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Antoine Hubert 1996-2019

AUTOSPORT

BRITAIN'S BEST MOTORSPORT WEEKLY

5 SEPT 2019

FINALLY FERRARI

Leclerc shows his class and dedicates victory to Hubert

'It's very difficult to enjoy this win'





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One talent is lost and a winning friend shows his class

Every now and again – fortunately very rarely in the modern era – race victories, championship battles and car set-up issues are put into perspective. Anthoine Hubert's death in the horrible Formula 2 accident last weekend affected everyone at Spa, and many more around the motorsport world.

It's easy to go over the top when it comes to praising those lost far too early but, as Jack Benyon's personal tribute on page 4 shows, Hubert (above) was widely regarded as one of the most likeable and hard-working characters in the F1 support paddock. Not to mention a driver whose career had been gathering momentum since he took the GP3 crown last year.

That he died doing what he loved is something of a cliché, but hopefully provides some solace to his friends and family, the people who will really need the support over the coming weeks and months.

One of those friends is Charles Leclerc, who raced against Hubert in karting. It was only a matter of time before the Ferrari rising star scored his first F1 victory, but it seems cruel that it should come during such a tragic weekend that will forever be linked with Hubert.

Nevertheless, Leclerc's conduct last weekend – both in terms of how he maturely controlled the race despite a late charge from Lewis Hamilton and how he dedicated the win to Hubert – showed class.

Pierre Gasly had asked Leclerc to "please win this race for Anthoine". Leclerc did his friend proud.



Kevin Turner
Editor

kevin.turner@autosport.com

**NEXT WEEK
12 SEPTEMBER**

Can Vettel take his first win in over a year on Ferrari's home ground?



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Motorsport Images/Galloway, Portlock

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FREE INSIDE

ENGINEERING SUPPLEMENT



Suzuki's fresh MotoGP attack, a special team of engineers and the failed Arrows A2 feature in the latest edition of Engineering.



ALL PHOTOGRAPHY
motorsport
 IMAGES

ANTHOINE HUBERT 1996-2019

OBITUARY

The last year and a half was a whirlwind for Anthoine Hubert, and he was finally starting to force people to take him seriously as a future Formula 1 driver before his death at Spa last weekend.

“That’s one hell of a talent lost,” one person close to the fallen driver said in the wake of the tragedy. But he was so much more than just “talent”.

Always greeting you with a “hey mate” in the paddock, 22-year-old Hubert was a social butterfly. A smile always partnered his black-rimmed glasses and he was forever making jokes in the paddock. Even if he was too busy to stop and chat, he made sure to acknowledge you – on Saturday he whistled past on his bicycle but still stuck out an arm for a high-five.

Speaking of bicycles, they were the theme of the last conversation I had with him. As well as keeping sharp with karting in the summer break, he’d also just been on a training camp with Renault where he’d done 438 miles of riding in six days. I’d replied that that’s why I like journalism, so I can eat a lot and sit behind my computer screen. He quipped he didn’t blame me and asked if he could do it too.

Despite Hubert’s easy-going and fun nature shining through in the paddock, when the helmet was pulled

over his head, a dictaphone shoved under his nose or a meeting called with his engineer, the smile disappeared and an insightful and serious driver greeted you with a steely and fierce look in his eyes. No one could ever deny his determination.

Hubert was introduced to motorsport at a young age because his father, Francois, was a clubman rally driver in France with some (admittedly limited) success. But Anthoine was hooked and the almost mandatory FIA-level karting followed.

He was a champion his first year in a racing car as he drove to success in French Formula 4 in 2013. Two years in Formula Renault Eurocup followed. The 2015 season proved to be a race-winning campaign as Hubert took fifth in the championship, and then 2016 was a disappointing season in European Formula 3 with Van Amersfoort Racing. He was eighth in the standings, but well beaten by team-mate Callum Ilott.

In 2017 he made the jump to GP3 with ART Grand Prix but brought up the rear of the team’s pack behind George Russell, Jack Aitken and Nirei Fukuzumi as they swept the top four in the standings, with only Hubert failing to win a race.

There was a theme developing at that point. When you look up to the end of 2017 on Hubert’s CV, it looks very average after F4 even though he at least won races

RACING TRIBUTES

LEWIS HAMILTON**Mercedes F1 driver**

“Anthoine is a hero as far as I’m concerned, for taking the risk he did to chase his dreams. I’m so sad that this has happened. Let’s lift him up and remember him. Rest in peace brother.”

