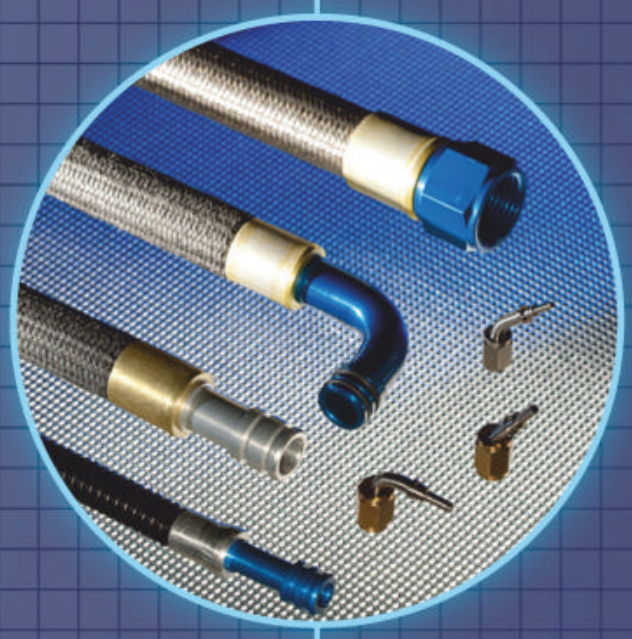
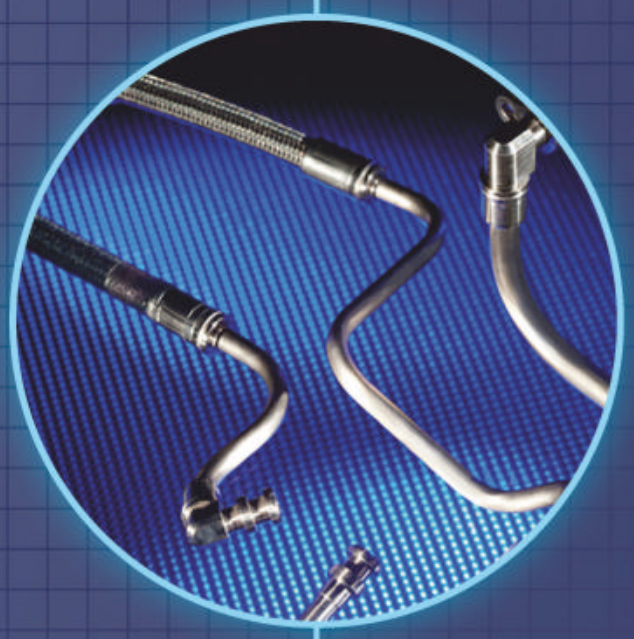
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Le Mans special All the action from the 24 Hours

AUTOSPORT

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24 SEPTEMBER 2020

How the 'wrong' Toyota won Le Mans

More heartbreak for Conway as Buemi and Nakajima secure hat-trick

'It's going to take some time to get over'

MIKE CONWAY

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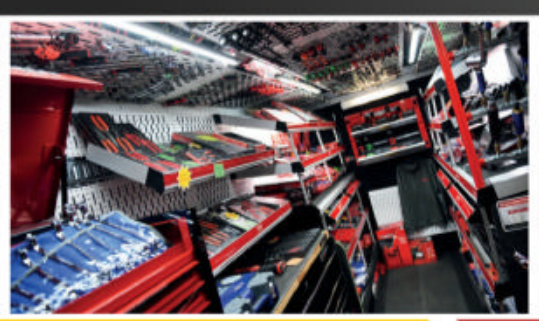


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Welcome return of endurance racing's greatest event

The 2020 Le Mans 24 Hours probably won't be recalled as one of the event's classic editions but, in such a tumultuous year, it was great to see the world's greatest sportscar race taking place for the 88th time. And, as ever, there was plenty of drama at the Circuit de la Sarthe.

Mike Conway, Kamui Kobayashi and Jose Maria Lopez must be wondering what they have to do to win Le Mans. As Gary Watkins shows in our report on page 16, just as in 2019 they were the quicker Toyota crew and misfortune handed victory to the other TS050. Nevertheless, Sebastien Buemi, Kazuki Nakajima and Brendon Hartley are all now multiple winners – congratulations to them on securing Toyota's hat-trick in the 24 Hours.

One team that finally did get the luck in 2020 was the Prodrive-run Aston Martin operation (p26). Alex Lynn, Maxime Martin and Harry Tincknell looked consistently strong and gave the current Vantage GTE its first Le Mans success, to add to the class wins scored by the DBR9 and previous Vantage in the first two decades of the millennium.

Sportscar racing has always had its ups and downs, and it's fair to say that the best days of LMP1 as we know it have been and gone. But hopefully, with manufacturers such as Peugeot (p4) committing to the next era of endurance machines, things will pick up once more and Le Mans can be in a good place for its 100th birthday in 2023.





Kevin Turner
Editor
kevin.turner@autosport.com

NEXT WEEK
1 OCTOBER
Can Bottas reduce the gap to Hamilton in Russia, where he took his first Formula 1 win?

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FREE INSIDE

ENGINEERING SUPPLEMENT



The story of 2010's failed Formula 1 teams, plus insights from AVL, Bosch and DuPont feature in this edition of our free supplement.



PEUGEOT

PEUGEOT TAKES PLUNGE FOR

WEC

Peugeot will join the World Endurance Championship in 2022 with a Le Mans Hypercar. If you think you've read that before, you'd be right. It announced that back in November 2019, so what it effectively revealed on Friday ahead of the Le Mans 24 Hours is that it is sticking to its original plan and won't be going down the LMDh route.

The French manufacturer never wavered in its commitment to returning to the top flight of sportscar racing the year after next, only in how it was going to do it. It opted to review its plans after the announcement in January of the new LMP2-based LMDh class that offered a cheaper way for Peugeot to get back on the Le Mans 24 Hours grid for the first time since 2011.

Now it has settled on building an LMH hybrid prototype and there are multiple reasons for this decision, according to Jean-Marc Finot, motorsport boss of Peugeot parent company, the PSA group.

Building an LMH prototype will allow the car to incorporate more Peugeot DNA than a machine developed around an off-the-shelf LMP2 machine. The marque can produce its own chassis and incorporate much more than just styling cues into the aerodynamics.

"We think building our own tub gives us more legitimacy when we are fighting other big manufacturers," explained Finot. "It is important to have all the DNA of Peugeot Sport in our racing car. With LMH there is more design and aerodynamic freedom for our designers. We can put the design of the Peugeot brand into our car."

The LMDh rules call for spec rear-axle hybrid, whereas LMH allows for an energy-retrieval system at the front. This, Finot pointed out, is in line with a new range of performance models planned by the manufacturer under the Peugeot Sport Engineered tagline.

What Peugeot hasn't told us is when the car will race for the first time during the course of 2022. Its stance remains that it will give a debut to its new prototype, for which it has yet to announce a name, some time over the course of that season's WEC. "Our position is the same as before," said Finot. "Because the car will be [homologated] for five years, we need to be sure of our design."

Finot did reveal that the programme is facing delays, though he stressed that this was only down to the COVID-19 crisis and unrelated to its decision to evaluate the LMDh rules. This means that the first tests of the car have been put back from the middle of next year to some time nearer its end.

Asked if the car could be up and



PEUGEOT



Peugeot's image makers are obviously confident the car will make it through to night time at Le Mans

HYPERCAR

running by the beginning of the autumn, Finot said: "For September we will have to fight, but it will be before the end of 2021".

The major technical decisions in the development of the car have already been made under the leadership of Peugeot Sport technical director Olivier Jansonnie. These include the configuration of the engine, which Finot declined to reveal. Key technical suppliers, which include Ligier Automotive for the aerodynamics, have already been appointed. Finot revealed that Total, Peugeot's lubricant partner for the past 25 years, could produce the battery via its Saft offshoot.

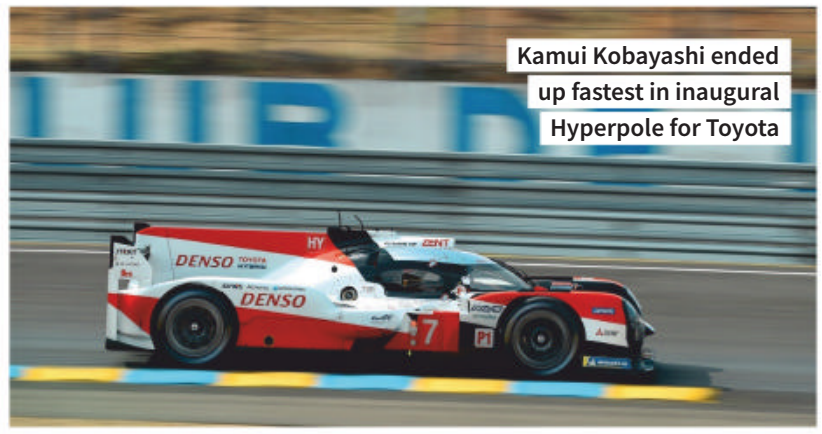
Peugeot will begin thinking about drivers for the cars fielded by the in-house Peugeot Sport team imminently, according to Finot. He insisted that it will not be essential for Peugeot to have multiple French drivers on its books. "We know it will be very difficult to fight in the WEC, so we will focus on performance," he said. "The priority is performance: if they are French, good, but we will not chose drivers because of their nationality."

GARY WATKINS

P16 LE MANS 24 HOURS

HYPERPOLE GETS THUMBS UP FOR FUTURE

LE MANS 24 HOURS



Kamui Kobayashi ended up fastest in inaugural Hyperpole for Toyota

EHRHARDT/MOTORSPORT IMAGES

The new Hyperpole qualifying format for the Le Mans 24 Hours will continue next season. The new procedure that pitches the fastest six cars in each class against each other in a half-hour shootout was declared a success by race organiser the Automobile Club de l'Ouest.

Asked whether Hyperpole will be part of Le Mans in June 2021, ACO president Pierre Fillon replied: "Yes, I think everybody enjoyed this kind of qualification. It is spectacular, it is good for TV and it is good for spectators – not this year, but next year."

Hyperpole was well received at Le Mans last week. There appeared to be no objectors to the system, which started with a 45-minute session on Thursday from which the fastest six cars in each class – or all five in LMP1 – qualified for Friday's shootout.

Toyota Racing Gazoo Europe technical director Pascal Vasselon said that the system made qualifying less of a lottery. "It's definitely an interesting format because it makes the usual traffic less frustrating," he said. "It's much more satisfying to have a format with few cars, and nearly only professional drivers."

Fillon revealed that the ACO is working with the FIA Endurance Commission on a new qualifying format for regular rounds of the World Endurance Championship. "It will not be Hyperpole, but we will modify the format," said Fillon, without revealing what might be planned.

"There is a working group investigating what is the best format," said WEC boss Gerard Neveu. "Something attractive, spectacular is clearly on the table now. We feel we can do better."

The existing system is an average of the best time set by two drivers in each car, and has been in place since 2015 in its current form.

GARY WATKINS



BYKOLLES

ByKolles reveals LMH shape

WEC

The German-based ByKolles team has revealed the first images of the Le Mans Hypercar prototype that it will race in next year's World Endurance Championship.

The new car unveiled under the 'PMC Project LMH' banner will retain the normally aspirated Gibson V8 of the latest version of its ENSO CLM P1/01 LMP1 car and incorporate a front-axle energy-retrieval system.

The stalwart WEC competitor has also announced that road and trackday versions of the car are under development at ByKolles headquarters in Bavaria.

GARY WATKINS



IMSA postpones full-time introduction of LMDh cars

IMSA SPORTSCAR

The full introduction of the LMDh category in the IMSA SportsCar Championship in North America has been pushed back by a year until the start of 2023. The US organiser revealed the delay ahead of last weekend's Le Mans 24 Hours – in a roundabout way.

The new top class of the IMSA series announced back in January was planned to replace the existing Daytona Prototype international category for 2022. Now, IMSA boss John Doonan is saying that he is expecting some examples of the new breed of LMP2-based machinery to be racing in the series over the course of 2022. At that same time he suggested that the lifecycle of the DPi formula will probably have to be extended.

Doonan wasn't more specific than that, only saying that "the market will decide".

"It has always been our intention to start in 2022, but obviously COVID has presented its challenges," he said. "It is technically possible that someone could run [an LMDh] in 2022: you could see some cars in 2022, but not in a full championship. If we need to bridge the gap, we would extend the current DPis."

IMSA has yet to divulge how the new cars would be incorporated into the series to run against the DPis.

No manufacturers have so far announced LMDh programmes in IMSA, but Doonan said that there is "significant interest" in the category and that it has a "clear, tangible and bright future". He insisted that IMSA was still expecting "multiple manufacturers" with LMDh machinery on the grid for the opening round of the 2023 season at Daytona.

It is unlikely that an LMDh car, based on the new breed of P2 due to come on stream in 2023, could be ready for the Daytona 24 Hours in January 2022. French constructor ORECA, one of four to be licensed to produce LMP2 chassis, believes it is already too late.

ORECA boss Hugues de Chaunac explained that it will take 16 to 18 months to develop an LMDh. "We cannot rush and have a car ready for the start of 2022 because of the homologation, which fixes the specification," he said. "We could have a car in the middle of 2022 or September – it is depending on the decision of whether an OEM comes."

Le Mans organiser and WEC promoter the Automobile Club de l'Ouest is confident that over the course of 2022 it will have cars on the grid built to the new LMDh regulations it helped formulate.

ACO president Pierre Fillon said he could not be sure if this would happen "before Le Mans or after Le Mans".

The ACO has announced that its top class will be known simply as Hypercar from next year. It will incorporate LMH and grandfathered LMP1 machinery next year, and then LMH and LMDh cars from 2022.

GARY WATKINS

Fans returning to F1 events

FORMULA 1

More Formula 1 races through the remainder of the 2020 season are set to welcome fans after the Nurburgring announced its ticket-sale plans for the Eifel Grand Prix.

After starting the season behind closed doors as a result of the COVID-19 pandemic, F1 allowed spectators to attend a race for the first time at Mugello earlier this month, with close to 3000 fans sitting in the grandstands. This weekend's Russian Grand Prix is set to have grandstands at 50% capacity, allowing for 30,000.

Officials at the Nurburgring confirmed plans to sell up to 20,000 tickets in batches for the event on 9-11 October, with more being released should there be no spike in COVID-19 cases in Germany.

Nurburgring managing director Mirco Markfort said: "In times of coronavirus, with the enormous personnel and planning effort it entails, everything is a question of cost. But it is also a question of giving fans the opportunity to be able to afford tickets and to experience the race safely."

Fans will be required to adhere to strict social-distancing guidelines, and will be given a designated parking area for each grandstand, with masks compulsory.

The Portuguese Grand Prix will also be open for spectators on 23-25 October, with the Algarve circuit expected to welcome 45,000 for each day of the event. "In the first week we went online with our ticket sales, it was crazy," said Miguel Praia, the circuit's event and commercial director. "Formula 1 is so popular in Portugal and the fans are very eager to attend the event as F1 returns to our country."

Over 40,000 tickets have already been sold for November's Turkish Grand Prix, but plans for spectators to be admitted to the final flyaways in Bahrain and Abu Dhabi remain unconfirmed.

LUKE SMITH



Nurburgring welcomed some spectators at last weekend's DTM round

BMW poised to break its jinx

NURBURGRING 24 HOURS



BMW enters this weekend's Nurburgring 24 Hours intent upon ending a barren run dating back to its last victory in 2010. Its M6 is a proven winner in 24-hour races just across the border at Spa, where it prevailed in 2016 and 2018, but it hasn't even carried anyone to the podium at the Nurburgring 24 since it took second position amid the chaotic wet finish of 2017.

The M6 may be one of the oldest works-supported GT3 cars around — it has been in service since 2016 — but in this year's NLS practice races on the Nordschleife it has won two of the four, with Mercedes taking the other two, while Audi took a 1-2 in the six-hour warm-up race.

Briton David Pittard and Dane Mikkel Jensen claimed the first race of the year for Walkenhorst Motorsport's M6 after the Mercedes of Maro Engel and Patrick Assenheimer was pinged for a final stop that was too short. After the new Haupt Racing Team (essentially the key staff of Black Falcon under a different name) won both races of NLS's double-header, the Rowe Racing BMW of Nicky Catsburg and Stef Dusseldorp triumphed in race four. So is this the weekend when BMW's hoodoo in the 24 Hours comes to an end?

Against the raft of Mercedes and Audi entries in the top SP9 class (Porsche has withdrawn its Manthey car and will not send several of its factory drivers involved at Le Mans over COVID concerns), BMW has four potential race-winning M6 GT3 line-ups. There are two Rowe entries (one driven by Brits Alexander Sims and Nick Yelloly), there's the Walkenhorst machine featuring Pittard, while Schnitzer has entered a car for Augusto Farfus, Martin Tomczyk, Jens Klingmann and Sheldon van der Linde.

Farfus concedes that the "our old lady M6 is not the newest car of the field", but is confident that "this year is definitely the year we are best-prepared ever".

"I really think we can fight for the victory," he said. "The level is getting higher and higher. I assume we will have at least 20 clear line-ups capable of winning the race and it is extremely difficult right now to point out who is the real favourite.

"For BMW it's a very special and very important race, and we have put in a lot of effort. So far we've been competitive but Nurburgring is always a surprise box — everything can change in one lap."

JAMES NEWBOLD

P52 WEIRDEST N24 WINNER

Monza gets date on slimline schedule

WEC



Monza will host a world championship sportscar round for the first time since 1992 next season. It is on the 2021 World Endurance Championship calendar announced last week.

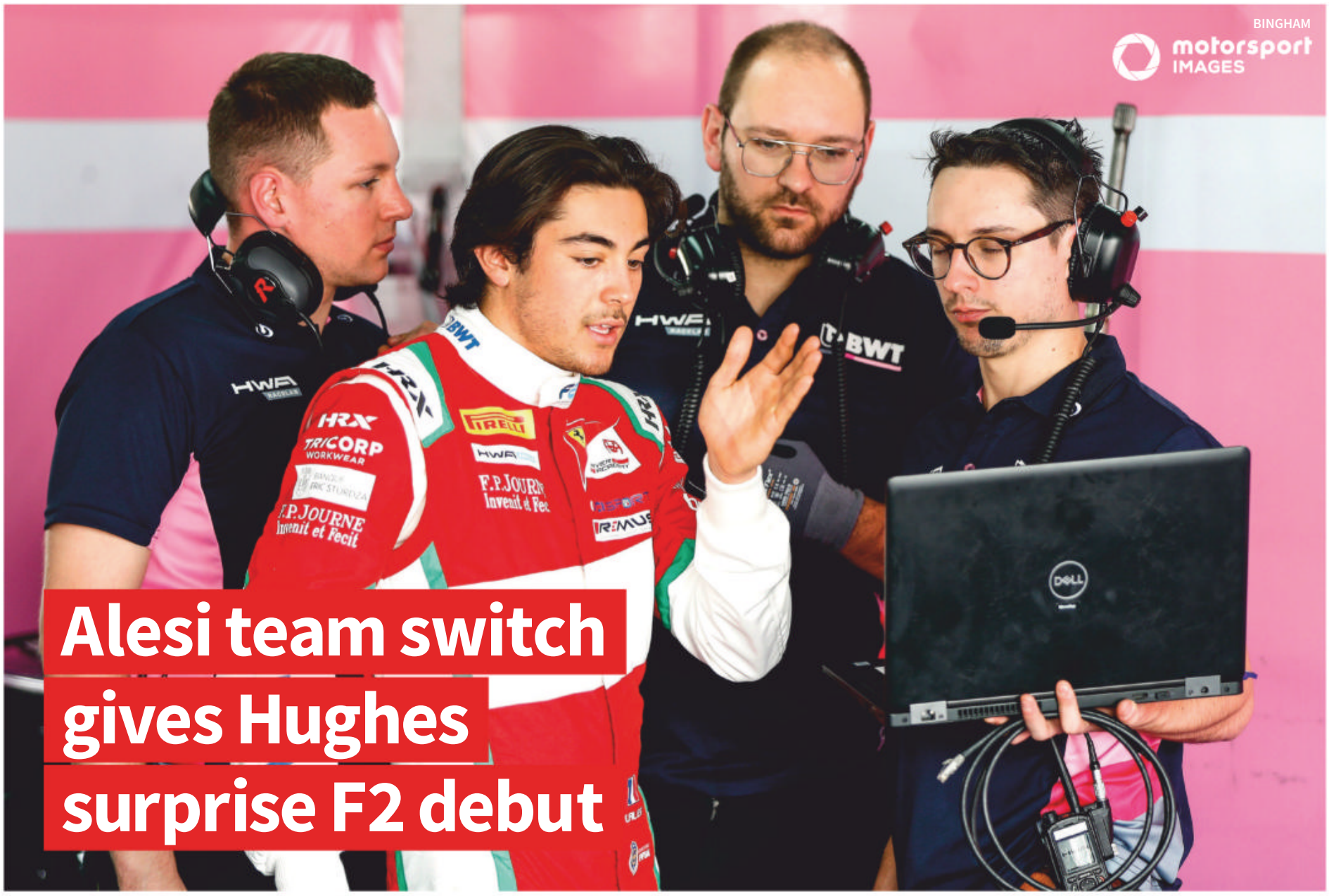
The WEC will visit Monza on 18 July for the fourth of the six rounds that make up the condensed 2021 schedule. It had a slot on the original 2020-21 calendar for October of this year before the WEC abandoned the winter-series format after a rejig of this year's fixtures as a result of the world health crisis.

The other five events on the calendar built around the Le Mans 24 Hours on 12-13 June are all regulars. The 2021 WEC begins with the Sebring 1000 Miles on 19 March, and concludes on 20 November in Bahrain. Other races are Spa (1 May) and Fuji (26 September).

The WEC has reduced its schedule to lessen the burden on teams and manufacturers in light of the economic downturn caused by COVID-19. Series boss Gerard Neveu explained that it was the intention to return to eight races as soon as possible, hopefully in 2022.

GARY WATKINS





Alesi team switch gives Hughes surprise F2 debut

FORMULA 2

Ferrari junior Giuliano Alesi will switch to MP Motorsport from this weekend's FIA Formula 2 round at Sochi, freeing up a series debut for FIA Formula 3 Championship ace Jake Hughes at the HWA Racelab squad.

Alesi, 15th in his rookie F2 season with Trident in 2019, has scored just two top-10 finishes with HWA, but has still managed to outscore eight-time F2 race winner Artem Markelov in the sister HWA car.

He will now replace Nobuharu Matsushita and partner Felipe Drugovich at MP, which states that the Japanese "has decided to move on to fresh challenges elsewhere" and that they "part ways on good terms and wish each other every success for the future".

Alesi's father, ex-Ferrari F1 star Jean Alesi, told Autosport: "When I saw this chance, with Matsushita leaving, I thought it's a good opportunity to give Giuliano the chance to finish the year in a good way, with a team that's proven itself as a race winner this year, and to show up a little bit more towards the front of the grid."

F3 veteran Hughes has taken Alesi's vacant HWA seat with a view to assuming driving duties for the rest of the season. He has driven for the German team in F3 in 2019 and 2020, and placed seventh in this year's championship.

"I'm really looking forward to my first races in Formula 2," said Hughes. "I will have to get used to the cars first, as they have significantly more power than the Formula 3 cars. But I'm looking forward to taking on this challenge."

CHARLES BRADLEY

Monza and Croatia make late bids for WRC dates



MONZA RALLY SHOW

WRC

Two more events are said to be in the frame to become late additions to this year's World Rally Championship.

The first is Italian Grand Prix venue Monza, which hosts an annual rallysprint that is usually attended by guest drivers from across two and four-wheeled motorsport. Plans that have been submitted to the FIA are understood to include basing the service park within the circuit perimeter and using the complete venue, including its banking and service roads, plus a number of stages in the countryside around Milan.

If approved, the event could provide the WRC with a TV-friendly grand finale.

Croatia is meanwhile bidding for a slot on the provisional WRC calendar for 2021, and is believed to have offered the FIA and the series promoter the opportunity to use its planned 'dress-rehearsal' event as a points-scoring round for this year.

With the current 2020 schedule ending in Ypres on 22 November, and Monza's date likely to be early December, the question of how an extra event can be slotted in is unclear.

NICK GARTON

P34 RALLY TURKEY



Austin scores on one-off return

BTCC

British Touring Car Championship fan favourite Rob Austin scored points in all three races on a surprise comeback at Thruxton last weekend with the Power Maxed Racing Vauxhall team.

Mike Bushell failed to be passed fit for Thruxton following his heavy shunt in the previous round at Knockhill. The team asked its 'resting' BTCC talisman Jason Plato if he'd like to do it. He didn't fancy it. Then it tried 2019 Clio Cup UK champion Jack Young, but COVID protocols surrounding his World Touring Car Cup campaign scuppered that. Then PMR team principal Adam Weaver had an idea.

"Rob's was the first touring car I properly sponsored," said Weaver. "We went to school together," added Austin, who had last driven a BTCC car when he gave his Alfa Romeo Giulietta a run at the mid-season Snetterton tyre test last year.

"Adam gave me a call on Tuesday night. I said yes without hesistation and proceeded to start shitting a brick! But I popped to the workshop the next day, and the touring car environment is so familiar to me that it was no problem. It was a bit of a stress to get my medical sorted because I had to find someone to do my ECG. But within 36 hours we had it all done."

Remarkably, the Astra that Austin was driving was the one impacted so heavily at Knockhill – despite a lack of spare panels available. "The police have crashed a load of Astras, so we had to fabricate the sides from what we had," said Weaver. Austin (above) drove it to 12th, 12th and 11th in the three races, but will give up the seat to Jade Edwards for Silverstone this weekend.

"I'm missing the racing incredibly," said Austin, "but not the stress of it. When you're in it, every waking moment is BTCC."

● Motorbase Ford driver Andy Neate (below) was excluded from the whole meeting at Thruxton for "an act prejudicial to the interests of motorsport generally in making a threat of physical assault by the use of his car to make deliberate contact with another competitor". This followed an investigation into a collision with Carl Boardley's Team Hard BMW in race one.

MARCUS SIMMONS



JEP/MOTORSPORT IMAGES

IN THE HEADLINES

BOURDAIS BACK AT FOYT

Four-time Champ Car title winner Sebastien Bourdais will make his IndyCar return in next week's double-header at Indianapolis, ahead of a full-time return to the series in 2021. The Frenchman will drive the AJ Foyt Racing team's famed #14 car, which has been campaigned to date this season by Tony Kanaan and Dalton Kellett.

McLAUGHLIN GETS DEBUT

Meanwhile, two-time Australian Supercars champion Scott McLaughlin will make his IndyCar debut in the season finale at St Petersburg at the end of October. The 27-year-old New Zealander, who drives for DJR Team Penske down under, will drive an additional Team Penske machine. He has already tested impressively in a Penske-run Dallara-Chevrolet.

INDYCAR IN NASHVILLE

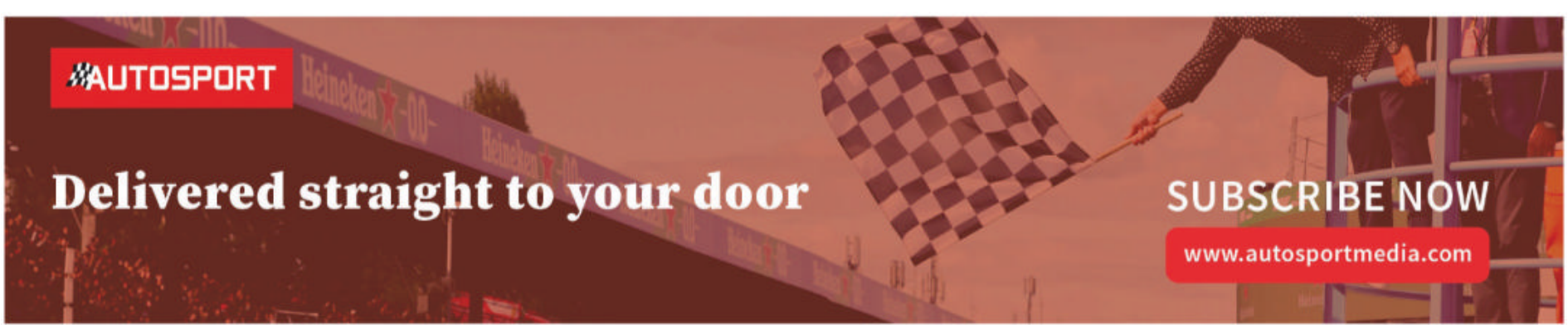
IndyCar will compete on a new street circuit in country-music capital Nashville next season. The Music City Grand Prix will take place on 8 August on a 2.17-mile track. The layout is based around the facilities of NFL team Tennessee Titans, before crossing over the Cumberland River into downtown Nashville and then returning over the river – no doubt to a soundtrack of pedal-steel guitar.

CALDERON TO MISS OKAYAMA

Super Formula rookie Tatiana Calderon is the latest to fall foul of Japan's COVID quarantine requirements. Following her Le Mans 24 Hours debut last weekend, she has had to relinquish her Drago Corse SF seat for Okayama this weekend to Honda veteran Koudai Tsukakoshi.

BEARMAN'S MAIDEN WIN

Young Brit Ollie Bearman scored his first German F4 win at Hockenheim last weekend. He emerged on top after a fight with US Racing team-mate Tim Tramnitz.



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F1 RUSSIAN GRAND PRIX PREVIEW

LENGTH 3.634 miles **NUMBER OF LAPS** 53



2019 POLE POSITION
Charles Leclerc 1m31.628s

POLE LAP RECORD
Valtteri Bottas 1m31.387s (2018)

RACE LAP RECORD
Lewis Hamilton 1m35.761s (2019)

UK START TIMES

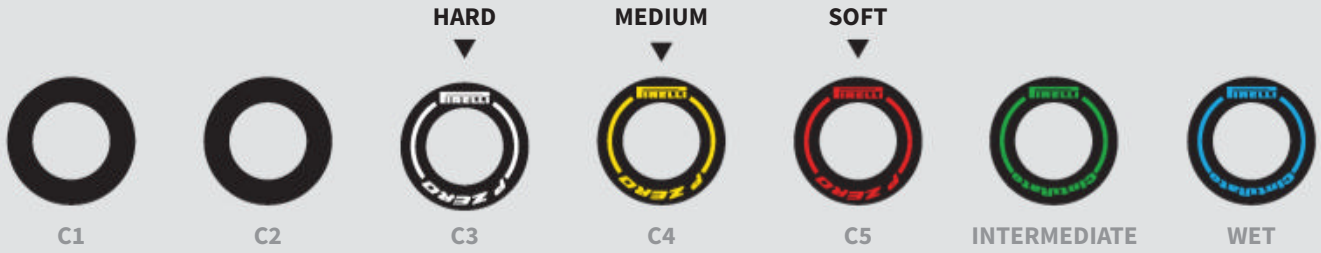
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FP1 0900
FP2 1300

Saturday 26 September
FP3 1000
QUALIFYING 1300

Sunday 27 September
RACE 1210

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SKY SPORTS F1
BBC RADIO 5 LIVE
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HIGHLIGHTS
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TYRE ALLOCATION



CHAMPIONSHIP

Drivers

1	**Hamilton**	190
2	**Bottas**	135
3	**Verstappen**	110
4	**Norris**	65
5	**Albon**	63

Constructors

1	**Mercedes**	325
2	**Red Bull**	173
3	**McLaren**	106
4	**Racing Point**	92
5	**Renault**	83


HONE

Norris is fourth in the points

RACE STATS

Previous winners

2019	**Lewis Hamilton**	Mercedes
2018	**Lewis Hamilton**	Mercedes
2017	**Valtteri Bottas**	Mercedes
2016	**Nico Rosberg**	Mercedes
2015	**Lewis Hamilton**	Mercedes
2014	**Lewis Hamilton**	Mercedes
1914	**Willy Scholl**	Benz
1913	**Georgy Suvorin**	Benz



Bottas's strong Sochi form began with third for Williams in inaugural race in 2014

COATES

Sochi masters

Top 10 points scorers for grands prix at Sochi. All races converted to current points system.

L Hamilton	131
V Bottas	90
S Vettel	56
K Raikkonen	49
N Rosberg	44
M Verstappen	33
S Perez	33
F Massa	24
K Magnussen	22
C Leclerc	21

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GRAHAM HILL



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Vettel's key marketing role

Handing Sergio Perez his P45 in favour of a four-time world champion is ruthless, but it makes good business sense as a means of reviving Aston Martin's fortunes

ALEX KALINAUCKAS

If you need a reminder of Formula 1's ruthlessness, consider Sergio Perez. Just over two years ago, he triggered the action that helped save what was then Force India. In 2021, that team will become known as Aston Martin. And its drivers will be Lance Stroll and Sebastian Vettel. Perez finds himself heading out of the squad where he has raced since 2014 and which he can legitimately say he helped to save. Thanks and goodbye, onto the next chapter. It's the cold business of F1 — the sport provides the emotion.

And it's business logic that's the key to understanding why Racing Point owner Lawrence Stroll has moved to jettison Perez and bring in Vettel. Stroll and his Yew Tree consortium bought into Aston Martin at the start of this year and announced the 2021 Racing Point rebranding at the same time. Then, Aston's share price was at £1.29 — famously down from £19 at its stock market launch in 2018. Stroll has already had to organise a £536million cash injection, as part of wider steps regarding the manufacturer's financial footing, just to make sure it got through this unpleasant year and could even continue contemplating its F1 expansion.

The plan is still on — Aston's title sponsorship deal at Red Bull will cease and the Racing Point name will disappear, with the famous motorsport moniker back as an F1 entrant for the first time since 1960. Clearly, this is tied into Stroll's other Aston asset — the road-car business — and is the latest example of a new trend in F1 marketing. The cliche 'win on Sunday, sell on Monday' still applies, but companies are going about it in a different way these days. The trend now eschews the lavish team purchases/establishments of 20 to 25 years ago, and does what Stroll is carrying out with his F1 team and road-car business: applying the name of one to another.

> **"'Win on Sunday, sell on Monday' still applies, companies are just going about it in a different way"**

The Alfa Romeo/Sauber arrangement is another example, although to a lesser extent given that Aston's F1 and road-car divisions will have a technology-transfer arrangement. The same will apply to Alpine/Team Enstone next year too.

It could even be argued that the all-conquering Mercedes squad is doing a similar thing — being run as an ultra-efficient entrepreneurial enterprise, which reduces its reliance on funding from Daimler. With the introduction of F1's cost cap, the aim will surely be for the rebranded Aston squad to at least cover its back.

So, we return to the decision to oust Perez in favour of a four-time world champion and Vettel's value to Aston's road-car business. "For a start, there will be a lot of interest — he will be featured [in the media]," says Nigel Geach, senior vice-president of global motorsport at sports media valuation, data intelligence and research consulting firm Nielsen Sport. "He'll be an ambassador to Aston Martin. So yes, it will enhance the 'value' of Racing Point, or Aston Martin. And when you're launching something new, who better to have than a four-time world champion?"

When Vettel's signing was secured, Aston's share price was hovering below 60p per share after the COVID crisis had bitten, and it has roughly continued to so since. Of course it's too early to see how Vettel's arrival and results may impact this indicator — and how many more Aston cars are sold on the back of its F1 programme. But it is a tried-and-tested strategy.

Vettel is an extension of the new F1 marketing model, albeit in very traditional ways. Here you have a driver, a known anglophile, capable of charming *Top Gear* and Jeremy Clarkson aged 24.

Apply that to a brand that sells itself on Britishness — note, four Astons are set to appear in the next James Bond film. Consider the expectation that the team's livery will change from its current pink to at least mirror the fluorescent green used for Aston's World Endurance Championship Vantage machines that just won the GTE Pro class at Le Mans (or go full British Racing Green) and the strategy behind Vettel's signing is clear. His image should be plastered in Aston's showrooms and marketing publications.

Aston still needs sponsors such as BWT, which lent its garish corporate colours to Force India/Racing Point and gave such strong support, as evidenced by the team's 2020 launch event back in another lifetime at its Mondsee headquarters. Such ties enhance the entrepreneurial approach teams are embracing.

"If you think about it," says Geach, "Aston Martin want to bring what they call the 'younger client', but the 'younger client' is probably a 40-year-old, very successful person. And, Sebastian [33] fits into that category. You could see a him driving an Aston Martin."

Hiring Vettel is still something of a risk. He added to his lengthy list of unforced errors at Ferrari with his 70th Anniversary GP lap-one spin. And he has been repeatedly outshone by Charles Leclerc, around whom Ferrari is now building for its future as it once did with Vettel. But, given he is yet to turn a wheel for his new squad, he must be given the benefit of the doubt. This is a chance for a reset, a wholesale change where he can give Racing Point/Aston the benefit of his years of experience and 53 wins.

Plus, of course, those four illustrious world titles, which the Aston road-car division will hope can help revive its fortunes.

P26 ASTON MARTIN ENDS LE MANS WAIT



Still an important Le Mans

It may not have been the greatest racing spectacle, but it was vital that the legendary enduro went ahead this year, and the new qualifying format was a positive at least

GARY WATKINS

It turned out to be a race to endure rather than enjoy, though I didn't head to the Le Mans 24 Hours last week with that mentality. I was actually relishing the prospect of another close battle between two Toyotas unencumbered by the success handicaps that have made a mockery of this season's World Endurance Championship, and perhaps a challenge from Rebellion Racing.

A cracking race at the sharp end of the field would have lifted the mood of the endurance racing community in these difficult times. We didn't get it and had to make do with some decent action in and among the classes. Yet the quality of the racing last weekend wasn't important in the big picture. The important thing was that Le Mans went ahead.

Le Mans could have survived cancellation this year. It's big enough to bounce back from adversity, just as it has in the past. The WEC, however, is more fragile, as are the teams racing in it and the sister European Le Mans Series. Had the 24 Hours been cancelled, it would have been a disaster for what I call the rank and file of the two series, the teams who put together budgets for the most part with paying drivers.

No Le Mans, the race around which the majority sell their programmes, would have ripped the carpet out from under them. It could have destroyed an industry.

That's why Le Mans organiser the Automobile Club de l'Ouest

> **"No Le Mans would've ripped the carpet out from under teams. It could've destroyed an industry"**

and its Le Mans Endurance Management offshoot (which runs the WEC), the FIA, and multiple governmental departments in the locality and beyond should be congratulated. They made the race happen and, as far as I could see, largely without hitch or hiccup.

The condensed schedule, with practice and qualifying on Thursday and Friday rather than Wednesday and Thursday, was punishing for everyone involved. It was brutal for a journalist, so I can only imagine what it was like for the mechanics.

But it was a price worth paying. As was running the event without spectators. If that was the only way Le Mans could go ahead this year, then so be it.

The absence of fans gave Le Mans a very different feel last week. The thing that struck me most was how quiet it was. That may sound a strange thing to say given 59 cars were taking part in the main event, but there were times when I felt like I was at a general test day somewhere.

I thought the absence of bodies in the grandstands would make the sound of the cars more painful as it reverberated back and forth across the start-finish straight. That wasn't the case, so I guess I've never realised before how intense the hubbub of Le Mans noise is.

The fans should be back in June 2021 and, when they return, they'll have something new to look forward to — one of the positives of 2020's event was the introduction of a new qualifying format. I had my doubts about the Hyperpole system, because it goes against the Le Mans tradition of a drawn-out qualifying process over multiple hours of track time spanning two days. I wouldn't have missed some of those amazing last-gasp poles on Thursday for the world. Tomas Enge's efforts in GT1 with Prodrive's Ferraris and Aston Martins in 2004-06 most readily spring to mind.

And the anticipation as the clock clicked down in the break between the two sessions on Thursday always tingled my nerves. There was a mad 20 or so minutes from 10pm when darkness hadn't quite fallen but the temperatures had. So often pole position was set at this time.

In keeping with tradition, that's more or less when the Hyperpole session was originally planned before the race was rescheduled. The difference from days gone past will be that we are guaranteed to see cars going for the pole.

Hyperpole has been a work in progress since last year, and there was a tweak leading up to race week. Two extra sets of tyres were added to the rubber allocation for the cars making it through to the top-six shootout. It would have made absolutely no sense to require teams to save tyres from their quota for free practice and the opening qualifying session. The point of Hyperpole is that you are giving six drivers in each class a more or less clear track to go for a time, so give them fresh tyres as well.

There's still room for improvement, I reckon. Hyperpole itself worked fine, but the means by which the teams got there could be refined. The 45-minute opening qualifying session exacerbated the age-old problem of going for a time at Le Mans: getting a clear lap. There were 50-plus cars on track — a few didn't make it — so it was out of kilter with the Hyperpole session itself.

So how about splitting the opening session into two, one for the prototypes and one for the GTE cars? It would undoubtedly be fairer and more in keeping with what happens the following day.

I'm looking forward to Hyperpole as the sun goes down on Thursday, 10 June next year. Just as I'm looking forward to the sights, sounds and smells that come with 300,000 people packed into the circuit. It wasn't the same without them.

P16 LE MANS REPORT

YOUR SAY

This year we were safely isolated some 220 miles back behind the barriers for our initiation to the delights of 'armchair enthusiasm' for this year's event

NICK AND BRENDA WORTH

Grateful for this year's Le Mans 24 Hours

It was with some trepidation that we embarked on our 36th consecutive trip to Le Mans for the 'World's Greatest Motor race' over the weekend. Caravan parked at our own Maison Blanche, sitting on camping chairs, camera poised, watching the cars go round the Circuit of the Sarthe. But this year we were safely isolated some 220 miles back behind the barriers for our initiation to the delights of 'armchair enthusiasm' for this year's event.

We would like to thank all those people who this year risked their lives on the track, but also all the efforts off it for the benefit of us socially distanced spectators. Special thanks to Autosport for the annual guide, Eurosport for the superb 24-plus hours of coverage, the ACO for the courage of persevering with making this great event happen. Not to mention all the teams, marshals and officials who had worked so hard to bring this event to life at this difficult time.

We of course hope to be back there next time, with any luck a little closer to the action.

Nick and Brenda Worth
Horley, Surrey

Missing the big race already?

It was great to hear from Martin Short again in your Le Mans guide. A great character, his stories made me smile and reminded me of the superb film he made, *Le Mans: In the Lap of the Gods*, about his road to the 24 Hours. For anyone already feeling withdrawal symptoms now that this year's race is over, I recommend you find a copy and watch it. You'll love it.

David Hobbs
By email

It just so happens that Duke video has this DVD on offer at £9.99. Go to bit.ly/LapOfTheGods – ed

Forget reversed grids, what about qualifying ballast?

Hopefully there has been enough backlash against the F1 reversed-grid idea for Ross Brawn to not go ahead with it



as a permanent format (one or two races could be fun though!).

My suggestion: success ballast or some form of performance equalisation between the cars for Q3 only. All other sessions, including the race, should be as is current.

The FIA can use the telemetry in Free Practice 1 and 2 to assess the differences between cars. Then in Q1 and Q2, the aggregate time should be taken of each car and points offered on a 5, 4, 3, 2, 1 basis. This should prevent any sandbagging.

