424
5 Angus Fende	r 402
6 Jac Constable	e 378

Compared with previous seasons, the 2018 Ginetta GT4 Supercup grid was distinguished by the inexperience of many of the drivers. But that didn't matter one bit to Charlie Ladell, who dominated with 10 wins.

Rob Boston Racing proved to be the dominant force as 22-year-old Ladell took 20 podium finishes across the season's 23 races.

"A really mega year that exceeded expectations," was Ladell's verdict, as he took the title by 60 points. "The team never really struggled. It's still been difficult even with less experienced guys out there."

Carl Boardley was the only driver who ever looked like spoiling Ladell's party. In his fourth full season Boardley won six races, displaying a new level-headedness in place of the unpredictability that used to blight him.

He was often playing catch-up thanks to Ladell's other trump card – qualifying. "From Clios, qualifying was where I struggled," says four-time polesitter Ladell. "Now, with experience, I'm understanding the car, the tyres and where to get the most out of it."

Harry King and Tom Roche were the only other race winners. Both showed flashes of speed that spiced up the lead battles, and Roche's overtaking prowess enabled him to claim three wins during his first full season.

Drive loss at Silverstone cost him another, dropping him to fourth behind feisty Ginetta Junior graduate King, who sealed four wins. An on-track altercation at Croft and a wet-weather blunder at Donington cost King further silverware, but it was reliability woes in the summer that frustrated the rookie's title aspirations most.

RENAULT UK CLIO CUP

STANDINGS

1	Paul Rivett	333
2	James Dorlin	316
3	Max Coates	309
4	Dan Rowbottom	276
5	Bradley Burns	238
6	Michael Epps	209

More than one driver opined that "you could write a book about this season". A team boss being banned from the paddock, allegations of frontrunners fielding illegal cars, and a title that was eventually decided in court would have made for quite a compelling page-turner even without the thrilling on-track action. Adding to the intrigue, one race meeting at Thruxton had to be curtailed because of worries over tyre safety.

On track, there was a thrilling title fight between Paul Rivett, James Dorlin and Max Coates that ebbed and flowed throughout the year.

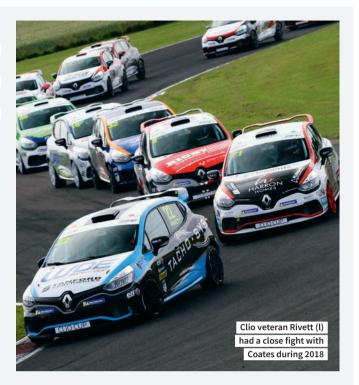
In the end, while Dorlin provisionally took the crown after a win in the finale, it was Rivett who triumphed in court as he successfully appealed his Silverstone exclusion for contact with Coates.

Each driver experienced tough moments that could have derailed their title bids – and for two it did.

Coates's low-point is obvious. Being punted into the gravel at Silverstone in race one by Lee Pattison at such a crucial stage of the year was tough for the Pyro driver and led to him finishing third in the points. "We were on to win it until we were taken out through absolutely no fault of my own," says Coates.

For Dorlin, it was a mistake at Snetterton that left him looking back in frustration. He was leading in the wet when he went straight on at the hairpin, dropping to eighth. "I knew little things like that would come back to haunt me," says Dorlin. And he was correct, because if he had won that race, he would have been champion.

But Rivett was able to overcome his low point. A huge smash into



the Craner Curves barriers in race one at Donington Park threatened to end his weekend. His WDE Motorsport mechanics were determined it wouldn't, though, and repaired the car for Rivett to take fourth in the second contest.

"That car was effectively written off," Rivett says. "I had a feeling at the time that it [fourth place] was going to be crucial."

It certainly was, because he eventually triumphed by 17 points. That fourth place at Donington earned him 18...



BRITISH FORMULA 4

STANDINGS

1 Kiern Jewiss	445
2 Ayrton Simmons	374
3 Johnathan Hoggard	339
4 Dennis Hauger	329
5 Jack Doohan	328
6 Patrik Pasma	315

From Croft, no-one ever looked like halting Kiern Jewiss's charge to the British F4 crown. The Double R driver was imperious on his way to taking the points lead, and he continued to rack up the podiums in the second half of the year despite finding wins harder to come by.