CHRISTIAN HORNER**Red Bull F1 team boss**

“He paid the ultimate price in a sport that he loved. He was a racer, he had such promising talent. For sure, he was going to be in this paddock one day. It’s very cruel he was taken from us at such a young age.”

JAKE HUGHES**ART Grand Prix team-mate in 2018**

“I feel so grateful that I was able to meet him, let alone call him a friend. He was the most complete driver I have ever raced against and it was a pleasure to see him win the championship first-hand in the same team last year. His level of humility, especially for someone in this sport... I’ve never seen a package quite like him.”

MATHIEU ZANGARELLI**ART team boss, won GP3 with Hubert in 2018**

“How can I explain what I feel? I was really close to Anthoine. I saw him growing up. He was just a fantastic guy, so that’s why I think so many people are sad. We have a lot of thought to him. We hope he will be fine in the sky.”

Hubert had just inked
2020 F2 race deal

in every category he contested prior to GP3. He’s a driver who always struggled for budget – properly struggled, but he never used it as a sob story – and that had inevitably affected his prospects.

It wasn’t until 2018 that he really turned his career around and began to show people what he was truly capable of. Coming into that season, still at ART but now back alongside Ilott, established GP3/F3 race winner Jake Hughes and the well-funded Nikita Mazepin, Hubert was an outsider for the title.

He only won two races in 2018, but so many elements of that season added up to prove how Hubert had made a massive leap forward. The days when anyone could suggest any hint of mediocrity were put behind him on his way to his first major success.

Two victories mated to nine other podiums pushed him across the line in 2018 for the biggest achievement of his career as he followed the likes of Russell, Charles Leclerc, Esteban Ocon and Valtteri Bottas to become a GP3 champion. He would be the last one ever, since the series was merged into FIA Formula 3 for 2019.

Hubert’s Renault F1 affiliation had begun from the 2018 GP3 season opener at Barcelona. The idea was that if he won the title then Renault would consider making him a full-time member of its junior programme and help him grease the cogs to get a move into Formula 2 rolling.

That meant the opposite outcome was also possible. He knew at the start of 2018 that, if he failed to win the title, he could be destined for GTs or another sideways step that would signal the end of his F1 dream. >>

**ALAIN PROST****Renault F1 team non-executive director**

“I pushed him in the Academy, we were talking very often. He was a nice kid, very intelligent, very clever, very curious. He did some tests in F1 this year with us in Austria. We had a programme already fixed since Saturday in F2 next year. We wanted to help him maybe until F1, so it is very sad. There are no words. 22 is much too young I am sure.”

MAX FEWTRELL**Renault junior**

“Ever since he joined the programme he’s been mega to all of us. I’ve looked at him as a bigger brother, showing me the way forward and how to be better, in every aspect.”

JACK AITKEN**Long-time rival, former-team-mate, and fellow Renault junior**

“It’s hard to know what to say. I’ve raced him a long time and, as well as his clear talent, his sense of humour, his ability to call people out no matter what, was the fact I saw him as a true, natural competitor.”

“He’s a driver who always struggled for budget, and that inevitably affected his prospects”



Silverstone win was one of Hubert's highlights of 2018

MCMMASTER

But Hubert's biggest asset was his ability to digest and adapt to data, allied to a harmonious and effective working relationship with his engineers.

He found another level with the class act that is ART in 2018, taking an early series lead that persuaded the legendary team to throw its weight behind him. The pressure must have been intense, but in the paddock it never showed because he was always free for a chat, interview or intense football-related banter.

The amount he had grown during last year was proved when he entered F2 with the Arden team for this season. It had been second to last in the 2018 teams' standings and Hubert had his expectations well under control heading into the year. The squad also had a number of new key personnel to integrate after a tie-up with the HWA juggernaut, which has helped with engineering advice this year.

While that has not suddenly turned Arden into a top team, the squad has – under the leadership of team boss Kenny Kirwan and with HWA on board – made major improvements.

But it has been Hubert that has made the ultimate difference. Two wins and a strong start to the season meant he was the second highest-placed rookie coming into the F2 weekend at Spa – second to fellow Renault protege Guan Yu Zhou, who drives for one of the best teams in the championship, Virtuosi Racing.