With all the data available I think a reasonable system can be produced to assess how much extra ballast should be placed on each car for Q3 to, in theory, make all cars as even as possible in lap time performance.

Team-mates should have the same ballast on their cars so Lewis Hamilton still has his advantage over Valtteri Bottas etc. The potential lap time from a Mercedes should be as equal as possible to Red Bull, McLaren or Ferrari (if they qualify for Q3).

With all the clever people in F1, I'm sure an algorithm can be produced to come up with the calculations for how much ballast each car in Q3 should carry. Then we also get to see who really is the quickest guy (or gal) over one lap!

Shad Alam
By email

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HOW THE 'WRONG' TOYOTA WON LE MANS... AGAIN

The faster of the two TS050 HYBRIDs was not the first across the line — the drivers of the #7 Toyota still can't catch a break in the classic enduro

GARY WATKINS

PHOTOGRAPHY motorsport IMAGES



JEP

HOUR BY HOUR BY FILIP CLEEREN

Hour 1 1430-1530
Conway's #7 Toyota retains the lead at the start ahead of Senna's #1 Rebellion. In the #8 Toyota, Buemi is stuck behind Senna, and followed by the #3 Rebellion. Buemi has to bring his second stop forward due to a puncture.

Hour 2 1530-1630
Due to Buemi's puncture, the two Toyotas are now off-sequence and trade the lead depending on when their pitstops fall. The two Rebellions start to struggle to keep up with the hybrids' pace. The ByKolles car is well off the pace.

Hour 3 1630-1730
The two Toyotas continue to drive away from the Rebellions, with the quicker #7 car of Kobayashi leading at the three-hour mark. The lone ByKolles entry hits trouble with an alternator issue, losing six laps.

Hour 4 1730-1830
The Toyotas keep trading the lead and lap the second-string Rebellion, leaving just three cars on the lead lap. Both TS050s seem evenly matched, with a slight pace advantage for the #7 car.



#8 Toyota was only fractionally off the sister car's pace, but it was time in the pits that was the victory clincher

Another Le Mans 24 Hours and another Toyota victory in the face of no factory opposition. Yet the 88th edition of the great race was different from the previous two in which the Japanese manufacturer triumphed, and not just because there weren't any spectators at the rescheduled event.

The pair of Toyota TS050 HYBRIDs were swung into their pitboxes for repairs over the course of a race that didn't provide the flat-out internecine battle of 2018 or 2019, two Le Mans in which they didn't see the inside of the garage. One thing was the same as 2019, however: the quicker of the two cars didn't win.

Sebastien Buemi and Kazuki Nakajima notched up their own hat-tricks to go with Toyota's trophy-keeping three in a row, while Brendon Hartley, the replacement for Fernando Alonso alongside them, added to his 2017 triumph with Porsche. Kamui Kobayashi, Mike Conway and Jose Maria Lopez, meanwhile, were left wondering what they have to do to win the double-points round of the World Endurance Championship.

The #7 drivers had victory ripped from their clutches 15 months ago with an hour left of a race in which they'd held a decisive margin over the sister car throughout. This time it was less clear-cut, but they were quicker than their team-mates.

Last weekend's race was what might be described as an old-fashioned Le Mans, one that was decided by which car spent the least time in the pits. That honour and therefore the victory laurels went to Buemi, Nakajima and Hartley as Toyota wrapped up the WEC manufacturers' title.

They were the first to hit problems with a braking issue that began to rear its head during the opening stint with Buemi after the 1430 start. There was a puncture for the #8 Toyota during the Swiss driver's second stint, which handed a clear initiative after just 14 laps to the polewinning sister car started by Conway.

Two goes at fixing the brake issue, caused by debris accumulating in the cooling shroud, during routine stops weren't entirely successful. When that debris subsequently caught fire, the Toyota Gazoo Racing Europe squad had no option but to bring the car into its box to replace the cooling assembly in the seventh hour. Ten minutes disappeared but, because the repair took place under one of the four safety cars to interrupt this race, Kobayashi only lost second position to the chasing Rebellion Racing privateer LMP1 entry shared by Bruno Senna, Gustavo Menezes and Norman Nato for a single lap.

"The pendulum of fortune swung the other way: the delay for the #7 Toyota was far more significant"

The pendulum of fortune swung the other way shortly after the halfway mark, and dramatically so: the delay for the #7 Toyota was far more significant. A drop in power was traced to a holed ▶

Hour 5 1830-1930
The first of the Rebellions also gets lapped by Toyota. In a two-horse race the #8 car of Hartley loses time due to a slow zone, increasing Kobayashi's lead to over a minute.

Hour 6 1930-2030
The #8 Toyota continues to lose ground to its #7 sister car at the pitstops, when its mechanics unsuccessfully attempt to remove debris from the right-front brake ducts to cure overheating issues.

Hour 7 2030-2130
The #8 crew uses a lengthy safety-car period to replace the right-front brake duct. That delay drops the second Toyota a lap down behind the #1 Rebellion. Spengler crashes the ByKolles after losing his rear wing through the Esses.

Hour 8 2130-2230
Nakajima in the #8 Toyota reclaims second from Nato in the #1 Rebellion, but still trails Lopez's leading #7 car by one lap. ByKolles retires its car as a safety precaution, having not been able to investigate its rear-wing failure.

exhaust, which required the replacement of both the failed component and the accompanying turbocharger. A total of 29 minutes were lost while the car was stationary in its pit. It fell six laps off the lead and behind both the Rebellion-Gibson R-13s.

There was no way back for Kobayashi, Conway and Lopez, their efforts to make up time hindered by damage to the floor caused when the Briton ran over some debris in his final spell at the wheel. They made it back only as far as third after Louis Deletraz went off in Rebellion's second-string car at Indianapolis late in the 23rd hour. The lead R-13 was still a lap ahead at the conclusion of the 24 hours, and the winning Toyota another five laps further up the road.

The Le Mans gods had turned against the drivers of #7 once again. Kobayashi, Conway and Lopez were the faster of the Toyota crews — not dramatically, but they had the narrowest of edges before their performance dropped off over the final third of the race. The averages show they enjoyed a two-tenths margin over the sister car over the fastest 50 laps.

"The two cars were extremely close, but #7 was slightly faster," said TGRE technical director Pascal Vasselon. "I'm running out of words to talk about the #7 drivers, because once again they've done a very good job during qualifying and during the race. They were clearly a bit faster and again something happened that is not in their control."

Last year it was an incorrectly wired tyre-pressure-monitor system that resulted in the wrong wheel being changed when Lopez sustained a puncture late in hour 23. Two years before that, when Kobayashi and Conway were sharing with Stephane Sarrazin, the Japanese was waved through a red light at the end of the pitlane by another driver, looking for all the world like a marshal in his orange overalls. The clutch was burnt out in the confusion as Kobayashi jumped on the brakes

"The balance between the two cars was changing all the time. I'd say it was pretty even" **SEBASTIEN BUEMI**

and then tried to get going again.

Vasselon described the exhaust issue as a "quality problem". That was of no consolation to the drivers of the #7 car. Conway reckoned yet another Le Mans loss is "going to take some time to get over".

"Another tight one got away — I'm just gutted that we couldn't do it this time," said Conway, who also saw the championship lead he held with his team-mates prior to Le Mans disappear ahead of the Bahrain finale in November. "We've taken two big hits today: one losing the race, and one losing the lead in the championship.

"It was up and down today between the two Toyotas, but I think we were generally the quicker car. But it wasn't to be. It's always small things that cost us the win."



S BLOXHAM



TOYOTA GAZOO RACING

#7 Toyota could never make up for 29 minutes lost to repairs

HOUR BY HOUR

Hour 9 2230-2330
Lopez finds his groove and continues to keep the #7 car at the front during a lonely night stint before handing over to Conway. In the #8 car Nakajima is now well clear of the #1 Rebellion.

Hour 10 2330-0030
The situation remains unchanged as the clock strikes midnight, although Conway manages to slightly stretch the #7 car's advantage on its sibling, now in the hands of Buemi. The Rebellions fall further behind, struggling in traffic.

Hour 11 0030-0130
Kobayashi relieves Conway in the #7 car and protects his one-lap lead on Buemi, while the Rebellions piloted by Senna and Berthon fall further behind.

Hour 12 0130-0230
Buemi hands over the #8 Toyota to Hartley. Kobayashi stays aboard the leading #7 and settles into a solid rhythm. Senna hands the third-placed #1 Rebellion over to Menezes, with all LMP1 competitors now separated by a lap.



Conway leads away from the pole position set by Kobayashi



Lopez, Kobayashi and Conway wonder what they have to do to win

Buemi wasn't so sure that #7 would have won this one in a straight fight, something the Toyota drivers had been relishing in the absence of the success handicaps that have made the 2019-20 WEC such a weird affair.

"Against Mike I felt I was potentially a little bit quicker," said Buemi, who did make some inroads into the deficit to the leader after his puncture and again when he climbed back into the car late in the ninth hour. "But the balance between the two cars was changing all the time. I'd say it was pretty even, not like last year when they were faster than us. Then they were clearly in a different league."

Toyota, running the latest high-nose version of the TS050, was in a different league to Rebellion this time around. The Swiss entrant wasn't in the game in what it announced in the wake of the race was its final outing after more than a decade at or near the top of the privateer tree in LMP1. (Minus one year in the LMP2 ranks when it won the title.)

The lead R-13 got in among the Toyotas in the new Hyperpole qualifying procedure and mounted a fleeting challenge in the opening stint. Thereafter it was falling back from the Toyotas all the time and was a lap down inside five hours.

That Senna, Menezes and Nato finished between the TS050s in second place owed everything to a rare display of fragility from the Japanese cars.

The ORECA-built and run Rebellions didn't match the performance of the best of its two cars in last year's race. Menezes, Thomas Laurent and Nathanael Berthon were faster on the averages than the winning Toyota, though not the one that should have triumphed, in 2019. This time the #1 R-13 was more than a second and a half away from the TS050s.

Exactly why the gap to the Toyotas increased this time around isn't entirely clear, especially when the Equivalence of Technology had been tweaked in favour of the privateers. The R-13, hastily conceived out of the ORECA 07 LMP2 car for the 2018-19 WEC superseason, has always been a finicky machine from which the maximum potential is difficult to exploit.

"The tyres were doing something weird," said Senna. "We struggled to keep temperature in the fronts, but the rears were overheating."

The Rebellion looked strong in the opening exchanges, Senna setting fastest lap of the race on lap four. His second stint on the same set of Michelins wasn't so good: Senna was 51s down on race leader Conway when the next round of stops began. "The car felt good at the beginning of the race, but then it got bad," he explained. "The track grip went away and I'm not really sure why. Maybe it was GT cars going off and bringing muck back on."

Circuit conditions weren't as good this year as last, possibly as the result of overnight rain, and that, said Senna, "for sure hurt us more than Toyota". The R-13 has always struggled more than its rivals when the grip ebbs away, witness its disastrous performance in the wet in August's Spa round of the WEC.

Rebellion may not have mounted any kind of challenge to Toyota, which to be fair it had predicted, but it was still a happy team at the end of the race. Second place was, after all, ▶

Hour 13 0230-0330
Drama at the halfway mark for Toyota's #7 crew. After a routine stop Kobayashi is called straight back in with exhaust problems. The car remains in the garage for 29 minutes to replace the right-hand-side turbo, handing the lead to the #8 car.

Hour 14 0330-0430
A disconsolate Lopez takes over the now fourth-placed #7 car, which is fully up to speed after the turbo change. The car sits six laps behind its leading sister car and is three laps removed from the final podium spot, held by the #3 Rebellion.

Hour 15 0430-0530
After that turbulent turnaround, the race at the front seems over. Nakajima settles in and pumps in a handful of fast lap times in the leading #8 Toyota. The second-placed #1 Rebellion of Nato is in danger of losing a second lap.

Hour 16 0530-0630
The #8 Toyota puts another lap on its nearest competitor. The second #3 Rebellion is forced to make an extra pitstop for a nose change. There's still some fight left in the #7 Toyota as evidenced by a 3m20.838s lap from Lopez.

LMP1 RACE PACE

AVERAGE OF TOP 10 FASTEST LAPS

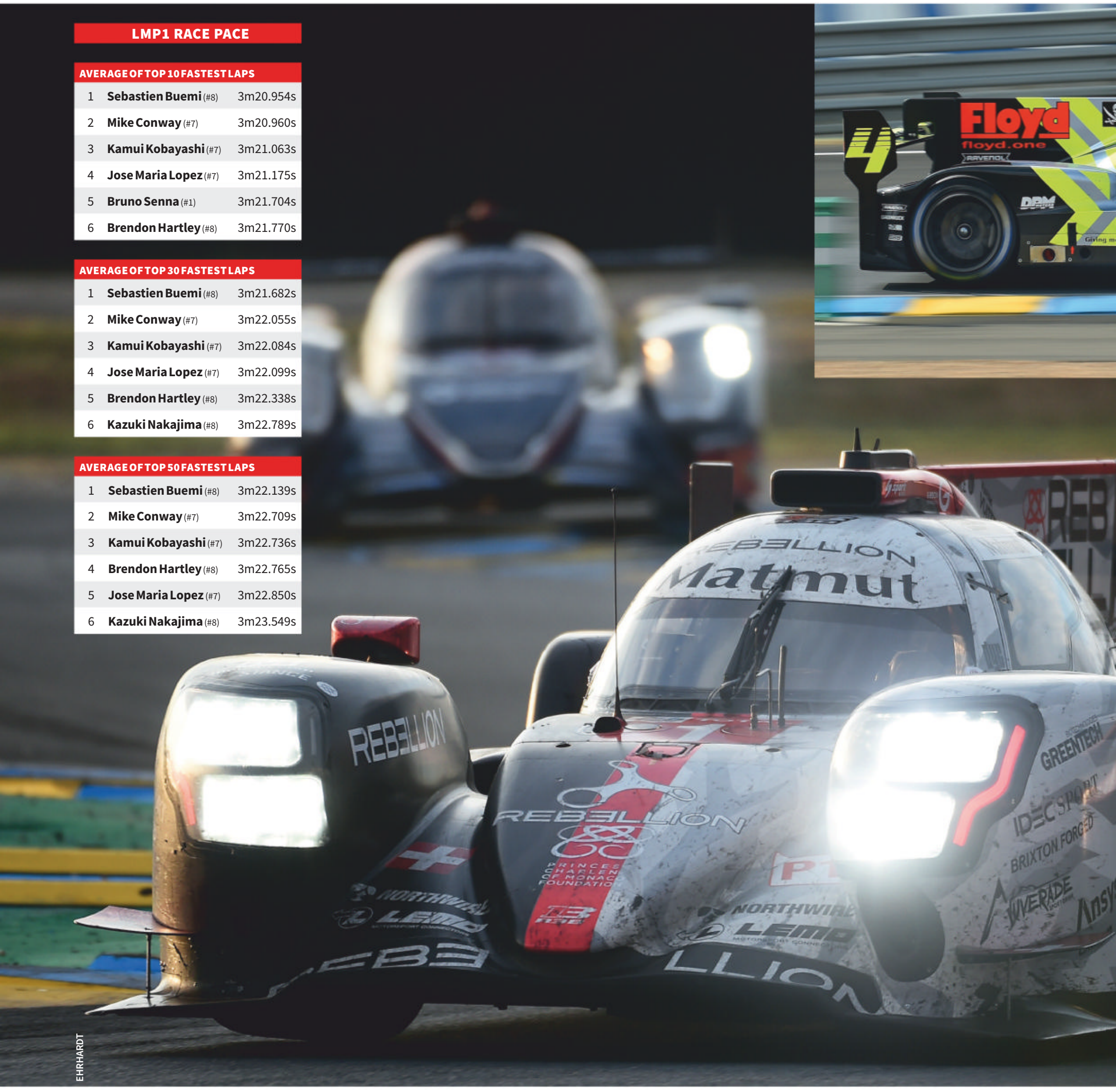
1	**Sebastien Buemi** (#8)	3m20.954s
2	**Mike Conway** (#7)	3m20.960s
3	**Kamui Kobayashi** (#7)	3m21.063s
4	**Jose Maria Lopez** (#7)	3m21.175s
5	**Bruno Senna** (#1)	3m21.704s
6	**Brendon Hartley** (#8)	3m21.770s

AVERAGE OF TOP 30 FASTEST LAPS

1	**Sebastien Buemi** (#8)	3m21.682s
2	**Mike Conway** (#7)	3m22.055s
3	**Kamui Kobayashi** (#7)	3m22.084s
4	**Jose Maria Lopez** (#7)	3m22.099s
5	**Brendon Hartley** (#8)	3m22.338s
6	**Kazuki Nakajima** (#8)	3m22.789s

AVERAGE OF TOP 50 FASTEST LAPS

1	**Sebastien Buemi** (#8)	3m22.139s
2	**Mike Conway** (#7)	3m22.709s
3	**Kamui Kobayashi** (#7)	3m22.736s
4	**Brendon Hartley** (#8)	3m22.765s
5	**Jose Maria Lopez** (#7)	3m22.850s
6	**Kazuki Nakajima** (#8)	3m23.549s



EHRHARDT

HOUR BY HOUR

Hour 17 0630-0730
Each interval between the four remaining LMP1 cars is now two laps. There's more bad news for Conway's #7 Toyota, which sustains floor damage from debris. Toyota decides to soldier on as repairs would take too long.

Hour 18 0730-0830
An hour of little change in LMP1. The second-placed #1 Rebellion slips another lap behind the leading #8 Toyota, the gap now up to three tours. The #7 Toyota attempts to keep chasing the #3 Rebellion for third despite floor damage.

Hour 19 0830-0930
The #1 Rebellion also needs to pit for a new nose after being hit by debris, which drops it back behind the #3 car and extends Toyota's advantage to five laps.

Hour 20 0930-1030
Now third, Menezes tries to close the gap with the #3 Rebellion, which had been trailing all race. Toyota's leading #8 car shows little sign of slowing down, much like its #7 car shows little sign of threatening Rebellion's double podium.



Broken rear wing cost ByKolles team its hoped-for Le Mans finish

Reliability crucial to #1 Rebellion's "pretty cool" second-place finish

its best Le Mans result and its eighth top-six finish since entering P1 in 2008.

"We're second at Le Mans, pretty cool right?" Senna said. "It is a good achievement. We didn't have a car to fight for the win, but we did have a reliable car."

The only delay of any note for the #1 Rebellion came in the 20th hour when the team needed to attend to a broken mounting point on the nose, which dropped it behind the sister car driven by Deletraz, Berthon and Romain Dumas. Menezes was already back up to second when the other car had its late off.

The #3 Rebellion, racing in the WEC for the first time since the Silverstone series opener more than a year ago, wasn't as quick as the lead car and also had more problems. It needed a new nose after a rabbit strike and also had a malfunctioning clutch for much of the race.

"I'm extremely sorry; the drivers of #7 always perform but very often they hit problems" **PASCAL VASSELON**

There was no fairytale farewell for the ByKolles team's ENSO CLM P1/01, an LMP1 design that has been racing in the WEC with various engines in the back since 2014. The current Gibson-engined car that had outshone the solo Rebellion for at least the first half of the Spa WEC round in August wasn't nearly as competitive over 24 hours at Le Mans.

Tom Dillmann was firmly rooted to the foot of the class times in the new Hyperpole session. The Frenchman, who shared the car with newcomer Bruno Spengler and team regular Oliver Webb, quickly fell away from the rest of the P1 field.

The car was delayed as early as the third hour when its alternator stopped charging. The team changed the malfunctioning item with the loss of 20 minutes, only to find that the problem was merely a loose connection.

Spengler subsequently went off down the hill into the Esses when the rear wing failed in hour seven. The Canadian got the car back to the pits and it was repaired, only for the team to decide not to return to the track.

"It was all prepped and ready to go back out, but because we couldn't retrieve the original wing it wasn't possible to identify what the problem was," explained Webb. "It was a shame because we really wanted to finish Le Mans for the first time with the car. That was our target and we were just doing our own race."

ByKolles will be back next year with a new Le Mans Hypercar hoping for better luck. Kobayashi, Conway and Lopez will be wishing for a change in fortunes after yet another punch in the guts.

"I'm extremely sorry, all the team is sorry; the drivers of #7 always perform but very often they hit problems," said Vasselon. "I think next year we are going to swap the numbers."

Hour 21 1030-1130
All quiet on the Toyota front, but not so much in the Rebellion camp. A fiery Menezes races towards Rebellion team-mate Dumas, but is told to hold station. Menezes vents his frustration but ultimately complies with instructions.

Hour 22 1130-1230
The #1 car does get ahead by virtue of a quicker driver change from Menezes to Nato, compared to a slow getaway for Deletraz. Rebellion is worried about the brake wear on both cars and doesn't want to risk losing a double podium finish.

Hour 23 1230-1330
Rebellion's brake concerns are shown to be valid. Deletraz goes off at Indianapolis and thumps the barriers. The #3 car gets brought in and loses six minutes to check its brakes, clutch and rear end. That hands third back to the #7 Toyota.

Hour 24 1330-1430
Nakajima has the honour of bringing the #8 Toyota home. He crosses the line to seal Toyota's third consecutive Le Mans win. Rebellion takes second in its last-ever Le Mans and final WEC race. The #7 Toyota takes third.



LMP1 | LMP2 | GTE PRO | GTE AM

HOT FAVOURITE TAKES LE MANS AND THE TITLE

United Autosports felt its unbeaten 2020 run could come unstuck in the 24 Hours, but Paul di Resta, Phil Hanson and Filipe Albuquerque won again

GARY WATKINS

PHOTOGRAPHY motorsport IMAGES

United Autosports boss Richard Dean didn't like the idea that the Yorkshire-based squad was the pre-race LMP2 favourite. He reckoned pole, a second car in the top six in qualifying and an unbeaten record of half a dozen races spanning the World Endurance Championship and the European Le Mans Series coming into the race meant nothing.

He reminded anyone who'd listen that "one small problem can put you out here". One small problem did remove one of the United ORECA-Gibson 07s from contention, but the pole-winning entry shared by Paul di Resta, Filipe Albuquerque and Phil Hanson came through to claim the class win and with it the World Endurance Championship P2 crown. United had two strong cars, which was exactly why the smart money was on the team.

The winning United car and the sister entry shared by Alex Brundle, Job van Uitert and Will Owen between them led 279 of the 370 laps completed in LMP2 last weekend. But it was still a close-run thing at the end, if not *quite* as close as the team expected.

Hanson needed to stop for a splash of fuel in the closing stages, and the team was convinced that the chasing Jota Sport ORECA with Anthony Davidson at the wheel wouldn't. That explains the ferocity with which the 21-year-old British driver entered and exited the pits, crashing the car over and beyond the kerbs on the way in and then cutting the Dunlop Chicane on the way out.

Hanson emerged with a narrow lead over the Jota car Davidson shared with Antonio Felix da Costa and Roberto Gonzalez, but one lap later Davidson was in the pits. He, too, needed a splash of fuel.

"I was being told that I'd rejoin side by side with the Jota car, so I had to push like crazy — Le Mans and the championship were on the line," said Hanson. "It was a bit nervewracking, but I'm glad it ended like that because it feels like we've earned it."

Hanson and his co-drivers also had to work for their money during the night in the battle with the sister car. In the cooler conditions it looked like Brundle and his

Hanson/di Resta/Albuquerque continued their superb season

JEP

LMP2 RACE PACE

AVERAGE OF TOP 10 FASTEST LAPS		
1	**Job van Uitert** (#32)	3m29.027s
2	**Jean-Eric Vergne** (#26)	3m29.499s
3	**Mikkel Jensen** (#26)	3m30.120s
4	**Nicolas Lapierre** (#42)	3m30.177s
5	**Nyck de Vries** (#29)	3m30.333s
6	**Paul-Loup Chatin** (#28)	3m30.383s

AVERAGE OF TOP 30 FASTEST LAPS		
1	**Job van Uitert** (#32)	3m30.037s
2	**Jean-Eric Vergne** (#26)	3m30.479s
3	**Mikkel Jensen** (#26)	3m30.846s
4	**Nicolas Lapierre** (#42)	3m30.990s
5	**Nyck de Vries** (#29)	3m30.996s
6	**Alex Brundle** (#32)	3m31.397s

AVERAGE OF TOP 50 FASTEST LAPS		
1	**Job van Uitert** (#32)	3m30.852s
2	**Jean-Eric Vergne** (#26)	3m31.168s
3	**Mikkel Jensen** (#26)	3m31.370s
4	**Nyck de Vries** (#29)	3m31.480s
5	**Nicolas Lapierre** (#42)	3m31.611s
6	**Alex Brundle** (#32)	3m31.922s



JEP

United started at the front thanks to Paul di Resta's Hyperpole lap

team-mates held the upper hand and were also gaining a second or two in the pits at every stop, but it wasn't to be. A fractured oil line ended their bid for victory, the 45 minutes lost to repairs restricting them to an eventual 13th position in class.

The United cars were both losing time to their rivals in the pits, somewhere in the region of six to eight seconds for the winning entry and slightly less for the other car. Dean didn't have an explanation. "Let's just say our pitstops looked fairly leisurely compared to some others and that was purely down to the fuel-fill time," he said. "It is something that we are going to have to investigate."

Those seconds lost by United in the pits were one of the reasons why Jota made it look close at the end. The winning margin was just 33s at the chequered flag. "Our strength," said Davidson, "was that we were making up time in the pits."

Second place, he reckoned, was a decent result for a crew that didn't include a young and hungry 'super-silver' like Hanson, although 44-year-old amateur Gonzalez put in a much more solid performance than last year. Former Peugeot and Toyota LMP1 driver Davidson also pointed out that the Goodyear tyres on which Jota ran weren't a match for the Michelins used by the majority of the field.

"We weren't competitive with the quickest cars out there during the daylight hours, though we were much stronger when it was cooler at night," he explained. "We ▶

LMP2 IN BRIEF

WOE FOR MONTOYA

Juan Pablo Montoya endured a disastrous return to Le Mans with the DragonSpeed squad. The ORECA he shared with Memo Rojas and Timothe Buret was beset by engine problems throughout the race. When a front-upright bolt failed in hour 13, the team called it a day.

GRAFF PACE UNREWARDED

The Graff Racing ORECA starred in the hands of James Allen early on, but the French team's victory bid went awry when Vincent Capillaire took over. The Frenchman had an off at the end of the Porsche Curves, clutch damage meaning the drivers had to leave the pits on the starter motor. The car was still heading for fifth when Allen crashed on the entry to the Porsche Curves in the final hour.

IDEC REBUILD PAYS OFF

The lead IDEC Sport team ended up sixth despite rebuilding its ORECA around a new monocoque after Paul Lafargue crashed in second free practice. The car had to start a lap after the rest of the field because the drivers missed night qualifying, but a clear run from Lafargue, Richard Bradley and Paul-Loup Chatin brought an unlikely result.

LATE CALL-UP FOR PILET

Porsche factory driver Patrick Pilet was brought into the second IDEC ORECA when American Dwight Merriman wasn't given clearance to race after crashing on Thursday. The Frenchman was at Le Mans working for Porsche in the Carrera Cup paddock, and therefore had already taken the necessary COVID-19 test that allowed him to step in alongside Jonathan Kennard and Kyle Tilley.

NO LUCK FOR QUICK NICK

There was no glorious return to the prototype ranks for Nick Tandy. The overall winner of the race with Porsche in 2015 endured a difficult week in the G-Drive/Algarve ORECA he shared with Oliver Jarvis and Ryan Cullen. The car (below) wouldn't do more than seven laps between stops when it should have gone 10. On the appearance of an electrical problem, similar to that endured by the full G-Drive entry, the team retired.





Goodyear-shod Jota car remained a threat until the closing stages

were good in the pits, though we had too many little problems."

They included three punctures and a twisted seatbelt that brought da Costa straight back into the pits after taking over from Davidson in hour 14.

The problems for the entry Jota runs under its own name in the WEC were nothing compared to those of the car that it fields under the Jackie Chan DC Racing banner. The ORECA shared by Will Stevens, Ho-Pin Tung and Gabriel Aubry was running at the head of the field at the end of hour seven when it ground to a halt under the safety car.

The alternator had failed on Aubry straight out of the pits. He somehow got it going again and made it back, only for the car to be excluded. That 'somehow' involved illegal assistance from a team member who'd rushed out to the car. An unspecified component had been passed to the French driver to allow him to fire up the ORECA. After 40 or so more laps, the car was disqualified.

Tung reckoned they were well placed to challenge for the class victory, pointing out that the car had been in one safety-car queue and the chasing pack in the one behind. The Chan/DC machine had made its second stop early to avoid any delay in the pitlane, a tactic that appeared to have paid dividends.

Chan/DC's wasn't the only hard-luck story up and down the pitlane among the expected P2 frontrunners.

The G-Drive Racing ORECA had the pace to win, and remarkably gained back a lap after losing two around midnight with an electronic glitch that delayed Roman Rusinov. The Russian, who shared the car with Jean-Eric Vergne and Mikkel Jensen,



JEP





G-Drive crew put in an epic recovery, but still missed out on a top-three

slowed or stopped multiple times over the course of two laps before finally coming in for attention.

Sending him past the pitlane entry after the problem first reared its head looked on the face of it to be a mistake, but G-Drive technical director David Leach argued to the contrary. "We weren't ready for him and when he did come in there was probably a minute and a half before we set to work because we were still understanding the problem," he explained. "Leaving him out on track meant we lost less time."

The fightback brought the Aurus-badged ORECA back up to third, only for a bolt in the front upright to fail on Vergne into the Indianapolis left-hander early in the final hour. Repairs in double-quick time allowed the TDS Racing-run G-Drive machine to make it home fifth in class.

"When you are fighting back from two laps down you are inevitably going to use the kerbs pretty hard," said Leach by way of explanation of the problem. "We came here to win or bust."

An only slightly less impressive comeback was masterminded by the Signatech Alpine squad. Its bid for a hat-trick of Le Mans class victories in LMP2 was derailed on the opening lap, when rising water temperatures brought Andre Negrao into the pits.

The team believed that a connector in the water system had been dislodged in a hit at the Dunlop Chicane at the start. Two laps were lost, which, combined with a drivethrough penalty because Negrao had ducked into the pits so late, left Signatech three laps down at the end of the first hour.

That was still the deficit of the Alpine-badged ORECA, co-driven by Thomas Laurent and Pierre Ragues, at the end of the 24 hours after an ultra-clean run interrupted by a solitary spin. Fourth place was the team's reward.

The Racing Team Nederland ORECA was another car to be delayed by early overheating issues, though the TDS squad that runs the entry came up with a different explanation to Signatech's. It blamed the slow pace of the course vehicle over the latter stages of the formation lap for the problems that cost it two laps.

"When your are fighting back from two laps down you are inevitably going to use the kerbs hard"

G-DRIVE'S DAVID LEACH

Nyck de Vries, who'd qualified the car third in the Hyperpole session, had a coming together with the Scuderia Corsa-run WeatherTech Ferrari during the night and then Frits van Eerd had a spin, leaving the car 15th at the finish.

The problems for the more-fancied teams allowed Panis Racing to claim a surprise third with its Goodyear-shod ORECA shared by Matthieu Vaxiviere, Nico Jamin and Julien Canal.

"We don't have the resources of some of the bigger teams and we were a bit slow in the pits compared with the WEC teams," said Vaxiviere. "We lost a bit of time in the slow zones and the safety cars, but we didn't have single problem. That's why we're third today."



A DISAPPOINTED LE MANS POLEMAN

It's not often that a Le Mans 24 Hours polewinner admits to disappointment after qualifying, but that was Kamui Kobayashi's (left) state of mind after the new Hyperpole session last Friday.

The driver of the #7 Toyota TS050 HYBRID was more than half a second clear of the second-placed Rebellion-Gibson R-13 with Gustavo Menezes at the wheel, though the same amount, give or take, off his own qualifying mark for the 8.47-mile Circuit de la Sarthe from 2017. But Kobayashi was on to break his 3m14.791s record as the session drew to a close.

Kobayashi's opening run on the two sets of tyres allowed yielded a 3m15.267s, but that was on his second attacking lap on those four Michelins. He'd only managed 3m15.920s on his first before going again following a cooling down/charging up lap.

So there was clearly more in the car, and the Japanese driver proved it on run two. He was nearly four tenths up in the first sector and nearly three in sector two. Kobayashi was on course for the record, only to be told that he'd been pinged for track limits at Tertre Rouge and wouldn't be able to keep the lap. He backed off and ducked into the pits.

"To be honest, a little bit disappointed because on my second attempt it seemed I could break my record," he said when asked for his thoughts after qualifying. "The car seemed good, track conditions were good with the Hyperpole, and we were more confident with the traffic situation."

Kobayashi's pace on his second run dismissed the idea that a unique set of circumstances had come together to allow him to dip into the 3m14s in 2017. Three years ago there had been a tailwind on the Mulsanne Straight and a headwind through the Porsche Curves, and the truck was nicely rubbered in courtesy of the gridful of Michelin-tyred cars from the French Porsche Carrera Cup that had just been out on track.

But Hyperpole, a half-hour session with only the fastest six cars in each class from the previous day's qualifying, presented the chance of traffic-free laps that generations of drivers have only dreamed about.



PERFECT ASTON MARTIN BLITZES THE OPPOSITION

The British team has endured its fair share of troubles with the latest-generation Vantage, but everything came good for a first win since 2017

JAMES NEWBOLD

PHOTOGRAPHY motorsport IMAGES

One of the great puzzles of Friday after the Hyperpole session concerned the apparent lack of pace of the two Aston Martins that had topped GTE Pro qualifying practice the previous day. Both cars then went slower — allowing Porsche's Gianmaria Bruni to take top spot — in the shootout that set the grid, leading many to question just how much they were keeping in reserve.

Alex Lynn went some way to answering that on lap 182 of the race, when he clocked a 3m50.321s that was 0.553 seconds faster than Bruni's pole lap. One-lap pace doesn't fully explain how Lynn, Maxime Martin and Harry Tincknell's Aston Martin Vantage GTE took victory — and helped seal the GT manufacturers' title for the make — but it points to an underlying fact.

"They had good pace and there was nothing we could really do about that," said Ferrari's James Calado, who finished 1m33s in arrears in the 488 GTE Evo he shared with Alessandro Pier Guidi and Daniel Serra. "We couldn't have done any more."

The dramatically cut GTE Pro field — down from 17 cars last year to eight — meant Aston's competition wasn't as strong as in years past. But extensive tyre development meant the Vantage was a completely different proposition to the car that struggled in each of the last two editions of Le Mans that formed part of the 2018-19 'superseason'. It qualified on pole last year, before a late Balance of Performance change robbed it of horsepower, but Lynn said: "We had the same BoP as we had last year before qualifying, and even then we wouldn't have been able to win with what we had."

"We just got the car in the sweet spot," added Lynn, who lauded his triumph as "the biggest win of my career". "I said to Tincks after the race, 'Mate, you should have driven it the last two years.' The car has come such a long way.

"Trust me, it's a long 24 hours when you're running around a long way off the pace. But today, to do what we did in the style we did, in the attacking manner, I'm very proud of what the team has been able



JEP

GTE RACE PACE

AVERAGE OF TOP 10 FASTEST LAPS

1	**Alex Lynn** (#97)	3m50.963s
2	**Maxime Martin** (#97)	3m51.402s
3	**Alessandro Pier Guidi** (#51)	3m51.535s
4	**Daniel Serra** (#51)	3m51.887s
5	**Jules Gounon** (#82)	3m52.055s
6	**James Calado** (#51)	3m52.077s

AVERAGE OF TOP 30 FASTEST LAPS

1	**Alex Lynn** (#97)	3m51.755s
2	**Maxime Martin** (#97)	3m51.775s
3	**Alessandro Pier Guidi** (#51)	3m51.954s
4	**Daniel Serra** (#51)	3m52.313s
5	**James Calado** (#51)	3m52.413s
6	**Jules Gounon** (#82)	3m52.654s

AVERAGE OF TOP 50 FASTEST LAPS

1	**Maxime Martin** (#97)	3m52.106s
2	**Alex Lynn** (#97)	3m52.134s
3	**Alessandro Pier Guidi** (#51)	3m52.244s
4	**Daniel Serra** (#51)	3m52.616s
5	**James Calado** (#51)	3m52.627s
6	**Sam Bird** (#71)	3m53.075s

to achieve and the vast improvement the car has made in sheer lap time, and also in balance and reliability in every sense."

"We were confident all week coming in — straight from FP1 we looked fast so we were pretty sure we could compete," added Ford refugee Tincknell, who relished being team-mates with old Formula 3 sparring partner Lynn for the first time since the 2012 Macau Grand Prix. "To win this everything has to go your way, but we knew we were going to be in the mix from the very start."

Sure enough, Lynn moved to the front on lap five by passing Calado into Mulsanne Corner, but it took some time before the real picture began to emerge due to an offset in tyre strategies, which, as Tincknell described, created a "game of cat and mouse" as the lead swapped back and forth 16 times in the first six hours between the Aston, the Ferrari and the second Ferrari of Davide Rigon, Miguel Molina and Sam Bird.

"When Ferrari was on a double, we had new tyres," said AMR head of performance Gus Beteli. "When we were on a double, they were on new tyres. That's what made it quite exciting."

Tincknell, making his debut with Aston Martin, lacked confidence early on and Serra (twice) and Rigon both passed him during his opening double stint. But he grew in stature, and "learned an incredible amount during the race".

"He didn't drive a lot with the car — he jumped in and he was straight away on the pace of everyone," said Martin. "That shows how good he is."

"To win this everything has to go your way, but we knew we were going to be in the mix from the very start" **HARRY TINCKNELL**

The race remained a three-way fight until Bruno Spengler's crash in the ByKolles brought out a safety car. And while both Lynn and Calado had just enough fuel to stay out, Rigon didn't and Molina was held at the end of the pits until the next safety-car queue had passed him, losing over a minute. Lynn then had a stroke of luck when the safety car was withdrawn as he made his stop, which meant he resumed ahead of Pier Guidi, who pitted under a slow zone shortly afterwards.

The 2019 Le Mans class-winning Ferrari remained in the hunt until the 18th hour, when a brake change put Calado around half a minute behind. The gap continued to rise during the morning, as Pier Guidi and Serra went through their final stints, to more than a minute by the time Calado returned to the car for the final 90 minutes, although it continued to cycle ahead for three laps after every Aston pitstop. That was until James Allen's ORECA crashed at the Porsche Curves — just as Lynn exited from his ▶



Last year's winning Ferrari provided Aston Martin's main opposition

final stop – and they were finally split for good behind different safety cars.

Aston had another ace up its sleeve, with Calado admitting to being surprised by the winners not completing a brake change.

"We didn't spend any more than a second in the box than what we had to do," said Beteli. "We didn't do a brake change, had no issues in the race, no issues in the pace – it was how it should be to win this."

Beteli joked that the team "didn't believe me" that 24 hours on the same set of brakes would be possible, but Martin conceded that foregoing new discs and pads – also a feature of the GTE Am-winning TF Sport Aston's race – had been "a key point".

"We worked hard on this, we developed a lot and at the end they did a fantastic job to be able to have brake pads for the whole race without changing," said Martin.

"We didn't do a brake change, had no issues in the race – it was how it should be to win this" **ASTON MARTIN'S GUS BETELI**

The sister Aston that championship leaders Nicki Thiim and Marco Sorensen shared with Richard Westbrook didn't have the pace of the winning car and spent most of the race in fourth before being promoted a spot by the second Ferrari losing four laps in the 11th hour to a suspected puncture.

The 'Dane Train' car's fastest lap, set by Sorensen, was 0.956s slower than Lynn's, while Thiim's and Westbrook's best efforts were within a tenth of each other, two seconds off the sister car. It never recovered after being split into a different safety-car train from the top three following Alexander West's crash in a GTE Am Ferrari at the Porsche Curves in hour seven, although the Danes retain a 15-point lead over Lynn and Martin in the GTE Pro championship heading to the final round in Bahrain.

"They obviously were not as happy with the car so we need to check it after, but there was nothing we could find during the race," said Beteli. "They couldn't attack like #97 and, once you drop a few seconds from

TF SPORT ADDS TO ASTON'S JOY IN GTE AM

TF Sport made it a doubly special day for Aston Martin as Jonny Adam, Charlie Eastwood and Salih Yoluc took GTE Am honours, the first for Aston since 2014.

The Anglo-Turkish crew – Yoluc the first Turkish driver ever to win at Le Mans – had been embroiled in battle with the works-run Aston Martin of Ross Gunn, Augusto Farfus and Paul Dalla Lana for the first 15 hours of the race before Adam took over at the front on lap 199. Thereafter the TF car was never headed, helped when Gunn pitted with a rear-suspension failure at the end of hour 16.

Adam acknowledged that the works crew had been "very unlucky: a part that normally doesn't break on the car broke unfortunately for them", but he was confident that TF would still have prevailed had the battle continued to the end.

While the TF car had a faultless run, its rival was playing catch-up after a 10s penalty for Farfus speeding in a slow zone, while Dalla Lana earned a one minute stop/go for the same infraction, although confirmation of this only came after its race was lost. "I think the big thing was who was on what tyre – we were on a completely different tyre during the daytime running," said four-time British GT champion Adam. "We got our option wrong for the daytime, but we got it spot on the money for all the night running."

Adam's and Eastwood's pace through the night broke the challenge of their main opposition, which in the final hour boiled down to a three-way fight for the last two podium spots for the final seven-lap dash.

The Project 1 Porsche of Matteo Cairoli, Porsche Supercup champion Larry ten Voorde and Egidio Perfetti, which had served a one-minute penalty due to Perfetti not slowing sufficiently at a slow zone, lost out in the final skirmishes to the Dempsey-Proton Porsche shared by Matt Campbell, Riccardo Pera and Christian Ried, and the Nicklas Nielsen/Emmanuel Collard/Francois Perrodo AF Corse Ferrari, which had made an extra stop due to a puncture on its out-lap following Nielsen's first stop. But none could do anything about the runaway TF Aston Martin.



GTE Am winners finished 24th overall



Team celebrates Aston Martin's first Le Mans class victory since 2017

SBLOXHAM

the top two or three, then you always end up splitting the slow zones and safety cars and then it's impossible to get back."

Neither of the Porsches was at the races after qualifying on pole (see right). After slipping back to eighth in his opening stint, Bruni then had to serve a 5s penalty at his first pitstop due to a slow- zone infraction by Fred Makowiecki in night practice. Richard Lietz then got stuck behind Jeff Segal's WeatherTech Ferrari and lost so much time that the sister machine — running off sequence after a puncture — managed to pit and stay ahead.

Both Porsches were also hampered by poor reliability that exacerbated an already difficult day. The #92 car, which Michael Christensen shared with Kevin Estre and Laurens Vanthoor, had a power-steering failure and later had a broken left-rear tail-light that left it marooned at the back of the pack, while the #91 entry had an electrical problem that dropped it behind the privateer Risi Competizione Ferrari shared by Frenchmen Jules Gounon, Sebastien Bourdais and Olivier Pla, which had lost time with a broken damper that sent Bourdais into the gravel.

It was at least promoted a place by late misfortune for the #71 AF Corse Ferrari, which was running in fourth when Rigon suffered a gearbox failure on the final lap. With shades of Toyota's heartbreak in 2016, the car wasn't classified.