There's one statistic that suggests Jewiss wasn't as impressive as his comfortable title victory appeared: he only won two non-reversed-grid races. But his maiden win was exceptional. A clash in the opening race at Donington Park – with main title rival Ayrton Simmons – left Jewiss 13th on the grid. A win looked improbable at best, but Jewiss simply carved his way through the field and claimed what is arguably the most impressive race victory in the four seasons of F4 to date. In race three he almost replicated the performance, but fell just short.

He demonstrated his overtaking prowess again at Silverstone when he passed both Simmons and Dennis Hauger out of Luffield.

Simmons was the man to beat in the early stages, taking seven podiums from the first nine races. His experience told – it was his third year in the championship – but multiple engine issues at Croft set the tone for the second half of the year and the JHR driver was unable to rekindle the same form.

One driver who did hit form late on was Johnathan Hoggard. The Fortec driver won six of the last 11 contests to finish with the most victories of all. But a barren spell mid-year, when he was involved in several incidents, meant he was never a title contender.

AUTOSPORT'S TOP 10 DRIVERS



KIERN JEWISS

Statistically, Jewiss was the most dominant of the five champions on these pages: the points difference between him and Ayrton Simmons was the largest of them all in percentage terms. And that's why the F4 driver gets the number one spot. Oh, and his incredible Donington Park drive through the field and sublime Silverstone pass on Simmons and Dennis Hauger, too. Both of those drives will live long in the memory, and from mid-season onwards it never looked likely he would miss out on the crown in just his first year of single-seaters.



DINO ZAMPARELLI

Zamparelli really should have been crowned Carrera Cup champion this year. He was unbelievably close last term, his main rival Dan Cammish had departed for the BTCC, and he had teamed up with the powerhouse Redline Racing. Yet still Zamparelli couldn't manage it – an errant marker post and a coolant-induced spin cost him dear. Discount those two incidents, however, and he was supreme, claiming half of the non-reversedgrid race wins. But that long-awaited title again proved elusive.



Consistency isn't always easy to achieve in Ginetta Junior, but clearly no-one told Smalley that. He finished 24 of the 26 races in the top six and of those exceptions, one was a DNF when Smalley got caught up in opening lap shenanigans at Silverstone, and the other was the result of a spin while fighting for the lead at Donington. Otherwise he always brought home a good haul of points. He may not have been the fastest over the year. He may not have taken the most wins. But any

17-year-old who is capable of

such consistency is a very

deserving champion.



In many ways, Foster was more impressive than his Elite Motorsport team-mate Smalley in Ginetta Junior this year. He took more wins and more podiums - despite less experience than Smalley. But crucially, he lost more points than his rival. Foster was deducted a whopping 27 points for incidents over the early part of the season. He even came perilously close to losing his licence, with one further misdemeanour carrying the potential to end his campaign.

And that's what cost him the

title - along with a higher

place in Autosport's top 10.



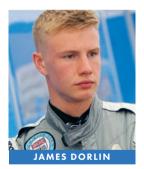
For any driver to win the Carrera Cup title is a great achievement. It was especially so for Ellinas after triumphing with the small Slidesports squad that was up against far more experienced rivals. And Ellinas was another of those to have a consistent season - 13 podiums out of 16 is to be applauded. But he only won once during the year and massively benefited from a scoring system that awards very similar figures for anyone on the podium. Rather than Ellinas winning the title, you could argue it was Zamparelli who lost it.



There wasn't much more Ladell could have achieved this year. Twenty podiums from the 22 races he started, nearly double the number of wins of any other driver and a clear advantage at the top of the standings are all impressive statistics. But Ladell is not higher up the ratings because this was not a competitive year for the GT4 Supercup. There were only four different race winners, a tiny number for a series featuring reversed-grid races, and a lack of opposition takes a little of the shine off Ladell's results.