The very first race of the year in Bahrain showed how far Hubert had come. Eleventh on the grid, he had no radio from the start of the race. Having to manage

the delicate F2 tyres is difficult enough, but doing it in the extreme heat of Bahrain without any advice from the team was a superb achievement in his first race experience of the F2 rubber. He even managed to pit and execute the strategy as planned despite the lack of the radio, and turned that 11th-place start into a fourth-place finish.

Despite the phenomenal result he urged that he and the team needed to “stay calm, stay humble”. That was so Anthoine. He could have won the Le Mans 24 Hours and the Daytona 500 in the same day, and still demanded that – his favourite phrase – everyone would need to “stay focused”.

He was always calling for focus. Once the champagne was dry from a win and the trophies bubblewrapped and safely stowed in the team truck, it was back to business.

His last two years show a Prost-like approach to racing – Alain Prost being one of his heroes, and one with whom he was most excited to work following his Renault affiliation. Prost confirmed in the wake of his death that an F2 return had been secured for Hubert with its backing.

During the summer break I wrote a short feature on Hubert titled ‘The cash-strapped Renault junior every F2 team wants’. We made it free to read since we felt the story deserved the widest possible audience.

After it was published, he messaged to say “nice article, thanks mate”. It's rare enough to receive a thank you from drivers after a story these days, but Anthoine was always grateful for coverage. So much



Hubert (right) competed with Charles Leclerc and Dorian Boccolacci in CIK-FIA U18 karting

SUTTON



Impressive rookie F2 season marked Hubert out as future star

MCMMASTER

so that he asked what percentage of his next deal I would be requesting after writing that one! I declined and said I'd take the exclusive on whatever his next move was instead. It's heartbreaking that there will be no move, no future.

Hubert's form at Arden and ART across 2018-19, along with word spreading about his attention to detail, unwavering work ethic and keen eye for detail, meant he was tipped for future success by many and highly sought-after for 2020 by teams. Not least Arden, which was confident of persuading Hubert to stay since it has big plans for F2 next year.

In series such as GP3 or F2, where track time is so limited, that work ethic and attention to detail were a big part of what instigated his recent rise.

You can't afford to turn up to an F2 weekend and be working on set-up for days. You have one practice session and then it's on to qualifying with a softer set of tyres and new track conditions. Hubert's ability to absorb information from the data and work closely with his engineers meant he usually made big steps quickly if they were required.

He was such an intelligent driver, maybe not always the outright quickest, but few others had a combination of his ability to break down what a car was doing and work with the team to fix it, as well as his work ethic in doing so.

While getting to F1 may still have been a stretch for Hubert, a third year of performing at his current level following 2018 and 2019 would surely have at least put him into discussions about an F1 seat in the future. And even if he hadn't reached the absolute top level, there was no doubt he was going to be a successful professional driver in motorsport for a long time.

Hubert has had many successes, not least the GP3 title last year, but the happiest I ever saw him was at Silverstone in 2018.

With all the pressure of trying to win GP3 weighing down on him, a win in Britain came at the same time as his grandfather's birthday, his brother's higher-education graduation, and France doing pretty well in the football world cup, which he didn't let me or anyone English in the GP3 paddock get away with forgetting. He was so full of joy that weekend and even pointed to it in a post-season debrief as being one of the best moments of the year.

He was at his happiest with his family – his father Francois and brother Victhor almost always in attendance at races – and they will be the ones truly suffering after losing such a fun-loving character, the kind you don't find frequently enough in this world. A determined, thorough, intelligent, humble and talented individual who can never be replaced. RIP Anthoine.

JACK BENYON



Hubert claimed first
F2 win at Monaco
in a photo finish

Correa to remain in intensive care after Spa accident

FORMULA 2

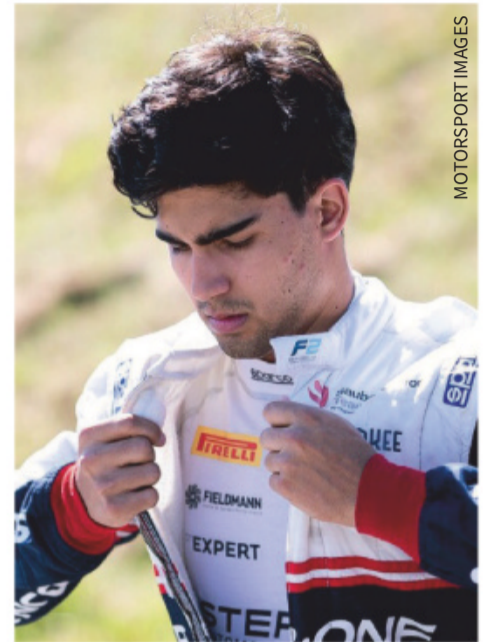
Juan Manuel Correa will remain in intensive care following surgery for leg and back injuries sustained in a crash that claimed the life of fellow Formula 2 racer Anthoine Hubert.