Neither was the WeatherTech car that had ran as high as fourth in the early laps with Toni Vilander at the wheel. After Segal suffered another Ferrari damper failure, the car spent time in the garage before a clash forced its retirement.



JEP

PORSCHE TOILS AFTER QUALIFYING PROMISE

It's unclear whether Richard Lietz is familiar with the Bill Murray film *Groundhog Day*, but after spending repeated stints stuck to the tail of the WeatherTech Ferrari, and unable to pass, he might sympathise with Murray's immortal weatherman.

"Not being able to overtake the WeatherTech car was quite frustrating", he said with a hint of understatement after spending a full stint following in the wheeltracks of Jeff Segal. "We changed two tyres, but even with this more grip in right-hand corners I couldn't really pass him without too much risk."

Lietz later climbed back aboard the #91 911 RSR-19 in which Gianmaria Bruni had slid from first to last during the opening stint, only to again get stuck behind the #63 Ferrari – now with Toni Vilander at the wheel.

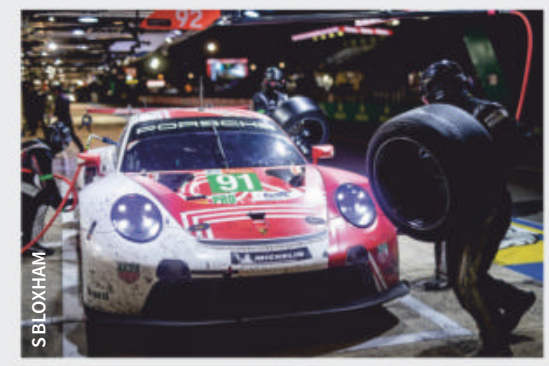
"SOMEHOW THE ACCELERATION IS POOR COMPARED TO THE OTHERS"
KEVIN ESTRE

"Somehow the acceleration out of the corners is poor compared to the others," explained Kevin Estre, the qualifying driver in Porsche #92.

After struggling with oversteer in practice, the drivers seemed happy with the handling in the race, but it was soon apparent that they weren't going to be challenging for victory. Porsche Director of Works Motorsport Pascal Zurlinden shrugged off questions that Porsche's rivals might not have shown their true pace in Hyperpole: "This is a question we can't answer because we don't have the data." But Estre, the fastest Porsche man, was no higher than 12th fastest GTE driver in the race.

"We expected to be competitive with our car," said Lietz. "It's for sure different than we expected."

In the end it proved academic as both cars spent lengthy spells in the pits, not that it was much consolation to Porsche WEC head of operations Alexander Stehlig. "There were too many technical problems," he said. "We've got a bit of homework to do."



SBLOXHAM

HYPERPOLE

GRID	NO	DRIVER	CLASS	CAR	TIME
1	7	Kamui **Kobayashi**	LMP1	Toyota TS050 HYBRID	**3m15.267s**
2	1	Gustavo **Menezes**	LMP1	Rebellion-Gibson R-13	3m15.822s
3	8	Kazuki **Nakajima**	LMP1	Toyota TS050 HYBRID	3m16.649s
4	3	Louis **Deletraz**	LMP1	Rebellion-Gibson R-13	3m18.330s
5	4	Tom **Dillmann**	LMP1	ENSO CLM-Gibson P1/01	3m23.043s
6	22	Paul **di Resta**	LMP2	ORECA-Gibson 07	**3m24.528s**
7	26	Jean-Eric **Vergne**	LMP2	ORECA-Gibson 07	3m24.860s
8	29	Nyck **de Vries**	LMP2	ORECA-Gibson 07	3m25.062s
9	33	Kenta **Yamashita**	LMP2	ORECA-Gibson 07	3m25.426s
10	32	Alex **Brundle**	LMP2	ORECA-Gibson 07	3m25.671s
11	37	Will **Stevens**	LMP2	ORECA-Gibson 07	3m25.875s
28	91	Gianmaria **Bruni**	GTE Pro	Porsche 911 RSR	**3m50.874s**
29	51	James **Calado**	GTE Pro	Ferrari 488 GTE Evo	3m51.115s
30	95	Marco **Sorensen**	GTE Pro	Aston Martin Vantage GTE	3m51.241s
31	97	Alex **Lynn**	GTE Pro	Aston Martin Vantage GTE	3m51.324s
32	71	Sam **Bird**	GTE Pro	Ferrari 488 GTE Evo	3m51.515s
33	92	Michael **Christensen**	GTE Pro	Porsche 911 RSR	3m51.770s
36	61	Come **Ledogar**	GTE Am	Ferrari 488 GTE Evo	**3m51.266s**
37	77	Matt **Campbell**	GTE Am	Porsche 911 RSR	3m51.322s
38	56	Matteo **Cairoli**	GTE Am	Porsche 911 RSR	3m51.647s
39	98	Ross **Gunn**	GTE Am	Aston Martin Vantage GTE	3m52.105s
40	90	Charlie **Eastwood**	GTE Am	Aston Martin Vantage GTE	3m52.299s
41	86	Ben **Barker**	GTE Am	Porsche 911 RSR	3m52.346s

QUALIFYING

GRID	NO	DRIVER	CLASS	CAR	
	7	Kamui **Kobayashi**	LMP1	Toyota TS050 HYBRID	**3m17.089s**
	8	Kazuki **Nakajima**	LMP1	Toyota TS050 HYBRID	3m17.336s
	1	Bruno **Senna**	LMP1	Rebellion-Gibson R-13	3m21.598s
	4	Tom **Dillmann**	LMP1	ENSO CLM-Gibson P1/01	3m24.468s
	3	Louis **Deletraz**	LMP1	Rebellion-Gibson R-13	3m24.632s
	29	Nyck **de Vries**	LMP2	ORECA-Gibson 07	**3m26.648s**
	37	Will **Stevens**	LMP2	ORECA-Gibson 07	3m27.097s
	22	Paul **di Resta**	LMP2	ORECA-Gibson 07	3m27.148s
	26	Jean-Eric **Vergne**	LMP2	ORECA-Gibson 07	3m27.366s
	32	Alex **Brundle**	LMP2	ORECA-Gibson 07	3m27.598s
	33	Kenta **Yamashita**	LMP2	ORECA-Gibson 07	3m27.611s
12	38	Antonio Felix **da Costa**	LMP2	ORECA-Gibson 07	3m27.728s
13	16	Nick **Tandy**	LMP2	ORECA-Gibson 07	3m27.767s
14	31	Matthieu **Vaxiviere**	LMP2	ORECA-Gibson 07	3m27.791s
15	36	Thomas **Laurent**	LMP2	ORECA-Gibson 07	3m27.794s
16	27	Ben **Hanley**	LMP2	ORECA-Gibson 07	3m27.913s
17	42	Nicolas **Lapierre**	LMP2	ORECA-Gibson 07	3m28.509s
18	39	James **Allen**	LMP2	ORECA-Gibson 07	3m28.574s
19	30	Tristan **Gommendy**	LMP2	ORECA-Gibson 07	3m29.091s
20	25	Simon **Trummer**	LMP2	ORECA-Gibson 07	3m29.402s
21	21	Juan Pablo **Montoya**	LMP2	ORECA-Gibson 07	3m29.741s
22	47	Giorgio **Sernagiotto**	LMP2	Dallara-Gibson P217	3m29.880s
23	35	Roberto **Merhi**	LMP2	Ligier-Gibson JSP217	3m30.497s
24	24	Alex **Kapadia**	LMP2	ORECA-Gibson 07	3m30.897s
25	50	Sophia **Florsch**	LMP2	ORECA-Gibson 07	3m31.020s
26	34	Matevos **Isaakyan**	LMP2	Ligier-Gibson JSP217	3m31.393s
27	11	Adrien **Tambay**	LMP2	Ligier-Gibson JSP217	3m33.747s
	95	Marco **Sorensen**	GTE Pro	Aston Martin Vantage GTE	**3m50.872s**
	97	Alex **Lynn**	GTE Pro	Aston Martin Vantage GTE	3m50.925s
	51	Alessandro **Pier Guidi**	GTE Pro	Ferrari 488 GTE Evo	3m51.244s
	71	Davide **Rigon**	GTE Pro	Ferrari 488 GTE Evo	3m51.988s
	91	Gianmaria **Bruni**	GTE Pro	Porsche 911 RSR	3m52.036s
	92	Michael **Christensen**	GTE Pro	Porsche 911 RSR	3m52.142s
34	63	Toni **Vilander**	GTE Pro	Ferrari 488 GTE Evo	3m52.508s
35	82	Sebastien **Bourdais**	GTE Pro	Ferrari 488 GTE Evo	no time
	98	Ross **Gunn**	GTE Am	Aston Martin Vantage GTE	**3m52.778s**
	90	Charlie **Eastwood**	GTE Am	Aston Martin Vantage GTE	3m52.961s
	86	Ben **Barker**	GTE Am	Porsche 911 RSR	3m52.970s
	61	Come **Ledogar**	GTE Am	Ferrari 488 GTE Evo	3m53.292s
	77	Matt **Campbell**	GTE Am	Porsche 911 RSR	3m53.334s
	56	Matteo **Cairoli**	GTE Am	Porsche 911 RSR	3m53.598s
42	83	Nicklas **Nielsen**	GTE Am	Ferrari 488 GTE Evo	3m53.621s
43	99	Julien **Andlauer**	GTE Am	Porsche 911 RSR	3m53.670s
44	57	Felipe **Fraga**	GTE Am	Porsche 911 RSR	3m53.838s
45	54	Giancarlo **Fisichella**	GTE Am	Ferrari 488 GTE Evo	3m54.144s
46	88	Thomas **Preining**	GTE Am	Porsche 911 RSR	3m54.281s
47	70	Kei **Cozzolino**	GTE Am	Ferrari 488 GTE Evo	3m54.628s
48	72	Tom **Blomqvist**	GTE Am	Ferrari 488 GTE Evo	3m55.308s
49	55	Matt **Griffin**	GTE Am	Ferrari 488 GTE Evo	3m55.772s
50	75	Andrea **Piccini**	GTE Am	Ferrari 488 GTE Evo	3m56.141s
51	66	Jan **Magnussen**	GTE Am	Ferrari 488 GTE Evo	3m56.383s
52	78	Max **van Splunteren**	GTE Am	Porsche 911 RSR	3m56.475s
53	85	Michelle **Gatting**	GTE Am	Ferrari 488 GTE Evo	3m56.833s
54	60	Paolo **Ruberti**	GTE Am	Ferrari 488 GTE Evo	3m57.876s
55	62	Johnny **Mowlem**	GTE Am	Ferrari 488 GTE Evo	4m00.084s
56	89	Julien **Piguet**	GTE Am	Porsche 911 RSR	4m00.691s
57	52	**n/a**	GTE Am	Ferrari 488 GTE Evo	no time
58	17	**n/a**	LMP2	ORECA-Gibson 07	no time
59	28	**n/a**	LMP2	ORECA-Gibson 07	no time

RACE STATS

WINNERS' AVERAGE SPEED

Buemi/Nakajima/Hartley	136.361mph

FASTEST LAP

LMP1	Senna	3m19.264s	152.965mph
LMP2	van Uitert	3m27.508s	146.888mph
GTE Pro	Lynn	3m50.321s	132.339mph
GTE Am	Gunn	3m52.449s	131.127mph

SEASON STATS

DRIVERS' CHAMPIONSHIP

LMP

1	Hartley/Nakajima/Buemi	175
2	Lopez/Kobayashi/Conway	168
3	Senna/Menezes/Nato	145
4	Albuquerque/Hanson	78
5	di Resta	70
6	da Costa/Gonzalez	61

LMP2

1	Albuquerque/Hanson	171
2	di Resta	156
3	da Costa/Gonzalez	125
4	Davidson	115

GTE

1	Sorensen/Thiim	157
2	Lynn/Martin	142
3	Pier Guidi/Calado	131
4	Estre/Christensen	109
5	Bruni/Lietz	84
6	Rigon/Molina	63

GTE AM

1	Eastwood/Adam/Yoluc	148
2	Collard/Perrodo/Nielsen	140
3	Ried/Campbell/Pera	98.5
4	Dalla Lana/Gunn	96.5

MANUFACTURERS' CHAMPIONSHIP

LMP1

1	Toyota Gazoo Racing	202
2	Rebellion Racing	145
3	Team LNT	29

GTE

1	Aston Martin	299
2	Porsche	223
3	Ferrari	218

NEXT WEC REPORT

8 HOURS OF BAHRAIN

19 November issue

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RESULTS WORLD ENDURANCE CHAMPIONSHIP ROUND 7/8, LE MANS (FRA), 19-20 SEPTEMBER (387 LAPS – 3276.653 MILES)

POS	NO	DRIVERS	CLASS	TEAM / CAR	TIME
1	8	Sebastien **Buemi** (CHE) Kazuki **Nakajima** (JPN) Brendon **Hartley** (NZL)	LMP1	Toyota Gazoo Racing / Toyota TS050 HYBRID	**24h01m45.305s**
2	1	Bruno **Senna** (BRA) Norman **Nato** (FRA) Gustavo **Menezes** (USA)	LMP1	Rebellion Racing / Rebellion-Gibson R-13	-5 laps
3	7	Mike **Conway** (GBR) Kamui **Kobayashi** (JPN) Jose Maria **Lopez** (ARG)	LMP1	Toyota Gazoo Racing / Toyota TS050 HYBRID	-6 laps
4	3	Nathanael **Berthon** (FRA) Romain **Dumas** (FRA) Louis **Deletraz** (CHE)	LMP1	Rebellion Racing / Rebellion-Gibson R-13	-6 laps
5	22	Filipe **Albuquerque** (PRT) Phil **Hanson** (GBR) Paul **di Resta** (GBR)	LMP2	United Autosports / ORECA-Gibson 07	**-17 laps**
6	38	Anthony **Davidson** (GBR) Antonio Felix **da Costa** (PRT) Roberto **Gonzalez** (MEX)	LMP2	Jota Sport / ORECA-Gibson 07	-17 laps
7	31	Matthieu **Vaxiviere** (FRA) Nico **Jamin** (FRA) Julien **Canal** (FRA)	LMP2	Panis Racing (Tech 1) / ORECA-Gibson 07	-19 laps
8	36	Andre **Negrao** (BRA) Pierre **Ragues** (FRA) Thomas **Laurent** (FRA)	LMP2	Signatech Alpine Elf / ORECA-Gibson 07	-20 laps
9	26	Jean-Eric **Vergne** (FRA) Roman **Rusinov** (RUS) Mikkel **Jensen** (DNK)	LMP2	G-Drive Racing (TDS) / ORECA-Gibson 07	-20 laps
10	28	Paul-Loup **Chatin** (FRA) Paul **Lafargue** (FRA) Richard **Bradley** (GBR)	LMP2	IDEC Sport Racing / ORECA-Gibson 07	-21 laps
11	42	Nicolas **Lapierre** (FRA) Antonin **Borga** (CHE) Alexandre **Coigny** (CHE)	LMP2	Cool Racing / ORECA-Gibson 07	-22 laps
12	25	Simon **Trummer** (CHE) John **Falb** (USA) Matt **McMurry** (USA)	LMP2	Algarve Pro Racing / ORECA-Gibson 07	-22 laps
13	50	Tatiana **Calderon** (COL) Sophia **Florsch** (DEU) Beitske **Visser** (NLD)	LMP2	Richard Mille Racing Team (Signatech) / ORECA-Gibson 07	-23 laps
14	47	Giorgio **Sernagiotto** (ITA) Roberto **Lacorte** (ITA) Andrea **Belicchi** (ITA)	LMP2	Cetilar Racing (AF Corse) / Dallara-Gibson P217	-24 laps
15	17	Patrick **Pilet** (FRA) Kyle **Tilley** (GBR) Jonathan **Kennard** (GBR)	LMP2	IDEC Sport Racing / ORECA-Gibson 07	-24 laps
16	27	Renger **van der Zande** (NLD) Henrik **Hedman** (SWE) Ben **Hanley** (GBR)	LMP2	DragonSpeed USA / ORECA-Gibson 07	-26 laps
17	32	Alex **Brundle** (GBR) Will **Owen** (USA) Job **van Uitert** (NLD)	LMP2	United Autosports / ORECA-Gibson 07	-28 laps
18	35	Nobuya **Yamanaka** (JPN) Nick **Foster** (AUS) Roberto **Merhi** (ESP)	LMP2	Eurasia Motorsport / Ligier-Gibson JSP217	-36 laps
19	29	Giedo **van der Garde** (NLD) Frits **van Eerd** (NLD) Nyck **de Vries** (NLD)	LMP2	Racing Team Nederland (TDS) / ORECA-Gibson 07	-38 laps
20	97	Alex **Lynn** (GBR) Maxime **Martin** (BEL) Harry **Tincknell** (GBR)	GTE Pro	Aston Martin Racing (Prodrive) / Aston Martin Vantage GTE	**-41 laps**
21	51	James **Calado** (GBR) Alessandro **Pier Guidi** (ITA) Daniel **Serra** (BRA)	GTE Pro	AF Corse / Ferrari 488 GTE Evo	-41 laps
22	95	Nicki **Thiim** (DNK) Marco **Sorensen** (DNK) Richard **Westbrook** (GBR)	GTE Pro	Aston Martin Racing (Prodrive) / Aston Martin Vantage GTE	-44 laps
23	82	Sebastien **Bourdais** (FRA) Olivier **Pla** (FRA) Jules **Gounon** (FRA)	GTE Pro	Risi Competizione / Ferrari 488 GTE Evo	-48 laps
24	90	Charlie **Eastwood** (GBR) Salih **Yoluc** (TUR) Jonny **Adam** (GBR)	GTE Am	TF Sport / Aston Martin Vantage GTE	**-48 laps**
25	77	Christian **Ried** (DEU) Riccardo **Pera** (ITA) Matt **Campbell** (AUS)	GTE Am	Dempsey-Proton Racing / Porsche 911 RSR	-48 laps
26	83	Nicklas **Nielsen** (DNK) Francois **Perrodo** (FRA) Emmanuel **Collard** (FRA)	GTE Am	AF Corse / Ferrari 488 GTE Evo	-48 laps
27	56	Matteo **Cairoli** (ITA) Egidio **Perfetti** (NOR) Larry **ten Voorde** (NLD)	GTE Am	Team Project 1 / Porsche 911 RSR	-48 laps
28	24	Alex **Kapadia** (GBR) Garett **Grist** (CAN) Tony **Wells** (GBR)	LMP2	Nielsen Racing / ORECA-Gibson 07	-49 laps
29	86	Ben **Barker** (GBR) Michael **Wainwright** (GBR) Andrew **Watson** (GBR)	GTE Am	Gulf Racing / Porsche 911 RSR	-50 laps
30	66	Jan **Magnussen** (DNK) Richard **Heistand** (USA) Maxwell **Root** (USA)	GTE Am	JMW Motorsport / Ferrari 488 GTE Evo	-52 laps
31	91	Gianmaria **Bruni** (ITA) Richard **Lietz** (AUT) Frederic **Makowiecki** (FRA)	GTE Pro	Porsche GT Team (Manthey) / Porsche 911 RSR	-52 laps
32	61	Oswaldo **Negri** Jr (BRA) Francesco **Piovanetti** (USA) Come **Ledogar** (FRA)	GTE Am	Luzich Racing / Ferrari 488 GTE Evo	-52 laps
33	98	Ross **Gunn** (GBR) Paul **Dalla Lana** (CAN) Augusto **Farfus** (BRA)	GTE Am	Aston Martin Racing (Prodrive) / Aston Martin Vantage GTE	-54 laps
34	85	Manuela **Gostner** (ITA) Rahel **Frey** (CHE) Michelle **Gatting** (DNK)	GTE Am	Iron Lynx / Ferrari 488 GTE Evo	-55 laps
35	92	Kevin **Estre** (FRA) Michael **Christensen** (DNK) Laurens **Vanthoor** (BEL)	GTE Pro	Porsche GT Team (Manthey) / Porsche 911 RSR	-56 laps
36	99	Julien **Andlauer** (FRA) Vutthikorn **Inthraphuvasak** (THA) Lucas **Legeret** (CHE)	GTE Am	Dempsey-Proton Racing / Porsche 911 RSR	-56 laps
37	60	Claudio **Schiavoni** (ITA) Sergio **Pianezzola** (ITA) Paolo **Ruberti** (ITA)	GTE Am	Iron Lynx / Ferrari 488 GTE Evo	-56 laps
38	78	Michele **Beretta** (ITA) Horst **Felbermayr** Jr (AUT) Max **van Splunteren** (NLD)	GTE Am	Proton Competition / Porsche 911 RSR	-57 laps
39	54	Giancarlo **Fisichella** (ITA) Thomas **Flohr** (CHE) Francesco **Castellacci** (ITA)	GTE Am	AF Corse / Ferrari 488 GTE Evo	-57 laps
40	57	Jeroen **Bleekemolen** (NLD) Ben **Keating** (USA) Felipe **Fraga** (BRA)	GTE Am	Team Project 1 / Porsche 911 RSR	-61 laps
41	62	Bonamy **Grimes** (GBR) Johnny **Mowlem** (GBR) Charlie **Hollings** (GBR)	GTE Am	Red River Sport (AF) / Ferrari 488 GTE Evo	-62 laps
42	34	Matevos **Isaakyan** (RUS) Jakub **Smiechowski** (POL) Rene **Binder** (AUT)	LMP2	Inter Europol Competition / Ligier-Gibson JSP217	-71 laps
43	89	Philippe **Haezebrouck** (FRA) Julien **Piguet** (FRA) Andreas **Laskaratos** (GRC)	GTE Am	Team Project 1 / Porsche 911 RSR	-74 laps
R	39	James **Allen** (AUS) Vincent **Capillaire** (FRA) Charles **Milesi** (FRA)	LMP2	SO24-HAS by Graff / ORECA-Gibson 07	357 laps-accident
R	71	Davide **Rigon** (ITA) Miguel **Molina** (ESP) Sam **Bird** (GBR)	GTE Pro	AF Corse / Ferrari 488 GTE Evo	340 laps-gearbox
R	72	Marcos **Gomes** (BRA) Morris **Chen** (TWN) Tom **Blomqvist** (GBR)	GTE Am	HubAuto Racing / Ferrari 488 GTE Evo	273 laps-accident
NC	88	Thomas **Preining** (AUT) Dom **Bastien** (USA) Adrien **de Leener** (BEL)	GTE Am	Dempsey-Proton Racing / Porsche 911 RSR	238 laps
R	75	Andrea **Piccini** (ITA) Rino **Mastronardi** (ITA) Matteo **Cressoni** (ITA)	GTE Am	Iron Lynx / Ferrari 488 GTE Evo	211 lap-not running
R	21	Juan Pablo **Montoya** (COL) Timothe **Buret** (FRA) Memo **Rojas** (MEX)	LMP2	DragonSpeed USA / ORECA-Gibson 07	192 laps-engine/suspension
R	63	Toni **Vilander** (FIN) Cooper **MacNeil** (USA) Jeff **Segal** (USA)	GTE Pro	WeatherTech Racing (Scuderia Corsa) / Ferrari 488 GTE Evo	185 laps-accident damage
R	70	Kei **Cozzolino** (JPN) Takeshi **Kimura** (JPN) Vincent **Abril** (FRA)	GTE Am	MR Racing (AF) / Ferrari 488 GTE Evo	172 laps-accident
R	37	Will **Stevens** (GBR) Ho-Pin **Tung** (NLD) Gabriel **Aubry** (FRA)	LMP2	Jackie Chan DC Racing (Jota) / ORECA-Gibson 07	141 laps-excluded/outside assistance
R	16	Oliver **Jarvis** (GBR) Ryan **Cullen** (GBR) Nick **Tandy** (GBR)	LMP2	G-Drive Racing by Algarve / ORECA-Gibson 07	105 laps-electrical
R	30	Tristan **Gommendy** (FRA) Jonathan **Hirschi** (CHE) Konstantin **Tereschenko** (RUS)	LMP2	Duqueine Team / ORECA-Gibson 07	100 laps-accident
R	4	Tom **Dillmann** (FRA) Bruno **Spengler** (CAN) Oliver **Webb** (GBR)	LMP1	ByKolles Racing Team / ENSO CLM-Gibson P1/01	97 laps-rear wing
R	33	Kenta **Yamashita** (JPN) Mark **Patterson** (USA) Anders **Fjordbach** (DNK)	LMP2	High Class Racing / ORECA-Gibson 07	88 laps-mechanical
R	52	Christoph **Ulrich** (CHE) Steffen **Gorig** (DEU) Alexander **West** (SWE)	GTE Am	AF Corse / Ferrari 488 GTE Evo	80 laps-accident
R	55	Matt **Griffin** (IRL) Duncan **Cameron** (GBR) Aaron **Scott** (GBR)	GTE Am	Spirit of Race (AF) / Ferrari 488 GTE Evo	78 laps-accident damage
R	11	Adrien **Tambay** (FRA) Erik **Maris** (FRA) Christophe **d'Ansembourg** (BEL)	LMP2	Eurointernational / Ligier-Gibson JSP217	26 laps-electrical

In each car, first-named driver started race.

TOP 4 HOUR BY HOUR CHART

GRID	HR1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
7	7	8	7	8	7	8	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8
1	1	7	8	7	8	7	1	8	8	8	8	8	1	1	1	1	1	1	1	3	3	1	1	1
8	3	1	1	1	1	1	8	1	1	1	1	1	3	3	3	3	3	3	3	1	1	3	7	7
3	8	3	3	3	3	3	3	3	3	3	3	3	7	7	7	7	7	7	7	7	7	7	3	3








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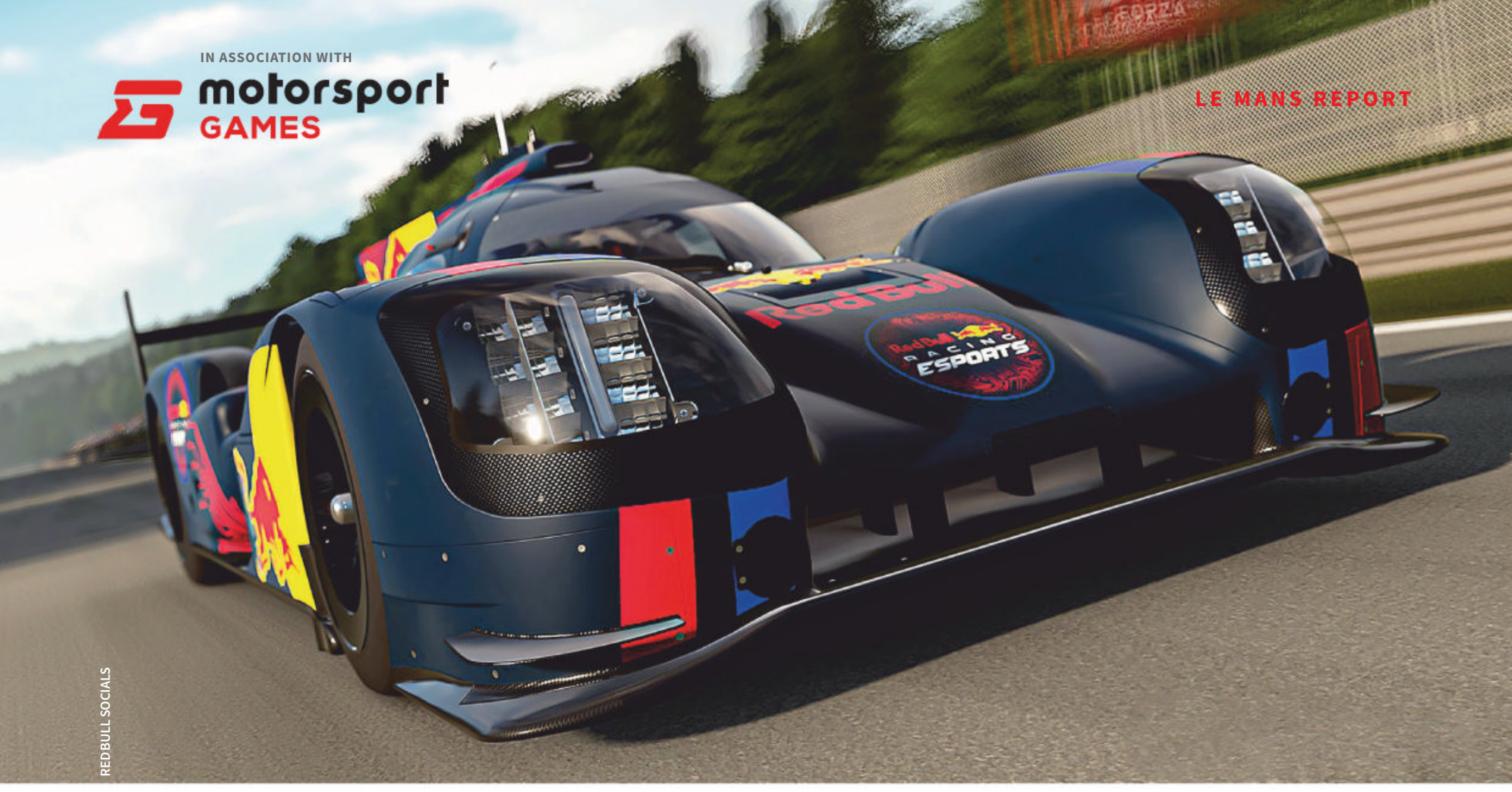
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REDBULL SOCIALS

RED BULL SCOOPS LE MANS ESPORTS HONOURS

Robin Betka steers squad to victory over four days of action

JOSH SUTTILL

Red Bull Esports emerged as the worthy champion after four consecutive days of racing ended the second season of the Le Mans Esports Series on *Forza Motorsport 7*.

There were three races per 'segment', with the bottom two teams in the standings at the end of each day being eliminated until just three remained for the final day. Each segment featured cars that represented an iconic era of the famous race. Red Bull's Robin Betka took victory in the opening race around the Le Mans Bugatti circuit, with Williams Esports' Isaac Price and Veloce Esports' Noah Schmitz also taking wins on the opening night.

Lazarus Esports, which finished runner-up to Red Bull in the qualification series, took two victories on the second day to draw level on points with Red Bull heading into the final two days. Five teams became three after Thursday when reigning champions Veloce and Total Performance Racing were both eliminated.



Admit it: D-type looks awesome in Red Bull livery

RED BULL SOCIALS

Betka took a clean sweep of three race wins to catapult Red Bull to the top of the teams' standings and maintain his unbeaten run in the Super Final.

Betka led home a pair of Red Bull 1-2s in the first two races on the final day at Le Mans and Spa to make it five race wins from five races and all but seal the LMES crown. He was finally beaten in the last race at Le Mans as Kuba Brzezinski charged from eighth on the grid to take Williams's second victory of the Super Final and finally end Betka's streak.

Betka — assisted by team-mates Aurelien Mallet and Alexander Arnou — sealed the crown for Red Bull. Mallet and Arnou were part of the team that finished as runner-up in the inaugural season last year. Such was the team's points advantage that Betka was even able to slow down before the chequered flag in the final race and draw level with team-mate Mallet as they crossed the finish line.

"What a week," Betka said post-race. "I was confident in us, and I'm very proud of how we handled everything this week. We had technical issues and we adapted strategy on the fly. There are no egos around here. We work as a team and do whatever puts us at the top of the standings."

The Red Bull trio scooped $40,000 of the $150,000 prize pool, with Lazarus drivers Tobin Leigh, Daniel Nyman and Ross May taking the second-biggest share of the professional teams. Williams, which booked its place in the Super Final by winning the qualifier at the Autosport International show, rounded out the top three ahead of Veloce and TPR.

Pro-Am honours went the way of the LM Squad, which came into the final race of the Super Final with a four-point deficit and ended up taking the title by a 40-point margin over the ironically named Hotlappers team. Ex-Williams racer Gary Mitchell won seven of the eight races and scooped the title along with his team-mates Alex Harrison and Johan Bergera.

RACE CENTRE

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REDBULL

CALM EVANS REAPS REWARDS AS RIVALS HIT TROUBLE

Elfyn Evans didn't look a likely Rally Turkey winner at the start of day three, but his cautious approach has given his title hopes a huge boost

NICK GARTON

A cautious approach to Rally Turkey rewarded Elfyn Evans with the second victory of his 2020 World Rally Championship campaign and the third of his WRC career. The Welshman now leads Toyota team-mate Sebastien Ogier by 18 points in the drivers' standings with two rounds still scheduled for 2020, and has given British fans hope of hailing their first champion since Richard Burns in 2001.

Rally Turkey is based near the Mediterranean resort town of Marmaris, where a modest entry of 24 cars gathered for an event that was shorter than in previous years, to the tune of 54 stage miles. Also absent would be members of the public, in deference to the ongoing pandemic.

When the action got under way last Friday afternoon, Hyundai took the initiative with Thierry Neuville winning the first stage in front his team-mates Sebastien Loeb and Ott Tanak, as the trio of Toyotas formed an orderly queue behind them.

The second stage was plagued by hanging dust that refused to clear away from between the trees. Swirling clouds hampered many contenders, but when Loeb put all his faith in the pacenotes he was able to set a time fast enough (second, behind Ogier) to take the overnight lead. So it was that fans around the world enjoyed a misty-eyed evening during which, not for the first time among these post-retirement cameo appearances, they dared to dream of the maestro claiming his 80th career win in the top flight.

When morning came, however, Toyota's pre-event championship leader Ogier made it clear that a Hyundai 1-2-3 did not fit with his plans for the weekend. He won the opening 20-mile stage of the day from Neuville by a scant 1.8 seconds, but this was enough to edge him into the overall lead.



REDBULL

"I'M GOING TO TRY TO DO MY BEST TOMORROW AND HOPEFULLY WE'RE GOING TO SURVIVE"

Ogier again set the fastest time on the next stage, while Tanak's rally came to a sudden end when his steering failed, causing him to miss a gentle right-hander and wedge his i20 WRC in a bush. After a cursory look inside the right-front wheelarch, the Estonian waved a disparaging hand and stalked off into the countryside.

For overnight leader Loeb, meanwhile, a gamble on running two medium-compound tyres alongside the preferred hard compound did not pay off. This left him with a less-than-optimal set-up for the rest of the morning while lugging a pair of raddled mediums around in the boot and slipping to fourth, almost 22s adrift of new leader Ogier at the service halt.

An extra layer of drama was added to the morning loop when it was paused in order to safely remove some intrepid fans. Despite the spectator-free status of the rally in deference to COVID prevention, large gatherings of people could be seen in the hills looking down on certain sections of the route. Some individuals tried to get a closer look but were caught by the FIA's new safety protocols: the delay was short-lived and the transgression was not repeated.

Amid such drama, third place was taken up by Evans's Toyota in its measured slog through the stages, with Loeb closing up to him as the Hyundai returnee in turn made his bid for the podium.

Also chasing third place was Kalle Rovanpera's Toyota Yaris WRC. The young Finn sought to make the most of the faster stages, where his bravado paid huge



Ogier took the lead after Loeb's tyre woes, but didn't make the finish

REDBULL



Loeb had a run in the lead on his first Hyundai start since Monte Carlo

dividends, but was required to balance this raw speed with a need to preserve his tyres, leading to a cat-and-mouse pursuit of Evans and Loeb.

Saturday's afternoon loop began with Ogier suffering transmission issues and a puncture, while Neuville hustled a Hyundai that was much more to his liking to claim an advantage of almost 22s.

Ogier was back on the pace for the next stage and surrendered just 0.2s to Neuville, who then launched a blistering attack on stage eight that stretched his lead to 33.2s. But he was not the fastest man through the stage. That would be Loeb, who shaded Neuville by 0.9s and drew himself level with his former nemesis Ogier in second on the overnight leaderboard.

On most rallies, a lead of more than half a minute with just four stages remaining can give drivers justifiable cause for optimism. Turkey is rather a different proposition to most rallies, though, and Neuville refused to get too excited. "I mean, we have seen Ogier getting a puncture close to the end of the stage so he continued pushing and he's still in P2," said the Belgian. "I'm going to try to do my best tomorrow and hopefully we're going to survive."

On the final morning, the lead duo picked up where they had left off as they entered the notorious 24-mile Cetibeli test but they were both forced to stop and change wheels, as was Loeb. So it was that Evans's game of patience paid »

MANAGING THE TITLE CHALLENGERS

With two events left on the current 2020 WRC calendar, five drivers have a chance to be crowned champion. That's more than NASCAR will create through its stage-managed playoffs and more than F1 has mustered in recent years.

It can also be considered as a considerable test of the team principals, Toyota's Tommi Makinen and Hyundai's Andrea Adamo, to maintain order.

Many felt that Hyundai's new signing for 2020, reigning champion Ott Tanak, would move swiftly to assert himself over Thierry Neuville, who in recent years had enjoyed the luxury of a rotating line-up alongside him that limited pressure from within the team.

The Belgian has instead weathered this Estonian storm with a spring in his step. Conversely, if Tanak's frustration with his broken steering in Turkey was self-evident, then he *really* became animated after leaving the door open for Neuville on the powerstage.

Sardinia next month will be crucial if Hyundai is to take the initiative in the manufacturers' championship. It will likely be Adamo's main job to keep both men focused rather than pushing one another into a costly mistake.

After that will come the finale in Ypres, where Neuville may just struggle to hear any instruction to help Tanak in front of his adoring home fans.

At Toyota, meanwhile, the 18-point gap enjoyed by Elfyn Evans over Sebastien Ogier is possibly the biggest surprise within a WRC team since Timo Salonen pulled clear of Ari Vatanen at Peugeot in 1985.



McKLEIN

Andrea Adamo has a challenge on his hands

Of the 75 stages that both men have completed in 2020, Ogier has beaten Evans in 43 of them. The final afternoon in Marmaris has now handed a golden opportunity to the Welshman that he is clearly capable of bringing home.

Evans will initially be forced to clean the road for Ogier in Italy. After that he will have to choose whether to pace himself as per Turkey, or to jump in with both feet and take the fight to Ogier and the Hyundais. A strong finish could remove much of the pressure before this season's finale.

Kalle Rovanpera is the other contender and he radiates desire for a WRC win before the end of his debut season. If that can be tempered and focused towards supporting rather than challenging his team-mates, Makinen's grasp on the manufacturers' crown will grow considerably.

The drivers will undoubtedly dominate the headlines, but Adamo versus Makinen promises an equally engrossing storyline.



WRC

Can Makinen keep a hungry Rovanpera playing the team game?



Neuville charged to make back the time lost to his puncture but to no avail

McKLEIN

dividends as he emerged from the stage with a mighty 47s advantage overthe erstwhile leaders.

Neuville drove flat-out to leapfrog Ogier and attempt to close the gap to Evans in case he suffered the slightest delay. But on the second pass through Cetibeli it was Ogier's Yaris WRC that began emitting smoke and the six-time champion retired.

Team tactics were hard to implement amid the chaos, but Hyundai played its joker in the form of Tanak, who had restarted in the hope of salvaging some points from the powerstage that closed the event. Tanak had taken a road penalty to push Ogier in front of him and then slotted into place in front of his two team-mates on the penultimate stage.

After launching away from the start, Tanak abruptly parked up to allow both Neuville and Loeb through in front of him. Shortly afterwards, the reigning champion stretched every sinew to set a blistering powerstage time of 4m20.8s in the hope of maintaining a toehold on this year's crown.

Habitual powerstage frontrunner Rovanpera took a cautious approach to preserve his points for the manufacturers' championship, and Loeb also limited himself to defending third place overall on what may well prove to be his final appearance in a works WRC car.

Tanak appeared set to claim the powerstage honours until Neuville hurled his Hyundai through to log a time 0.4s faster and in so doing held the gap between himself and his team-mate to just five points in the title race. "Definitely no good feelings," Tanak growled. "It's been a shit weekend."

That view was broadly shared by the M-Sport squad, which could not get its Ford Fiestas anywhere close to the pace of the Toyotas or Hyundais. Despite the lack of speed, Teemu Suninen had diligently picked his way through the stages to the first pass through Cetibeli, whereupon his suspension broke.

"When Teemu retired, the chain of events after that would have meant we would have been probably in second place, which would have been fantastic," reflected team boss Richard Millener. "The thing is, it's what rallying's about I suppose. We've got to keep our heads up and it hasn't come off for us this weekend. It's not been so straightforward, but Gus is still going in a strong position. There are some positives."

Gus Greensmith did indeed provide M-Sport with some cheer, as the young Englishman's fifth place became a new personal best in his fledgling WRC career. After an altercation with the scenery in shakedown, and with minimal pre-event testing time available, he took satisfaction from heading his highly rated team-mate Esapekka Lappi to the finish.

"I was hoping for a little bit more at the beginning," said Greensmith, "but I'm pretty happy, and thanks to the team because it took a lot of work to get the car from where it was to where it is."

Nevertheless, Rally Turkey belonged to Evans, the new WRC points leader enjoying a slightly bashful celebration, keenly aware that his win had been a case of keeping cool and letting others expose themselves to greater risk. "We really tried to drive well and stay in the middle of the road and, you know, that did reward us," said the first two-time winner of the 2020 WRC.

"IT'S NOT, LET'S SAY, THE SWEETEST VICTORY KNOWING YOU'VE PERHAPS BEEN A BIT MORE CONSERVATIVE"



Loeb finished third in a possible WRC swansong

FABIEN DUFOUR

RESULTS ROUND 5/7, RALLY TURKEY (TUR), 18-20 SEPTEMBER

POS	DRIVER / CO-DRIVER	TEAM / CAR	TIME
1	**Elfyn Evans** (GBR) **Scott Martin** (GBR) (pictured right)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	2h43m02.7s
2	**Thierry Neuville** (BEL) **Nicolas Gilsoul** (BEL)	Hyundai Shell Mobis WRT / Hyundai i20 Coupe WRC	+35.2s
3	**Sebastien Loeb** (FRA) **Daniel Elena** (MCO)	Hyundai Shell Mobis WRT / Hyundai i20 Coupe WRC	+59.4s
4	**Kalle Rovanpera** (FIN) **Jonne Halttunen** (FIN)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	+2m35.9s
5	**Gus Greensmith** (GBR) **Elliott Edmondson** (GBR)	M-Sport Ford WRT / Ford Fiesta WRC	+4m08.3s
6	**Esapekka Lappi** (FIN) **Janne Ferm** (FIN)	M-Sport Ford WRT / Ford Fiesta WRC	+5m36.2s
7	**Kajetan Kajetanowicz** (POL) **Maciek Szczepaniak** (POL)	Skoda Fabia Rally2 Evo	+12m35.5s
8	**Pontus Tidemand** (SWE) **Patrik Barth** (SWE)	Toksport WRT / Skoda Fabia Rally2 Evo	+12m59.7s
9	**Adrien Fourmaux** (FRA) **Renaud Jamoul** (BEL)	M-Sport Ford WRT / Ford Fiesta Rally2	+14m42.6s
10	**Marco Bulacia Wilkinson** (BOL) **Marcelo der Ohannesian** (ARG)	Citroen C3 R5	+14m46.4s
OTHERS			
17	**Ott Tanak** (EST) **Martin Jarveoja** (EST)	Hyundai Shell Mobis WRT / Hyundai i20 Coupe WRC	+1h13m43.3s
R	**Sebastien Ogier** (FRA) **Julien Ingrassia** (FRA)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	SS11-engine
R	**Teemu Suninen** (FIN) **Jarmo Lehtinen** (FIN)	M-Sport Ford WRT / Ford Fiesta WRC	SS9-suspension
R	**Pierre-Louis Loubet** (FRA) **Vincent Landais** (FRA)	Hyundai 2C Competition / Hyundai i20 Coupe WRC	SS9-mechanical



"I'm also aware that there needs to be a bit of luck that needs to go your way and I never like to inherit positions in that way, but this is the nature of Rally Turkey especially and we knew this coming into the weekend... It's not, let's say, the sweetest victory knowing you've perhaps been a bit more conservative, but it's the name of the game."