The old master has still got it. Rivett, Dorlin and Coates were tough to separate over the course of a Clio Cup season where fortunes ebbed and flowed and there was as much - or even more - action off the track as on it. But out of the three title contenders, it was Rivett who took the most podiums and so he gets the nod, despite the acrimonious way in which he secured the crown. A fourth title - his first since 2011 – is a major result not just for Rivett but for the WDE Motorsport outfit of which he is team manager.



Taking Mike Bushell's 2017 domination aside. very few drivers are able to go on a run of wins in the Clio Cup. But then Dorlin is not like most drivers. His brilliant five consecutive wins in the early part of the season launched him into title contention. Then, despite a mid-season wobble, his win at Brands Hatch appeared to have secured the crown when he had seemed likely to finish third. He deserved better than being stripped of the title a month after the end of the season but remained dignified in defeat.



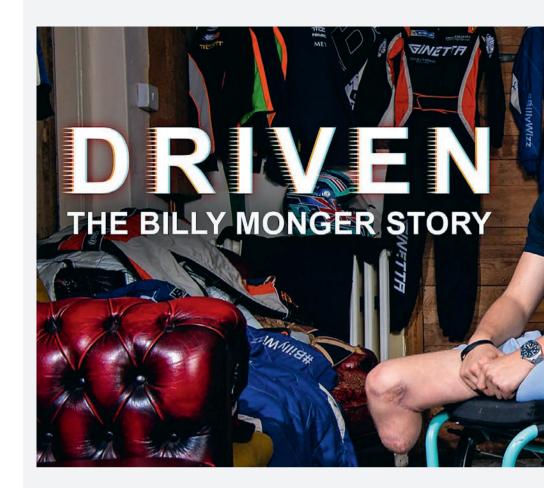
For much of the Clio season. Coates was the benchmark, the one leading the pack. But ultimately he only came third in the standings because he was unable to match Dorlin's impressive sequence of wins or to replicate Rivett's podium consistency. He didn't quite do enough. Ending the first race at Silverstone in the gravel played a significant part in that. Coates was the innocent victim of a hit from Lee Pattison and, with the fine margins that defined this season, it proved to be very costly indeed.



A 17-year-old in their first car race outside the UK in just their third weekend of senior racing should not be qualifying on pole at Monza by two tenths. Impressive Porsche Junior Harper did, though. The race didn't go so well, since he clattered into Lewis Plato at the first corner and was disqualified. And that typified his season: flashes of brilliant pace but a few incidents. There's no denying Harper is one to watch for 2019 as two wins and more poles than anyone else is good going for a rookie in a competitive grid.

STRAIGHT り フ エ い Z L

IN THE MEDIA . HAVE-A-GO HERO . ARCHIVE . QUIZ



DOCUMENTING AN INS

TV DOCUMENTARY

DRIVEN: THE BILLY MONGER STORY

"The nicest thing for me when I drive is, unless you know me, you don't know what's happened to me — which I like."

It's hard to believe there is anyone, even those not interested in motorsport, who still doesn't know the name Billy Monger.

But for those who don't, the new BBC documentary *Driven: The Billy Monger Story*, is the perfect way to find out what makes him so remarkable.

Even for avid motorsport fans who have kept an eye on his progress, this is still a must-watch. It offers a unique and frank insight into the challenges he has overcome, both on and off the track, since the British Formula 4 crash at Donington Park last year that led to him losing both legs.

In some ways it plays out like the perfect fairytale. The narrative begins three months after his crash, with him still confined to a wheelchair, and ends with him walking on prosthetic legs and taking a podium finish upon his racing return at Oulton Park in BRDC British F3.

For Monger and his family — dad Rob, mum Amanda and sister Bonny — the reality was much more complex and challenging in detail, and the programme focuses on a number of these. We follow Monger around the family home, which has had to be adapted so he can move around easier in a wheelchair. We see him being equppied with prosthetics for the first time and having to learn to walk again.

"Nothing is really the same as it was before," admits Monger.