Sauber Junior Team driver Correa was unable to avoid Hubert's car after a multiple-car crash during the F2 feature race at Spa last weekend.

The incident occurred on the second lap. Trident driver Giuliano Alesi lost the rear of his car at Eau Rouge – escaping without injury – but his off triggered a larger accident behind. Hubert speared into the outside wall at Raidillon and bounced back towards the circuit, where the Arden driver was hit by Correa. The race was abandoned and Sunday's event was also cancelled.

Correa was taken to the CHU Liege Hospital with what was described as several leg fractures and a minor spinal injury.

The Alfa Romeo Formula 1 junior will remain in intensive care for "some more time"



MOTORSPORTIMAGES

following his surgery.

A statement issued on his behalf on Tuesday read: "Juan Manuel Correa continues in the intensive care unit of the CHU Liege hospital.

"The doctors have decided to keep him in the ICU for some more time to continue performing additional examinations and follow up as closely as possible.

"His state of health has not undergone changes and remains stable."

JACK BENYON

FIA investigation into crash already under way

FORMULA 2

Formula 1 race director Michael Masi says the FIA's investigation into the accident that killed Formula 2 driver Anthoine Hubert has begun, but there is no timeframe for its duration.

The FIA has not offered any initial conclusions about the accident, and Masi says the formal investigation will be extensive.

"There is an investigation that started yesterday, and it will go from here," explained Masi in a briefing after the Belgian Grand Prix.

"The FIA with our technical department, our safety department, and all of the

various departments in the FIA commenced an investigation immediately.

"The FIA, together with the RACB [Royal Automobile Club of Belgium], will work together with the authorities, and we will go from there."

Regarding the timeframe for the investigation to reach a formal conclusion, Masi said: "I don't think we will put any time on it. We will go through the process of conducting a full and complete investigation, as the FIA does with all serious incidents.

"It doesn't matter if it is circuit racing, rallying, whatever it might be. It will be all aspects of the incident."

JACK BENYON

IN THE HEADLINES

GT CHAMP PLACED IN COMA

Enzo Ide, the 2016 Blancpain GT Sprint champion, is in an artificial coma following an accident at home in which it is thought he suffered a head injury. He was found by his wife in a confused state and taken to hospital suffering internal bleeding. He underwent surgery before an artificial coma was induced. His condition is reported to be stable.

LMP1 CLASS LOSES AN ENTRY

Privateer LMP1 outfit Rebellion is set to drop back to a single entry for most of the remainder of the 2019-20 World Endurance Championship season. Team owner Alexandre Pesci downplayed the prospect of last-minute funding being found to field a second car, which was entered on a race-by-race basis at Silverstone.

INDYCAR DITCHES POCONO

The 2020 IndyCar calendar has been revealed, featuring seven road courses, five street tracks and five ovals. It includes a return to Richmond – replacing under-fire Pocono – for the first time since 2009. The oval has been dropped after seven years following incidents that put Felix Rosenqvist and Robert Wickens in hospital.

HAMLIN LOSES XFINITY WIN

Denny Hamlin is the first ever NASCAR Xfinity Series winner to be disqualified, after his Joe Gibbs Racing Toyota breached rideheight rules following his Darlington success. Changes to the policy on technical infringements for 2019 mean NASCAR winners can be excluded for the first time since 1960.

DUMAS KING OF CHINESE HILL

Romain Dumas set a record time up the Tianmen Mountain pass in China driving the electric Volkswagen I.D. R. The car has already smashed the Pikes Peak and Goodwood hillclimb records, and set the fastest ever EV time around the Nurburgring Nordschleife. Dumas set a time of 7m38.585s in China.



FORMULA E The traditional Porsche motorsport colours of white, black and red return to adorn its new 99X Electric racer, which Neel Jani and Andre Lotterer will pilot in the 2019-20 ABB FIA Formula E season. Keeping the traditional Porsche three-‘digit’ naming code, “the highest number, nine, was used twice, to re-emphasise the importance of the Formula E project for Porsche, while the X stands for the forward-looking approach and prototype racing”, said a Porsche statement. **Photograph by Porsche**

F1 could trial new race formats

FORMULA 1

Formula 1 plans to trial new race formats at some grands prix in 2020, with teams set to discuss the idea in the coming weeks.