Hyundai team principal Andrea Adamo was equally sanguine about the result, despite surrendering priceless points towards his team's defence of the manufacturers' crown and having two thunderously disappointed drivers to deal with in the forms of Neuville and Tanak. "It has happened to others that have had punctures in the past that allow us to win and life is a turning circle, no?" he said.

In the WRC2 category, points leader Mads Ostberg was absent from the cockpit and this allowed fellow WRC refugee Pontus Tidemand (Skoda) to take his second victory of the year and claim a narrow lead in the standings. The Swede's nearest challenger was Frenchman Adrien Fourmaux in M-Sport's Fiesta, with Eyvind Brynildsen coming home a distant third after several issues for his Skoda through the weekend.

In WRC3, victory went to the Skoda of Kajetan Kajetanowicz, the Pole keeping in front of Bolivian points leader Marco Bulacia and local hero Yagiz Avci.

STAGE TIMES

STAGE	FASTEST	LEADER	SECOND
SS1 **Icmeler** (8.64 miles)	Neuville 10m13.1s	**Neuville**	Loeb +3.3s
SS2 **Gokce** (7.03 miles)	Ogier 8m34.0s	**Loeb**	Neuville +1.2s
SS3 **Yesilbelde 1** (19.75 miles)	Ogier 24m54.2s	**Ogier**	Neuville +1.7s
SS4 **Datca 1** (5.44 miles)	Ogier 6m53.9s	**Ogier**	Neuville +3.0s
SS5 **Kizlan 1** (8.17 miles)	Neuville 7m10.7s	**Ogier**	Neuville +1.6s
SS6 **Yesilbelde 2** (19.75 miles)	Neuville 24m41.6s	**Neuville**	Evans +21.8s
SS7 **Datca 2** (5.44 miles)	Neuville 6m52.7s	**Neuville**	Ogier +30.1s
SS8 **Kizlan 2** (8.17 miles)	Loeb 7m09.4s	**Neuville**	Loeb +33.2s
SS9 **Cetibeli 1** (23.71 miles)	Evans 28m38.9s	**Evans**	Ogier +46.9s
SS10 **Marmaris 1** (4.38 miles)	Neuville 4m25.5s	**Evans**	Neuville +42.2s
SS11 **Cetibeli 2** (23.71 miles)	Neuville 27m46.0s	**Evans**	Neuville +36.9s
SS12 **Marmaris 2** (powerstage) (4.38 miles)	Neuville 4m20.4s	**Evans**	Neuville +35.2s

DRIVERS' CHAMPIONSHIP **1 Evans 97**; 2 **Ogier** 79; 3 **Tanak** 70; 4 **Rovanpera** 70; 5 **Neuville** 65; 6 **Lappi** 38; 7 **Suninen** 34; 8 **Breen** 25; 9 **Loeb** 24; 10 **Greensmith** 16.

MANUFACTURERS' CHAMPIONSHIP **1 Toyota Gazoo Racing WRT 174**; 2 **Hyundai Shell Mobis WRT** 147; 3 **M-Sport Ford WRT** 101.



Greensmith kept out of trouble to finish a personal best fifth

NEXT EVENT

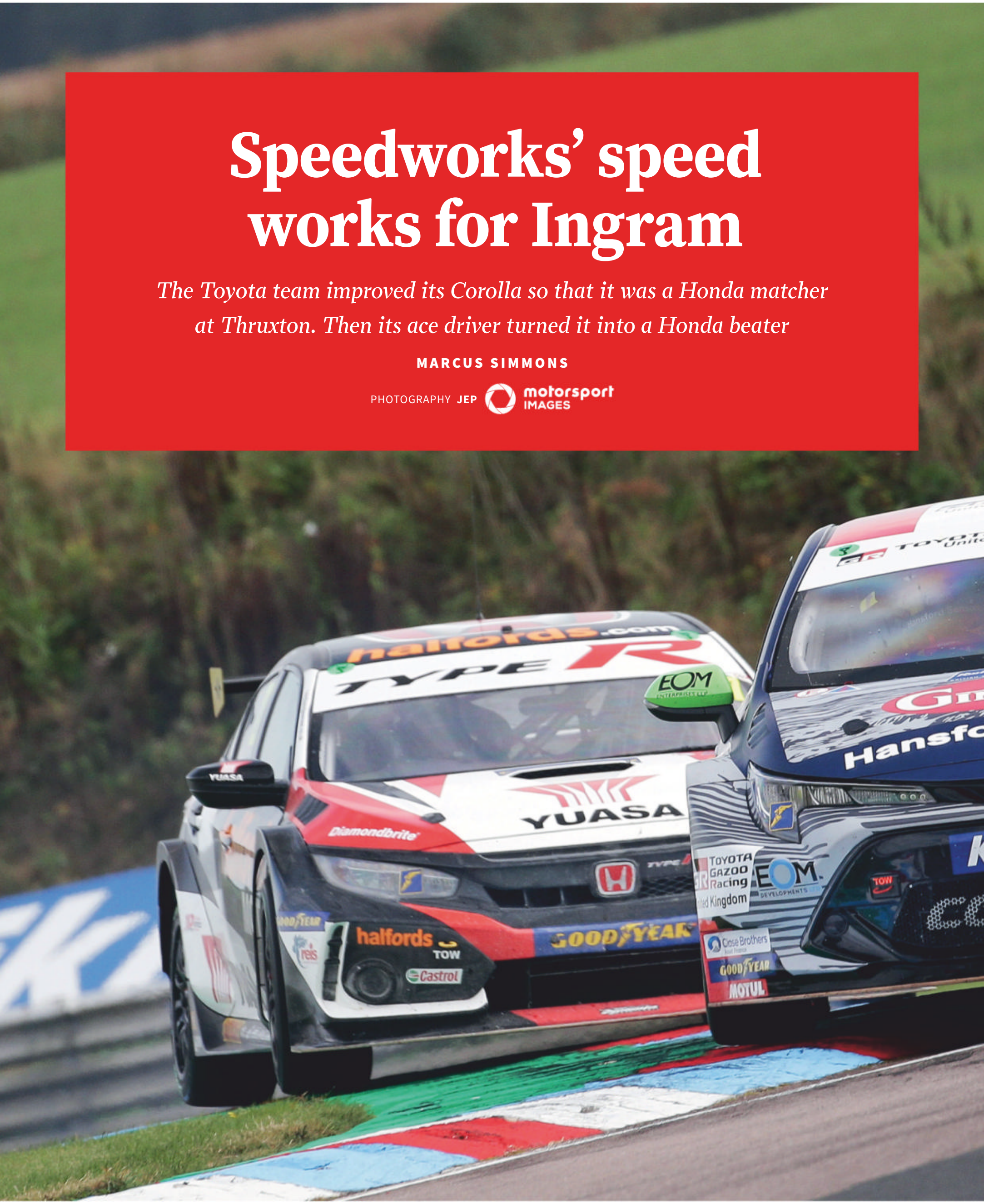
RALLY ITALY
15 OCTOBER ISSUE
Can Ogier strike back on the Sardinian gravel, or will Evans's cautious approach pay dividends once again?

Speedworks' speed works for Ingram

The Toyota team improved its Corolla so that it was a Honda matcher at Thruxton. Then its ace driver turned it into a Honda beater

MARCUS SIMMONS

PHOTOGRAPHY JEP motorsport IMAGES





"Thruxton is a Honda track," said the British Touring Car Championship sages, and it's easy to see why. Not since 2016 has anything other than a Civic Type R sat upon pole position at the Hampshire speedbowl, where the fast sweeps and two heavy-braking zones suit its poise and balance so well. So Tom Ingram's double win last weekend in his Toyota amounted to nothing less than a smash-and-grab heist that has propelled him into title contention.

Both victories came after keeping the Honda of Dan Cammish, who continued the marque's pole run on Saturday, at bay through a pair of tense if not particularly action-packed 16-lap races. The Speedworks Motorsport-built-and-run Corolla didn't look as good as the pursuing Honda, but Ingram was supreme, kicking up the dust at the scarily quick Church Corner to mitigate his biggest disadvantage – the handling problems caused as his tyres faded faster.

Ingram's success was built upon the foundations laid on Saturday. He was third in free practice – encouraging enough, you'd say, but a clear half a second adrift of Cammish, whose Honda was dart-like as it dived into the Complex and chicane. By the end of qualifying, he was on the front row, only 0.092 seconds adrift of Cammish, who had given himself a scare on his first run by running wide at Allard and filling the radiator with grass, prompting more caution there through the rest of the session.

"I was surprised at the pace because it's one second faster than we've ever been around here before," said a jolly Ingram. "It's really nice to look at the data and see that all the areas we've worked on we've improved. I thought, 'Jesus, that's really fast' about Dan's time in free practice, but I was confident we could improve. We made quite a radical change after FP2 and that really worked with the balance."

With the Toyota on the front row, the other critical moment came at the start of the opening race. Cammish made a decent getaway, but Ingram got a blinder and was ahead as the cars accelerated into Allard. Over the following 32 laps of action across the first two races, no one would get past him.

The leading duo were closely matched on success ballast, with Ingram carrying 30kg into the weekend and Cammish 36kg, yet, after an opening few laps that featured a further three cars in the leading group that were all on minimal ballast or none at all, Ingram and Cammish accelerated away and left the lighter machinery gasping. Cammish looked stronger in the closing stages, and Ingram had to go defensive into the chicane on the final lap to deter any late effort.

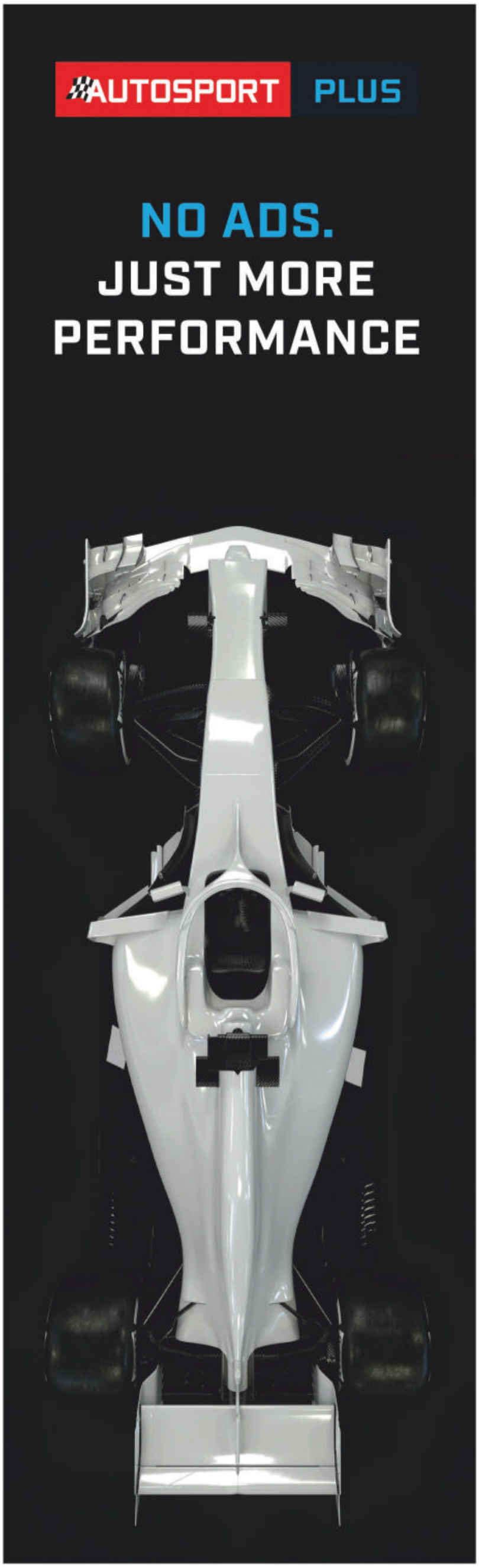
"The run through Church was where I was losing," said Ingram. "We started to lose the rear tyres and I was just hanging on. I'm so pleased to get our first win of the year. We've been nibbling about, there or thereabouts – we've just never quite had the chance to do it."

"I pushed Tom quite a lot and he was more on the edge than we were"

"Ultimately we probably didn't have quite enough pace," reckoned Cammish. "I pushed Tom quite a lot and he was more on the edge than we were. I just think he had too much speed in sector one and sector two [before the disadvantageous Church Corner]."

That result bumped Ingram up to the maximum 60kg of ballast for the second race, and Cammish to 54kg, but if anything their superiority was now even greater. Once again Ingram nailed the start, while this time Cammish flunked it, costing him second place to Dynamics Honda team-mate Matt Neal. "I've got the jitters at the moment I think," grimaced Cammish. "I was lucky not to stall, but thankfully I recovered it."

After a poor 2020 season to date, Neal had bounced back to score his first podium of the season in the opening race, and decided to play the team game here. "Through lap one Dan's car looked stronger and he got on the back of me at the chicane, so I thought I'd let him go," said the veteran, whose injuries from his mountain-bike »





accident in January have recovered well, but who was feeling groggy because his daughter had brought home a dose of flu after returning to school, necessitating the rigmarole of a negative COVID test.

Ingram was already over 1.5s in front, but Cammish charged into the gap and was forcing the leading Toyota to defend by the end of lap five. Ingram inched it out again, but looked to be struggling when, with one lap to go, he was sluggish through the chicane, allowing Cammish right onto his tail. But Ingram held on through that final lap. "With six laps to go I got cramp in my right bumcheek!" laughed Ingram. "I knew the start was going to be really important, and I had a really big gap, but Dan was quick towards the end and kept me on my toes. I was probably changing the brake bias and front bars four times a lap as the tyre life dropped away, so I was busy in there."

Neal picked up another third place, this time keeping the Laser Tools Racing Infiniti Q50 of Ash Sutton at bay. While Ingram-versus-Cammish was one focus at Thruxton, the other was the title battle between pre-weekend points leader Colin Turkington and Sutton. The circuit rarely plays into the hands of rear-wheel-drive machinery, so Turkington, on the maximum 60kg of success ballast with the West Surrey Racing-run BMW 330i M Sport, and Sutton, on 54kg in the Infiniti, were going to have their work cut out.



Sutton was up against it, but ended the day leading the championship



Neal leads Morgan on the way to the first of two third places

“Through lap one Dan’s car looked stronger and he got on the back of me, so I let him go”

Further, series organiser TOCA had made an additional boost restriction off starts for the rear-driven cars (see p44).

Turkington was happy enough with eighth in qualifying — “I think we got the maximum we could there and we are in a very good place for tomorrow”, while Sutton was 11th, frequently overshooting the chicane through Saturday: “We struggled on braking into the chicane. Overall we weren’t too upset with the pace — realistically we should have done the same time as Colin, and that’s who we should be comparing ourselves against.”

OK, let’s compare them then: Turkington gained one place on the opening lap of race one; Sutton, the more aggressive racer, made up three so he was on the BMW’s bootlid. On lap six, Sutton chiselled an opening at Allard to take sixth place, moments before Turkington slowed with an electrical issue. It cost him four laps in the pits, and the championship lead to Sutton, who made further progress by divebombing Rory Butcher’s Ford at Segrave to claim fifth position.

Now the championship advantage had really swung Sutton’s way. He emerged from a first-lap carve-up with Butcher and Adam Morgan in race two in fourth place, and kept the Infiniti there to extend his points lead over Turkington, who raced from the rear of the field up to 13th. Sutton was fourth again in the reversed-grid race, unable to force an opening to pass Butcher in front without too much risk of conceding to Ingram behind. This time, Turkington picked his way through to eighth.

“I’m physically not leaving anything on the table,” said Sutton on what amounted to a fruitful day, considering the rear-wheel-drive disadvantage here and his lowly grid position. “This is not a track that suits our car — that was made clear to us on Saturday. We’ve had our good tracks, and now they [the front-driven machines] are having theirs.” But the car was better in the chicane on Sunday. »





SHOULD ALL ANIMALS REALLY BE EQUAL?

Tom Ingram had an explanation for his dynamite starts at Thruxton. With Colin Turkington's eighth-placed BMW the highest-starting rear-wheel-drive car on the grid for race one, and Ash Sutton's fifth-placed Infiniti filling that role for race two, the front-driven machinery wasn't going to get swamped at the start. "My headspace was a little bit different," he explained. "It was on overtaking someone rather than waiting to be overtaken by a rear-wheel-drive car."

Thruxton never usually suits rear-driven cars anyway. You could hear the outside rear tyres chirruping angrily as the BMWs and Infinitis absorbed the load on the corner exits in the Complex – close your eyes and you could dream it was a Vince Woodman-versus-Gordon Spice battle in Group 1 Capris – but BTCC organiser TOCA had a further card up its sleeve: from Thruxton onwards, the RWD cars had been given a further handicap on boost up to 78mph away from the startline, up from 6.5% to 11.5%.

"REAR-WHEEL DRIVE HAS ITS PLUSES AND MINUSES, AND THEY TOOK AWAY OUR PLUS"

The litmus test here was Tom Oliphant starting his BMW from third for the reversed-grid race. Usually, you'd expect him to have cruised past the front-row BTC Racing Hondas and then, perhaps, we'd have had an entertaining race as the lighter Civics swarmed all over the 330i M Sport. In reality, Oliphant made no progress, and was even elbowed down to fourth by the FWD Ford of Rory Butcher at the Complex.

So in that sense, TOCA's latest equalisation calculation has been a success. But you could also argue that eradicating as many variables as you can, and attempting to give everyone equal performance at every stage of competition, creates duller racing. Certainly, Thruxton was the most processional event of the season so far, although for some reason the BTCC seems alone among motorsport categories in traditionally not having great racing here.

Dick Bennetts, boss of the West Surrey Racing team that runs the BMWs, was predictably angry – and you could say rightfully so, considering a team chooses its package on its strengths and weaknesses. "Rear-wheel drive has its pluses and minuses, and they took away our plus," he grumbled. "It's definitely hobbled our performance off the line and made it really difficult for us," added Turkington. "It's the second phase of the start where we have lost so much acceleration, and that then leaves you very vulnerable. It's been a big handicap this weekend."

MARCUS SIMMONS



Everyone expected Oliphant to make up ground at the start



Ingram (left) and Cammish were class of Thruxton

"We now seem to be strong there," he mused. "Whether I was overdriving or not [on Saturday] I don't know."

Turkington now sits 16 points adrift of Sutton. "A problem in race one derailed our weekend and it's just frustrating," he said. "It was something outside our control. The positive thing is I was able to make some ground in race two and three and take away 11 points. It's far from ideal but better than a zero score, and it takes some weight off for Silverstone [this weekend]."

Turkington's team-mate Tom Oliphant continued his strong season with a pair of sixth places, and spent most of race two fending off the BTC Racing Hondas of Tom Chilton and Josh Cook. They were drawn on the front row for the reversed-grid finale, and Cook took advantage to head home Chilton. It's been a terrible season for bad-luck magnet Cook, and a misfire in qualifying put him on the back foot, but, as so often happens, that put him in a good position for reversed-grid glory. Chilton chased him, but hit a tyre stack at the chicane halfway through, bending the steering and subsequently killing his tyres, and then *he* picked up a misfire on the final lap, just about bringing it home second.

"We've been plagued with little issues – nothing we could have foreseen – through the whole day," said a relieved Cook. "We've taken little steps – still not 100% but we're getting there. To finish with a win is what the team deserves."

It could have been the other quick Honda – the old-spec FK2 Civic of MB Motorsport's Jake Hill – in the mix here. But his day was undone by contact with Chilton on the opening lap of race one, with the ensuing puncture a few laps later causing him to spin out of fifth at the chicane. The pitstop cost him a lap, and from then on he was in the company of Turkington as they tried to recover.

Another of the antiques on the grid, the Ciceley Motorsport Mercedes A-Class of Morgan, was very strong to take fourth in the opener, but a power-steering-pump failure in race two (caused by what his father, team boss Russell Morgan, described as "a 5p o-ring") scuppered him. Butcher, meanwhile, didn't quite have the searing pace we've seen to date this year from his Motorbase Performance Ford, but 6-5-3 finishes meant a very solid day. The new fourth-generation Focus had never run on the hard tyres mandatory at Thruxton, but big changes to set-up for qualifying "gave me a lot more confidence in the high-speed" and put the Scot in the ballpark. "We definitely were behind the curve," he added, "but what looked like a tough weekend ended up a high points-scoring weekend."

But not as high as that of Ingram, who now sits 16 points off Turkington, 32 off Sutton. "Clearly both of us have been a bit of a step ahead," sighed Cammish. "We're a match for each other – it all came down to him getting ahead in race one." It did, and Ingram was brilliant from there.

NEXT REPORT

SILVERSTONE
1 OCTOBER ISSUE

From the fast sweeps of Thruxton, it's on to the frenetic National Circuit. Prepare to throw the BTCC formbook in the bin for this one.

POWERED BY motorsport STATS

RESULTS ROUND 5/9, THRUXTON (GBR), 20 SEPTEMBER. RACE 1 (16 LAPS – 37.696 MILES)

POS	DRIVER	TEAM / CAR	TIME
1	**Tom Ingram** (GBR)	Speedworks Motorsport / Toyota Corolla GT (30kg)	20m33.110s
2	**Dan Cammish** (GBR)	Team Dynamics / Honda Civic Type R (36kg)	+0.644s
3	**Matt Neal** (GBR)	Team Dynamics / Honda Civic Type R	+8.578s
4	**Adam Morgan** (GBR)	Ciceley Motorsport / Mercedes A-Class (18kg)	+9.064s
5	**Ash Sutton** (GBR)	Laser Tools Racing / Infiniti Q50 (54kg)	+18.578s
6	**Rory Butcher** (GBR)	Motorbase Performance / Ford Focus ST (48kg)	+19.776s
7	**Tom Chilton** (GBR)	BTC Racing / Honda Civic Type R (24kg)	+20.374s
8	**Tom Oliphant** (GBR)	West Surrey Racing / BMW 330i M Sport (42kg)	+21.234s
9	**Josh Cook** (GBR)	BTC Racing / Honda Civic Type R	+21.487s
10	**Michael Crees** (GBR)	BTC Racing / Honda Civic Type R	+21.888s
11	**Senna Proctor** (GBR)	Excelr8 Motorsport / Hyundai i30 N (6kg)	+24.456s
12	**Rob Austin** (GBR)	Power Maxed Racing / Vauxhall Astra	+27.261s
13	**Chris Smiley** (GBR)	Excelr8 Motorsport / Hyundai i30 N	+27.587s
14	**Ollie Jackson** (GBR)	Motorbase Performance / Ford Focus ST	+27.879s
15	**Aiden Moffat** (GBR)	Laser Tools Racing / Infiniti Q50	+29.910s
16	**Jack Goff** (GBR)	Team Hard / Volkswagen CC	+30.192s
17	**Bobby Thompson** (GBR)	Trade Price Cars Racing (AmD) / Audi S3 Saloon	+30.478s
18	**James Gornall** (GBR)	Trade Price Cars Racing (AmD) / Audi S3 Saloon	+38.403s
19	**Jack Butel** (GBR)	Ciceley Motorsport / Mercedes A-Class	+44.675s
20	**Stephen Jelley** (GBR)	Team Parker Racing / BMW 125i M Sport	+48.784s
21	**Tom Onslow-Cole** (GBR)	Team Hard / Volkswagen CC	+52.965s
22	**Jake Hill** (GBR)	MB Motorsport (AmD) / Honda Civic Type R (12kg)	-1 lap
NC	**Sam Osborne** (GBR)	MB Motorsport (AmD) / Honda Civic Type R	13 laps
NC	**Colin Turkington** (GBR)	West Surrey Racing / BMW 330i M Sport (60kg)	12 laps
R	**Carl Boardley** (GBR)	Team Hard / BMW 125i M Sport	10 laps-accident
R	**Nicolas Hamilton** (GBR)	Team Hard / Volkswagen CC	1 lap-clutch
EX	**Andy Neate** (GBR)	Motorbase Performance / Ford Focus ST	10 laps

Winner's average speed 110.05mph. **Fastest lap** **Ingram** 1m16.206s, 111.29mph.

QUALIFYING

1 Cammish 1m15.201s; 2 **Ingram** 1m15.293s; 3 **Neal** 1m15.343s; 4 **Morgan** 1m15.360s; 5 **Hill** 1m15.463s; 6 **Butcher** 1m15.653s; 7 **Chilton** 1m15.698s; 8 **Turkington** 1m15.717s; 9 **Crees** 1m15.798s; 10 **Cook** 1m15.801s; 11 **Sutton** 1m15.903s; 12 **Oliphant** 1m15.913s; 13 **Proctor** 1m15.951s; 14 **Smiley** 1m15.953s; 15 **Jackson** 1m15.956s; 16 **Austin** 1m16.315s; 17 **Jelley** 1m16.436s; 18 **Moffat** 1m16.486s; 19 **Gornall** 1m16.503s; 20 **Thompson** 1m16.578s; 21 **Goff** 1m17.054s; 22 **Neate** 1m17.174s; 23 **Osborne** 1m17.370s; 24 **Butel** 1m17.489s; 25 **Onslow-Cole** 1m17.490s; 26 **Boardley** 1m17.715s; 27 **Hamilton** 1m18.855s.





GRID RACE 2 Decided by result of Race 1.

RACE 2 (16 LAPS – 37.696 MILES)

1 Ingram (60kg) 20m43.719s; 2 **Cammish** (54kg) +0.291s; 3 **Neal** (48kg) +6.511s; 4 **Sutton** (36kg) +7.776s; 5 **Butcher** (30kg) +10.089s; 6 **Oliphant** (18kg) +11.192s; 7 **Chilton** (24kg) +11.573s; 8 **Cook** (12kg) +11.800s; 9 **Crees** (6kg) +12.390s; 10 **Proctor** +13.438s; 11 **Hill** +13.830s; 12 **Austin** +15.265s; 13 **Turkington** +15.442s; 14 **Jackson** +20.514s; 15 **Goff** +21.024s; 16 **Smiley** +27.313s; 17 **Jelley** +30.532s; 18 **Moffat** +30.866s; 19 **Boardley** +40.482s; 20 **Butel** +40.929s; 21 **Onslow-Cole** +42.216s; 22 **Osborne** +55.579s; R **Morgan** (42kg) 12 laps-power-steering pump; R **Thompson** 12 laps-suspension/accident; R **Gornall** 10 laps-gearbox/diff; R **Hamilton** 8 laps-clutch; EX **Neate** +56.159s.

Winner's average speed 109.11mph.

Fastest lap **Cammish** 1m16.208s, 111.29mph.

GRID RACE 3 Decided by result of Race 2, with top eight reversed.

RACE 3 (16 LAPS – 37.696 MILES)

1 Cook (18kg) 20m46.420s; 2 **Chilton** (24kg) +3.475s; 3 **Butcher** (36kg) +4.397s; 4 **Sutton** (42kg) +5.096s; 5 **Ingram** (60kg) +5.628s; 6 **Oliphant** (30kg) +7.119s; 7 **Neal** (48kg) +7.451s; 8 **Turkington** +8.447s; 9 **Hill** +8.912s; 10 **Cammish** (54kg) +9.629s; 11 **Austin** +10.345s; 12 **Proctor** (6kg) +13.729s; 13 **Jackson** +14.270s; 14 **Goff** +16.000s; 15 **Thompson** +17.840s; 16 **Smiley** +22.384s; 17 **Jelley** +23.032s; 18 **Butel** +31.263s; 19 **Onslow-Cole** +35.369s; 20 **Osborne** +35.595s; 21 **Crees** (12kg) +36.060s; R **Morgan** 16 laps-power-steering pump; NC **Moffat** 10 laps; R **Hamilton** 1 lap-clutch; R **Boardley** 1 lap-accident damage; EX **Neate** +30.904s; NS **Gornall** gearbox/diff.

Winner's average speed 108.87mph.

Fastest lap **Cook** 1m16.829s, 110.39mph.

CHAMPIONSHIP

1 Sutton 209; 2 **Turkington** 193; 3 **Ingram** 177; 4 **Butcher** 175; 5 **Cammish** 167; 6 **Oliphant** 158; 7 **Chilton** 126; 8 **Morgan** 98; 9 **Neal** 94; 10 **Proctor** 85.



The Abt duo have won eight of the 12 races so far, and there are six contests still to go in 2020

Muller and Frijns pull clear of Rast

DTM
NURBURGRING (DEU)
19-20 SEPTEMBER
ROUND 6/9

Abt Audi drivers Robin Frijns and Nico Muller shared the spoils as the 2020 DTM season paid its final visit to the Nurburgring, this time on the sprint layout.

Frijns got the first blood on Saturday to secure his second successive win, aided by an incident involving title rival Muller that dropped him out of contention.

After qualifying second, Frijns breezed past polesitter Rene Rast into Turn 1 and then consolidated his lead in the opening stages. Three safety-car interventions – a record in 2020 – eradicated Frijns's advantage, but the Dutchman was able to make a perfect getaway at each restart to ensure his victory was never in doubt.

Muller got sandwiched by the BMWs of Marco Wittmann and Philipp Eng at the first safety-car restart and was then unlucky to be tagged by Audi stablemate Jamie Green at Turn 2, the contact pitching him into a spin and leaving him facing in the wrong direction. After slipping to last, the championship leader was able to stage an impressive recovery drive to finish fifth, stopping early on lap nine of 39 and taking advantage of multiple safety-car appearances to recoup further ground. Remarkably, fifth place remains Muller's joint-worst result of his campaign, two thirds into the season.

Following the drama in the opening encounter of the weekend, race two turned out to be a straightforward affair for Muller as he clinched his fifth victory of the season in 12 races. The Swiss made a clean start from third to pass Ferdinand Habsburg, who had delivered a stellar lap in qualifying to place his privateer WRT Audi on the front row. After a few laps running second behind Frijns, Muller slowly started eating into his team-mate's advantage and was able to close the gap sufficiently by lap seven to take a lead he would never relinquish, crossing the line with a winning margin of more than 11 seconds.

Frijns fell into the clutches of Rast after dropping behind Muller, but was able to pull clear of the two-time champion after the pitstop cycle, the gap between the two over seven seconds at the chequered flag. Rast's fading pace in the second stint highlighted a deficit the Team Rosberg driver faced to the Abt Audi duo throughout the weekend. Even in the Saturday opener, Rast was unable to break within half a second of Frijns to make a move, relinquishing the chance to score big points on a day when Muller finished off the podium.

That means Rast now sits 47 points adrift of Muller in the standings, nearly the sum of two DTM victories. Frijns, however, has slashed his deficit to Muller from 39 to 18.

The BMW M4s were unable to match the pace of the leading RS5s, with double champion Wittmann's third place in race one the best the marque could manage, allowing Audi to wrap up the manufacturers' title with three rounds still to run. Much was expected from Robert Kubica after he qualified his customer ART BMW a strong seventh for the second encounter. But after running as high as sixth, he was forced to pull out of the race with a gearbox issue.

RACHIT THUKRAL



Audi wrapped up the title with another dominant weekend in Germany

ALL PICS: AUDI COMMUNICATIONS MOTORSPORT / MICHAEL KUNKEL

McLaughlin edges away as Whincup falls

AUSTRALIAN SUPERCARS
THE BEND (AUS)
19-20 SEPTEMBER
ROUND 9/11



Reigning champion McLaughlin took his 11th victory of 2020 in the third contest

ALL PICS: KLYNSMITH

Scott McLaughlin is now firmly in control of the Supercars title after outscoring rival Jamie Whincup in all three races at The Bend Motorsport Park.

The pair went into the first leg of the South Australian double-header separated by 143 points, only for the margin to balloon to 215 thanks to an error-ridden weekend from seven-time champion Whincup.

The scene was set early for Whincup, his initial blunder coming on the opening lap of Saturday's first race. Looking to surprise leader McLaughlin, the Triple Eight Holden driver went for an ambitious lunge into Turn 17, only to lock his rears and clatter into the side of the DJR Team Penske Ford and send them both off the road.

Whincup fared better in the scramble to get going again, slotting back into 10th. But he was swiftly slapped with a 15-second penalty that meant he could do no better than 18th by the finish.

That opened the door for McLaughlin to do some real damage in the title fight, the Kiwi fighting his way from 19th to third at the chequered flag. But McLaughlin too picked up a 15s penalty along the way for contact on Lee Holdsworth, dropping him to 14th in the results in what was a huge let-off for Whincup.

Meanwhile, there was a thrilling battle at the front thanks to higher-than-expected tyre degradation. Shane van Gisbergen led the majority of the race only for his rears to fall off a cliff in the closing stages. Some staunch defence saw him hold off Fabian Coulthard and Jack Le Brocq until the start of the penultimate lap, when the Mustangs finally got through and bolted away.

Coulthard then held off Le Brocq by 0.5s to take his first win in 41 starts, as Bryce Fullwood took a career-first podium and van Gisbergen sunk all the way back to ninth.

Van Gisbergen got his set-up right for the first of Sunday's two races, a bold move around the outside of McLaughlin into Turn 1 setting up a dominant win. A cautious McLaughlin came home third behind Andre Heimgartner, safe in the knowledge that Whincup was back in 17th after being delayed by an air-spike issue during his stop.

Whincup finally had a clean run in the final heat, making his first appearance on the podium with third place. But he was no match for the two Penske Mustangs, McLaughlin extending his points lead with a comfortable win as Coulthard played the rear-gunner role in second.

McLaughlin now has the opportunity to seal the title at this weekend's second SuperSprint at The Bend, which will be held on the shorter, sharper 'West' layout. If he can stretch the margin to 300 points or more, he'll head to the season-ending Bathurst 1000 next month as a three-time series champion.

ANDREW VAN LEEUWEN

WEEKEND WINNERS

DTM
NURBURGRING (DEU)
Race 1 Robin Frijns
Team Abt
(Audi RS5 DTM)
Race 2 Nico Muller
Team Abt
(Audi RS5 DTM)

AUSTRALIAN SUPERCARS
THE BEND (AUS)
Race 1 Fabian Coulthard
DJR Team Penske
(Ford Mustang)
Race 2 Shane van Gisbergen
Triple Eight
(Holden Commodore ZB)
Race 3 Scott McLaughlin
DJR Team Penske
(Ford Mustang)

SUPER TC2000
BUENOS AIRES (ARG)
Agustin Canapino
Chevrolet YPF (Chevrolet Cruze)

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Fullwood scored his first podium on his 29th Supercars start



Coulthard broke his duck and was then second in finale

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Kristoffersson (blue VW) and Ekstrom (middle) again shared the WRX spoils

WRX / TOM BANKS

Kristoffersson on top before Ekstrom again strikes back

WORLD RALLYCROSS
BIKERNIEKI (LVA)
19-20 SEPTEMBER
ROUND 3/7

In a repeat of the results from the opening World Rallycross Championship weekend in Sweden, Johan Kristoffersson and Mattias Ekstrom claimed a win each at the Bikernieki circuit in Latvia at the third instalment of double-headers for the series.

Kristoffersson again won on the opening day, while Ekstrom fought back to win on day two, this time by not only outsmarting but outpacing the Volkswagen Polo driver.

Kristoffersson managed his tyre allocation perfectly to save the best rubber for the semi-final and final on Saturday, and from pole position he won the main event, hounded by Ekstrom, who hadn't managed the same level of tyre preservation with his JC Raceteknik-run Audi S1.

Ekstrom, a master tactician, worked hard on the set-up of his car overnight to ensure better tyre wear on day two. He knew that to beat fellow Swede Kristoffersson he needed to have pole for the final. And, almost as important if he is to challenge for a second drivers' title, he needed to take points away from his rival in qualifying too.

Session wins in Q1 and Q2 on Sunday morning were enough for Ekstrom to top qualifying. He then perfectly executed the semi-final and final from pole position, this time around matching Kristoffersson by having new tyres for the final encounter, and thus closed the gap to the series leader. The gap is now 17 points, with these two well clear of the rest.

Robin Larsson made it a double KYB Team JC Audi podium on Sunday, while reigning champion Timmy Hansen had been third on Saturday in his family-run Peugeot.

HAL RIDGE

WEEKEND WINNERS

WORLD RALLYCROSS
BIKERNIEKI (LVA)
Race 1 Johan Kristoffersson
Kristoffersson Motorsport (VW Polo)
Race 2 Mattias Ekstrom
KYB Team JC (Audi S1)

NASCAR CUP
BRISTOL (USA)
Kevin Harvick
Stewart-Haas Racing (Ford Mustang)

NASCAR XFINITY SERIES
BRISTOL (USA)
Chase Briscoe
Stewart-Haas Racing (Ford Mustang)

NASCAR TRUCK SERIES
BRISTOL (USA)
Sam Mayer
GMS Racing (Chevrolet Silverado)

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Charging Busch is denied as Harvick takes ninth 2020 win

NASCAR CUP
BRISTOL (USA)
19 SEPTEMBER
ROUND 29/36

Kyle Busch's season-long winless streak continued at Bristol after a hard-fought battle with Kevin Harvick.

Second place in the Bristol night race was enough for the Joe Gibbs Racing Toyota driver to make it through to the Round of 12, which begins this weekend at Las Vegas, but Busch will be one of only four drivers in the playoffs yet to win during the 2020 campaign.

Busch started the race on the back foot. Having failed pre-race inspections twice he was sent to the back of the field. While he climbed back up through the order, Harvick and Brad Keselowski's Team Penske Ford battled for the lead.

Busch did not spend long at the back of the pack, finishing second at the end of stage one and leading the field when stage two began. He would spend the rest of the race inside the top five and looked set to finally end his winless streak — even pressure from championship leader Harvick's Stewart-Haas Ford couldn't unsettle him. But traffic from lapped cars caused issues in the closing laps.

As the pair battled for the lead, traffic helped and hindered both drivers. They swapped positions twice in the final 100 laps, but it was Harvick who held the advantage when the chequered flag fell.



Erik Jones, not in the title fight, finished third, while disappointing races for Cole Custer and William Byron knocked them out of the playoffs. Ryan Blaney and Matt DiBenedetto also failed to secure their places in the Round of 12.

BETHONIE WARING



Vinales makes his Yamaha breakthrough

MOTOGP
MISANO (ITA)
20 SEPTEMBER
ROUND 7/14

Maverick Vinales was a man under the microscope at MotoGP's second visit to Misano in the space of seven days. He'd blasted the qualifying lap record and threatened domination during the San Marino Grand Prix weekend, but ended up sixth, 5.4 seconds off the victory — or, as he put it, going from a "beast on track to a kitty".

In the post-race test on Tuesday he was back on top form. And then it deserted him on the Friday of the Emilia Romagna GP. A change was needed for the Yamaha man. "Friday, I felt really bad, honestly," he said after scoring victory last Sunday. "But somehow that situation gave us the opportunity to improve and to take us to the reality when the bike is on race settings."

In the San Marino race, Vinales had been the only rider to run the hard tyre. He defended the decision at the time, but conceded after scorching to another pole at Misano last Saturday (with an even faster lap) that he was led astray by a Yamaha tyre technician who insisted it was his best option. It was a mistake, Vinales noted, that had been made too often in recent years.

But the mistake from Vinales was in not working more on race set-up during practice. This changed for Emilia Romagna. He ran more with a full fuel tank to try to understand the behaviour of the Yamaha in the early parts of races, where he has struggled so much. His Friday issues forced him into looking closely at improving the balance of the M1 to gain greater confidence on the front end as opposed to chasing rear grip that would desert him in races.


Espargaro leads Mir and Quartararo in battle for second

Pramac Ducati rider Francesco Bagnaia came through into the lead on lap six when the poleman made a mistake at Turn 4, but the consistency of Vinales's pace on high fuel was an immediate step forward.

The power of the Ducati and the lack of it in the Yamaha made it impossible to put up a fight, but he kept Bagnaia within reach, the gap hovering at around 1-1.5s from lap 10 to 20. Vinales's pace was marginally quicker on his medium rubber as Bagnaia's soft tyre started to lose its shine as the 27-lap race tipped over the halfway mark.

This kept the pressure on, though overhauling the rapid Ducati was unlikely. Crucially, however, Vinales was never once under threat from the chasing KTM of Pol Espargaro and Petronas SRT Yamaha of Fabio Quartararo debating third, soon to be joined by Suzuki's Joan Mir.

Bagnaia's dreams of a first win on home soil came to a bitter end on lap 21 when he fell at Turn 6, a tumble that both disappointed and perplexed him, as the data showed no obvious cause. Mentor Valentino Rossi's day had also been wrecked by a crash.

Bagnaia's exit released Vinales into a commanding lead, and he made it home safely to banish all the doubts surrounding his Sunday performances. It was his eighth win in the top class, his first since the Malaysian GP in November 2019.

Mir scythed up the inside of Quartararo late on for third before getting ahead

POWERED BY motorsport STATS


Vinales is back in the game after switching his focus


Dovizioso now leads by one point after quiet run to eighth place

of Espargaro on the penultimate lap, his lowly 11th in qualifying once again denying him a shot at fighting for victory. Quartararo followed the Suzuki through on the same tour, before he was hit with a long-lap penalty for exceeding track limits too many times. But Quartararo was unable to serve it as the message was sent to him on the last lap after he'd passed the penalty loop section at Turn 10. Claiming he hadn't even received a track-limits warning, he was hit with a three-second penalty and dropped to fourth, promoting Espargaro to the podium.

Tech3 KTM man Miguel Oliveira's strong pace allowed him to jump from 15th to fifth ahead of the sole remaining Hondas after the Misano double-header: LCR's Takaaki Nakagami and factory rookie Alex Marquez.

Eighth place for Andrea Dovizioso keeps him in the lead of the championship, by one point. The Ducati rider, Vinales, Quartararo and Mir are covered by just four.

Quartararo's team-mate, San Marino winner Franco Morbidelli, battled through illness and an early tangle with Aleix Espargaro to recover to ninth from 19th.

Now the sixth different winner in 2020, Vinales is no more a favourite than anyone else. And the Yamaha's inefficiency in battle will cause problems. But at least Vinales appears to have made the breakthrough with his bike he has spent years searching for. Catalunya this weekend will reveal all...