There's a trip to Paris to meet members of the sport's governing body, the FIA, and







youtube.com/AUTOSPORTdotcom





Simulator tips with 2019 F1 driver Lando Norris

Now that McLaren has promoted young Brit Lando Norris to its 2019 Formula 1 driver line-up, the current Carlin Formula 2 driver didn't feel quite so threatened by the prospect of taking on Autosport for a few laps on his personal simulator set-up. In fact, Norris was kind enough to show us the ropes and hand out plenty of advice to see how much lap time we could recover. Go to http://bit.ly/NorrisSim

PIRATIONAL JOURNEY

"THE SURGEONS AND NURSES BECOME EMOTIONAL AS THEY RECALL HIS DIGNIFIED AND STOIC RESPONSE"

its Medical Commission to overturn a rule that stopped disabled drivers from competing in single-seaters. The FIA's ground-breaking decision means he has a chance of returning to the track again.

At Carlin's factory we see him on the simulator and working with mechanics to design and optimise his hand controls ahead of his first test in a single-seater since his crash. Five-time Formula 1 world champion Lewis Hamilton also makes appearances throughout; Monger cites him as his racing hero, and the feeling seems mutual.

"Not many people would have the mental capacity to go through what you have been through and be so positive," says Hamilton.

That's perhaps the most remarkable aspect of Monger's story. Despite his life-changing injuries and worldwide recognition within motorsport, he comes across as a humble and even shy 19-year-old who admits to being overwhelmed at times by the attention he's received.

His positivity and inspiration shines through, and not just in the calmness and quiet resolve he demonstrates on camera. The surgeons and nurses who looked after him after the accident — veterans of dealing with such injuries, no doubt — become emotional as they recall his dignified and stoic response to the loss of his legs.

But there are brief moments where you see his positivity creak under duress. In particular, when he returns to the prosthetics company to get new ones fitted because he hasn't been able to walk on them properly, his feelings of frustration and even helplessness are palpable.

For his mother especially, the strain is clear. She admits she can no longer watch her son race after his accident.

Footage of the Donington crash is shown several times and it becomes no less unpleasant through repetition. The aftermath is as powerfully emotional as the impact itself is sickening, particularly when you see his sister coming to his side while he is still trapped in the car.

Although national motor racing remains a niche sport so far as the wider public are concerned, the response on social media to the programme's broadcast on BBC2 showed that it resonated further afield. Celebrities such as Stephen Fry and John Bishop praised Monger for his inspiration.

For those wanting an uplifting and emotional watch, look no further.

STEFAN MACKLEY

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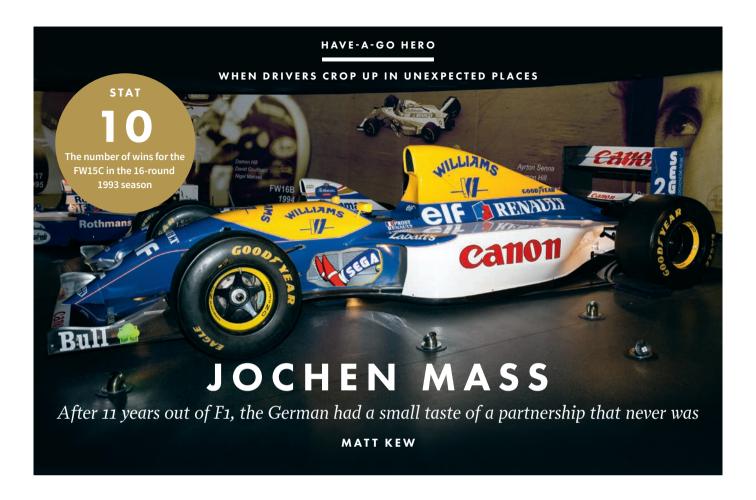
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Bahrain International Circuit, Bahrain **December 5-6**









inding a driver with more than 100 world championship starts to his name, including winning the 1975 Spanish Grand Prix, in the cockpit of a Formula 1 car is not unexpected.