Ahead of a major overhaul of F1’s rules for 2021, F1 owner Liberty Media wants to evaluate different ideas – including Saturday qualifying races – at a number of events next season to see if they could be introduced on a permanent basis.

F1 managing director of motorsport Ross Brawn believes that the only way the championship can decide that changes would be better for future events would be to try them out in a series of experiments.

“I would like to see us in 2020 try a few things,” Brawn told Sky F1. “In 2020 we have a stable platform with the cars and

things aren’t changing that much, and I think 2020 could be a good opportunity at one or two races to try some variations.

“I don’t see any other way that we can logically progress the race format. The basic race format is good, but would a sprint race be interesting or some variation in qualifying be interesting?”

“I think the teams are up for doing some variations during a Saturday to see if we can touch on a better solution.”

Racing Point team principal Otmar Szafnauer said: “If we are to improve the show there is nothing wrong with trying and seeing how it goes, get some fan feedback.”

A decision is set to be made at a team meeting scheduled later this month.

SCOTT MITCHELL AND JONATHAN NOBLE



Chris Amon (left) won the 1970 BRDC International Trophy at Silverstone, which was split into two heats

F1 ITALIAN GRAND PRIX PREVIEW



LENGTH 3.600 miles NUMBER OF LAPS 53



2018 POLE POSITION
Kimi Raikkonen 1m19.119s

POLE LAP RECORD
Kimi Raikkonen 1m19.119s (2018)

RACE LAP RECORD
Rubens Barrichello 1m21.046s (2004)

UK START TIMES

Friday 6 September

FP1 1000
FP2 1400

Saturday 7 September

FP3 1100
QUALIFYING 1400

Sunday 8 September

RACE 1410

CATCH THE RACE LIVE

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BBC RADIO 5 LIVE

HIGHLIGHTS

CHANNEL 4 1900

TYRE ALLOCATION



CHAMPIONSHIP

Drivers

1	Hamilton	268
2	Bottas	203
3	Verstappen	181
4	Vettel	169
5	Leclerc	157

Constructors

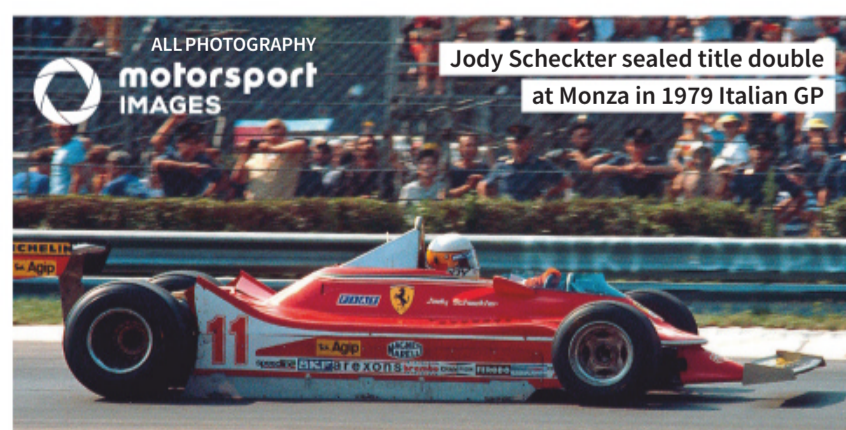
1	Mercedes	471
2	Ferrari	326
3	Red Bull	254
4	McLaren	82
5	Toro Rosso	51



RACE STATS

Previous winners

2018	Lewis Hamilton	Mercedes
2017	Lewis Hamilton	Mercedes
2016	Nico Rosberg	Mercedes
2015	Lewis Hamilton	Mercedes
2014	Lewis Hamilton	Mercedes
2013	Sebastian Vettel	Red Bull
2012	Lewis Hamilton	McLaren
2011	Sebastian Vettel	Red Bull
2010	Fernando Alonso	Ferrari
2009	Rubens Barrichello	Brawn



Monza masters

Average points per race at Monza from the current F1 drivers. Races before 2010 converted to current points system.	Hamilton	15.08
	Vettel	13.25
	Bottas	10.83
	Raikkonen	8.88
	Kubica	8.80
	Perez	5.50
	Ricciardo	5.25
	Verstappen	4.25
	Stroll	4.00
	Hulkenberg	2.88



FINAL 2019 AWARD CONTENDERS CHOSEN

The final 10 candidates for the 2019 Aston Martin Autosport BRDC Young Driver of the Year Award have been selected.