LEWIS DUNCAN

RESULTS ROUND 7/14, MISANO (ITA), 20 SEPTEMBER (27 LAPS – 70.900 MILES)

POS	RIDER	TEAM	TIME
1	**Maverick Vinales** (ESP)	Yamaha	41m55.846s
2	**Joan Mir** (ESP)	Suzuki	+2.425s
3	**Pol Espargaro** (ESP)	KTM	+4.528s
4	**Fabio Quartararo** (FRA)	Petronas Yamaha	+6.419s
5	**Miguel Oliveira** (PRT)	Tech3 KTM	+7.368s
6	**Takaaki Nakagami** (JPN)	LCR Honda	+11.139s
7	**Alex Marquez** (ESP)	Honda	+11.929s
8	**Andrea Dovizioso** (ITA)	Ducati	+13.113s
9	**Franco Morbidelli** (ITA)	Petronas Yamaha	+15.880s
10	**Danilo Petrucci** (ITA)	Ducati	+17.682s
11	**Johann Zarco** (FRA)	Avintia Ducati	+23.144s
12	**Alex Rins** (ESP)	Suzuki	+24.962s
13	**Bradley Smith** (GBR)	Aprilia	+30.008s
R	**Iker Lecuona** (ESP)	Tech3 KTM	24 laps-accident
R	**Francesco Bagnaia** (ITA)	Pramac Ducati	20 laps-accident
R	**Valentino Rossi** (ITA)	Yamaha	15 laps-accident damage
R	**Tito Rabat** (ESP)	Avintia Ducati	12 laps-accident
R	**Jack Miller** (AUS)	Pramac Ducati	7 laps-mechanical
R	**Brad Binder** (ZAF)	KTM	3 laps-accident
R	**Aleix Espargaro** (ESP)	Aprilia	0 laps-accident
NS	**Stefan Bradl** (DEU)	Honda	Injury

Winner's average speed 101.452mph. **Fastest lap** **Bagnaia** 1m32.319s, 102.398mph.

QUALIFYING 2 **1 Vinales 1m31.077s**; 2 **Miller** 1m31.153s; 3 **Quartararo** 1m31.222s; 4 **P Espargaro** 1m31.308s; 5 **Bagnaia** 1m31.313s; 6 **Binder** 1m31.389s; 7 **Rossi** 1m31.436s; 8 **Morbidelli** 1m31.566s; 9 **Petrucci** 1m31.574s; 10 **Dovizioso** 1m31.581s; 11 **Mir** 1m31.617s; 12 **Nakagami** 1m32.284s.

QUALIFYING 1 **1 Miller 1m31.559s**; 2 **Dovizioso** 1m31.612s; 3 **Lecuona** 1m31.715s; 4 **Zarco** 1m31.764s; 5 **Oliveira** 1m31.841s; 6 **A Espargaro** 1m31.912s; 7 **Marquez** 1m32.198s; 8 **Rins** 1m32.275s; 9 **Smith** 1m32.486s; 10 **Rabat** 1m32.850s.

RIDERS' CHAMPIONSHIP **1 Dovizioso 84**; 2 **Quartararo** 83; 3 **Vinales** 83; 4 **Mir** 80; 5 **Morbidelli** 64; 6 **Miller** 64; 7 **Nakagami** 63; 8 **Oliveira** 59; 9 **Rossi** 58; 10 **P Espargaro** 57; 11 **Binder** 53; 12 **Rins** 44; 13 **Zarco** 36; 14 **Petrucci** 31; 15 **Bagnaia** 29; 16 **Marquez** 24; 17 **A Espargaro** 18; 18 **Lecuona** 15; 19 **Smith** 11; 20 **Rabat** 7; 21 **Cal Crutchlow** 7; 22 **Michele Pirro** 4; 23 **Bradl** 0.

MANUFACTURERS' CHAMPIONSHIP **1 Yamaha 138**; 2 **Ducati** 115; 3 **KTM** 104; 4 **Suzuki** 93; 5 **Honda** 63; 6 **Aprilia** 26.

WEEKEND WINNERS

MOTO2
MISANO (ITA)
Enea Bastianini
Italtrans Racing Team
(Kalex)

MOTO3
MISANO (ITA)
Romano Fenati (below)
Max Racing Team
(Husqvarna)




Bagnaia led Vinales until he fell late on

NEXT REPORT

CATALUNYA GP
1 OCTOBER ISSUE

Will Vinales continue his form as MotoGP heads back to Spain? Can anyone stamp their authority on one of the most open MotoGP seasons in years? The title is still up for grabs as the season enters its second half.

MAIN IMAGE: URNER



Reuter was Opel's long-time DTM team leader…

MILTENBURG



…as pensive Strycek pondered fading results

MILTENBURG

WHEN THE DTM CONQUERED THE NORDSCHLEIFE

This weekend's Nurburgring 24 Hours will be fought out by a crop of GT3 machinery. But 17 years ago, the race was bizarrely won by a DTM Opel...

JAMES NEWBOLD

PHOTOGRAPHY motorsport IMAGES

"When the idea came up to do it with a DTM car, it was like a silence in the room," remembers Timo Scheider. "It was like, 'Are you serious?' We were thinking, 'That will be a challenge'. In the beginning there was a feeling of, 'Let's try it. If we quit after three laps, we quit after three laps.' It was a bit like this."

"Everybody was laughing because to get a DTM car reliable for 24 hours at the Nordschleife, it's a big project!" adds Manuel Reuter. "But in the end, we showed it was worth it."

The incredulity that the two 2003 Nurburgring 24 Hours winners recall on hearing the news that Opel would be entering two factory-run DTM cars for that year's race was widely shared. There have been several improbable victories in 24-hour endurance races over the years. In 2003 alone, GT2-spec Porsches twice prevailed outright by respectively beating the new and therefore hideously unreliable Daytona Prototypes at the Daytona 24 Hours and the faster GT1 cars in a wet Spa 24 Hours that is best remembered for Stephane Ortelli's miraculous fuel-saving feat.

But in both instances, the winning car – while a surprise – was still a thoroughbred endurance racer doing the task it was designed for. The same can't be said of the Opel Astra Coupe, which was only ever intended for 40-lap blasts around Hockenheim and Oschersleben. Merely getting it to the finish of the most gruelling endurance race of them all would be no mean feat. But against a proven warhorse in the Zakspeed-run Chrysler Viper that had won the N24 in three of the previous four years, Schnitzer's formidable M3 GTR – effectively outlawed from the American Le Mans Series after dominating in 2001 – and DTM rival Audi, whose TT had consistently proven to be the better package, Opel's chances of success appeared minimal.

"Nobody was believing in us that we were capable of bringing a car to the track with which we are capable of fighting for a win," agrees Reuter. "It was designed for sprint races."

The DTM was reborn in 2000 after a three-year hiatus but, after a strong maiden season in which Opel matched Mercedes' win tally and Reuter finished second in the drivers' standings, the marque's fortunes had plummeted. By 2003, it had been usurped by Audi and managed only one podium that year with Peter Dumbreck's 2002-spec car at the Lausitzring. Opel's motorsport activities were headed up by Volker Strycek, who needed a big result to justify the DTM programme's continued existence. "At this time, it was not easy inside Opel because the rumours came up that we might stop in DTM," says Reuter. "In 2001 and 2002, they were really bad years for us and we were never as competitive as in our first year, so with this project we had something to prove."

"IT WAS NOT EASY INSIDE OPEL BECAUSE THE RUMOURS CAME UP THAT WE MIGHT STOP IN DTM"

Scheider describes Strycek as being "addicted to the Nordschleife", while Reuter reckons the Nurburgring programme was designed "to fulfil a dream for Volker personally". Indeed, Strycek, the 1987 N24 runner-up, would join Opel DTM men Reuter and Scheider alongside former Merc DTM driver Marcel Tiemann in the #5 Astra, and was also entered in the #6 car alongside Dumbreck, Jeroen Bleekemolen and Christian Menzel.

If the car wasn't best suited to the job, Opel did at least have an ace up its sleeve in Team Phoenix, whose Porsche had in 2000 set a new distance record in the hands of Uwe Alzen, Michael Bartels, Altfrid Heger and Bernd Maylander. "Teamwise, we knew how a project like this should be run and how everything should be developed," recalls Reuter, himself no stranger to 24-hour race success, having won at Le Mans in 1989 and 1996. "We said, 'When we do it, we should do it properly.'"

Extensive modifications to the gearbox, aerodynamics – Reuter points out that the Astra was "quite a draggy car, so we were not really good in top speed" – and suspension were conducted, »



Opel led at the start of first race of reborn DTM in 2000…



…but by 2003 its fortunes were waning fast

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Another DTM car, the Audi TT, was major opposition

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Astra took the flag alongside ageing Manta to claim N24 victory

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which Scheider says made the car heavier and more like a GT to drive. "That's what it needed to be," he says. "We had to set up a proper endurance car; there was nothing comparable to a DTM race-weekend car. To win on the Nordschleife you need a car which is easy to drive to avoid mistakes. If you have a car which is too edgy then it's more difficult."

The V8 engines that had been used since 2000 were designed to last a season without being changed, and Reuter confirms that the Opel block was "quite safe" on engine life. "We ran a little bit more horsepower than in the DTM specification," he says, "but the big concerns were about the gearbox, the differential and small things like the starter — because this package was never developed for 24 hours. These were the small things which in the end of the day can make a big difference."

Opel organised a 24-hour test at Jerez, and Reuter believes it was well prepared for the event. "We were expecting something when we entered," he admits.

Still, Reuter was expecting the "bloody quick" M3s to be hard to beat, and they probably would have been without the *faux pas* that eliminated both from contention on lap one. In the atypically warm (for the Nurburgring) conditions, Schnitzer had placed dry ice in the radiator duct to avoid overheating on the warm-up lap, but it thawed and split the pipes leading to the gearbox oil cooler. As Autosport reported, "the result was a loss of lubricant and a rapid gearbox failure on both cars". Both were recovered to the pits after lengthy delays, only to retire for good after accidents.

Once the polesitting Porsche featuring Alzen and Bartels was delayed by gearbox woes, and an extraordinary row over the Viper's fuel-tank capacity — Zakspeed had attempted to circumvent a rule reducing it from 120 to 90 litres by rebranding the car as a Dodge — meant it had to serve two five-minute penalties, the race boiled down to an Opel-versus-Audi slugfest. Both were down to one contender after Bleekemolen's Opel was sideswiped by a tardy Renault Clio, while Audi's challenge was blunted by problems resulting from a puncture for its second car.

Karl Wendlinger, an Audi DTM regular at the time, believes the TT had the pace advantage over a stint, but reckons the odds weren't quite so heavily weighted in Audi's favour as it lacked the works blessing of Joest's Le Mans effort. "It was an entry from the Abt Audi team with not so much help from the factory," recalls the Austrian. "In 2004, there were a lot more Audi engineers around to support, but in 2003 it was not such a big effort. On the other hand, Opel had a lot of experience there, and also with a lot of experienced and very good drivers, so I rated them quite highly."

"The driver line-up was very good," agrees Scheider. "It was a line-up of some clever drivers because you don't need to be always the quickest on track, but you need to be smart."

Still, it wasn't perfect. After Strycek got stuck in the gravel at 4am, requiring a new alternator belt, the Opel had to launch a fightback. But Wendlinger was confident that the Audi would have enough in hand, with its Michelin tyres expected to be stronger than Opel's Dunlops. "On Sunday morning when it finally showed it will be a fight between Opel and Audi, the team said, 'We have good tyres, don't worry'," he says.

Reuter isn't so sure. "In the hot conditions, the Dunlop was basically on the same performance as the Michelin," he says. "After 12 hours, we were basically separated by one or two seconds from the Audi. It was really a tough fight during the night."

In the end, the tyre question proved academic when the Audi needed a new gearbox with four hours to go — which came as a surprise to Wendlinger. "It wasn't a weak point on the car," he says. "We weren't very worried about the gearbox before the start of the race, it just happened."

Reuter points out that Audi "had basically the same base concept like gearbox, differential and so on", so credits Opel's success to doing a better job "to adapt the car properly to the needs and the demands of the Nordschleife".

Reuter duly took the car to the flag, notching up a remarkable success made all the more special by the context of its struggles. "The Nordschleife and DTM cars, it was quite a weird project," he says. "But this was the challenging thing and it's even nicer to win it with a project like this."

"This was for sure one of the biggest highlights in my career," adds Scheider. "It's always good to enter the paddock at the Nurburgring and read your name on this wall of fame."

It ultimately made little difference to Opel's long-term DTM future, as a scaled-back entry for 2005 ahead of its departure at season's end was announced in 2004. A Nordschleife return the following year ended with a dominant 1-2 for Schnitzer in wet-dry conditions, but Strycek had made his point. The Opel's place as one of the unlikeliest 24-hour race winners was secure.

"THE NORDSCHLEIFE AND DTM CARS, IT WAS QUITE A WEIRD PROJECT. THIS WAS THE CHALLENGING THING"



Scheider, Tiemann, Strycek and Reuter at Nurburgring 'Wall of Fame'

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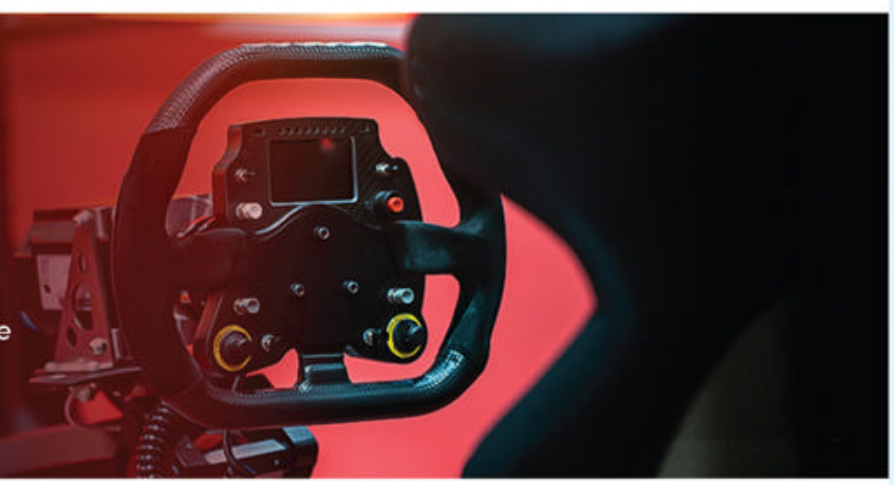


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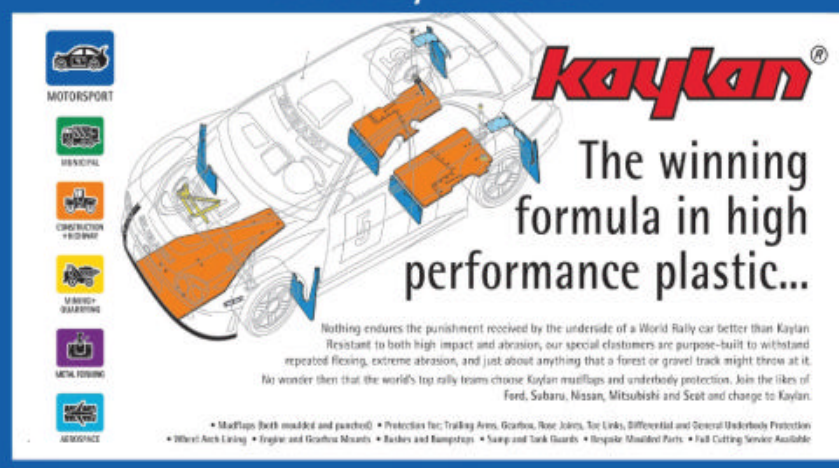
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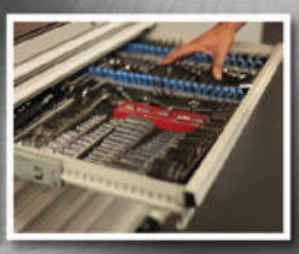
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MINI RACER AVOIDS MAJOR INJURY

MINI CHALLENGE

Mini Challenge Cooper class racer Clark Wells escaped being seriously injured in a terrifying crash and subsequent fire at Thruxton last weekend — and is even targeting a return to the cockpit for this weekend's Mini races at Snetterton.

Wells was in the middle of a pack of cars on lap six of the second race at the Thruxton British Touring Car Championship meeting when he clipped wheels with another car up Woodham Hill. This launched his Lee Pearce Racing-run machine into the air and, when it landed, the rear suspension collapsed, spearing his Mini into the Club chicane barriers.

The car then rolled over as it rebounded from the impact and burst into flames after leaking fuel ignited.

Despite the dramatic accident, Wells emerged through the already-damaged windscreen and his only injuries were to his hand.

"It woke me up a little bit!" said Wells. "I was just going round the outside and clipped wheels with another car, it launched the car into the air and it collapsed at the back."

Wells quickly realised the severity of the situation when his car came to rest: "I thought, 'How do I get out the quickest way?' They [rescue personnel] couldn't get me out either so I thought, 'I've got a crash helmet on' and headbutted the windscreen a couple of times."

Rescue crews were on the scene in a flash — including TOCA doctor Paul Trafford.

Porsche to investigate Thruxton punctures

PORSCHE CARRERA CUP GB

Porsche Carrera Cup GB organisers say they won't rush into making a decision over whether to return to Thruxton next season after a spate of punctures in the series last weekend.

Championship leader Harry King was worst affected as he suffered punctures while leading both races, but in the second contest fellow Team Parker Racing driver Josh Webster and Redline duo Matthew Graham and Scott McKenna had similar trouble.

Porsche GB motorsport manager James MacNaughton confirmed investigations will be conducted by Porsche and Michelin, and no decisions have been made about next year's calendar.

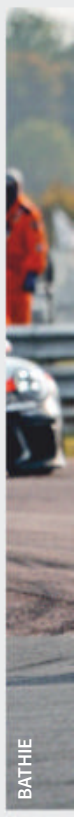
Thruxton is due to appear on the British Touring Car Championship schedule twice next year, and Porsche is set to have a presence at all 10 BTCC events, split between the Carrera Cup and its 718 Cayman GT4 Clubsport-based Sprint Challenge series.

MacNaughton said it is "too early to say" whether Carrera Cup will be back at Thruxton in 2020, adding: "There are some easy conclusions to jump to when things like that happen but there are so many variables — not every single car had an issue.

"The track temperature was considerably higher than in the morning, even though the ambient temperature was only a couple of degrees more in the afternoon, but initial investigations have shown pressures weren't getting sky high.

"Thruxton does have an abrasive surface but there are a lot more things to look at, like did the drivers go off or hit debris? We're not going to jump into making any quick decisions. Whenever there's a problem like this, we look into everything."

STEPHEN LICKORISH


BATHIE



Contact sent Wells' Mini airborne (r) and into the barriers before it rolled on its side and burst into flames

IN FIERY SHUNT

"It was just one of those things," said Wells. "I've got a couple of deep cuts on my hand [from when he tried to get out] but we will try to build another one [car] for next week."

Short oval racer Wells added that he is used to large crashes from his stock car exploits.

The race was red-flagged and the restarted contest ran over five minutes. All three Mini races over the weekend in Hampshire featured a red flag, but Wells's incident was by far the most dramatic.

The opener was ended early after Bradley Gravett and Brendan Fitzgerald tangled at the chicane, while the finale was also called to a halt with Recticel barriers littering the track.

STEPHEN LICKORISH









King was worst-affected by punctures, as he lost two wins

Nasty Cadwell collision too

HISTORICS

Long-time Classic Formula Ford 2000 racers Chris Levy and Steve Nichols also escaped serious injury after a dramatic incident last weekend, which caused their second race — with Classic F3 — to be red-flagged at Cadwell Park.

Norfolk-based fabricator Levy, who had started from the back of the grid (after a broken rear rocker support spun him out at Coppice in race one), caught American veteran Nichols on lap five.

A duel commenced and, after four laps circulating together, Levy got a run on Nichols on the downhill exit of Charlies. He was passing Nichols on the left when the gap closed with their wheels interlocked on Park Straight.

Former McLaren F1 designer Nichols' blue car reared up and shot left across Levy's black one. Although he thought it was going to roll, Nichols' Van Diemen RF82 remained upright and hit the barriers.

Sent right, Levy's RF83 rode the grass banking and turned over after hitting the marshals' post with a 118mph impact on the data logger. He was released from the inverted car with badly bruised legs and ankles.

"It was a massive hit, but I got away lightly — it could have been much, much worse," Levy said on Monday. "I'm pretty unhappy about it and can't walk today so haven't looked at the car, which I've had since 2005."

MARCUS PYE

Goodwood SpeedWeek to celebrate Stirling Moss

GOODWOOD SPEEDWEEK



Kinrara Trophy race has been renamed in honour of Moss

Sir Stirling Moss, and his close links with the Goodwood circuit, will be remembered during the Goodwood SpeedWeek by renaming the Kinrara Trophy as the Stirling Moss Revival Trophy.

The race for pre-1963 GT cars is an established part of the Goodwood Revival and will now be a headline element of the one-off Goodwood SpeedWeek, which encapsulates elements from both the Revival and Festival of Speed after both events were cancelled due to the coronavirus pandemic.

The special race celebrating Moss is due to run on the afternoon of Saturday 17 October. The Kinrara race has been a highlight of the Revival since its introduction in 2016, usually running as the sun sets on the Friday evening.



J BLOXHAM/MOTORSPORT IMAGES

Leading cars include the Aston Martin DB4 GT and the Ferrari 250 'SWB', both of which Sir Stirling raced successfully at Goodwood during the circuit's heyday.

"Stirling and I always received such a warm welcome at Goodwood from the family and the fans," Lady Susie Moss said. "He would have been touched to be remembered with a race in his name – in fact, he'd probably be raring to have a go at it himself."

The first Stirling Moss Revival Trophy will be preceded by an on-track celebration of Moss's career. The Duke of Richmond will be joined by Lady Susie in the famous Rob Walker Racing Ferrari 250 GT SWB that Moss drove to victory in the 1960 Tourist Trophy, his sixth TT win of seven.

"Stirling Moss was known as 'Mr Goodwood'," said the Duke of Richmond. "More than anything, though, he was our friend and played a huge part in our history.

"We miss him terribly and felt there could be no better way of recognising this than by naming a race in his honour."

As well as the Stirling Moss Revival Trophy, more details have also been released about the rest of the 13-race programme.

Races are set to be spread over the three days and include two-part SF Edge Trophy (for Edwardian specials) and St Mary's Trophy (for pre-1966 saloons) contests.

There is also due to be sprint and enduro Gerry Marshall Trophy races for Group 1 tin-tops and the final race is set to be the TT Celebration, featuring 1960-64 GTs.

PAUL LAWRENCE

New three-hour historic Silverstone race

MRL

Motor Racing Legends will hold an extra one-day event on the Silverstone Grand Prix layout next month, featuring a new three-hour race for pre-1966 GTs and touring cars and 1950s sportscars.

The race – which will be named in honour of the Royal Automobile Club's iconic Tourist Trophy – will include three classes for pre-1966 (GTs and touring cars), pre-1963 GTs and pre-1961 sports-racing cars.

Teams are being encouraged to field a car in each class, with the Tourist Trophy being presented to the overall winning team. Each car can be driven by up to three drivers in the race that will also feature refuelling stops.

The meeting, set to take place on 25 October, will also feature a one-hour combined race for the Woodcote Trophy & Stirling Moss Trophy for 1950s sportscars. A one-hour combined race for the Historic Touring Car Challenge & Tony Dron Trophy and Sixties Touring Car Challenge with U2TC for tin-tops is set to be part of the timetable, too.

The new event has been added to Motor Racing Legends' schedule to replace overseas contests that have already been cancelled due to the coronavirus situation.

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Moore raced in Porsche Sprint Challenge last weekend

JEP/MOTORSPORT MAGES

Moore makes racing return in Porsche Cayman at Donington

PORSCHE SPRINT CHALLENGE

W Series driver Sarah Moore joined the Porsche Sprint Challenge field at Donington Park last weekend, and will complete the season in the second In2Racing entry alongside title contender James Dorlin.

Moore takes over the seat previously occupied by British GT refugee Alex Toth-Jones. As a late entry, she is not eligible to score points towards the drivers' championship but will contribute towards In2Racing's entrants' championship total.

"I needed to get back out in a car so I couldn't say no to the opportunity," said Moore, who lost her intended 2020 race programme when the W Series season was cancelled due to the COVID-19 pandemic.

"I'm very fortunate that I've been given this opportunity so I'm going to take it and do the best I can."

Prior to finishing eighth in the W Series standings last year, Moore won the 2018 Britcar Endurance Championship alongside Matt Greenwood in a Ginetta G50.

"I've never raced a car with ABS before," she said. "So that's taking some getting used to but I absolutely love the way that the car drives."

Moore qualified eighth in the 14-car field and finished seventh and eighth across the two races.

MARK PAULSON

Fortec back on the British F3 grid

BRDC BRITISH F3

Fortec Motorsport returned to the BRDC British F3 Championship at Donington Park last weekend after missing the opening three rounds of the season.

The former category mainstay ran Aston Martin Autosport BRDC Award winner Johnathan Hoggard to second in the championship in 2019, but missed the first three meetings of this year's revised calendar after the COVID-19 pandemic forced drivers to change their plans.

The team's return came with Brazilian Roberto Faria, who will contest the remainder of the F3 season instead of pursuing his British Formula 4 programme with the team, and Bentley Motorsport Academy driver Frank Bird.

"We are just preparing for next year," said Faria, who was sixth in the British F4 standings before last weekend's event at Thruxton. "The style that you drive this car is completely different. You can carry a lot more speed in the corner because you have the aero."

Faria scored a best result of fifth in the reversed-grid race. Bird, who raced in the Formula Renault Eurocup last year, was taking the opportunity to get race-sharp ahead of a Spa 24 Hours outing next month.

Having qualified 12th, he was caught out in a first-lap incident in race one, but climbed to 10th in race three.

MARK PAULSON

IN THE HEADLINES

BRSCC ADDS CROFT MEETING

The British Racing and Sports Car Club will hold a one-day meeting at Croft next month in order for some of its championships to complete their amended seasons after the cancellation of the club's Anglesey event. Final details are yet to be confirmed for the meeting on 31 October, but series due to race include the Fiesta and Fiesta Junior championships, as well as the Clubsport Trophy and CityCar Cup.

USA SCHOLARSHIP WINNERS

Bryce Aron, Jackson Lee and Simon Sikes have been selected as Team USA Scholarship winners. The scheme is celebrating its 30th anniversary in 2020 and will allow Aron and Lee to compete in the end-of-season Formula Ford Festival and Walter Hayes Trophy with Low Dempsey Racing. Sikes will miss these events due to other racing commitments in the US, but will get to test drive a Lamborghini Huracan Super Trofeo Evo.

BAIN INJURED IN ACCIDENT

Classic Clubmans competitor David Bain sustained two broken ribs, a punctured lung and a head injury when his Mallock U2 Mk11B flipped while being towed at very low speed from the pits to the paddock at Cadwell Park following qualifying last Saturday. Neither his helmet (which came off), nor belts were fastened.

NEW CAR FOR TEAM BRIT

Team BRIT has added a 2019 BMW M240i to its fleet of vehicles following support from SYNETIQ – one of the UK's largest vehicle salvage and recycling companies. The car, which features hand-controls, engine output of 475bhp and a number of modifications, was unveiled earlier this month having been rebuilt. Featuring Team BRIT's 2021 livery (below), the car will primarily compete in Class 5 of Britcar's Trophy category next year.



COOK/SCRUFFYBEAR PICTURES

New 2021 class for Praga R1 in Britcar

BRITCAR


Praga will release a new version of the R1 later this year

READ

Czech sportscar manufacturer Praga has launched a one-make class for its flagship R1 model next year, which will run as part of the Britcar Endurance Championship.

The marque has partnered with VR Motorsport to run three cars — two turbocharged models and one normally aspirated — in Britcar this year, but is targeting a bigger presence next season when it launches an improved version of the prototype. The updated machine will feature a larger fuel cell, revised aero package and improved safety features.

At least 10 cars are already confirmed for the new class next year, with hopes high that a one-make standalone series will be created for 2022.

Mark Harrison, managing director at Praga Cars UK, said: "Praga Cars is an exciting place to be right now, evidenced by the new customers and guests we have already secured for 2021.

"We have exciting expansion plans within the UK and globally, and it's a genuine team effort. With VR Motorsport we have built a strong, race-winning platform in Britcar and a good relationship with the organisation's management.

"I am really pleased that, together with Vincent Randall [from VR Motorsport], we have agreed this exciting 2021 plan with Claire Hedley [managing director] at Britcar.

"The dedicated Praga category will lead to exciting racing and a great spectacle for racegoers as well as a platform for a one-make series in 2022."

Second British RX round at Knockhill is postponed

BRITISH RALLYCROSS


RIDGE

The second round of the British Rallycross Championship 5 Nations Trophy, set to be held at Knockhill this weekend, has been postponed.

The Scottish venue is one of four tracks on the rescheduled coronavirus-hit British RX calendar but, due to the expectation that COVID-19 measures would be increased in England and Scotland imminently, the event has been postponed.

"Our number one priority is the safety of our competitors and our team," said 5 Nations British RX coordinator Hannah Rynston. "While we could have waited until we know full details of the announcements, we felt that it was necessary to make a decision now to mitigate costs for those attending.

"We are also considering the fairness for competitors who are already prevented from competing due to local lockdowns, those overseas competitors affected by international travel restrictions, and those who may be affected by enhanced measures in the intervening time.

"Making this decision now provides certainty rather than a last-minute response to the respective government indications."

Following the opening round of the season at Lydden Hill last month, British RX organisers are continuing to work on running the other two remaining events on the calendar at Pembrey and Mondello Park, subject to national and local restrictions.

"We will continue to work with Knockhill to look for an alternative date," said Rynston. "We successfully ran the first round at Lydden Hill and remain committed to running the remaining rounds at Pembrey and Mondello Park provided local restrictions allow."

HAL RIDGE





Variety is the name of the game

The British GT Championship's 2016 GT4 champion is loving the unpredictability brought by SRO's Balance of Performance measures, even if the competitors don't

GRAHAM JOHNSON

With six different GT3 winners from six races and five winners in GT4, British GT 2020 is proving more varied and exciting than anyone could have imagined. In what many were predicting would be a season to forget with smaller grids and COVID-19 restrictions, series organiser SRO has found itself with one of the closest-fought major titles not just in the UK, but anywhere.

Is such variance by design or luck? Well, SRO has been bolder than ever in 2020 in managing the Balance of Performance (BoP). In a bid to level the playing field, measures include adding or taking away ballast from certain cars or perhaps increasing rideheight in a bid to reduce a car's directional stability and thus lengthen the time it takes to circulate a track.

We've seen BoP changes take place between sessions and even as late as 10pm on a Saturday night, after qualifying has set the grid order. Moreover, the French-owned business has this year added ballast to certain driver pairings, so you might see one Silver pairing carrying 20kg in their race chariot while another, quicker couple piloting the same-spec car may get slapped with 40kg. Like I said, SRO has been bolder than ever in its quest to create a race worth watching.

One doesn't need to don a deerstalker and use a magnifying glass to discover what the paddock thinks of the ad-hoc competition-levelling measures: teams and drivers are pretty vocal, and negatively so. But here's the thing: BoP management takes place in both directions! I've been frequently asked by a team or manufacturer I'm representing to not show our full pace in the official practice sessions. I've also witnessed a driver being chastised by a manufacturer for going too fast in qualifying!

> **"SRO folk aren't daft. They can get a pretty good idea of what a car's actual potential pace is"**

The good folk at SRO aren't daft. Of course they spot ultra-rapid sector times and they do have a calculator! They can get a pretty good idea of what a car's actual potential pace could be rather than simply believing what the published laptime says.

And so what we have in 2020 is a series that is becoming almost impossible to predict. Just like a primary school sports day, everyone seems to get their chance to win a trophy. It's an incredible fact that with a maximum of 87.5 points up for grabs with just three races scheduled to run in the 2020 British GT Championship, 10 GT3 cars — mathematically at least — could win the title, while anyone could be champion in the entire small-but-reasonably-formed GT4 grid.

In GT3, British Touring Car graduate Rob Collard continues to impress with not just his ever-increasing speed, humbleness and willingness to learn, but also with the way in which he has adapted to endurance racing. At Donington Park last weekend, Collard focused on maximising his lap speed and avoiding getting embroiled in unnecessary combat early on in the three-hour endeavour. Meanwhile, other hands that are more experienced than Collard in enduros battled for track position within the first hour and thus cost themselves valuable seconds.

Collard and his ultra-rapid team-mate Sandy Mitchell may have only finished sixth in the last race, but look at the timing sheet: despite having to serve a 20-second-long, Brands Hatch-winning success penalty in the last pitstop, Collard and Mitchell crossed the line in their Lambo just 23s behind race winner Sam De Haan and his Finnish Pro Patrick Kujala. Sitting a mere nine points behind the aforementioned De Haan and Kujala in the points table, Collard and Mitchell are now genuine title contenders.

Across the garage, fellow Barwell drivers Adam Balon and Phil Keen — my original tips for the title — impressed at Donington with second place, Bronze-rated Balon showing particularly strong pace against the younger, theoretically faster Silver pedallers. After a mystifyingly slow Brands, it was good to see the golden-locked Balon raise his game to keep him and Keen in the title hunt.

In GT4, all eyes have been on the TF Sport Aston battlers, 'battlers' being the appropriate word as it's no secret that the squad's drivers are unlikely to become besties. Following late-race contact between the two cars at Brands, the rather ambitious Jamie Caroline move led to one yellow sportscar stuck in the gravel while the other got slapped with a penalty.

While the TF cars of Connor O'Brien/Patrick Kibble and Caroline/Dan Vaughan trade insults on and off track, Academy's Jordan Albert and Matt Cowley are capitalising with a win at Brands and a moral victory at Donington. Despite serving a 20s success pitstop penalty from Brands, they crossed the line just one second behind the winners, HHC's Patrik Matthiesen and Collard's youngest son Jordan. If the TF guys can't kiss and make up, the Mustang of Albert and Cowley will become champion.

With two rounds to go, the championships are wide open, especially with more performance-levelling measures likely to be thrown into the mix by SRO. Just one piece of advice: perhaps the Land Rover recovery vehicle traversing the pitlane in the middle of the Brands Hatch race while the pit window was open was taking it a bit far!



De Haan (Mercedes #69) tried to round Baldwin (McLaren #2) at first turn. He spun, but he and Kujala won

Spin and win for De Haan and Kujala in British GT

DONINGTON PARK
BRITISH GT3
19-20 SEPTEMBER

A few seconds into last Sunday's British GT encounter at Donington Park, Sam De Haan's RAM Mercedes was facing the wrong way. But three hours later his co-driver Patrick Kujala crossed the line to win a dramatic race and move into the championship lead.

The RAM duo had only missed pole by 0.065 seconds on the combined times to the Jenson Team Rocket RJN McLaren of James Baldwin and Michael O'Brien. But the chance of a strong result seemed to have vanished when De Haan tried to go around the outside of the polesitter at Redgate on the opening lap. Baldwin held his ground and De Haan found himself spinning. A failed three-into-one attempt just behind resulted in Michael Igoe's WPI Lamborghini being deposited into the gravel and the safety car was called, with De Haan rejoining near the back.

Barwell Motorsport immediately decided to bring in Adam Balon, so that Phil Keen could be installed as soon as possible, and with minimal time loss. The off-sync Lamborghini would come into play later in the race, but at the restart Baldwin quickly started building a lead while De Haan began his comeback.

At the start of lap 22 he drove around the outside of Richard Williams's Steller Audi to take sixth. Although Baldwin was by now 22.2s clear of the Mercedes, Rob Collard's stout defence of second meant that everyone else was still in range. De Haan was also one of the first of the frontrunners to pit, and Kujala continued the recovery with consistently rapid laps.

Up at the front, Baldwin held a lead of over 15s before pitting, but O'Brien didn't find himself in the lead when he rejoined. Keen had been consistently the fastest driver during the first hour and he inherited a big advantage, which he extended to over a minute. With three mandatory stops and restrictions on how long each driver could spend in the car, the Barwell Lamborghini certainly wasn't home and dry, but it was now a factor for victory.

Keen relayed Balon just before the 1h15m mark, handing the lead to O'Brien. By now, Kujala was up to fourth and harassing Ollie Wilkinson's Optimum McLaren. Wilkinson proved a tough nut to crack, but Kujala dived in for a second pitstop at half-distance after the team identified a leaking tyre valve.

Almost simultaneously, Sandy Mitchell — who had only been in the second Barwell car for less than 20 minutes — got a slow puncture. The team took the 'opportunity' to make the second of its mandatory stops, so Collard had to climb back in. This delay, along with the extra 20s the car had to spend in the pits at its final stop for winning last time out at Brands Hatch, put the erstwhile points leaders out of the lead battle.

O'Brien soon came in as well and, with leader Wilkinson staying out for a long stint, the frontrunners spent the next phase out of sync with each other on pitstops. Balon was consistently losing time to Baldwin, while De Haan was holding his own just behind the 2 Seas McLaren of Jordan Witt.

De Haan handed over to Kujala for the final time with just over an hour to go. Baldwin and Witt soon followed, the trio then running close together in the order O'Brien-Jack Mitchell (in for Witt)-Kujala. Crucially, Kujala got by Mitchell when



Keen put in a stunning performance to take second alongside Balon

DONINGTON PARK WEEKEND WINNERS

GT3 (117 LAPS)
1 Sam De Haan/Patrick Kujala (Mercedes-AMG); 2 Adam Balon/Phil Keen (Lamborghini Huracan Evo) +3.404s; 3 James Baldwin/Michael O'Brien (McLaren 720S); 4 Jordan Witt/Jack Mitchell (McLaren); 5 Lewis Proctor/Ollie Wilkinson (McLaren); 6 Rob Collard/Sandy Mitchell (Lamborghini). **Fastest lap** Keen 1m27.529s (102.30mph). **Pole** Baldwin/O'Brien. **Starters** 14.
Points 1 De Haan/Kujala 111.5; 2 Collard/Mitchell 102.5; 3 Balon/Keen 94; 4 Baldwin/O'Brien 90.5; 5 Michael Igoe 62; 6= Ian Loggie/Yelmer Buurman & Witt/Mitchell 60.

GT4 (107 LAPS)
1 Patrik Matthiesen/Jordan Collard (McLaren 570S); 2 Matt Cowley/Jordan Albert (Ford Mustang) +1.198s; 3 Patrick Kibble/Connor O'Brien (Aston Martin Vantage); 4 Jamie Caroline/Daniel Vaughan (Aston Martin); 5 Mia Flewitt/Euan Hankey (McLaren); 6 James Kell/Sam Smelt (Toyota GR Supra). **FL** Kibble 1m35.803s (93.46mph). **P** Cowley/Albert. **S** 10.
Points 1= Caroline/Vaughan & Kibble/O'Brien 100; 3 Cowley/Albert 98.5; 4 Matthiesen/Collard 97.5; 5 Chris Wesemael/Gus Bowers 91.5; 6 Flewitt/Hankey 79.

For full results visit: tsl-timing.com


Title battle remains very close in GT4

Matthiesen and Collard back in GT4 title contention

DONINGTON PARK
BRITISH GT4
19-20 SEPTEMBER

HHC McLaren duo Patrik Matthiesen and Jordan Collard have been there or thereabouts in British GT4 this season but hadn't quite managed a win. That changed in a three-hour contest that underlined how close the class is in 2020.

Brands Hatch winners Matt Cowley and Jordan Albert pipped the McLaren to pole and Cowley led the early stages, but Matthiesen and Collard knew they just had to keep the Academy Ford Mustang in sight. The 20s success pitstop penalty from Brands was always going to be tough to overcome, but Cowley did his best, ekeing out a 5s lead. And there was a third contender for victory too.

Following the GT3-induced safety car, TF Sport brought both of its Aston Martin Vantages in at the end of lap one. Patrick Kibble, the fastest of the Aston pilots in qualifying, was the only driver to consistently match Cowley's and Matthiesen's pace.

When the rest of the GT4 field made their first stops, Kibble moved to the front, 10s ahead of team-mate Jamie Caroline. Both were soon in for their second mandatory stops, putting Albert and Collard back to the front. Albert pitted just before half distance, having been held up by the returning Warren Hughes in one of the Balfe GT4 McLarens. The Ford was still ahead of Matthiesen/Collard after the second stops, but the lead never looked like being enough to make up for the 20s success penalty, due to be served at the final changeover. HHC duly jumped the Mustang at the final stop, despite Albert's impressive pace after climbing back aboard.

TF's chances of victory started to slip away when Connor O'Brien couldn't quite match the speed of the chasing duo. When he finally handed back to Kibble with just under half an hour to go, the Aston rejoined 12s behind the Mustang. Kibble chipped away at the gap but it was never going to be enough.

But Albert still had a chance. He was within 2s of Collard during the closing stages, sometimes closer, but the leader withstood the pressure to take a well-earned win.

The race was a disaster for the second HHC McLaren. Gus Bowers ran third early on, but two pitlane penalties limited him and Chris Wesemael to eighth, meaning they lost their points lead.

Caroline and Dan Vaughan struggled to match the pace of their team-mates, but fourth place means they are now tied at the top of the table with Kibble/O'Brien. Just 8.5 points now covers the top five crews, in three different cars.

KEVIN TURNER


Albert and Cowley nearly managed to win again

the McLaren ran wide at the Fogarty Esses and then jumped O'Brien in traffic.

Wilkinson finally handed back to Lewis Proctor with around 50 minutes to go, and Proctor caught and passed Balon just as the Lamborghini peeled into the pits. But Keen's out-lap was quick enough that, when Proctor came in next time around, the Lamborghini got back ahead. That meant Keen was fourth with half an hour remaining, with 9.8s and two McLarens between him and Kujala.

Keen has delivered plenty of fine performances over the years, but the subsequent charge was one of his best. Hurling the Huracan around Donington, he dived down the inside of Witt into Redgate and duplicated the move on O'Brien five minutes later.

The leader's advantage came down, but Kujala kept his cool to cross the line 3.4s clear to record his first win of the campaign – the sixth different crew to take victory in as many races. "A perfect race," said De Haan, presumably forgetting the early handicap!

O'Brien/Baldwin completed the podium, from Witt/Mitchell and Proctor/Wilkinson. The Optimum McLaren was only 5.5s clear of a flying Sandy Mitchell at the flag. The 20-year-old was superb in the final hour, often matching Keen's pace, but sixth place meant he and Collard are now nine points behind De Haan/Kujala with three races left.

KEVIN TURNER

Maini extends lead in British F3 standings

DONINGTON PARK
BRSCC
19-20 SEPTEMBER


Maini dives up the inside of Frederick at Old Hairpin to take the lead in race three

ALLPICS:JEP

Early-season pacesetter Kaylen Frederick may have bounced back from a miserable weekend at Brands Hatch with a victory at Donington Park, but it wasn't enough to prevent the relentless Kush Maini from extending his lead at the top of the BRDC British F3 Championship standings.

Frederick has perhaps been guilty of overdriving on occasions, but the Carlin racer's searing pace allowed him to top qualifying by nearly a quarter of second from Ulysse de Pauw, as almost the same margin covered second to eighth. He had a similar gap over Hitech GP man Maini in the second-fastest times used to determine race three's grid.

Come the first race, Frederick never looked like being beaten. After an early safety car, he reeled off a series of fastest laps to take his fourth win of the season by over three seconds from de Pauw, who suffered gear-selection problems all weekend, and Maini.