But as the December of 1993 approached, 11 years had passed since Jochen Mass's decision to depart F1 after a fiery collision with Mauro Baldi. So when Frank Williams got on the phone, offering the then 47-yearold a test in the FW15C that had just taken Alain Prost and the team to a title double, Mass made for an unlikely candidate.

"He called me up and said, 'Would you like to drive? You can do 20 laps at Le Castellet [Paul Ricard]'," recalls Mass. So he arrived at the circuit to join fellow ex-McLaren driver John Watson, and Kelvin Burt, who was there as part of his prize for winning the British Formula 3 title. Williams technical director Patrick Head was also going to get a run in the car.

"I was last in the car because I was bulkier so we had to take out everything, even the

"I STALLED IT ONCE, THEN IT TOOK ME JUST THREE LAPS TO TAKE SIGNES FLAT. THE GRIP WAS UNBELIEVABLE!"

seat," says Mass. "Finally, I managed to get in and I felt quite claustrophobic because it was so tight. I could hardly breathe! But it worked. After stalling it once and doing a lap with a lot of coughing because of the vibration, then it took me only three laps to take Signes [a high-speed, sweeping right] flat. The grip was unbelievable!

"It was 11 years since I had last driven an F1 car, but I knew the car was really good. It had fantastic downforce and active suspension so the car was just magic.

"You couldn't even think to compare it [to the F1 cars I drove]. But I could compare it to the 1991 Sauber Mercedes C291s that

I tested a lot at Castellet as well. Through Signes the Merc was about 3mph quicker."

Although finding confirmation of his claim proves elusive, Mass recalls even beating the lap time of Williams' official test driver David Coulthard. Clearly the passing of the years hadn't dulled his talent.

"You think if you could turn the clock back a bit... I could see why that car won the championship. Easy if you're of the right age, but I don't think I'd have had the stamina.

"Frank and me always got on, he always wanted me as a driver but for some damn reason I never drove for his team, so it was a lovely gesture of him to invite me." #





FROM THE ARCHIVE

Sir Henry 'Tim' Birkin steers his Alfa Romeo 8C to victory in the 1931 Le Mans 24 Hours. The winning car, shared with Lord Howe, completed 183 laps of the 10.153-mile circuit, racking up a total of 1857.999 miles at an average speed of 77.417mph. Just six runners were classified as finishing the race. Among the accolades for the victorious
British driver duo was a telegram
from Italian prime minister Benito
Mussolini congratulating them
on a 'win for Italy'...





TEST YOUR KNOWLEDGE

QU17



WHO IS THIS?

Despite hailing from the land of ice and snow, it would be in more mundane climes that this versatile and venerable racer would make his greatest impact.

Unimpressed by the prospect of doing the accounts for the family flower business, he would blossom as a star at the third level.

Initially he made a short hop, but it was when he followed the sun that success followed. This led to his country's biggest marque taking him under its wing to lead its charge in a national series that held burgeoning appeal.

After achieving the ultimate glory, he hit the road and showed the locals how it was done in their biggest race with a lap that is still revered today.

He branched into bigger and faster stuff, went global, and was on top as day turned into night. He returned home for a final flourish before finally hanging up his helmet.

ON THIS DAY

- Born on this day in 1923, who was the only driver to finish a world championship Formula 1 race in a Scarab?
- 2 Tony Brise was killed on this day in 1975. Where did he score his only F1 point?
- 3 Graham Hill was also killed on this day in 1975. At which track did he make his final world championship F1 start?
- 4 Who won the RAC Rally that ended on this day in 1984?
- Pastor Maldonado started his last F1 race on this day in 2015. How many laps did he complete?

NAME THE HELMET

LAST WEEK'S ANSWERS

Who, what, where, when? Bryan Herta, Minardi-European PS01, Donington Park, August 11 2002.
Who is this? Andrea de Cesaris. On this day 1) Colin McRae. 2) Jackie Pretorius. 3) Oriol Servia. 4) Kyle Busch. 5) Andre Couto. Name the helmet Alessandro Nannini.



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