The Award, which started in 1989, aims to find and assist the best junior British racing drivers. Aston Martin joined the Award this year and the prize for the 2019 winner includes £200,000 and a test drive with the Aston Martin Red Bull Racing F1 team.

Finalists have to be primarily competing in a category below FIA Formula 3, and be 16 years old by the time of the Award tests at Silverstone in October. They must also be under 24 at the start of the relevant year.

This year's final 10 are Japanese F3 race winner Enaam Ahmed, Formula Regional Europe racer Olli Caldwell, W Series champion Jamie Chadwick, British F4 winners Louis Foster, Josh Skelton and Luke Browning, BRDC F3 frontrunners Johnathan Hoggard, Ayrton Simmons and Kiern Jewiss, and Euroformula Open race winner Billy Monger.

They will be invited to an event hosted by the Awards team, when the four finalists will be announced.

British Racing Drivers' Club vice-president and F1 driver steward Derek Warwick is the chairman of the judging panel, which includes Award winners Darren Turner, Andrew Kirkaldy and Alexander Sims, double British Touring Car champion Jason Plato, successful Lola and McLaren designer Mark Williams, top engineer Leena Gade, leading commentator Ian Titchmarsh and Autosport magazine editor Kevin Turner.

After two days of testing at Silverstone, in a range of machinery including MotorSport Vision Formula 2 cars, a Ligier LMP3 sportscar and Aston Martin Vantage GT3 racers, the winner will be announced at the Autosport Awards on 8 December.



ENAAM AHMED

3rd in Japanese F3 with B-Max with Motopark

Ahmed is one of only two drivers in the 10 who has been an Award finalist before, in 2017 after he won the BRDC F3 title. The 19-year-old is a frontrunner in Japanese F3 this season and is currently third after scoring two victories, with one event still to go.



OLLI CALDWELL

4th in Formula Regional European with Prema

The promising Formula 4 graduate had a tricky start to his season as team-mates Frederik Vesti and Enzo Fittipaldi raced clear in the points standings. But Caldwell has become a consistent podium threat and took his first 2019 win last weekend at Imola.



LUKE BROWNING

7th in British F4 with Richardson Racing

Browning has had an up-and-down first season in single-seaters, but has shown strong flashes of both speed and racecraft since stepping up from Ginetta Junior. The 17-year-old has caught people's attention in a one-car operation against series heavyweights such as Carlin and Double R.



JAMIE CHADWICK

1st in MRF Challenge and W Series

Chadwick is in the enviable and unusual position of already having clinched two titles this season. She won the Asian MRF Challenge over the winter, then proved the driver to beat in the inaugural season of the high-profile all-women W Series. She's also now on the Williams F1 team's books.



REDBULL



DAVID LORD PHOTOGRAPHY

LOUIS FOSTER

3rd in British F4 with Double R Racing

Started his rookie campaign impressively and led the championship in the early stages. Has struggled to keep pace with Carlin's Zane Maloney and Double R team-mate Sebastian Alvarez, but the 16-year-old is still third in the standings and has taken three wins.



MOTORSPORT IMAGES/JEP

KIERN JEWISS

4th in BRDC F3 with Douglas

It took a while for the 2018 Award finalist and British F4 champion's season to get going, his speed not always translating into top results. Has nevertheless become a regular podium contender and has so far finished in the top three on seven occasions.



MOTORSPORT IMAGES/JEP

AYRTON SIMMONS

3rd in BRDC F3 with Chris Dittmann Racing

Like 2018 British F4 rival Kiern Jewiss, Simmons stepped up to BRDC F3 this year and, like Jewiss, he has shown promise. Nobody's been able to match Clement Novalak's consistency, but Simmons has scored three victories – one more than Novalak.



MOTORSPORT IMAGES/JEP

JOHNATHAN HOGGARD

2nd in BRDC F3 with Fortec

Hoggard has arguably been the fastest driver in BRDC F3 this season and has more wins (five) than anyone else, but consistency has been more of a challenge. That explains why the series rookie is 52 points behind Clement Novalak heading into the season finale at Donington Park.