"It all really started with qualifying, where you have to put the work in," said Frederick. "From pole you're starting on the front foot with less pressure. You just need to hold position instead of make up positions."

Maini's championship challenge had so far been built on consistency, with just a single win. His podium in race one, allied to 10th (ahead of Frederick in 12th) in race two, suggested more of the same. But Maini himself wanted more and started race three in determined mood. "It's going to be gloves off and try to get that win," he said.

So it proved. On the first lap, a late dive inside Frederick at the Old Hairpin allowed Maini to complete the pass into McLeans, as Frederick also dropped behind the Douglas Motorsport car of de Pauw after a mistake at the Esses. The positions remained static, but Frederick lost third to team-mate Nazim Azman post-race via a track-limits penalty.

The other main title contenders had mixed weekends at best. Louis Foster, a winner at Donington last month, was left perplexed by a lack of pace that put him 11th fastest in qualifying. A good start in race one was undone by a spin after contact with Kiern Jewiss at McLeans on the first lap, before charging back to 11th after the resulting safety car.

From sixth on race two's reversed grid, Foster led within a lap. He cruised to victory from Josh Mason (Lanan Racing) and Manaf Hijjawi (Douglas) – both claiming their first podiums of the season – but could only manage 11th in race three.

It was Douglas driver Jewiss's turn to endure a nightmare weekend. The 2018 British Formula 4 champion hasn't had a podium since inheriting victory in the season opener, but still held second in the points, through consistent finishes, heading into the weekend. After qualifying mid-grid, the race-one incident cost Jewiss dearly. He limped back for repairs but was not classified and so unable to benefit from the reversed grid, earning his only points of the round from eighth in race three.

With three race weekends to go, Maini holds a 54-point lead over Frederick, with Foster and de Pauw more than 70 points off the pace.

Four drivers have consistently been the class of the field in this year's Ginetta


Mutch leads in GT5 Challenge and would go on to take two wins over the weekend

DONINGTON PARK WEEKEND WINNERS

BRDC BRITISH F3
Race 1 (12 laps) 1 Kaylen Frederick; 2 Ulysse de Pauw +3.204s; 3 Kush Maini; 4 Bart Horsten; 5 Nazim Azman; 6 Benjamin Pedersen. **Fastest lap** Frederick 1m25.210s (105.08mph). **Pole** Frederick. **Starters** 18.
Race 2 (12 laps) 1 Louis Foster; 2 Josh Mason +0.998s; 3 Manaf Hijjawi; 4 Reece Ushijima; 5 Roberto Faria; 6 Josh Skelton. **FL** Ushijima 1m25.095s (105.22 mph). **P** Faria. **S** 18.
Race 3 (11 laps) 1 Maini; 2 de Pauw +2.771s; 3 Azman; 4 Frederick; 5 Sasakorn Chaimongkol; 6 Ushijima. **FL** Frederick 1m25.419s (104.82mph). **P** Frederick. **S** 18.
Points 1 Maini 296; 2 Frederick 242; 3 Foster 224; 4 de Pauw 220; 5 Azman 213; 6 Kiern Jewiss 211.

GINETTA GT5 CHALLENGE
Race 1 Josh Malin
Races 2 & 3 Gordie Mutch

GINETTA G40 CUP
Races 1, 2 & 3 Tom Golding (below)

PORSCHE SPRINT CHALLENGE GB
Races 1 & 2 Tom Jackson



For full results visit: tsl-timing.com

GT5 Challenge. Josh Malin and Gordie Mutch took the wins at Donington, but Jonny Wilkinson and James Taylor kept them honest.

Malin passed polesitter Mutch at McLeans to win race one, while Mutch had to fight back past Wilkinson to reclaim second.

Mutch took advantage of Wilkinson's poor starts, and scraps among the other frontrunners, to edge clear in races two and three, his first wins of the season. Contact between race-two podium finishers Wilkinson and Taylor left Taylor fifth in race three and earned Wilkinson – third behind Malin – a grid penalty and three licence points. The resulting championship points deduction means Wilkinson sits just behind Taylor in the standings, with Malin and Mutch breathing down their necks.

Tom Golding completed his quest to reclaim the Ginetta G40 title he won in 2018. His charge to a hat-trick of victories, making it nine from 12 this season, means closest challenger Giles Dawson now can't catch him, barring penalties. Dawson spun exiting Goddards while trying to pressure Golding in the opener, and couldn't live with his pace in races two and three.

MARK PAULSON

JACKSON LEVELS THE SCORES



Dorlin was left chasing Jackson all weekend

The inaugural season of the Porsche Sprint Challenge – Porsche GB's second-tier series, which serves as a stepping stone to the Carrera Cup – has proved to be a two-horse race between James Dorlin and Tom Jackson.

The pair had split the race wins four-two in Dorlin's favour prior to last weekend's second visit to Donington Park, where Jackson levelled the score with two wins.

Teenager Ethan Hawkey upset the pecking order by securing a maiden pole position in his Redline Racing-run car but was swamped at the start after a poor getaway. That allowed fellow front-row man Jackson into a lead he wouldn't relinquish in his Rob Boston Racing machine.

Jackson's win came despite him needing to manage a niggle with his car's ABS, which was kicking in too early on the left-front wheel throughout the weekend. It led to uneven wear, and the car pulling leftwards slightly under braking.

"I'm having to brake earlier and softer, trying not to activate the ABS," said Jackson, who estimated that impact was costing as much as half a second per lap. "That changes the whole way the car works because if you're not braking later and harder, you haven't got as much weight on the nose and you get a bit more understeer; then you work the tyres harder."



Jackson leads standings by five points

Hawkey's team-mate Archie Hamilton scored his best result in second, while Dorlin climbed from fourth on the grid to finish third having opted to save his new tyres for race two. Dorlin had briefly slipped to fifth after running wide at Redgate while trying to demote Hawkey, but passed Theo Edgerton at McLeans and then dived inside Hawkey for third at Redgate, all in a hectic first couple of laps.

The benefit of fresh tyres on Dorlin's In2Racing Cayman for race two was immediately obvious as he charged inside Hamilton to take second on the first bend, then latched straight onto Jackson. The leader was forced to defend for a couple of laps, but Dorlin was unable to make a move stick before his advantage wore off. The pair finished in that order, with Edgerton fending off Hawkey to complete the podium.

"I defended like my life depended on it, placing the car in the right places," said Jackson. "I knew if I could keep him behind for the first two or three laps, with him pushing hard, wearing the tyres harder, I'd then have a good chance of holding it to the end."

Ahead of the penultimate round at Croft, Jackson now holds a five-point advantage over Dorlin, who has some work to do after seeing the momentum shift in his rival's favour.

"They just seemed to have something that we haven't this weekend," Dorlin admitted. "We'll go back to the drawing board and see what we need to do, but we've got it right many times before. There's still four races to go so anything can happen. I'm sure we'll be back on the top step very soon."

MARK PAULSON

TOCA SUPPORTS THRUXTON 19-20 SEPTEMBER



Hedley becomes British F4's latest hat-trick hero at Thruxton

BRITISH FORMULA 4

Taking a hat-trick in British Formula 4 is supposed to be a rare achievement. It is supposed to happen only every couple of years. And it certainly is not supposed to happen twice in three events.

But no one had told James Hedley that. Just a few weeks after points leader Luke Browning achieved the feat, which is unusual because of the partially reversed-grid second encounter, Hedley secured a clean sweep of his own.

JHR racer Hedley described the opener as his toughest win as he was reeled in by Casper Stevenson. The scholarship winner hounded Hedley, who made a few little errors, and the pair ran side by side, but the Ginetta Junior champion held on. Stevenson admitted he regretted not being "a bit more aggressive at the start" and instead letting Hedley build an early lead.

It was the same top two in the next race as well, despite them starting fifth and fourth. Browning made a good getaway and ambitiously dived up the inside of Zak O'Sullivan into Allard. With Alex Connor also attempting to pass the poleman, the lack of space meant contact was inevitable and it was O'Sullivan who came off worse.

"I was taken out by a rival – I think he was lucky with the penalty he got [five-place grid penalty]," said O'Sullivan. Browning countered: "I got a brilliant start and Alex got a brilliant start and three into one doesn't go. It was just a sandwich and I think I got penalised for it because I was the furthest back."

This left Hedley, who said he was "lucky" to avoid the incident, in the lead and he again triumphed, although Stevenson closed in the latter stages – after soon recovering from being delayed by the Turn 1 contretemps.

Hedley's easiest win then came in race three as he scorched clear from pole, while team-mate Abbi Pulling did an excellent job to keep Stevenson at bay.

"I can't believe it – it's the perfect weekend!" said Hedley. "I think it's the fact it's my local track, it helps give me that bit of extra motivation and the team has done a mega job here [JHR has now won the last six Thruxton F4 races]."

Browning started 10th with his penalty but surged through to fourth. However, another clash – this time at the Complex with Christian Mansell, who careered into Connor – meant he and Connor had their places swapped in the final result.

STEPHEN LICKORISH

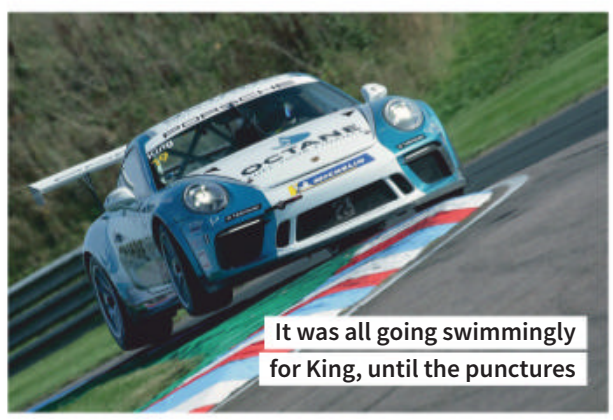
King left deflated as Martin and Wylie surprise

PORSCHE CARRERA CUP GB

Harry King's dominant streak continued at Thruxton, but his winning run ended thanks to not one, but two left-rear-tyre blowouts on the bruising Hampshire speedbowl that allowed fellow series rookie Will Martin and Ross Wylie to take surprise wins.

King was absolutely miles in front in the opener when, on the 18th lap of 20, his Team Parker Racing machine got its first puncture. Martin had got the better of front-row qualifier Lorcan Hanafin into the Complex on the opening lap, with series veteran Josh Webster following him through. A frantic mid-race battle between Martin and Webster ended in the Ginetta Junior graduate's favour and, once King's tyre had failed, the youngster held off Webster to the finish, with Hanafin third.

King's first-race drama put him seventh on the partially reversed grid for race two, but by the end of the 10th lap he had passed the In2 Racing car of early leader Wylie to move in front. Four laps later, his left-rear exploded at Allard to end a miserable day.


It was all going swimmingly for King, until the punctures


Martin was one of the beneficiaries, taking first win

Webster had made progress in his Parker entry and was catching Wylie, only for him to suffer a puncture on the penultimate lap. And, with Redline Racing pairing Scott McKenna and Matthew Graham also getting blowouts, that enabled the low-key Hanafin and Martin into second and third.

"Hindsight's a horrible thing and you think, 'Should I have backed off?'" said a dejected Webster. "But I was dead set on catching Wylie. We have to look at whether we come here again."

MARCUS SIMMONS

Plenty of drama in Mini races

MINI CHALLENGE TROPHY

A red flag in each of the Mini Challenge Cooper class contests meant there was not that much actual racing at Thruxton. But when the track was under green flag conditions the action was frenetic.

Ben Kasperczak initially led the opener, before briefly losing out to Dominic Wheatley and Leonardo Panayiotou, but Kasperczak soon reclaimed the lead when Panayiotou ran too deep into the Club chicane. Kasperczak took the win when the race was ended early after Bradley Gravett and Brendan Fitzgerald clattered into the Club barriers despite yellow flags flying.

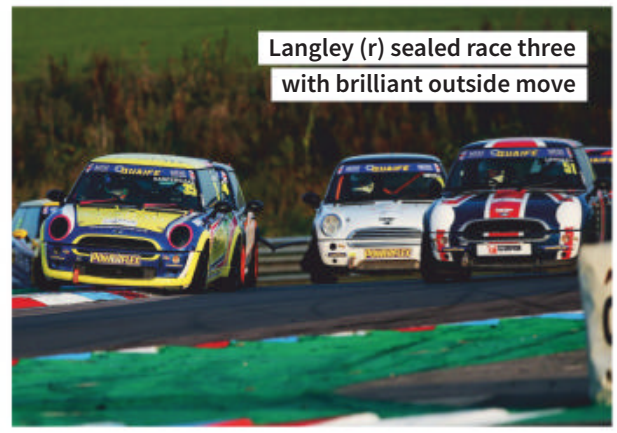
Kasperczak and Archie O'Brien – who was second in the opener – then had a ding-dong battle in race two, but this was halted after a horrible shunt for Clark Wells (see News). Alex Jay looked to have won the four-lap restart but cut the chicane to get ahead of Panayiotou – up from 22nd on the original grid – and was demoted to second.

An incredible move around the outside of a bunch of cars into the chicane netted Andrew Langley the win in the finale. Both Kasperczak and Harry Nunn led the race afterwards but another red flag – as the chicane was littered with Recticel stacks – meant they ended up second and eighth.

STEPHEN LICKORISH



Panayiotou won race two from 22nd on the grid



Langley (r) sealed race three with brilliant outside move

Voisin's woe aids Lebbon's bid

GINETTA JUNIOR

The most points that had separated Tom Lebbon and Bailey Voisin at the head of the Ginetta Junior standings after a weekend prior to the Thruxton event was nine. But it was a very different story after the Hampshire weekend as Lebbon left with a 24-point advantage.

The first race of the weekend followed the 2020 script. Lebbon and Voisin duly qualified first and second and were soon embroiled in another tussle. At one third's distance, Voisin went round the outside to take the lead at the Club chicane but Lebbon was able to power back ahead out of the corner, as Freddie Tomlinson also snuck past R Racing team-mate Voisin.

But Tomlinson's own attempt for the lead at the chicane ended with him facing the other direction and allowed Voisin another go. On lap 10 of 12, he made the move stick successfully, again around the outside at the chicane, to take the win, while Josh Rattican relegated Lebbon to third on the final tour.

The second contest did not follow the 2020 script, however. Voisin had already dropped back when he was involved in a collision with Rowan Vincent and Trennon Bettany out of the chicane that caused a red flag. On the five-lap restart, Rattican made a brilliant start to grab the lead and headed Lebbon home.

STEPHEN LICKORISH



Two more podiums mean Lebbon is clear leader of Ginetta Junior pack

WEEKEND WINNERS

BRITISH FORMULA 4

Race 1 (14 laps) 1 James Hedley; 2 Casper Stevenson +0.193s; 3 Luke Browning; 4 Alex Connor; 5 Zak O'Sullivan; 6 Abbi Pulling. **Fastest lap** Hedley 1m14.041s (114.55mph). **Pole** Hedley. **Starters** 12. **Race 2 (17 laps) 1 Hedley**; 2 Stevenson +0.364s; 3 Roman Bilinski; 4 Frederick Lubin; 5 Pulling; 6 Browning. **FL** Stevenson 1m13.836s (114.87mph). **P** O'Sullivan. **S** 12. **Race 3 (17 laps) 1 Hedley**; 2 Pulling +7.880s; 3 Stevenson; 4 Connor; 5 Browning; 6 Bilinski. **FL** Connor 1m13.856s (114.83mph). **P** Hedley. **S** 12. **Points 1 Browning 257**; 2 O'Sullivan 200; 3 Stevenson 183; 4 Hedley 178; 5 Connor 158; 6 Roberto Faria 99.

PORSCHE CARRERA CUP GB

Race 1 (both 20 laps) 1 Will Martin; 2 Josh Webster +0.318s; 3 Lorcan Hanafin; 4 Ross Wylie; 5 Scott McKenna; 6 Mark Kimber. **FL** Harry King 1m13.620s (115.20mph). **P** King. **S** 17. **Race 2 1 Wylie**; 2 Hanafin +4.496s; 3 Martin; 4 Esmee Hawkey; 5 John Ferguson; 6 Justin Sherwood. **FL** King 1m14.130s (114.41mph). **P** McKenna. **S** 16. **Points 1 King 92**; 2 Webster 85; 3 Hanafin 50; 4 Matthew Graham 49; 5 McKenna 45; 6 Wylie 40.

MINI CHALLENGE TROPHY

Race 1 (10 laps) 1 Ben Kasperczak; 2 Archie O'Brien +1.068s; 3 Josh Porter; 4 Lydia Walmsley; 5 Andrew Langley; 6 Michael Paul. **FL** Leonardo Panayiotou 1m32.234s (91.95mph). **P** Kasperczak. **S** 26. **Race 2 (4 laps) 1 Panayiotou**; 2 Alex Jay +0.001s; 3 O'Brien; 4 Porter; 5 Dominic Wheatley; 6 Kasperczak. **FL** Porter 1m32.348s (91.84mph). **P** Kasperczak. **S** 27. **Race 3 (8 laps) 1 Langley**; 2 Kasperczak +0.079s; 3 Porter; 4 Wheatley; 5 Alex Nevill; 6 Walmsley. **FL** Brendan Fitzgerald 1m32.196s (91.99mph). **P** Wheatley. **S** 26. **Points 1 Kasperczak 188**; 2 O'Brien 185; 3 Walmsley 173; 4 Panayiotou 152; 5 Harry Nunn 146; 6 Wheatley 140.

GINETTA JUNIOR

Race 1 (12 laps) 1 Bailey Voisin; 2 Josh Rattican +1.794s; 3 Tom Lebbon; 4 Joel Pearson; 5 Seb Hopkins; 6 Zak Taylor. **FL** Tom Edgar 1m31.429s (92.76mph). **P** Lebbon. **S** 20. **Race 2 (5 laps) 1 Rattican**; 2 Lebbon +1.525s; 3 Josh Miller; 4 Edgar; 5 Freddie Tomlinson; 6 William Vincent. **FL** Lebbon 1m32.054s (92.13mph). **P** Lebbon. **S** 20. **Points 1 Lebbon 296**; 2 Voisin 277; 3 Rattican 271; 4 Georgi Dimitrov 224; 5 Pearson 178; 6 Taylor 151.

GINETTA GT4 SUPERCUP

Race 1 (13 laps) 1 Jamie Falvey; 2 Will Burns +2.318s; 3 Tom Hibbert; 4 Reece Somerfield; 5 Tom Emson; 6 Colin White. **FL** Falvey 1m15.047s (113.01mph). **P** Gus Burton. **S** 14. **Race 2 (16 laps) 1 Falvey**; 2 Adam Smalley +3.165s; 3 Burton; 4 Burns; 5 Hibbert; 6 Joe Marshall-Birks. **FL** Falvey 1m15.151s (112.86mph). **P** Falvey. **S** 15. **Race 3 (16 laps) 1 Hibbert**; 2 Burns +0.393s; 3 Burton; 4 Smalley; 5 Falvey; 6 Somerfield. **FL** Smalley 1m15.615s (112.16mph). **P** Hibbert. **S** 15. **Points 1 Hibbert 310**; 2 Burns 307; 3 Burton 303; 4 Falvey 254; 5 Smalley 232; 6 Marshall-Birks 186.

TOCA SUPPORTS THRUXTON 19-20 SEPTEMBER



Hibbert leads Burns and Burton on way to race-three win

Top three remain inseparable as Falvey is a new GT4 winner

GINETTA GT4 SUPERCUP

The opening three Ginetta GT4 Supercup events were all about Will Burns, Tom Hibbert and Gus Burton as between them they secured 21 of the 24 places on the podium. But that trio may have to start looking over their shoulders as Jamie Falvey bagged two wins and a fifth place at Thruxton to give them something else to think about.

Falvey's win in the opening race did, admittedly, have some good fortune to it. Polesitter Burton and fellow front-row starter Adam Smalley – the only other driver to have taken a win so far this year – collided at the Complex on the first lap and were both out of the race.

"It could've should've would've been a win," admitted Burton. "I got a good start and pulled ahead by one or two car lengths. I went round the first complex and braked late, as I normally do, but my team-mate [Falvey] and Adam were battling and three into one doesn't go."

Falvey, who had already passed Burns through Allard, therefore inherited the lead. And he maintained it upon the restart after a lengthy safety-car period to recover Burton's car, keeping Burns and Hibbert at bay to the flag.

But there was nothing fortunate about Falvey's second win. He scampered clear from pole into the distance as the rest squabbled behind, eventually winning by over three seconds. Behind, Burns made a poor start and this dropped him into the clutches of Reece Somerfield, who chopped across Burns heading into Allard, delaying him further and forcing Somerfield out.

It meant Hibbert was up to second but had Smalley, Burton and Burns right in his wheeltracks for much of the contest. Eventually, that pressure told as Hibbert ran wide at the Club chicane and dropped to the tail of the pack across the startline, allowing Smalley and Burton to complete the podium behind Falvey.

The partially reversed-grid finale proved to be a letdown. Despite the top four running very close together throughout, there were no position changes and Hibbert led home Burns, Burton and Smalley. Falvey did briefly get ahead of Smalley off the line, but the Elite Motorsport driver fought back through the Complex. Falvey then began to lose ground, struggling on old tyres, and stayed fifth.

The results nevertheless bring the Century Motorsport man to 56 points off the summit, as just seven separate that trio of Hibbert, Burns and Burton.

STEPHEN LICKORISH

THE UNUSUAL ROUTE TO THE TOP FOR THE GINETTA GT4 SUPERCUP'S LATEST WINNER

Jamie Falvey's route to the Ginetta GT4 Supercup winners' circle was not a typical path trodden by many of the category's top names. In recent years, leading contenders have normally graduated from one of the manufacturer's other series or boasted some form of GT racing experience.

But not Falvey. Instead, his most recent full campaign came in the Caterham 270R championship, which he won in 2018. Prior to that, he drove for Team BRIT in Fun Cup after being medically discharged from the military.

While moving into the Ginetta series from Caterhams is not unheard of – Reece Somerfield, who made his 200th start last weekend, is also a former Caterham racer – it is unusual for someone from a club racing background to hit the front so quickly.

And that makes Falvey's double win all the more impressive. He made a solid start to the season prior to a move from Caterham specialist DW Motorsport to established GT4 Supercup frontrunner Century Motorsport for Oulton Park, which yielded a maiden podium in the second contest. Falvey then continued that form into the Thruxton event, but admitted he was fortunate to win the opener.

"We had good pace in practice but had a problem on the qualifying simulation run," he said. "That meant we were on the back foot a bit for qualifying, so it was good to be on the second row. Adam [Smalley] then put in an optimistic move in race one, which took those two out. I was really pleased to get a win – it's a massive day for me."

Despite that maiden triumph, Falvey was not expecting to double up in race two in such convincing style. "The second win was as much a surprise to me as anyone!" said Falvey. "Century Motorsport have done the business this weekend."

He is now targeting more strong results in the second half of the season and applying further pressure to the leading trio of drivers.

"I think we're starting to worry them a little bit and the aim is to keep hassling them," said Falvey,


Falvey was a double victor at Thruxton

who admitted the experience of Tom Hibbert and Will Burns, in particular, gives them an advantage in areas such as looking after the tyres. "We're only going forwards [improving]."

Considering his successful club racing pedigree, the established top three may well have more of a fight on their hands over the rest of the season.

STEPHEN LICKORISH



Maclennan (right) applied pressure but Browne still took double win

MASON - GHP

Browne on champion form again

BRANDS HATCH
MSVR
19-20 SEPTEMBER

Two high-quality Formula Ford 1600 races highlighted a 21-race Blue Oval-based programme at the second Ford Power Live event, giving Jonathan Browne the chance to maintain his 100% winning record in a truncated Champion of Brands season.

With a National championship round at Brands only a week away and the Festival on the horizon, the local series again drew a strong entry to Kent. Reigning Festival winner Browne burnished his reputation in his Low Dempsey Ray after battles that would not have been out of place in the October finale.

Neil Maclennan (Spectrum) and reigning National champion Ross Martin (Van Diemen) were second and third on the road both times, but both dropped down the race-one order with track-limits penalties. The second race was decided by less than half a length in Browne's favour.

Focus Cup points leader Andrew Godfrey had to wait for the third of four races to record a win. In race one he fell victim to an overambitious move by Richard Avis at Druids while they contested the lead, meaning ex-Renault UK Clio Cup man Luke Warr inherited the victory. Godfrey finished fourth in race two, with Gary Mitchell winning, while Warr was firmly in charge of the finale, followed by Avis and Godfrey.

Team-mates Adam Blair and Stratton Mackay dominated the first EnduroKa sprint race but were penalised for a yellow-flag offence and track limits respectively. Adam Smith's Octane Junkies car therefore inherited the spoils. Blair gained his revenge by passing both Junkies machines in race two from a second-row start, and his superiority continued in the two following races, leaving the rest well behind.

The power of Dave Cockell's Escort Cosworth proved irresistible in the first Modified Ford race, although Michael Saunders grabbed a cheeky lap-one advantage in his TVR-engined Escort Mk1. Cockell's car expired in race two, giving local man Saunders the chance to fend off Malcolm Harding's later Escort at the head of a 30-plus field. Another Kent driver, Nathan Dew, scored fourth and third places in a Sonny Howard Pickup.

A quartet of Monoposto races gave a small Saturday crowd plenty of action. Still only 16, Billy Styles was having his first races at Brands after a karting career followed by time out recovering from a non-racing accident. He inherited victory in the opener when fellow Jedi pilot Dan Clowes retired with a jammed throttle, and won again later after a straight fight with his far more experienced rival.

Tony Bishop's Dallara won the first Mono F3 clash despite a jumped-start penalty, but tangled on the last lap of race two after a rather too close contest with Lee Fern. Bishop crashed and Fern won.

Triple Sports 2000 champion Michael Gibbins (MCR) recorded his 13th and 14th successive race wins, beating Tom Stoten's Gunn in race one and Josh Law (MCR) in race two, after Stoten spun and retired.

Late entry Mark Charteris was in control of the first two Clubmans races but was beaten at the third attempt by Clive Wood. That was despite a poor start by Wood, who had worked overnight to banish understeer.

BRIAN PHILLIPS

WEEKEND WINNERS

CHAMPION OF BRANDS FF1600
Races 1 & 2 Jonathan Browne (Ray GR18)

FOCUS CUP
Races 1 & 4 Luke Warr
Race 2 Gary Mitchell
Race 3 Andrew Godfrey

ENDUROKA
Race 1 Adam Smith
Races 2, 3 & 4 Adam Blair

MODIFIED FORDS
Race 1 Dave Cockell (Escort Cosworth)
Race 2 Michael Saunders (Escort Mk1)

MONOPOSTO 1800, 1600, CLASSIC & M1000
Races 1 & 2 Billy Styles (Jedi Mk6/7)

MONOPOSTO F3, 2000 & M1400
Race 1 Tony Bishop (Dallara F304)
Race 2 Lee Fern (Dallara F301)

SPORTS 2000
Races 1 & 2 Michael Gibbins (MCR S2)

CLUBMANS SPORTS PROTOTYPES
Races 1 & 2 Mark Charteris (Mallock Mk20/21)
Race 3 Clive Wood (Mallock Mk23)

For full results visit: tsl-timing.com



MASON - GHP

Saunders gets sideways as he battles Cockell in Modified Fords

Grant Deltas in on FF2000 Wolds Trophy

CADWELL PARK
HSCC
19-20 SEPTEMBER



Grant withstood pressure from Simms (r) to bag two Historic FF2000 wins in Delta T78 machine

Historic Formula Ford 2000 took centre stage in a magical Wolds Trophy event, the 35-strong entry — the best 1975-81 Pinto posse in years — meriting twin qualifying heats and finals, all hotly contested.

Just as the movement started at Cadwell Park in 2007, when Iain Rowley triumphed in a Delta, Callum Grant won in one of Patrick Head's designs. Grant withstood enormous pressure from Benn Simms (Reynard), who survived a hairy spin at the Gooseneck second time out, to ace both Sunday features, the latter at record pace.

From object lessons in rolling-start discipline, with the colourful field in close company, Grant and Simms dropped Ian Pearson (Royale RP30) and Peter Drennan (Reynard) in the finals. Sunday morning's contest included a safety car period while Brian Morris's Reynard was plucked from The Mountain's barriers. Among a record turnout of Pre-'79 cars, Stuart Pearson (Lola T580) earned direct entry to the finals and bagged a stellar fifth in the first.

The heats — for competitors outside the top five in each practice group — were superb. In Saturday's, Classic F3 convert Adrian Langridge repassed novice Ben Glasswell, with dad Stephen's similar Reynard in tow. Circuit neighbour Lee Bankhurst (RP30) snatched Sunday's win, diving past Greg Robertson's oily Reynard at the Hairpin on the final lap.

Both Historic Sports Car Club Road Sports staples delivered big grids and fine racing. Jeremy Clark twice outran Kevin Kivlochan (Morgan +8) in the 70s set, in which Dave Karaskas (TVR 3000M) and John Williams (Porsche 911SC) enjoyed mega scraps, but Charles Barter's Datsun 240Z overheated again. In Class D, Antony Ross (Alfa Romeo 1750 Spider) and Pip Hammond (Porsche 924) each beat the other by fractions.

Kivlochan put Will Plant in the Moggie to bolster Class A in the Historic field, then watched him win Saturday's race from the pits after his AC Cobra's throttle return spring broke. 'KeKi' was passing the Cafe when the field was released for Sunday's rolling start, thus was almost 30 seconds down at the timing line. Plant pulled-up at the summit of The Mountain when the Rover V8 engine's oil pressure flagged and, as Paul Tooms took the chequer from Jonathan Rose (in Tooms' old Elan), Kivlochan was 4.7s adrift of class winner Peter Garland (+8)!

Hotfoot from his Oulton Park Historic Formula Ford double — and with the non-championship Kentagon Cup win over Ross Drybrough and Tim Brise for confidence — top qualifier Pierre Livingston stretched his slender points advantage over Cameron Jackson with another pair and a lap record. Despite tweaking his March 709's nose in the tussle for second with Linton Stutely, Jackson led the opener mid-race, before Livingston retaliated. The second rolling start was poorly executed, and pivotal, for Livingston shot clear immediately. Jackson spun through 720 degrees at Charlies, but salvaged third behind Stutely.

Jackson dominated the Classic FF1600 rounds in his Van Diemen. He had Rick Morris beaten before the defending champ spun at Charlies on Saturday, leaving Jordan Harrison second, fending off Craig Currie and Mike Gardner's noseless Crossle 32F.



Clark's impressive performance meant it was an uphill struggle for Kivlochan to defeat him in 70s Road Sports

ALL PICS: WALKER

CADWELL PARK WEEKEND WINNERS

HISTORIC FF2000
Races 1 & 2 Callum Grant (Delta T78)
Heat 1 Adrian Langridge (Crossle 41F)
Heat 2 Lee Bankhurst (Royale RP30)

70s ROAD SPORTS
Races 1 & 2 Jeremy Clark (Lotus Elan S4)

HISTORIC ROAD SPORTS
Race 1 Will Plant (Morgan +8)
Race 2 Paul Tooms (Lotus Elan S1)

HISTORIC FF1600
Races 1 & 2 Pierre Livingston (Merlyn Mk20A)

KENTAGON TROPHY HISTORIC FF1600
Pierre Livingston (Merlyn Mk20A)

CLASSIC FF1600
Races 1 & 2 Cameron Jackson (Van Diemen RF80)

OLD HALL TROPHY CLASSIC FF1600
Jordan Harrison (Royale RP21)

CLASSIC CLUBMANS
Races 1 & 2 Adrian Holey (Mallock Mk20B)

HISTORIC TOURING CARS
Races 1 & 2 Peter Smith (Ford Lotus Cortina)

CLASSIC F3/URS & CLASSIC FF2000
Races 1 & 2 Benn Tilley (March-Toyota 743)

For full results visit: tsl-timing.com

On Sunday, Gardner planed another nose off in muscling through to second, ahead of Currie, Jordan Harrison and Samuel Harrison, from the back. Gardner traded the lead with Harrison S in the Old Hall Trophy 'fun race' finale until they collided entering The Mountain abreast. Gardner's car, on the outside, flew into the barrier. Harrison J, with a grandstand view, gratefully accepted victory from Currie.

There were new winners on both sides of the Classic Clubmans equation. Behind two A-Sport cars, the FF1600-engined duels between Tom Dunstan in the Ken Harrison-originated Penfold and ex-motorcycle racer Tommy Eustace (Mallock Mk18) were tight. Dunstan repassed Eustace with a last-ditch lunge on Saturday, but the latter turned the tables in race two for his maiden win. Out front, Yorkshireman Adrian Holey pulled away from stalwart Mike Lane on day one. Once Holey released a bag of Pontefract cakes from his belts, he caught Lane in the sequel but Lane spun at Chris Curve.

After Roger Stanford's Lotus Cortina had retired on Saturday, Peter Smith repeated his Oulton Touring Car double relatively easily, chased by Mark Watts' Ford Mustang, which had half the field in tow. David Lloyd's 6.3-litre Chrysler-engined Jensen CV8 set a class record before gearbox maladies intervened in the opener.

MARCUS PYE



TOOMS WINS IN KENNEDY'S ELAN Having "transformed" Witchampton Garage proprietor Larry Kennedy's immaculate Lotus Elan S1 on a recent Llandow test day, Paul Tooms, 64, returned to Historic Road Sports and won Sunday's race. "I couldn't quite live with Will Plant on Saturday – he's an incredibly talented young driver – but the Elan's handling is fantastic now," he said. Following Plant's retirement in race two, Tooms struggled when a drop in battery voltage blunted the Elan's straightline speed: "At one point I didn't think I'd finish, but I just learned to drive it differently!"



TILLEY TRIUMPHS "This weekend was the most fun I've ever had, the best car/circuit combination," said Benn Tilley after winning both Classic Formula 3/URS FF2000 races stylishly in Simon Hadfield's ex-Brian Henton/Rupert Keegan British Air Ferries March 743. Tilley, 20, tracked polesitter Matt Wrigley – debuting an ex-John Lewis Chevron B38 – for much of Saturday's race before pouncing audaciously into the Hall Bends. With Wrigley sidelined by clutch failure on Sunday, Tilley's task was eased. Veteran Jon Finch (Ralt RT1) staved off Ben Stiles (Van Diemen RF82) for second.



WOOD IS NOVA CENTURION Of three pioneers who responded to the new 1980s Production Car Challenge – within the Historic Touring Car rounds – Jason Wood was the most combative in his 1600cc Vauxhall Nova GTE. The local man from Brigg astoundingly set fastest lap in Sunday's stanza. The sight of Wood's machine charging round in a train with second-placed Mark Watts (Ford Mustang), the Lotus Cortinas of reigning champion Bob Bullen and top qualifier Roger Stanford, Steve Platts' Singer Chamois and Rob Wainwright's Austin A40 will endure in spectators' memories.

Cooper seals FF1600 title despite final-day drama



Race-one crash put Cooper on the back foot, but he held on to win Combe title and then Carnival

READ

CASTLE COMBE
CCRC
19-20 SEPTEMBER

The Castle Combe Finals weekend may have lacked the traditional atmosphere from a packed crowd due to coronavirus restrictions, but it certainly wasn't missing drama.

Luke Cooper experienced plenty as he tried to add to his 2018 Castle Combe Racing Club Formula Ford title. After spinning on oil in qualifying, Cooper inexplicably crashed into the barriers on the opening lap of race one while running second behind Felix Fisher, causing a red flag. Fisher, running a new engine in his TM Racing Ray GR06, won the restarted race from pole to close to 14 points from Cooper heading into the finale.

Cooper made the race after his Swift SC18 was frantically repaired with the help of other teams, and he put in a cautious drive to fourth on the road — enough to clinch his second Combe title — while Fisher won comfortably again.

Both races involved a frenetic scrap for second between National Formula Ford points leader Neil Maclennan and 2011 Combe FF1600 champion Robert Hall, Maclennan just edging it on both occasions. He was subsequently excluded from race two after failing to submit his Spectrum 011C for scrutineering.

Cooper added to his title success by winning Sunday's Formula Ford Carnival,



STYLES

Rudman won three of the six Snetterton Legends races

Rudman takes a hat-trick in hotly contested Legends

SNETTERTON
BARC
19-20 SEPTEMBER

Reigning Legends champion Miles Rudman managed three wins during a hotly contested weekend of racing.

Rudman was in contention in race one from the start, but it was Jack Parker who snatched the lead into Brundle on the last lap. It was any one of four exiting Murrays, with Rudman winning by 0.047 seconds ahead of Connor Mills, closely followed by Parker and Stephen Whitelegg.

John Mickel led the majority of the second race and, after losing out to Parker on the Bentley Straight a lap from home, he grabbed the lead back on the run to the flag.

Will Gibson was in control of Saturday's final from Mickel and Sy Harraway when the safety car came out. All three tangled exiting Riches on the green flag, leaving Parker to head home the one-lap sprint from Robin Fountain and Daniel Clark.

Rudman was the winner in the first of Sunday's races after Parker demoted Clark at Brundle. It was another dash for the line, with Rudman a bumper ahead of Parker, Clark and Mickel at the flag.

After Mickel had taken his second win over Parker and Gibson, the final race of the weekend came down to another one-lap sprint after two safety-car interventions.

Chris Needham was shadowing Rudman throughout the last lap, before pulling out of the slipstream to take the win. But a 10s jumped-start penalty dropped him well down the order, giving Rudman win number three from Parker and Mickel.

There were three-way fights in both Mini Miglia races between Rupert Deeth, Lee Deegan and Aaron Smith. Deeth led race one initially and managed to hold off Deegan's challenge in the second half to take the win, with Smith snatching second from



Bennett did just enough to win the CCRC GT title on Finals day

READ


Curnow took a double in Hot Hatch Challenge

READ

the race held in memory of veteran marshal Con Evans, who passed away recently. In a field lined with a number of Combe FF1600 champions, it was Cooper who prevailed from pole, finishing four seconds ahead of team-mate Hall, who took his third podium finish of the weekend.

Two-time Combe FF1600 champion Adam Higgins (Van Diemen) briefly led the race before losing out in a three-way battle with the Swift Cooper duo. He eventually held on to third after a long tussle with Chris Acton's Souley Motorsport Ray. Josh Fisher impressed at the wheel of an ex-Marcus Pye Merlyn Mk20 in his first appearance since taking his second Combe FF1600 title last year. Despite it being his first time in the car, Fisher beat more modern machinery to finish eighth, passing James Colborn's Van Diemen RF88 on the last lap.

Tony Bennett won the CCRC GT Championship despite a spin on the last lap of the deciding race. Bennett all but secured the title in the first encounter, holding off outgoing champion Jamie Sturges's VW Golf TCR for second by 0.7s, while chief rival Oliver Bull took victory in his Vauxhall Tigra. Bull won again in race two with Bennett, only needing to finish in the points, remarkably spinning his Caterham R300 a couple of corners from home. He dropped one place to sixth but still crossed the line as champion.

Mark Sutton clinched the CCRC Saloons title in his MG ZR after pipping Adam Prebble by one point. Prebble was hampered by issues with his Vauxhall Astra, finishing seventh in the first encounter and a distant second in race two behind older brother Gary, who took two dominant victories in his SEAT Leon Cupra.

Sutton also ran his MG in the CCRC Hot Hatch Challenge, with the returning Jordan Curnow winning both races in a Honda Civic. A multi-car crash within metres of the start caused the first of two red flags in race one after polesitter Mark Wyatt spun his Astra when he was pushed onto the grass, which triggered chaos behind.

STEVE WHITFIELD

Deegan a lap from home. It was more of the same in race two, with Deegan and Deeth swapping and changing places until Smith split them on the penultimate tour. Smith went for the lead into Riches on the last lap, but it was Deegan's win by one thousandth of a second, while Deeth was a close third.

As Morten Dons and James Abbott passed James Taylor in the first of the two Sports Prototype races, Dons made contact that proved costly as he lost the lead by pulling off with a broken steering arm. Abbott took a comfortable win from the similar Revolution A-Ones of Taylor and Richard Wells, while Dons dominated race two from Chris Hoy and Wells.

Former British Touring Car racer and reigning Mini Se7en champion Jeff Smith won both Se7en races. Spencer Wanstall was close to winning both, losing the first when Smith got a late break and the second after a safety car led to a one-lap sprint, where Smith got the decisive jump at the restart. Andrew Deviny took two thirds.

Andy Robinson (Ford Falcon) had to work hard in race-long battles with Daniel Brown's Ford Sierra Cosworth to win both Classic Thunder races. It was a lights-to-flag victory in the first, but Brown led race two until Riches on lap four of eight.


Deeth battled with Smith and Deegan in Miglias

STYLES

Dave Griffin won the battle of the BMW E46 M3s in the Pre '93 & '03 tourers. The first came after a safety-car spell when he took race-long leader Stephen Pearson around the outside at Agostini on the final lap, before it was a lights-to-flag win in race two.

Stuart Oliver was the only double winner from the British Truck Racing contests, as Tom O'Rourke, Mark Taylor and Ryan Smith claimed the other wins.

PETER SCHERER

WEEKEND WINNERS

CASTLE COMBE

CCRC FORMULA FORD
Races 1 & 2 Felix Fisher (Ray GR06)

FORMULA FORD CARNIVAL
Luke Cooper (Swift SC18)

CCRC GTs
Races 1 & 2 Oliver Bull (Vauxhall Tigra Silhouette)

CCRC SALOONS
Races 1 & 2 Gary Prebble (SEAT Leon Cupra)

CCRC HOT HATCH CHALLENGE
Races 1 & 2 Jordan Curnow (Honda Civic)

MIGHTY MINIS
Race 1 Neven Kirkpatrick (Super Mighty Mini)
Race 2 Ian Slark (Super Mighty Mini)

MG MIDGET & SPRITE CHALLENGE
Races 1 & 2 Richard Wildman (MG May Midget)

750MC MX-5 CUP
Races 1 & 2 Ben Short
Race 3 Alistair Bray

750MC LOCOST
Race 1 Simon Walker-Hansell
Race 2 Louis Wall

750MC BMW CAR CLUB
Races 1 & 2 Michael Pensavalle (E46 M3)

SNETTERTON

LEGENDS
Races 1, 4 & 6 Miles Rudman
Races 2 & 5 John Mickel
Race 3 Jack Parker

MINI MIGLIA
Race 1 Rupert Deeth
Race 2 Lee Deegan

SPORTS PROTOTYPE CUP
Race 1 James Abbott (Revolution A-One)
Race 2 Morten Dons (Revolution A-One)

MINI SE7ENS
Races 1 & 2 Jeff Smith

CLASSIC THUNDER & BOSS
Races 1 & 2 Andy Robinson (Ford Falcon)

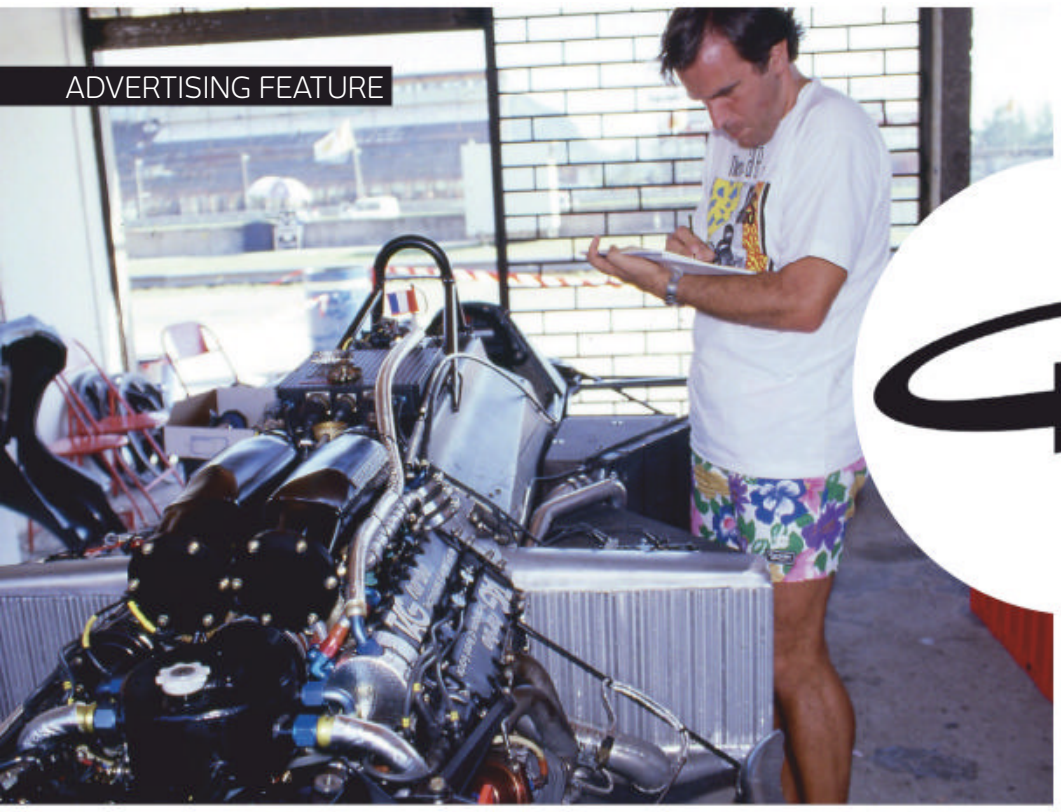
PRE '93 & '03 TOURING CARS
Races 1 & 2 David Griffin (BMW E36 M3)

BTRA TRUCKS
Races 1 & 3 Stuart Oliver (Volvo VNL)
Race 2 Tom O'Rourke (MAN TGA)
Race 4 Mark Taylor (MAN TGA)
Race 5 Ryan Smith (MAN TGA)

PRE '66 & '83 TOURING CARS
Race 1 David Howard (Jaguar XJ12)
Race 2 Mark Lucock (Ford Escort RS2000 Mk1)

MG OWNERS' CLUB
Race 1 Steve Darbey (ZR)
Race 2 Steve McDermid (ZR)

For full results visit: tsl-timing.com





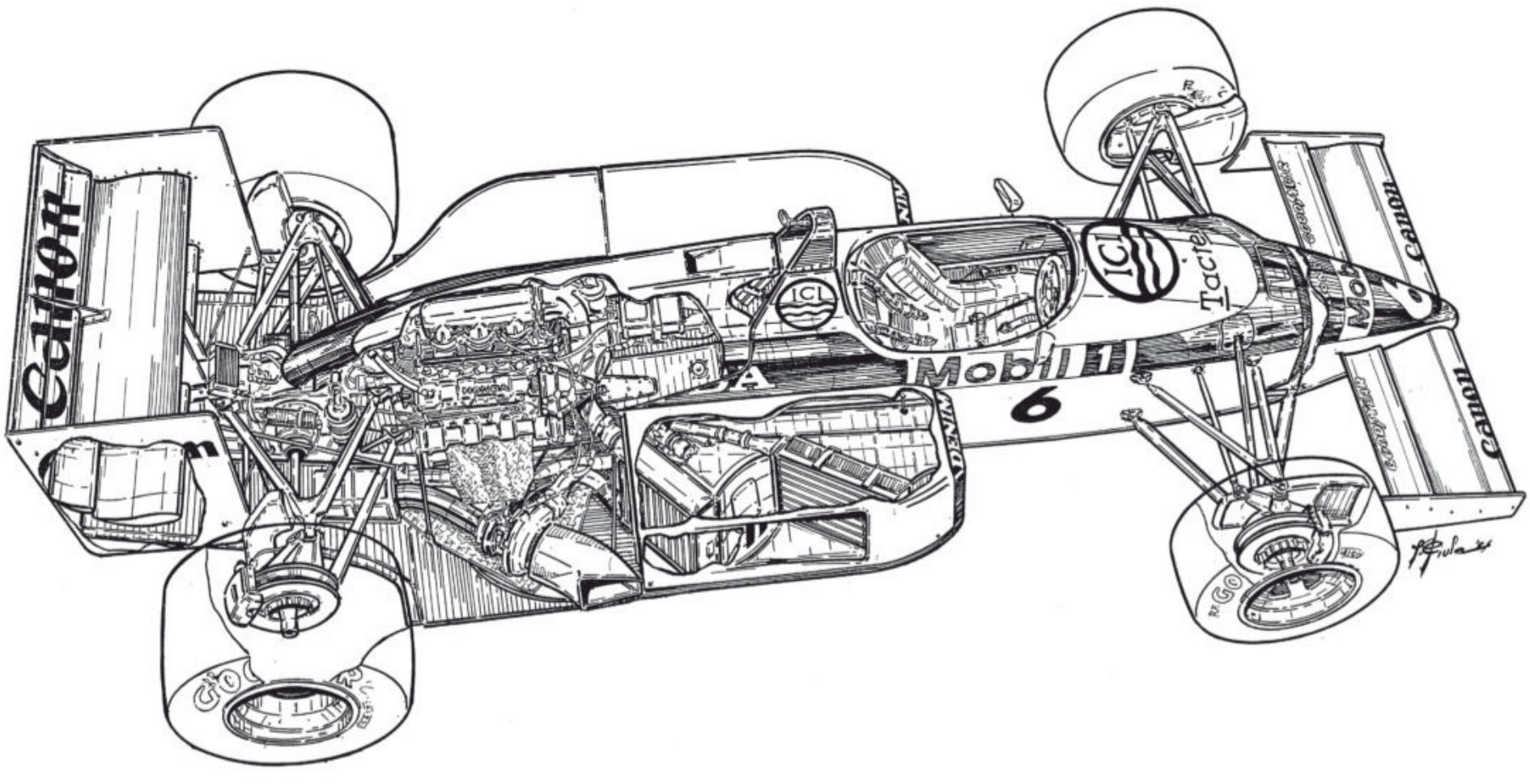
GIORGIO PIOLA

For the last 40 years, Giorgio has profiled every change in design and engineering for every car on the grid. Here we take a look at his incredible career.

Giorgio Piola is a much-celebrated figure within the Formula 1 paddock, famous for his technical artworks that span over 50 years of the championship's history. Having first attended the 1969 Monaco Grand Prix, Piola continued to document the evolution of F1 car design over the next five decades, and continues to illustrate technical developments today in his own inimitable style.

"I was always passionate in making drawings of everything," remembers Piola, "but from 14 years old, I concentrated on cars, especially Formula 1 cars. I was always making drawings even at school, listening to the teacher, but making the drawing in the same time. And this way, I could teach my eyes to be able to see like a wide angle view and to see in two opposite directions, so my drawing on the table, and the teacher on the desk, and this helped me a lot in Formula 1 because I'm able to spot any little detail, even without the people are really thinking that I'm looking at it." »





Piola's formative days of drawing in school laid the foundations for a career in motorsport, producing vast, sprawling illustrations of some of the most iconic cars in F1's history. One of his most famous drawings is of the Lotus 72, one of the most technologically advanced cars of the early 1970s and still influences the design of modern F1 machinery, and the original drawing was two metres in length and took Piola 40 days to complete.

Today, Piola's work has taken on more modern techniques, but he still remains faithful to his roots and produces the original drawing by hand before making any further modifications digitally.

"At the time in the 70s, and even in the 80s, the job was completely different," Piola says. "I had totally free access to the garages and there are some pictures that show me in Rio de Janeiro in swimming clothes beside Alain Prost's world championship-winning McLaren, taking sketches and nobody was interfering with me.

"Now the work is totally different. There is a lot of security. There is a lot more electronics and parts that are more difficult to do, and also my way of drawing is changing. Before I was doing big cutaways, bigger than one metre, 40 days of work with the Rapidograph 03 all by hand, and was a huge amount of work. Now, with the computer everything is easier, and we use it to retrace pictures." »



Another aspect of his work that Piola remembers fondly is of being able to speak openly with the engineers of the cars he drew - although relationships sometimes became strained when Piola discovered new designs and devices that the designers wished to keep secret. He once provoked the ire of Ligier designer Gerard Ducarouge, having come across a hidden valve system on the Ligier JS11 - known as the "clapet" - at Watkins Glen which stalled the ground effects to improve top speed - but Piola celebrates other feted technical personnel for being willing to talk about their innovations with him.

"Another wonderful aspect of the first 30 years of my career," Piola adds, "was the human relationship between myself and the engineer, were completely open. There was no block ,there was not PR, there was no press people that were blocking the engineer, and we could talk - even at dinner, or even at breakfast - and it was wonderful.

"I have very good relationship with geniuses that I adore like Patrick Head, Gordon Murray, John Barnard, Adrian Newey and all these people we could talk freely - for hours, even!"

Today, his illustrations concentrate on the race-by-race upgrades produced by teams across the grid, bringing life to the new innovations that modern F1 teams can often develop. This eye for detail and innovation now also extends to his passion for designing high-end Swiss watches, works of art which he is proud to present to his fans and the motorsport community.

Having started out with black and white line drawings, wielding his trusty Rapidograph 03 for shading in minute detail - to the point where he could sometimes become numb in his fingers after drawing for hours on end - Piola now uses modern techniques to add colour to his drawings.

"I still have the black and white trace. And the very important thing, is now it's easier because with the computer I have to scan that drawing, so I can split the image into pieces to make the difficult detail bigger. Even if I do a mistake, I can correct easily as I scan the drawing. At the end that is very nice to see, if you want something a little bit technical, the black and white trace - but everybody likes now to have a colour drawing."



The new SPEEDTRAP collection of timepieces, designed by Giorgio Piola and inspired by Formula 1, are now available to purchase via Kickstarter for as little as $400. Available in five different colours and made in Switzerland, the SPEEDTRAP collection is a sleek and elegant watch that will make a perfect fit for any motorsport or watch enthusiast.

Search 'Piola SPEEDTRAP' at kickstarter.com for more.

If you would like to own a piece of F1 history and marvel at the striking technical details of some of Formula 1's most iconic cars, prints of Giorgio Piola's original artworks and his collection of watches are available for purchase at giorgiopiola.com.



Rindt races his way to victory aboard the aged Lotus 49 in the 1970 Monaco GP

motorsport IMAGES

RINDT'S CHAPTER AND TERSE



BOOK REVIEW

JOCHEN RINDT: A CHAMPION WITH HIDDEN DEPTHS

The name Jochen Rindt is scarcely found without the epithet 'Formula 1's only posthumous world champion'. This year marks the 50th anniversary since the German-born racer won the 1970 title despite his demise at the wheel of a Lotus 72C in practice ahead of the Italian Grand Prix at Monza.

To mark the golden jubilee of his tainted coronation, McKlein has published *Jochen Rindt: A Champion with Hidden Depths*. Written by Dr Erich Glavitza, who knew Rindt well, the book indeed serves to move beyond that well-worn epithet.

Across 400 pages, readers can expect to learn much about the brusque character. For instance, pedants can take comfort in an immediate clarification that Rindt was in fact a German world champion, with FIA regulations mandating that a driver's nationality matches that of their passport. As such, Niki Lauda remains F1's only Austrian title winner and Rindt was the first German champion, not Michael Schumacher.

Therefore, it's fitting that each page is split in half between German and a largely well-resolved English translation. It tracks through Rindt's childhood and the death of his amateur pilot father and tennis player mother in a Hamburg bombing raid when he was only 15 months old. That meant Rindt inherited their Mainz spice mill, which would later come to fund his F2 career, having opted to skip F3 altogether, when he sold his majority stake in the business.

That allowed Rindt to climb his way onto the F1 grid, having been inspired by his travels to the 1961 German GP with pal Helmut Marko in a Volkswagen Beetle. As Rindt watched Stirling Moss ply his trade at the Nurburgring to score his final F1 victory, his remark was, "I want to do that too!"

Club racing and hillclimb outings in a Simca road car paved the way, before a first single-seater runout in 1963, which was entertainingly met with the words: "Big shit, I can't see anything!"

Snippets such as these show that Glavitza does well to convey the no-nonsense temperament that Rindt held. Friendships with sponsors, team bosses and fellow drivers are described as perfunctory rather than close.

Likewise, a particular success of this book comes in its account of Rindt's early impressions of the 72. Now considered one of motorsport's great gamechangers, Rindt vetoed the car's use for the 1970 Monaco GP following ignition problems in the preceding Spanish race. All this was set against a background of ever-growing tension between him and Lotus founder Colin Chapman. Instead opting for the leggy 49C, of course Rindt scored an unlikely and final victory for the machine around the streets of the principality, albeit aided by the heavy rate of attrition for his rivals.

This precedes almost 20 pages dedicated to that ill-fated weekend at Monza 50 years ago, complete with detailed pictorial analysis of the Parabolica crash.

Glavitza's close relationship with Rindt helps this book to move above and beyond a standard biography. It feels more revealing, a more authentic warts-and-all assessment of a terse but compelling figure.

Beautifully and lavishly illustrated throughout (whole chapters are dedicated to a wide variety of archive images for each top-flight racing season), and with five pages listing all of Rindt's amateur, sportscar, Formula Junior, F2 and F1 results, this is an accomplished and complete book. *Jochen Rindt: A Champion with Hidden Depth* absolutely delivers in its aim to explore the driver behind the tagline.

MATT KEW

YouTube youtube.com/AUTOSPORTdotcom



The Tyrrell P34 raced for almost two seasons and was a grand prix winner, and the potential that could be unlocked by six wheels was soon cottoned onto by rival Formula 1 teams. Autosport picks out some of the rare triple-axled machines. **Go to bit.ly/SixWheelF1**

autosport.com/podcast



This week, selecting the greatest touring car of all time is the task facing the Autosport panel in the latest of our 70th anniversary celebration podcasts. To help us in the debate, we're joined by 1992 BTCC champion and ITV commentator Tim Harvey.

WHAT'S ON

INTERNATIONAL MOTORSPORT

Russian Grand Prix
Formula 1 World Championship
Round 10/17
Sochi, Russia
27 September
TV **Live** Sky Sports F1, Sun 1205
TV **Highlights** Channel 4, Sun 1730, Sky Sports F1, Sun 1800

FIA Formula 2
Round 10/12
Sochi, Russia
26-27 September
TV **Live** Sky Sports F1, Sat 0805, Sun 0845

Super Formula
Round 2/6
Okayama, Japan
27 September
Livestream on motorsport.tv Sun 0600

GT World Challenge Europe Sprint Cup
Round 3/4
Zandvoort, Netherlands
26 September
Livestream on motorsport.tv
Fri 1650, Sat 0745, 1230

Nurburgring 24 Hours
Nurburgring, Germany
26-27 September
Livestream on motorsport.tv
Thurs 1125, 1925, Fri 1220, 1645, Sat 1010, 1330

IMSA SportsCar
Round 7/11
Mid-Ohio, USA
27 September

World Touring Car Cup
Round 2/6
Nurburgring, Germany
25-26 September
TV **Live** Eurosport 1, Sat 0855

TCR Europe Series
Round 3/6
Monza, Italy
26-27 September
Livestream on motorsport.tv Sat 1610

Ferrari Challenge Europe
Round 6/7
Misano, Italy
27 September
TV Live Sky Sports F1, Sat 1810
Livestream on motorsport.tv Sat 1450, 1610

NASCAR Cup
Round 30/36
Las Vegas, USA
27 September
TV **Live** Premier Sports 2, 2330

NASCAR Truck Series
Round 17/22
Las Vegas
25 September
TV **Live** Premier Sports 1, Sat 0130

Australian Supercars
Round 10/11
The Bend, Australia
26-27 September
TV **Live** BT Sport 2, Sun 0315, 0545

MotoGP
Round 8/14
Barcelona, Spain
27 September
TV **Live** BT Sport 2, Sun 1330
TV **Highlights** BT Sport 3, Sun 1830



UK MOTORSPORT

Kirkistown 500MRCI
26 September
Martin Donnelly Trophy, FF1600, Formula Vee, Saloons, GTs, Ford Fiestas, Mazda MX-5s, Roadsports, Global GT Lights, Legends, Superkarts

Snetterton MSVR
26 September
F3 Cup, Mini Challenge Trophy, Elise Trophy, Racing Saloons, Production BMWs, Trackday Championship, Trackday Trophy

Silverstone BARC*
26-27 September
BTCC, British F4, Mini Challenge, Ginetta GT5 Challenge, Ginetta Junior, Porsche Carrera Cup
TV **Live** ITV2, Sun 1100

Brands Hatch BRSCC
26-27 September
Caterham Academy, Caterham Roadsport, Caterham 270Rs, Caterham 310Rs, Caterham Sevens, FF1600, Classic FF1600, VWs, BMW Compact Cup

Donington Park CSCC
26-27 September
Swinging '60s, Tin Tops, Future Classics, Magnificent Sevens, Special Saloons and Modsports, Modern Classics, Classic K, New Millennium, Open Series, Turbo Tintops, Slicks Series

***Behind closed doors as Autosport went to press**



FROM THE ARCHIVE

The BMW 635 CSi shared by Roberto Ravaglia, Gerhard Berger and Emanuele Pirro rounds La Source on its way to third place in the 1986 Spa 24 Hours. Although Berger was unable to repeat his victory from the previous year, it was an event dominated by the 635, which took the top four positions, and the winning crew were Berger's BMW Belgium team-mates Dieter Quester, Altfrid Heger and Thierry Tassin. Autosport debates the greatest touring car of all time as part of our special series of podcasts to celebrate our 70th birthday. Go to bit.ly/GreatestTintop

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Solberg pips Loeb in Rally GB thriller

23 September 2004

He may have been in the process of losing his World Rally crown to Sebastien Loeb, but Petter Solberg was not to be denied on Rally GB this week in 2004. The Subaru ace arrived 30 points behind Citroen star Loeb with five rounds to go (and with 10 points then on offer for a win).

Loeb set the early pace, but Solberg held on. Heading into the final day the Subaru was just 7.3 seconds behind. And a stunning Solberg effort through the penultimate stage (Margam) stole the win from Loeb. "Corners that had been noted for a lift or a dab of the brakes were absolutely nailed in top gear," said our report. "Loeb was a beaten man."

Solberg won the rally by 6.3s to secure the third of his four consecutive Rally GB victories.

The big F1 news was that Ford had decided to put its struggling Jaguar Racing team up for sale. "It's always consisted of a bit too much branding and not quite enough real performance," lamented Autosport.

Christian Horner's Arden concern and Red Bull were two of the parties believed to be interested. Ultimately Horner and Red Bull joined forces to create the team that would take its first grand prix victory in 2009 and become one of the most successful squads of the following decade.

In driver news, Jacques Villeneuve was buoyant about his chances on his F1 return with Renault, replacing the out-of-favour Jarno Trulli. Villeneuve wanted to put one over his old BAR team and help Renault secure second in the constructors' table, but his three outings would yield no points and BAR duly wrapped up the runner-up spot.

Autosport debates the greatest rally car of all time as part of our special series of podcasts to celebrate our 70th birthday. Go to bit.ly/GreatestRallyCar



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ENGINEERING



THE NEW F1 TEAMS THAT NEVER WERE

The little-known stories behind 2010's rejected teams


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Bosch
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Prodrive boss David Richards (l) planned customer McLaren deal with Ron Dennis

PUTTING UP THE DEFENCES TO AVOID MISTAKES OF THE PAST

It was interesting to note the news recently that any prospective new entrant to Formula 1 would have to pay rival teams a total of $200million, as part of a prize-money 'dilution fund', if they want to join the grid from 2021.

McLaren boss Zak Brown said it was justified as a means to protect the value of existing teams, and to prevent "random announcements" from teams abundant in enthusiasm if not the wherewithal to make it work. In doing so, Brown namechecked US F1, one of the outfits that was granted an entry to the world championship for the 2010 season, only to never make the grid.

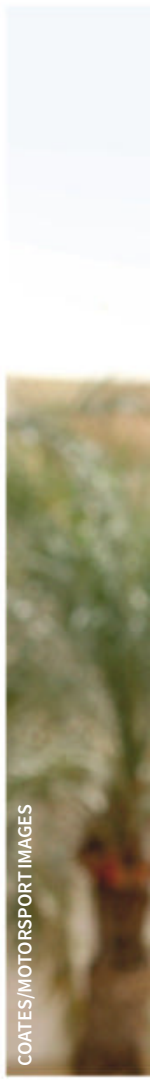
"I don't think you'd ever see it in other major forms of sport," he added.

There can be no doubting that the US F1 debacle didn't reflect well on F1 as it's desire to have a US-based team – eventually fulfilled by Haas in 2016 – meant several more worthy candidates were left high and dry with well-advanced projects. A decade on, and against the background of F1's new budget cap – the promise of which provided the impetus for new teams to join the grid in the first place – Jake Boxall-Legge has unearthed the stories behind the entries that were rejected (see page 12).

One can only wonder what a Prodrive-run customer McLaren might have achieved, or whether Lola might have avoided biting the dust with its presence in F1 restored. Instead, we were 'treated' to a HRT, which ran in launch-spec all year, an all-CFD-designed Virgin with a fuel tank that was too small (raced by our columnist Lucas di Grassi) and a revived Team Lotus bearing little resemblance to its storied namesake. Small wonder F1 is putting up a high barrier to entry now...



COVER IMAGE
Moy/Motorsport Images



COATES/MOTORSPORT IMAGES

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Why Renault's powertrain advances owe much to its tie-up with DuPont

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Nigel Beresford
From Tyrrell to Penske to Formula E, lessons from an engineering veteran



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WINNING DEBUT FOR ELECTRIC CITROEN

Citroen Racing victorious with C3 ERX in Projekt E RX support series

The new Citroen Racing-supported C3 ERX rallycross car made a winning debut in the second round of World Rallycross's Projekt E electric support series last weekend in Latvia.

Conceived as a collaboration between Citroen Racing and Projekt E electric kit producer STARD, owned by Manfred Stohl, the C3 ERX is based on an R5 rally bodyshell.

The car had been due to make its maiden appearance in the inaugural Projekt E round at the Swedish World RX season opener, but COVID-19-related logistical delays meant the first outing was postponed until the second round in Riga, where Frenchman Cyril Raymond piloted the C3 to victory against a trio of Ford Fiesta ERXs.

The programme is the first in rallycross to get Citroen backing since its support for Kenneth Hansen's European Rallycross Championship programmes ended more than a decade ago.

The C3 ERX is said to use 80% of the works-built components found on Citroen's latest R5 rally machine, including suspension, brakes and bodywork. For the car's debut, it sported a larger rear spoiler from a C3 WRC.

The C3 ERX bodyshell has been retro-fitted with STARD's 'revelution' electric powertrain system, the single-specification kit mandated for use in all Projekt E cars. It uses three electric motors, two at the rear and one at the front, as part of its four-wheel-drive system, with a two-speed transmission fitted to both axles. The car produces 450kW and 1002Nm of torque.

The C3 ERX is the second model to be introduced into Projekt E, following the Fiesta that was used at the series' launch. Four examples of the car are currently competing, with Nathalie Barratt – the only driver to enter both rounds to date – leading the championship.

Another marque is expected to join the grid before the end of the campaign, but German team Volland Racing is yet to confirm which model of car it will adopt.



Raymond took the new C3 ERX's first win in Riga

TOM BANKS

NICHE SPORTSCAR MAKER SPYKER SET FOR COMEBACK WITH BR ENGINEERING TIE-UP

Quirky Dutch sportscar marque Spyker, which went bankrupt in 2014, is set to be revived and is targeting a return to motorsport after a tie-up with the BR Engineering operation behind the SMP Racing LMP1 project.

Spyker was a regular at the Le Mans 24 Hours between 2002 and 2010, and managed infrequent podiums in the Le Mans Series with its C8 Spyder, but was rarely a match for its numerically dominant GT2 class rivals Porsche and Ferrari.

The company was sold to Saab in 2010 and ceased its involvement in sportscar racing, before being declared bankrupt amid Saab's financial decline.



Spyker last competed in sportscar racing in 2010

GRIFFITHS/MOTORSPORT IMAGES

Now BR Engineering's Boris Rotenberg and Mike Pessis of Luxembourg-based design agency Milan-Morady, together with German automotive tuner R-Company, have combined with Spyker founder Victor Muller for the company's planned return and announced its plans to build three new production models.

BRE and Milan-Morady previously collaborated on the last production run of Spyker C8 Ailerons in 2017. A Spyker release said: "It goes without saying that Spyker intends to re-enter the international race arena through its partnership with SMP Racing and to again take a strong foothold in motorsports."

Muller said: "My gratitude goes out to Boris Rotenberg and Michail Pessis for the trust they both placed in us."



HYRAZE League has input from HWA

NEW HYDROGEN-FUEL-CELL SERIES ANNOUNCED FOR 2023

An all-new environmentally friendly hydrogen-powered racing series has been unveiled ahead of a projected launch in 2023, featuring "zero-emission" cars and a "revolutionary braking system". Announced in August, the HYRAZE League will use "environmentally-produced" hydrogen as fuel for its 800bhp fleet of cars, using two hydrogen fuel cells to power four electric motors.

Together with crack German powerhouse HWA, the series has been formulated in partnership with German manufacturer Schaeffler, plus organisations ADAC, DEKRA, DMSB and the World Esports Association (WESA).

The series aims to free up chassis design, albeit mandating composite structures from natural fibres as opposed to carbon-composite monocoque structures.

The braking system is aimed to capture any brake dust produced during a race distance, and will be disposed of post-race in an "environmentally neutral" way to minimise any air pollution produced by particles.

Aerodynamic developments will be managed to reduce costs and boost the racing spectacle.

LMDh POWERTRAIN DEAL GOES TO BOSCH

Bosch Motorsport has been nominated as the exclusive supplier of several key hybrid powertrain components in the new LMDh category that is set to debut in 2022.

The new unified platform for prototype racing, created by the ACO and IMSA, will allow hybrid-equipped cars based on LMP2 machinery to compete in the World Endurance Championship and IMSA SportsCar Championship against the Le Mans Hypercars that are due to come on stream in the WEC next year.

Working alongside battery and transmission providers Williams Advanced Engineering and Xtrac, Bosch will supply the e-machine, inverter and vehicle control unit to the brake-by-wire system along with other peripheral electronics.

Vice president of Bosch Motorsport Dr Klaus Boettcher said: "This is the next step in demonstrating our years of expertise and competence in motorsport, both with our technology and system engineering for a perfect interaction of all components."



GALSTAD/MOTORSPORT IMAGES

LMDh will unite prototype racing


McLAREN

Lando Norris checks out his new F1 race seat

McLAREN REVEALS NEW NATURAL FIBRE F1 SEAT

The McLaren Formula 1 team has partnered with sustainable 'lightweighting' specialist Bcomp to produce a racing seat made from natural fibres.

With F1's sporting regulations mandating that ballast must be used within the immediate area of the driver's seat if drivers weigh under the 80kg minimum, McLaren approached the Swiss company to produce a lightweight and eco-friendly solution that retains the strength and stiffness of its carbonfibre predecessor with a 75% carbon-footprint reduction.

Made from flax fibres, a CO2-neutral and biodegradable raw material that is 9% lighter than any equivalent carbon material, and using Bcomp's powerRibs™ technology, it also boasts greater vibration absorption and reduces raw material cost by up to 30%.

"The use of natural-fibre composites is the latest example of composite materials innovation at McLaren," said McLaren F1 team principal Andreas Seidl. "Not only does this solution provide equivalent performance to carbonfibre, it represents another step forward in our evolving sustainability programme."

IN BRIEF


LEVITT/MOTORSPORT IMAGES

Ilmor now has increased EV knowhow for IndyCar's move to hybrid in 2022

ILMOR'S NEW EV FACILITY

Ilmor has completed the installation of a new EV powertrain development facility at its site in Brixworth. The company behind Chevrolet's IndyCar engine programme will be able to conduct performance and efficiency testing, and attribute development programmes for motorsport and automotive customers.

ZIRCOTEC EXPANDS

One year after a fire destroyed its previous HQ, Oxford-based motorsports heat management specialist Zircotec is set to increase its capacity tenfold after a £2.5million investment in larger premises and new equipment. A supplier of surface coatings and heat-shielding solutions to several teams in Formula 1, Zircotec plans to expand into other industries.

FS HEADS ONLINE...

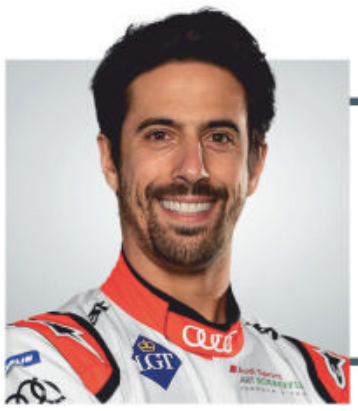
Formula Student introduced a new Simulation Development event to its annual motorsport-based engineering challenge in July, as the University of Bath won an online-only edition of the event. Oxford Brookes prevailed in the new discipline as the 23rd edition of the competition organised by the Institution of Mechanical Engineers was held remotely, with laptime simulations replacing dynamic events.

...AS DOES TDI CHALLENGE

The Technology Design and Innovation (TDI) Challenge for students aged 16-19 organised by the Manufacturing Technologies Association received 40 entries for its online competition. Participants were invited to upload a short video explaining how their project will benefit its users. Entries will be judged by a panel of experts from manufacturing giants including Renishaw, Mazak and Sandvik, with the winner offered a work placement in a design office.


KARLA GOWLETT

There won't be a real-world TDI presentation this year



DRIVING CHANGE
LUCAS DI GRASSI

THE 'WEIRD' BERLIN EXPERIMENT WITH WIDER RELEVANCE TO MOTORSPORT

COVID-19 has brought unprecedented opportunities to innovate in ways that would have previously been unthinkable. Formula E's Berlin mini-series is a case in point, and provided important lessons for motorsport to learn from

If there's one lesson that the motorsport industry can take from COVID-19, it's that the need to adapt was always there, but the process has now been speeded up. Championships and manufacturers have been hit hard by the pandemic in different ways and had to come up with solutions quickly.

Being proactive in cancelling races was a good way for Formula E to avoid uncertainty for teams and event promoters, but it also created the problem of how to replace the lost events and finish the 2019-20 season. The solution of having six races in the same place was maybe a bit weird, but it was interesting at the same time. For the last Berlin race, where you would expect the cars in Group 1 qualifying to have the least amount of problems because of the rubber laid down, the best qualifier was Max Guenther in 18th. It was the worst qualifying ever for Group 1 in FE, so there was a lot of things happening even though the championship was already decided. Ultimately, we accomplished 11 races and now we can look forward to season seven.

Not having the fans there made it feel very strange for us, but like Formula 1 I think the overall impact was less than people predicted. To me, that shows we have to be more inclusive, the fans need to be feeling motorsport closer and be more interactive with it. It should make a huge difference, like a football game where the fans really change the atmosphere. It's a lesson for motorsport to be even more inclusive in the future.

An important lesson from the Berlin mini-series is that you can do several races in the same place and still have exciting races. Even though I don't think people were so interested in watching races in the same place by the sixth day, it's more important to have entertaining races than different layouts. It would be better to have 10 exciting races in Berlin than 10 different locations with boring races.

Location is also less relevant when you don't have the local spectators going to the races – in normal circumstances, people would lose interest the second time you do the event and local ticket sales might drop – and if you have a series where the product is mainly for entertainment like Formula E, you could eventually stay in one place.

We had five different winners from the six races in Berlin because of the sporting regulations with the qualifying format, combined with the evolving track conditions. That shows it's a much stronger and more cost-effective way of producing interesting races than just changing layouts. Each day, the track had different characteristics, so it was difficult to maintain consistency.

The same goes for the F1 races at Silverstone. Without changing the location of the track, we had two very different races – even with all the data the teams have on these circuits, which means they are specialists at almost every circuit and have simulation so perfect that they have



ALL PHOTOGRAPHY
motorsport IMAGES



S BLOXHAM

Di Grassi sprays old sparring partner Buemi in Berlin amid distanced podium protocol

Different layouts in Berlin weren't too taxing to learn but still provided six good races

FERRARO

> "If tracks with multiple layouts are able to host multiple races, F1 should use them"

to make minimal set-up changes – just from changing the tyre configuration.

This raises another interesting point. Although there were three different layouts in Berlin – race one on the reversed layout was the most different to learn – it's not the most challenging track to get up to speed at compared to some of the crazy places we go to in FE, like Rome and Paris. But if tracks like Silverstone or Paul Ricard, which have two or three different layouts, are able to host multiple races, then F1 and other FIA series shouldn't be afraid to use them in consecutive weekends if that works for a TV product.



Where motorsport exists mainly as a TV product, it can be flexible to experiment

DUNBAR

The new normal means a reduced number of corporate guests and spectators on site at race events and for the foreseeable future – motorsport is mainly for a TV audience. Therefore, I don't see why this couldn't be part of the solution to reduce costs to save on budget and CO_2 emissions from travel. It's good to see that F1 is trying this with the outer layout in Bahrain as it's possible to do two races there. ▶

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Racing without fans in attendance provides scope for reflection

S BLOXHAM

One experiment in Berlin that personally I don't want to do again was having the fifth and sixth races in the middle of the week. I haven't seen any viewer figures yet, but in Brazil the races were at 2pm, when most people were at work and couldn't watch it. From the drivers' perspective it didn't make any difference and regardless of what I think, we need to get the data before making a firm decision on it, but I'm not convinced that it added anything to the series. I think the midweek compromise was just confusing. People are used to having the race over the weekend and a lot of people interacting with me on social media were saying, 'Why is he posting about the race on Wednesday?'.

> "Even if life goes back to normal, we don't have to go back to how things were before"

My opinion is that FE shouldn't be afraid of sharing a weekend with F1 or any other series. It needs to decide its own calendar without any compromise, the same way F1 does. It's something different when it's football because there are so many matches in a season, but the most important ones are always over the weekend, like the final of the Champions League. Because we have only 11 races in a season, I don't see why we shouldn't continue doing it on Saturdays the same way we did before.

As for having lots of races in a short period of time, I compare Berlin a bit with Le Mans in terms of tiredness. Physically, I could do one FE race per day for the rest of the year, because it's a 50-minute race, but mentally it was very hard. Still, I was not super-happy with my performance from being in Group 1 in four out of six races even though I overtook more than anybody else.

There are so many new things that would never have been implemented without this unprecedented time, and it's taught us that we could do a lot of things differently. For example, in Berlin we had our driver briefing via Zoom and it was much more efficient than normal — it only lasted around eight minutes while [race director] Scot Elkins said whatever he needed to talk about and we talked about only important points. That would have been unthinkable before the pandemic!

It's one way how things can be made more efficient and, even if things go back to normal, we don't have to go back to how things were before. By increasing efficiency, we can make a lot of things safer and quicker and cheaper, accelerating the process of bringing the future closer to motorsport. As I've said before, motorsport is very nostalgic in its approach to rules and procedures — it often looks to the past for solutions before accepting new ideas, so we have the same rules, same everything year after year.

This type of progress is usually very slow in motorsport, but the pandemic has shown that we can improve in many areas when there is no choice other than to react. It has involved a lot of short-term pain, but it has already made a huge difference to the future of motorsport. ■



Innovation resulting from the pandemic could be its greatest long-term impact on motorsport

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ENGINEER'S VIEW
MARTIN MONSCHEIN



THE BREAKTHROUGH IN BRAKING TECH

AVL's newly developed dynamic brake-torque sensor can break new ground, as AVL RACING's expert explains

Although horsepower and powertrain performance is more obvious, deceleration is as much a part of any lap as acceleration. Braking is a big performance differentiator, but even more important is the feel it gives. In MotoGP for example, if the rider has no confidence in his front brakes, then they lose a lot of performance.

The hybrid powertrains used in Formula 1 today mean braking systems are a lot more complex than in the past, when a pure mechanical set-up composed of the disc, pads, caliper and the pedal were all that was required. Now there's a full control system behind it, so braking has become a vital part of car development.

Previously, it was only possible to analyse brake performance in a lab environment, not while installed in a vehicle on track. AVL has been involved in brake testing and development for some time, and has always looked for opportunities to gather real-time data. This is useful to verify what we have learned during development and understand how braking performance is influenced by temperature or wear, so these systems can be fine-tuned to help the driver use the absolute limits of braking potential.

There has always been the opportunity to monitor brake pressure and temperatures, but not really how much force is generated by the brake. For example, if your left and right brakes are performing at slightly different levels – if one is dragging more than the other – then you won't be accelerating at a constant rate, which also leads to unwanted steering. Until now there hasn't been a fully reliable way of tracking this other than using feedback from the driver, but AVL's new dynamic brake-torque sensor gives us confidence in data gathered from in-vehicle track usage. Now it is possible to either verify what you expect from the system or to understand the effects you want to optimise.

> "The piezoelectric crystal is very stiff and doesn't influence the system characteristics"

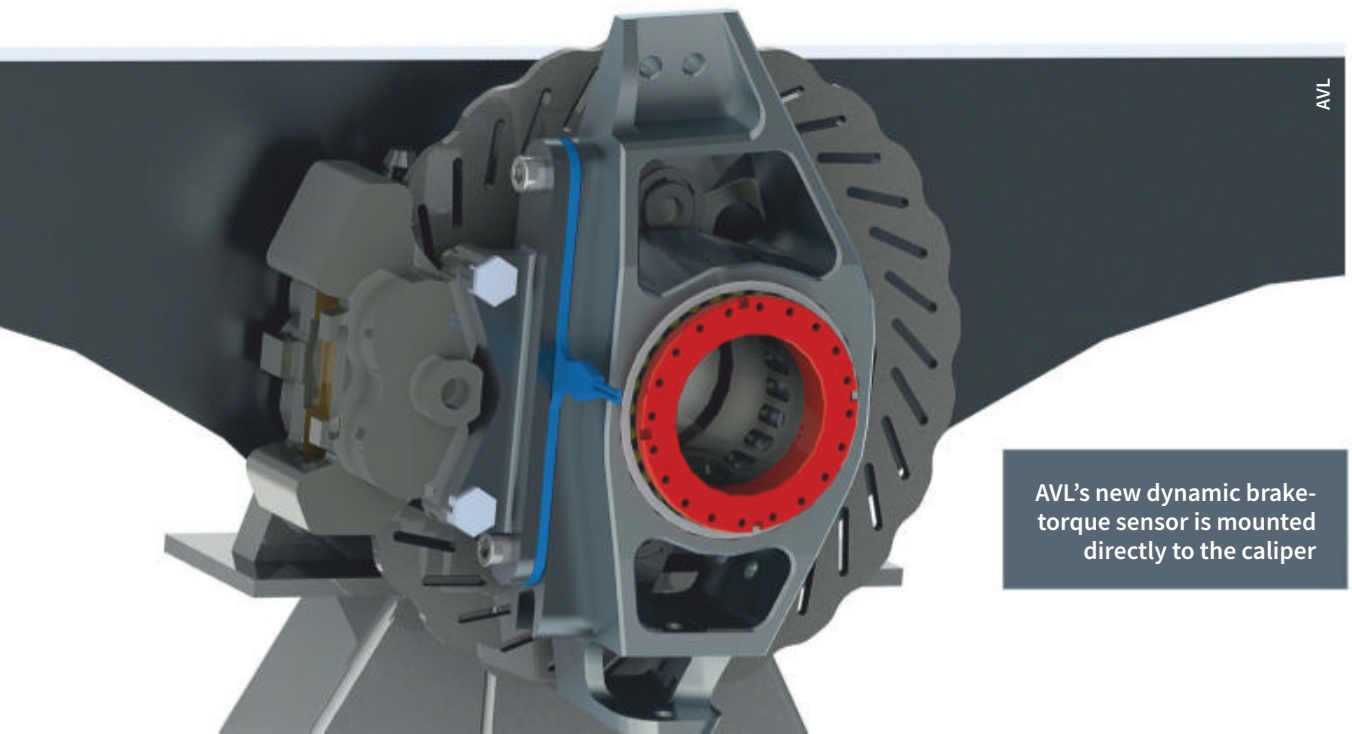
The piezoelectric effect used in the sensor is really nothing new. We grow gallium phosphate crystals in-house at AVL – which take 10 years to get results – and these crystals generate a small charge when a force is induced. This charge is amplified and turned into an electric signal that we can track with a data-acquisition system and turn into a measured value. The real benefit of the piezoelectric crystal is it's very stiff and therefore doesn't influence the characteristics of the system, like response times. A very soft element installed in a brake system would change the brake feel and behaviour, which is a no-go.

Brakes generate a lot of heat, so thermal stress was an important consideration when developing the sensor, although maybe not for the reason you might expect. It's not just about durability, but also how heat changes the geometry of the brake assembly from when it was installed. This is an important consideration, but not something we want to measure. The same goes for other side-effects like road roughness, which can influence our measurement signal but doesn't show up on the testbed.

We've used the sensor for open-wheel and GT applications – at both ends of the spectrum for a racecar – and it had the same result quality in both applications, giving us lots of confidence in its potential.

The plate that protects the cables that transfer the charge to the amplifier is manufactured based on customer geometry. For the sake of a hundred millimetres or so, the weight difference is almost negligible. More importantly, it only adds 3-4mm in thickness, which is vital because otherwise the geometry of the brake pad would be significantly affected. If needed, it could also be incorporated directly into the upright design, but this will be only possible if regulations permit the sensor to be used in competition, which isn't the case currently.

We're always excited to bring out new tools, especially in areas where people haven't done it before. The dynamic brake-torque sensor was initially generated for racing application, but obviously it's not limited to that, which is very exciting. This is what the AVL mindset is all about. ■



AVL's new dynamic brake-torque sensor is mounted directly to the caliper



F1 2010'S TEAMS THAT WEREN'T

Formula 1's decision to agree on a $145million budget cap from 2021 comes more than a decade after a mooted £40m cap attracted several prospective entrants. Here's the little-known story of the politicking that prevented credible entries from joining the grid

BY JAKE BOXALL-LEGGE

PHOTOGRAPHY motorsport IMAGES

Thanks to the financial broadside levelled on Formula 1 by the coronavirus pandemic, the current cast of teams could be forgiven for getting a little hot under the collar when it comes to perusing balance sheets. Luckily, the latest Concorde Agreement and cost cap show that F1 has learned from the mistakes of the past.

Last time, the global financial crisis almost changed the face of F1 altogether. Manufacturers Honda, Toyota and BMW all withdrew, while the Honda-backed Super Aguri squad had also hit the wall mid-2008 as money proved scarce. To fill the gaping void, then-FIA president Max Mosley unveiled a new tender process to welcome teams into F1 for 2010 with a Resource Restriction Agreement — a promise of a £40million budget cap — to sweeten the pot.