RC NEW PHOTOGRAPHY

BILLY MONGER

11th in Euroformula Open with Carlin

The Euroformula Open has stepped up a gear in 2019. It's been a tough campaign for Monger at times, but the brave Carlin driver took a brilliantly opportunistic win in tricky conditions on the Pau street circuit and is knocking on the door of the top 10 as the series heads to Silverstone this weekend.



MOTORSPORT IMAGES/JEP

JOSH SKELTON

4th in British F4 with JHR

One of the few second-year drivers in British F4, Skelton has led the way for JHR this season, taking two wins so far. One of those came on a strong weekend at Thruxton, where he finished on the podium in all three encounters. The title is a long shot, but Skelton could yet pip Louis Foster for third.

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THE ART OF RACING

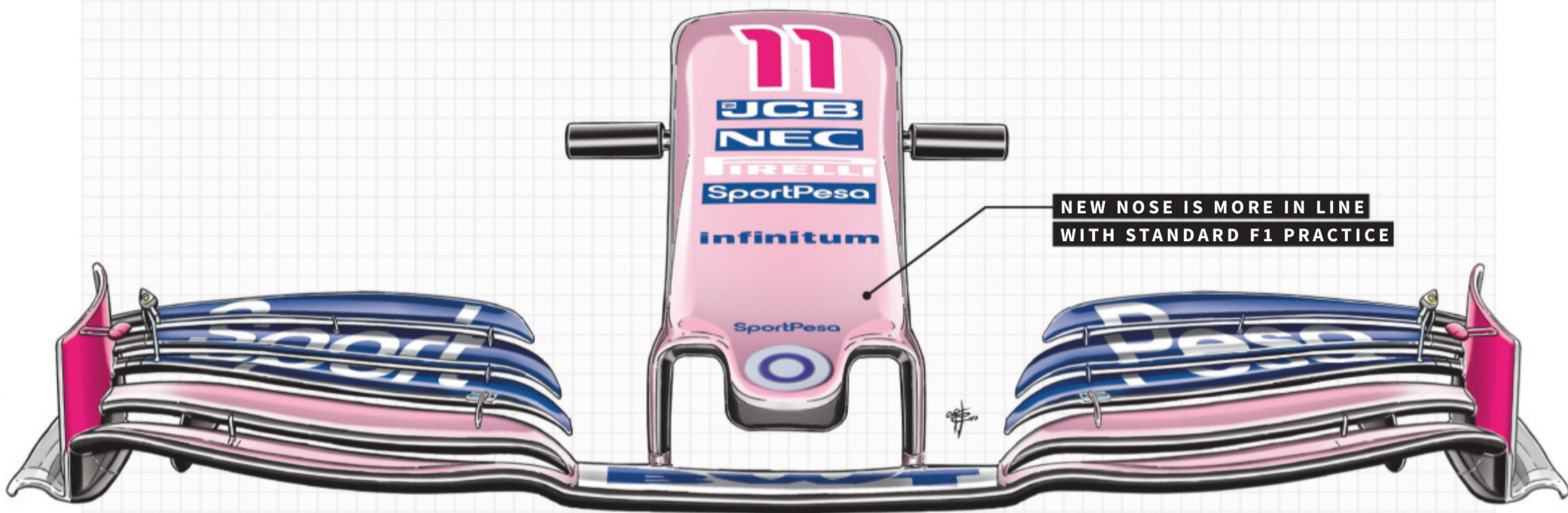


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Anti-reflective Sapphire Crystal | Water Resistant up to 100m

DRAWING BOARD

GIORGIO PIOLA



RACING POINT ABANDONS 'NOSTRIL' PHILOSOPHY

When Ross Brawn admitted that his Formula 1 technical team could only recognise three or four cars if they were all painted black, it's reasonable to assume the Racing Point RP19 was one of the cars they *could* identify.

Ever since the team decided to put a pair of 'nostrils' into the front end of its 2015 Force India VJM08, designs following this theme have almost become a part of the squad's identity. Then, this weekend, Racing Point emerged from its summer holidays with a new front end, removing the nostrils from the nose to create a more conventional design.

The extension required to satisfy the crash structure requirements has shrunk slightly, easing the airflow path underneath the nose. Without the nostrils, the amount of air passing underneath the chassis is reduced, but it appears that Racing Point is attempting to redefine the flow patterns experienced at the front end to enjoy a greater level of stability.