Many teams submitted serious entries, from which the FIA selected three: Virgin Racing, Campos Meta 1 and US F1. After Toyota elected to end its fruitless F1 tenure, Tony Fernandes's Lotus Racing team got the call-up as late as September 2009, meaning it had just six months to get an entire squad together before the start of the following season.

This came amid a genuine threat of a split between the manufacturer entities that made up FOTA — the Formula One



MAIN IMAGE: MOY

Teams' Association — and the FIA-aligned non-FOTA teams, consisting of Williams, Force India and any new teams added to the field. Thankfully, the FIA and FOTA resolved their differences, but the Resource Restriction Agreement became collateral in ending the prospective breakaway, leaving the new teams in a precarious place before the 2010 season even began.

Although the presence of new entrants tinged the upcoming season with a modicum of excitement, the FIA's picks to fill the grid disappointed, as a selection of big names were left on the cutting-room floor.

A decade on, it's perhaps fitting to reflect on the 2010 entry process and investigate the circumstances in which the bigger names failed to make the cut — and why some of those who did also struggled to put a fully-functioning entry on the table.

POWERTRAIN POLITICS

Choosing the wrong engine ended up costing two teams a potential spot at the F1 table. With the F1-FOTA split a very real prospect, Mosley and F1 ringmaster Bernie Ecclestone were all too aware of the manufacturer power of Mercedes, Ferrari and Renault. To alleviate this, the two hatched a plan to bring Cosworth back into the fold, investing resources into the company to ▶




Villadelprat confers with F1 supremo Ecclestone

MOY

develop a V8 engine ready for 2010.

"They needed about three customer teams to make the Cosworth economics work," explains Prodrive CEO David Richards. The powerhouse behind Subaru's World Rally Championship exploits and Ford's British Touring Car Championship monopoly of 2000, Prodrive was one of the many teams angling for an F1 entry for 2010, having previously been granted a spot in F1 for the 2008 season before its plan to run a customer McLaren-Mercedes package was dashed by opposition among the existing teams on the grid.

After rules on buying customer parts were lifted, Prodrive sought to base its entry on a McLaren tie-up once more, putting together a proposal in which the team would join the fray with Mercedes engines. Richards and Prodrive, in the process of proving to the FIA that their submission was viable, were met with resistance. Suggestions that there would be no entry unless Prodrive played the game and opted for Cosworths rather poured cold water on the plan as the Mercedes deal was already in place.

"The entries went in," Richards recalls, "but it was no great surprise to us that we didn't get one of them because it was clearly the underlying motive; increasing the entries and bringing new teams to the party was to try and get another engine manufacturer on board to break the deadlock of the manufacturers."

"It was no great surprise that we didn't get an entry"



Lola's 1997 effort got no further than failing to qualify in Melbourne



HRT driver Chandhok exits the Bahrain pit garage in March 2010

MOY

Epsilon Euskadi was another entry hit by the unwritten rule on engine supply. The junior single-seater squad based in Vitoria-Gasteiz in Spain's Basque Country, and run by veteran F1 team manager Joan Villadelprat — a former colleague of Richards at Benetton in the late 1990s — had become a manufacturer when it built the ee1 LMP1 sportscar for the 2008 Le Mans Series, and had ambitious plans that extended beyond selling them to customers, which involved aerodynamicist Henri Durand.

"We didn't talk about Formula 1 at the start, we were effectively talking about having a company in Spain that would be more like Dallara," recalls Durand, who had worked with Villadelprat at Ferrari, McLaren and Prost. "I was tasked with setting up a group which would effectively provide engineering services in the field of aerodynamics, and not necessarily to the motor racing industry."

The mooted budget cap meant Villadelprat's ideas snowballed to involve F1 and, after bringing on board former Brabham, Scuderia Italia and Sauber designer Sergio Rinland to work on the ee1, it began work on an F1 project using its on-site windtunnel.

"We wanted to have the Renault engine," Rinland explains, "and Joan was very good friends with Flavio Briatore. He had a handshake with Renault but, when he went to present the entry to the FIA, he was told before entering the presentation room he had to use a Cosworth. With a Renault, we'd have been a lot more competitive than the other new teams."

Epsilon was placed on a reserve shortlist, but that effectively meant the end of its F1 dream.

CAMPOS



PERSONNEL	●●●●●●○○○○
FACILITIES	●●●●●●●○○○
CREDIBILITY	●●●●●●○○○○
HISTORY	●●●●●●●○○○
PROGRESS	●●●●●●●●○○

PIE-IN-THE-SKY OVER PRAGMATISM

Lola's omission from the 2010 entry list was one of the biggest surprises, and to this day its former staff members still speculate over the true reason why the Huntingdon company was denied a return to F1.

Pending some refurbishment, Lola had the infrastructure in place. Owner Martin Birrane, owing to the wealth he ▶

THE BUYOUT THAT MADE IT

Like US F1, the Campos Meta 1 team was also perilously close to the abyss. Owned by Adrian Campos, who had enjoyed lots of junior category success with Campos Racing, the Spanish team joined forces with Enrique Rodriguez's marketing company Meta Image. It toed the party line and agreed a deal for Cosworth engines, and had also contracted Italian design firm Dallara to put together its cars for 2010. With an already-functioning race team, Campos's entry was selected to represent Spain on motorsport's biggest stage.

Throughout the 2009 season, the noises from the Campos Meta camp were promising. The team had secured government backing to build new facilities in the Fuente Alamo technology park in Murcia, creating 200 jobs and linking up with two local universities to put together motorsport engineering courses. A deal was also agreed with Bruno Senna to join the team.

But then the team ran out of money and could not guarantee payments to Dallara, which stunted the car's development. Around February 2010, Jose Ramon Carabante's Hispania Group saved the team and managed to get it to the grid, drafting in Colin Kolles's racing operation to run the cars.

Karun Chandhok, who signed for the team late on, explains that the F110 chassis run throughout 2010 was only supposed to be a launch-spec car. "That car on its own is really a case of 'what if?'" he recalls. "For Spain, they showed me the update they had in CFD. It was going to be worth two and a half/three seconds, which would have put us in Toro Rosso territory."

But the Spain upgrade never came, and HRT spent its life consigned to the back of the grid, where it stayed until its demise at the end of 2012.



MOY

had earned with his extensive property portfolio, was happy to sink money into the project to return Lola to F1 after its false start in 1997 under the previous Eric Broadley regime, but the team had to display self-sufficiency.

Mark Gallagher, who had come on board to assist Birrane with finding the money for F1, knew the game better than anyone else from his years at Jordan. Lola figured that it could afford to operate on about £50m in 2010, and Gallagher estimates that "between 10% and 20%" could come from the drivers. That would have put the kibosh on rumours that Team Ireland's A1GP champion Adam Carroll would have been given his big shot, for the Northern Irishman didn't have any budget to contribute.

"Some drivers do bring a huge amount of money," Gallagher explains, "and we were pretty unashamedly going into the paid driver market simply because it was a prudent thing to do to get the team off the ground.

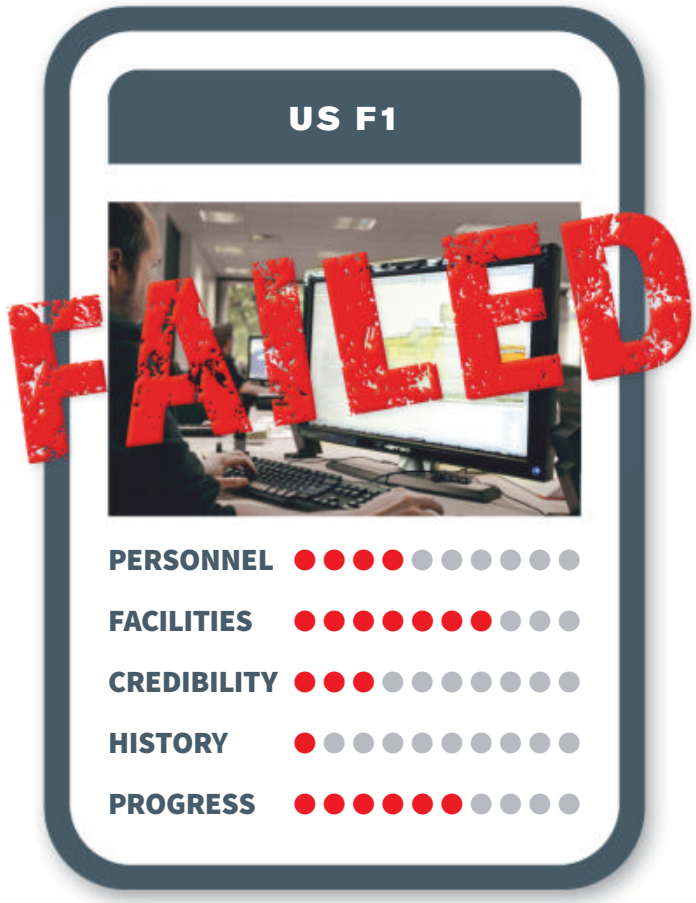
"During my time at Jordan, drivers – including Rubens Barrichello – had brought substantial funding with them. Even though Rubens is perceived as being a talent throughout his career, the fact remains that he wouldn't have been signed for Jordan if he hadn't brought funding with him. There was lots of precedent in my mind of deals to be done."

Having disclosed that in the entry submission, Gallagher reckons the mention of pay-drivers had the FIA's tribunal feeling uneasy.

"What it absolutely, clearly did for me," Gallagher says, "was to show that the people in charge of the decision had no idea. They had this pie-in-the-sky idea that a new team was going to come in with full funding and sponsorship, and that was going to be the criteria.

"I remember saying to Martin very clearly, 'No one is going to have that.' We had to be realistic. We're coming in with a very transparent business plan, which is practical, and it's pragmatic, and it's real. And it's real because I've been there. I've done it in Formula 1."

Both Gallagher and then-Lola technical director Gerry Hughes also suggest that Birrane's familiarity with Ecclestone and Mosley arguably counted against the team. Birrane loved the initial £40m cost cap, but was incensed by Mosley's decision to renege on that during the application process. Gallagher believes that Birrane's forthright views perhaps made the FIA view him as "a difficult guy to let into F1". Hughes adds that Ecclestone, having known Birrane for a long time, perhaps talked him out of putting his money on the line.



ENTRIES DON'T GUARANTEE SUCCESS

Aiming to fly the Star-Spangled Banner in Formula 1, the US F1 team – headed up by former Williams colleagues Ken Anderson and Peter Windsor – managed to secure one of the much-coveted entries, against all the odds. The team promised much early on: YouTube co-founder Chad Hurley came on board as an investor and, although it had explored options with other manufacturers, US F1 opted for the Cosworth engines too.

Based out of the Joe Gibbs Racing team's former NASCAR facilities in Charlotte, the team had managed to design a car and manufacture a tub as early as November. But Anderson's technical ideas raised the eyebrows of Karun Chandhok when he visited its HQ to scope out the team.

"Ken had a couple of interesting ideas," Chandhok says, "which took me aback



Stefanovic planned to use Toyota chassis

STEFAN GP

THE REJECTED TEAM THAT DIDN'T TAKE NO FOR AN ANSWER

Amid the huge volume of failed entries that were posted through the FIA's letterbox, most accepted their fate and began to dismantle their plans to make it into F1. In the case of the Stefan Grand Prix team, however, it decided to press on regardless.

As Campos circled the drain, Serbian industrialist Zoran Stefanovic had designs on the Spanish team's entry and sought to form Serbia's first ever F1 team. Stefanovic was no stranger to the FIA entry queue, having joined it twice in the late 1990s, and had managed something of a coup in his preparations.

Prior to Toyota's hasty withdrawal from F1, it designed and built a pair



L-r: Anderson, Lopez and Windsor at US F1's HQ

a little bit. One was he decided he was going to have a transverse gearbox in the car, because for some reason he was adamant that that was the way to go. And I'll never forget this – they had a drawing on the wall of the suspension. I looked at it and thought, 'That's a coil over spring, damper set-up like what we had in F3!'"

The most worrying factor was that the team's facilities were empty more often than not. Anderson explains that investors began to get "cold feet", and the money pot began to run dry. Future World Touring Car champion Jose Maria Lopez signed for the team, bringing some money from Argentina, and a deal was on the table to bring former Super Aguri tester James Rossiter in as the second driver, but the financial shortfall was too great for the team to build two cars and have them ready in time.

Reports from suppliers described the team as "lights on, but nobody at home".

> "That was the moment US F1 went from the 'critical' list to it's not happening"

Gallagher, who had joined Cosworth after Lola's entry was rejected, recalls finding it difficult to extract any information from Anderson on his engine-installation plans.

"We got to December, maybe early January 2010, but it become very clear that there was something not right at US F1," he says. "I remember speaking to Ken and him saying to me, 'Really sorry we haven't got back to you, but the engine's kind of the last thing we need to worry about.' I said, 'But it's an integral part, the chassis includes the engine. You need all of those elements and we really want to get the engines delivered.'

"And I'll always remember his words. He said, 'Well, once we have the car finished, we'll just drop the engine in.' And I thought, 'This is like it was a Duracell battery – we're going to build a car, drop the old Cossie in the back of it and off we go!' I think that was a moment when I realised US F1 had gone from being on the 'critical' list for us to it's just not going to happen."

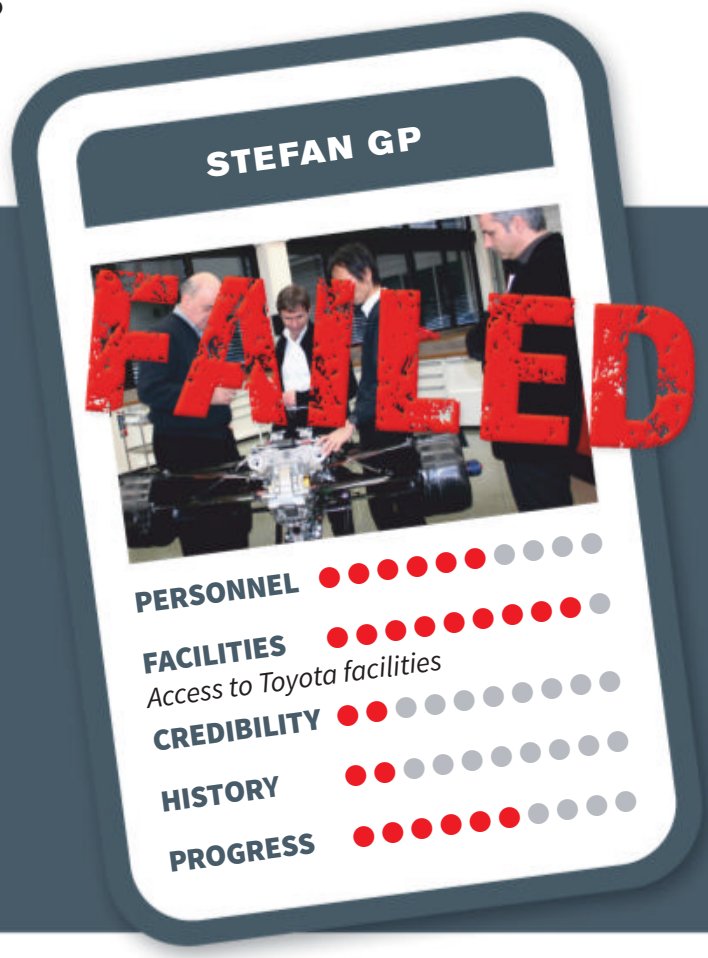
Sure enough, the US F1 entry disappeared with barely a whimper.

"We were in a position to carry on and come in later in the year, or the next year," maintains Anderson. "If it would have been Max we could have worked something out, but Jean Todt took over Max's position in October." ■

of TF110 chassis for 2010, which the Stefan team had agreed a deal to race – plus RVX-10 V8 engines, to be rebadged as Stefans – for the new season, pending acceptance into F1. Toyota technical director Pascal Vasselon estimated that the new car had "20 to 30 more points of downforce" compared to the previous TF109, an early adopter of the double-diffuser that locked out the front row for the 2009 Bahrain Grand Prix.

Stefan had briefly secured ex-McLaren engineer Mike Coughlan to head up the technical side and, at Toyota's behest, one driver was expected to be Williams refugee Kazuki Nakajima, who even conducted a shakedown of the TF110 in a car park, albeit with show tyres. In a sign of things to come, a planned test at the Algarve circuit was canned, as Bridgestone declined to supply F1 tyres to a team without an entry. Jacques Villeneuve was in talks for an F1 return – he'd been unceremoniously dumped by BMW-Sauber in 2006 – in the other seat.

But the Toyota deal failed and, although Stefan then tried to secure the deceased US F1 entry, the Serbian team's time was up. Stefanovic also applied for an F1 entry in 2017, but remained unsuccessful.





Bosch Motorsport's new RaceConnect system is seen as a 'gamechanger'

THE FUTURISTIC TOOL MAKING LIFE EASIER FOR RACE TEAMS

Systems engineering is an unseen and little-understood element of car performance, but Bosch Motorsport's **RaceConnect** is the latest example of what can be achieved

BY JAMES NEWBOLD

The wine-growing village of Abstatt in Baden-Wurttemberg, 40km north of Stuttgart, isn't the most obvious place for innovations that could transform working practices of motorsport engineers across the world. But the headquarters of Bosch Engineering GmbH — a wholly owned subsidiary of Robert Bosch GmbH — houses a dedicated motorsport division boasting 118 years of pedigree, and first sent official representatives to events in a supporting capacity in 1911 (see panel, right).

As a full systems provider — from spark plugs to brake and engine control units, in-car displays, sensors, as well as software and data management solutions — Bosch isn't exclusively at the tangible end of car improvement. But with its company ethos of 'Invented for Life', it does aim to make life easier for those working in motorsport — whether that's through using radar technology to help GT drivers at Le Mans know when a faster prototype car is closing up behind them and avoid a potentially sizeable accident, or simply enabling engineers to analyse data more effectively.

In its development of high-tech gizmos, the pursuit of marginal gains aligns with its high-end customers in global manufacturer-based racing series that devote themselves to finding fractions of a second in lap time, and involves working closely with those customers to understand their data system requirements.

American development engineer Matthew Anderson is the project manager of connectivity at Bosch Motorsport. Since his move to Europe last December, he has seen the landscape in which motorsport operates transformed by the coronavirus pandemic, with limited personnel allowed trackside reducing the capacity of teams to respond to issues. As he points out, this makes Bosch's latest innovation, RaceConnect, all the more valuable.

The LTE telemetry system is described as an 'all-in-one cloud and connectivity solution for motorsports'. It's a package that includes its LTE 65 modem, connected to a cellular network, that transmits data via the Cloud, allowing multiple location-independent users to access live data and make quicker, smarter set-up decisions



AUDI



Juan Manuel Fangio headed a 1-2 for Mercedes on its F1 debut at Reims in 1954

THE SILENT PARTNER IN MOTORSPORT SUCCESS

Bosch is steeped in motorsport history, going back to the dawn of the motor racing age in 1901, when Wilhelm Werner won the Nice-Salon-Nice road race with a Bosch magneto ignition fitted to his Mercedes Benz.

From 1937, Bosch had the capability to provide on-the-spot testing and repairs to ignition and electrical systems from a mobile workshop van, known as 'Bosch Racing Service', headed by August Bamminger. A core part of its trackside support set-up since 1911, the 'Spark Plug Doctor' continued to head the service until 1956, two years after Bosch had pioneered direct injection in Mercedes' all-conquering W196 Formula 1 car of 1954-55 (above).

Fast-forward to the 1980s, and Bosch's Motronic system for engine management was a core element in four consecutive world title successes – with Nelson Piquet in 1983 followed by McLaren's Niki Lauda and Alain Prost – while also aiding Audi's efforts in Group B rallying and Porsche's ultra-successful 956/962 Group C sportscars. Its lengthy partnership with the DTM also commenced in this era, yielding the first ABS system developed especially for motorsport use.

In more recent times, Bosch has been a crucial partner in various Le Mans successes and stepped into fields of new drive technologies, reflected in its global partnership with Formula E.

Bosch Motorsport connectivity project manager Matthew Anderson admits that he still encounters people who are surprised by Bosch's motorsport heritage. "Bosch has always been very much in the scene, but maybe not so incredibly visible," he says. "A lot of people would be surprised by how much content we have in race cars.

"We're always really closely cooperative with the OEMs and teams and we work with them to achieve their vision. It's our customers we're working passionately for to have the glory, not us, so in that respect we have been hidden in the past."

using all information available. Its set-up is fully customisable – with options to configure two cars to one receiver, one car to multiple receivers and so on – and uses secure end-to-end encryption to keep any data sent confidential. Data can even be viewed from home over an internet connection with no specialist equipment.

A system that allows devices to communicate within a vehicle is, as Anderson points out, "something we've always done since Controller Area Networks were invented by Bosch in the middle 1980s". But a commercially available product allowing remote access to information from multiple devices has been, he says, "a huge undertaking" that represents "a gamechanger in a lot of ways".

"We leverage the technology that we already have within the company and adapt it to fulfil the specific needs of our customers in motorsport," he says. "We use RaceConnect primarily as a Cloud interface for routing data with minimal latency to wherever our customers want, as well as further processing. It's been an enabler for us to do things that we've always done, but much more efficiently and much easier."

For further processing of the transmitted data, Bosch Motorsport has developed a widely used analysis tool called WinDarab, which is well established in the motorsport market. Anderson led development of Bosch's original LTE telemetry system at a "nuts and bolts level", coordinating shaker tests and designing housings, and has headed up the RaceConnect project with his core group of five Bosch technicians. Just like the company itself – which has offices in the US, Japan, France, China, Australia and the UK – it's an international collective balancing what Anderson describes as the "typical American mentality to fail fast and just try it" with the Germanic tendency to get the details right.

"I wouldn't say [RaceConnect] is any one person's idea or any particular group's idea," says Anderson, "but it's our mentality of how race car electronic ▶

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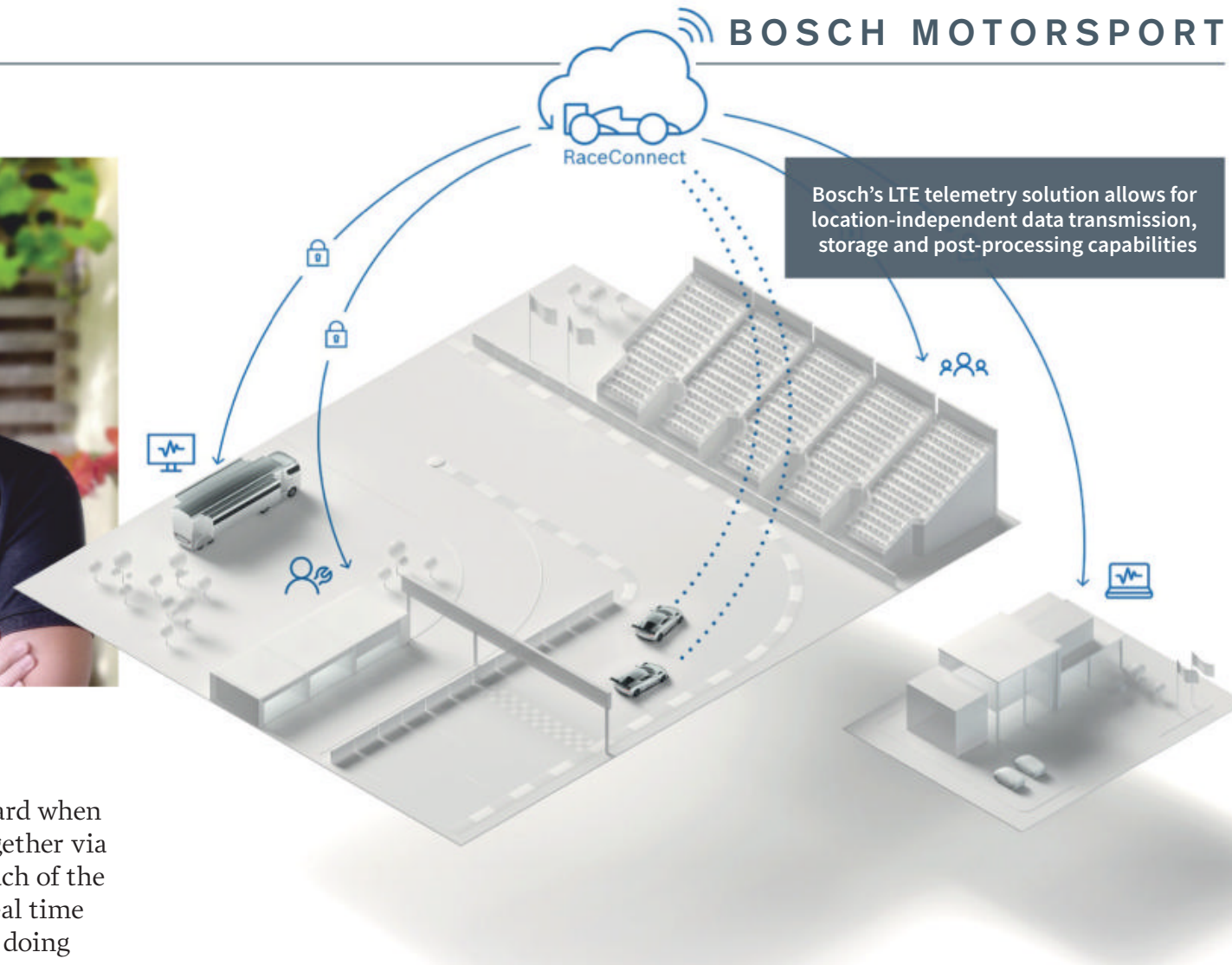
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Anderson leads the development of RaceConnect



architecture should work.

"We really took a big step forward when we started connecting devices together via an Ethernet bus, which allowed each of the devices to know more or less in real time what all of the other devices were doing and to have all of the data available from each of those devices on any single device. Our LTE telemetry solution piggybacks on the end of that Ethernet connection as the way to get all of that data live off of the car, without anyone touching it."

This hugely improves the speed with which trackside decisions can be made. Previously, accessing information recorded on data-loggers could only be done when the car got back to the pits. This meant when Anderson was working on Bosch Motorsport's ABS calibration project, he couldn't identify the extent to which the driver was influencing the outcome of the test – whether by inconsistent brake application or taking different lines – until it was effectively too late.

"Then you have to say, 'OK, we have to rerun that one, that was no good,'" he says. "With the telemetry now, we put the same logger in the car and you can watch the data in real time. You can see what setting the driver is using, how they're hitting the brakes, you can see everything that's going on in the car so that almost 100% of the data that you get is going to be good. That means you get a lot more iterations in and, for a given amount of tracktime, you can get a lot closer to optimal performance."

The customer response has been encouraging, with Anderson reporting its biggest successes to date coming from the North American market: "We've had a lot of success in the US in NASCAR testing – we can't use it during the race because the regulations don't allow it," he says. "We support many teams in IMSA and early this year we started making very good headway in IndyCar.

"That's really cool for us because a lot of these series have some kind of spec telemetry system they have to use, so it's cool to see that people are willing to invest in an additional system because the solution is that much more practical."

Intriguingly, Anderson says RaceConnect is only the "tip of the iceberg in terms of what it's capable of doing".

"It's going to be a gamechanger when we start looking at what we can do in terms of simulation on the Cloud, and all the things we can do for our customers to improve their quality of data and reduce operating costs," he says.

That brings us nicely back to Bosch's 'Invented for Life' ethos. In a sector as fast-moving as the technology industry, where products are always being updated and replaced, that might seem counterintuitive, but Anderson disagrees.

"Anything we can do to improve the quality of life for our customers is really living up to 'Invented for Life', just as much as life-saving measures like ABS [in which Bosch was an early frontrunner]," he says.

"Whether it's not having to deal with an ECU hardware malfunction or to have efficient ways of doing data analysis so you can stay at the office and not go to the track one time, or to flexibly change where your data goes and do that with low latency, those are big improvements to the quality of life for people in racing."

And that's what Bosch Motorsport is all about. Developing software and hardware might not have the instant resonance to the layman of aerodynamics or race engineering. But for those at the coalface, the value of finding solutions rather than problems simply cannot be underplayed. ■



The flexibility to use in-car data has improved dramatically in recent years

BOSCH

"Anything we can do to improve the quality of life for our customers lives up to our ethos"



RENAULT F1 TEAM

SPIRITS IN THE MATERIALS WORLD

In its relationship with DuPont, the Renault F1 team is in the vanguard of high-tech solutions to the current V6 turbo-hybrid engine rules

BY JAKE BOXALL-LEGGE

The current turbo-hybrid Formula 1 power units take an unfair amount of flak. Mostly, the pejoratives directed at them are predicated on the fact that they're not the wailing V12s or screaming V10s that past F1 fans were treated to, while other points of concern are usually in relation to their hefty price tags and complexity.

Fine, the noise might not be as tinnitus-inducing, but the guttural snarls of the current cars offer a different soundscape to each event. The old engines were a Red Hot Chili Peppers stadium tour — the current power units are a Nirvana gig in a small Seattle club. Perhaps the points about cost and complexity are fair, but as far as F1's bid to further the advancement of technology is concerned, the current powertrains are a necessity to keep it relevant and attractive to manufacturers.

Renault is one such manufacturer to throw its lot in with the current generation of powertrains, currently propelling its own works team — soon to become Alpine — and McLaren. It has also been able to take its F1 technology and turn it onto the road, injecting its expertise into the Infiniti Project Black S. This car has an F1-influenced MGU-K and two MGU-Hs to recover energy from braking and the turbocharger respectively, with the aim of helping that technology trickle down into mainstream Renault dealerships.

Part of Renault's advances in its powertrain development are entwined with its partnership with materials giant DuPont. Having developed products such as Kevlar and Nomex, DuPont has worked with Renault to bring those materials into its powertrain layout. "We've been around automobiles since the advent of road cars," says DuPont global marketing manager Carlo Fiorella. "And really for the past hundred years or so, our products have found a way into most applications on an automobile. But now we're finding with ease and with partnering with F1 that we can really, really jump on that and find ways to go from track to road. It's just been a huge laboratory on wheels, the fastest development times and fastest way to prove our new products and new ideas."

Kevlar was originally developed for the automotive industry, but for use in tyres to replace the heavy steel belts that most manufacturers used. With a high tensile strength, it proved to be much stronger than steel, and its most documented use is in bulletproof vests as it can withstand high, concentrated impacts. Nomex, meanwhile, has a particularly high thermal resistance, which means it is frequently donned by firefighters, as well as forming a significant part of a racing driver's overalls.

So how do you bring those materials into an F1 car? Fiorella explains that Renault's engineers select the material properties needed in the next design iteration, and in response DuPont can either suggest a way to use the products that they already have, or develop a version that's more suitable to the task. "We also make Nomex in paper form," Fiorella explains. "We take the same flame-resistant, high-temperature-resistant material that the Nomex coveralls are made from, and we make a paper. That can be made to do both mechanical and structural pieces, so the cars have a lot of Nomex honeycomb. It's a sheet structure that can be used to make a very lightweight, high-compressive strength, shear-resistant core."

Some kind of honeycomb structure is used more or less across the board in F1, particularly with regards to the monocoque layout where high impact loads must be countered, but DuPont's Nomex paper also finds a use within the powertrain design. Nomex is known for its thermal resistance, but also offers a high level of electrical resistance. With the hybridisation of ▶



RENAULT SPORT

DuPont is the name behind Kevlar and Nomex

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Formula 1, contemporary cars use electrical energy to boost their power output, and this means that components such as the MGU-K and MGU-H require a protective layer of Nomex paper within to provide the requisite insulation.

"That same paper can be used as an insulator in the very high-voltage F1 MGU-K," Fiorella adds. "So we're able to take that paper and between Nomex and the MGU-K, we can increase the voltage, but also increase the durability of the motors. It's chemically resistant, so if you have a cooling oil that goes through the MGU-K, you know that it's resistant to that, and that this translates perfectly from the F1 technology over to the road cars. You know, more than four in five road cars are now using a Nomex paper in some fashion to insulate their traction motor on battery electric vehicles and plug-in hybrid electric vehicles."

This goes hand in hand with Renault's powertrain department based in Viry-Chatillon. A modern F1 power unit has to blend both power and efficiency from the internal combustion engine with a light, but equally potent, hybrid system. In the early days of regenerative technology in F1, the KERS unit — a proto-hybrid system debuted in 2009 — was incredibly heavy. Then-BMW driver Nick Heidfeld, racing for one of four teams — along with McLaren, Ferrari and Renault — who had elected to try KERS in its first year, found the system to be so heavy that it was detrimental to the handling of the car and asked for it to be removed.

Two years later, the advances in regenerative technology had meant that KERS was an absolute must-have, and the subsequent MGU-K is a significant part of a modern F1 car's layout. As Renault ERS architect Pierre Calippe explains, focusing on the mass of the power-unit components while striving for the utmost in safety has been a huge factor in powertrain development.

"We obviously have a big challenge in the ERS area where we need to make light products," explains Calippe. "Mass is very, very important but safety is absolutely key; there is the electrical installation that is very important. And so with DuPont, we've met with the team and we've built a team in both companies with experts. It's fantastic to get a wide product portfolio because DuPont has an extremely wide portfolio of products and materials. But more important to us is we have the experts coming and joining. And it's like you have a portfolio of product and you have together the perfect user's guide to your problem, because they can invent how to reuse such a product to resolve our problem."


RENAULT F1 TEAM

DuPont's Kapton polymer film is used in Renault's F1 powertrain

> "It's like you have a portfolio of product with the perfect user's guide to your problem"

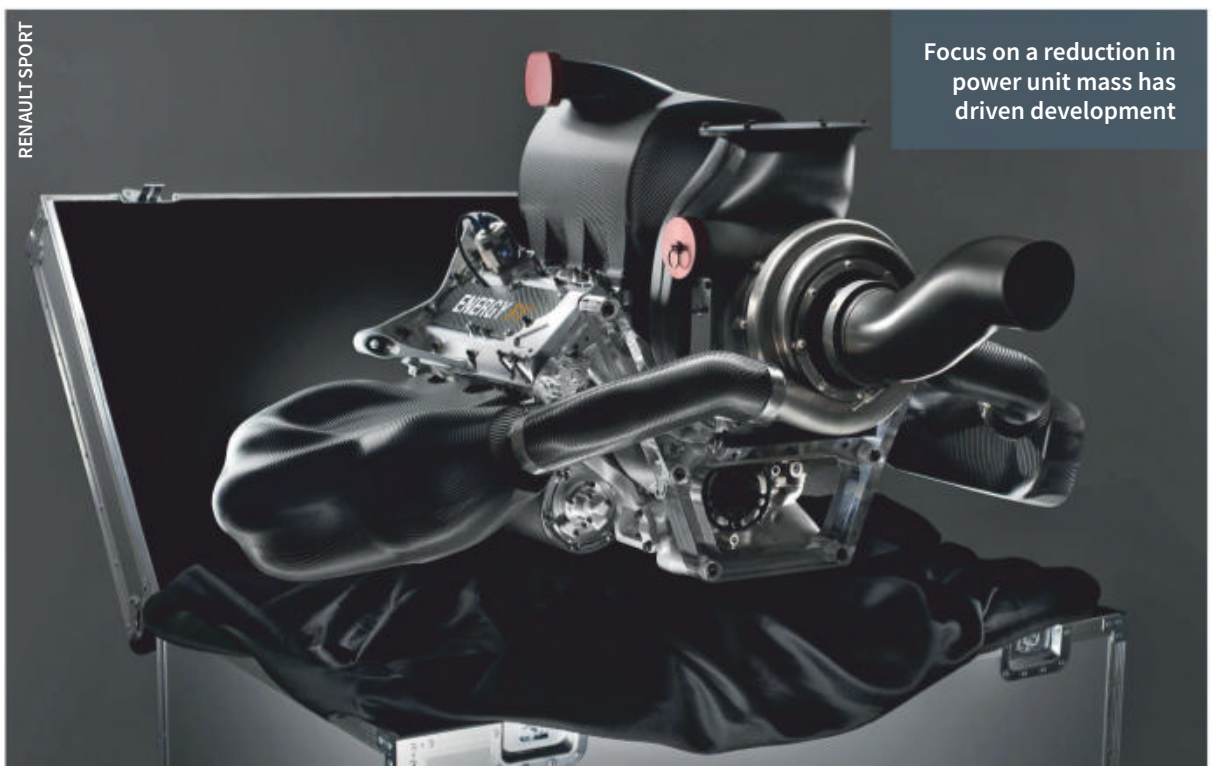
Although Nomex forms part of the ERS construction, DuPont also offered Renault the use of its product Kapton, a polymer film that remains chemically stable across a 600-degree range of temperatures from as low as −269C up to 400C, making it perfectly suited to electronics on board spacecraft. But it also remains an excellent insulator for electronics, and Renault has used Kapton within its ERS to keep the electrical parts well protected with a very thin layer of film.

As Calippe adds, using smaller and more-lightweight parts means that the car ultimately is less hindered by the overall inertia as it goes through a corner. Although the individual electronic parts are small, reducing the mass of all of them adds up to a not-insignificant bonus. Many different grades of the Kapton film have been produced, with versions that operate better in different environments, and Calippe cites the partnership with DuPont as vital in determining which grade is the best fit for an F1 powertrain.

In developing the F1 MGU-K, Renault also found plenty of overlap with the advances it was making in Formula E once the regulations opened up. Calippe, formerly of Renault's FE project before it passed over to Nissan, says that the material advances in making the motor meant that Renault could begin to develop a lighter, faster motor. True to F1 and FE's resolve, that motor development can then find a place in the ever-increasing range of hybrid and electric vehicles on the road.

"When I look now," Calippe says, "we've made so much progress in this area by improving the materials and we're working on that also with DuPont to further improve it. There are sometimes surprises like in Formula 1 or in Formula E, we've made electrical motors which are running faster and faster, and by this you can make them smaller and smaller. And in road cars at the beginning, they don't think about 50,000rpm for an electrical motor, but this is the solution to make the model smaller. And so even though they don't go to such a high speed, there is clearly an increase in the speed of the motor and they understand it is feasible because we've done that before."

It's rare to get a glimpse under the skin of an F1 car, and our recount of technological developments generally remains restricted to what we see on the surface. Regardless, the more nuanced powertrain advances are just as important. With F1 set to take on new rules in 2022, with some subtle changes to the power units, the advances under the skin will still remain all-important. And with DuPont at its side, Renault will aspire to show that it is once more championship material. ■


RENAULT SPORT

Focus on a reduction in power unit mass has driven development

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HOW TO BE AN ACE ENGINEER

Nigel Beresford reflects on lessons learned in Formula 1, Indycars and Formula E

BY JAMES NEWBOLD



ALL PHOTOGRAPHY motorsport IMAGES

Beresford now applies his 30-plus years of knowledge as DS Techeetah team manager

S BLOXHAM

DS Techeetah's credentials as Formula E's benchmark team were further underlined by its third successive drivers' title in Berlin last month. But it's not only top drivers that the team has in its favour – it also has an ace up its sleeve in the form of a team manager who has been successful as a race engineer and a technical director in Formula 1, Indycars and sportscars.

Nigel Beresford spent only six months in his first motorsport job at Ralt Cars in 1986 before moving to Tyrrell as a design engineer, but career progress was swift and he became a race engineer for Jonathan Palmer in 1989. "That was a time when you could go from zero experience to running an F1 car, literally overnight," he says.

He formed a close bond in 1990 with Jean Alesi and cites Jean-Claude Migeot's 019, which Alesi took to the podium in Monaco, as one of the two best cars he worked on in his career, along with the 1993 Penske PC22. He stayed until the end of 1991, when Nick Goozee of Penske Cars approached him "out of the blue" to join Indycars' gold-standard team. The chance to work for the "extraordinary" Roger Penske was too good to pass up. "Roger loves a challenge, so if you tell him something can't be done then he will prove you wrong," he says.

Rick Mears was the ideal driver to show him the ropes of oval racing and, when Mears retired at the end of 1992, Beresford was charged with running Paul Tracy. The pair gelled quickly, but the mercurial Canadian rarely strung together consistent seasons. When Tracy left in 1995, Beresford briefly returned to Tyrrell to oversee a programme to improve reliability, but they were reunited at Penske for 1996, by which time Firestone had taken a decisive leap beyond Penske's Goodyears in the tyre war.

In his second spell with the team, Beresford cycled through various roles both trackside and at Penske Cars' UK base in Poole, rising to become technical director before the site's closure when Penske centralised its assets in North Carolina. Beresford was then tasked with overseeing its return to sportscars in the American Le Mans Series, and from humble beginnings in 2005 – "The RS Spyder was in many ways very old-fashioned, the initial aerodynamics were terrible!" – won three consecutive LMP2 class titles and the Sebring 12 Hours outright in 2008.

After running a third Penske IndyCar for Will Power in 2009, Beresford then had a spell working freelance in GT racing before the call came from Jay Penske to set up the Dragon FE team from scratch in 2014.

"We started about six weeks behind everybody else," says Beresford, "and we won a race and ended up second in the 2014-15 teams' standings. From absolutely nothing, we'd beaten everybody except a big factory team." Even more gratifying than Jerome d'Ambrosio's inherited win in Berlin was the team's second and third place on the Battersea Park course. "It was surreal," he says. "I was born in Isleworth, about nine miles from Battersea, so that was about the closest I'm ever going to get to a home race. That was really special."

Beresford, who joined DS Techeetah last year, is reminded of the "strong engineering culture that Tyrrell was and Penske is", which is especially important in FE.

"It's so specialised now, it's not about springs and rollbars and wing angles anymore," he says. "It's all about software and control systems. I'm not directly involved in that, I'm more interested in getting the best out of people and having a really good organisation." His efforts appear to be having the desired effect... ■



Tyrrell brains trust of 1990: (l-r) Harvey Postlethwaite, Jean Alesi, Joan Villadelprat and Beresford

SUTTON

TOP TIPS

FOR ENGINEERS FROM NIGEL BERESFORD

- Make sure that people handing out jobs know you're ambitious and enthusiastic and what you want to do going forwards.
- It's far easier to travel in parallel with somebody and just nudge them from the side than it is to meet them head-on, so try to get on with people.
- If you know a lot about one thing and surround yourself with people you can learn from, then you can combine them and in the end come out ahead.

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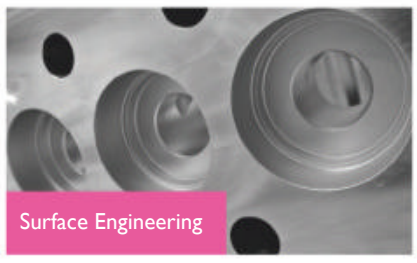
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- Processing components in the world of Aerospace / Motorsport / Medical / High Value Manufacturing
- A specialist company run by engineers approved to AS9100 Rev.D Aerospace Quality Standard
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- Automated superfinishing of components reducing friction on working surfaces.
- Providing high resistance coatings for hybrid and EV systems
- Developing in house techniques for post processing of additive parts.

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Shot Peening


Surface Engineering


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