Although it's easy to simulate how air flows around a car on a straight, it's very different

when the front end of the car is in yaw. In those circumstances, the volume of air passing to the underside of the car through the nostrils can drop sharply and suddenly. Removing that variable should help produce a less peaky response. Since Spa demands a low-drag set-up, it also suggests that the new nose produced benefits in that area.

There was also a new pair of fins on the chassis bulkhead, assisting with the transition of nose to chassis and helping to send airflow down to the furniture on top of the bargeboards. Racing Point is traditionally strong at Spa so its performance here didn't provide a particularly clear picture of how much the car had improved. Sergio Perez suggested after the race that the next few rounds would bring greater clarity.

The key indicator should be Singapore, and whether the nose provides the right amount of front-end grip and can do so consistently at a circuit that requires predictable responses.

JAKE BOXALL-LEGGE

LOW-DOWNFORCE WING ADAPTATIONS

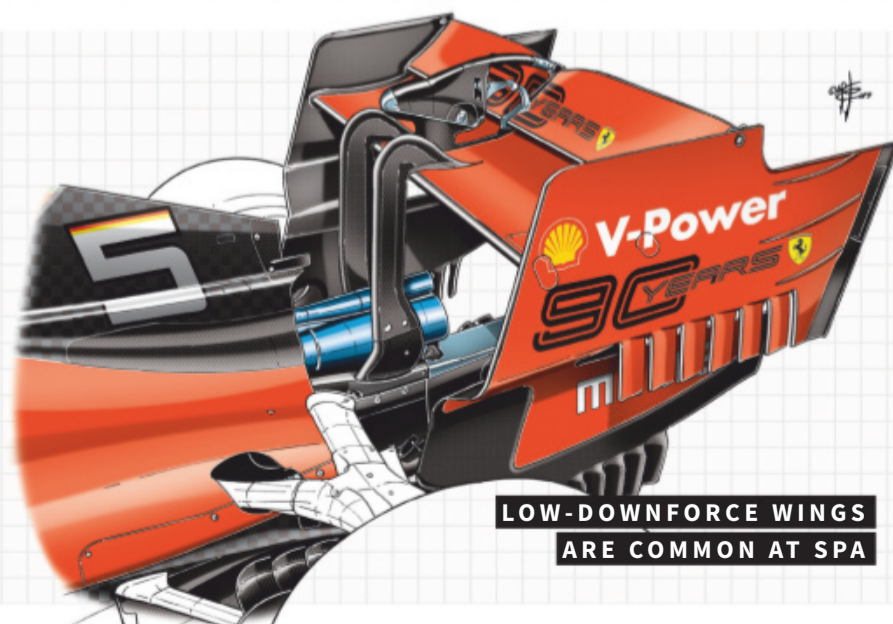
Every year, it's customary to trim as much drag as possible off the aerodynamic packages at Spa. The rather sizeable straightline speed boost generally compensates for the performance lost in the corners.

For the most part, these are conventional arrangements. By shortening the chord of the top flap of the wing to match the raised mainplane, the amount of drag is

reduced – a simple case of cutting the frontal area of the car, while also minimising the coefficient of drag inherent to the geometry.

Ferrari's and Red Bull's designs last weekend were simple adaptations of the normal rear wing, and the endplates remained the same to keep a consistent flow pattern at the rear of the car.

JAKE BOXALL-LEGGE



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Is a GP still special enough?

Formula 1's calendar will expand to a record-breaking 21 races next season, but with continued growth comes the risk of diluting that which makes grands prix great

EDD STRAW

Can you have too much of a good thing? That's a question Formula 1 must ask itself as the calendar grows increasingly bloated: a record 22 races are scheduled for next year thanks to the addition of the Dutch and Vietnam Grands Prix more than offsetting the loss of Germany.

The first world championship calendar in 1950 comprised just seven races, one of them being the anomalous Indianapolis 500 (which can be disregarded given the lack of participation from F1 regulars), spread over a total of 113 days. This year's championship comprises 21 grand prix weekends spread over 259 days. Next year, an extra race is crammed into that same period.

That equates to a race every 12.3 days this year, with the frequency increasing to one every 11.8 next season. Manna from heaven for an F1 fan, you might think, but it is hugely demanding of an audience that is often time-poor given the demands of everyday life.

Ideally F1 wants its fans watching every race but, even for the most dedicated enthusiast, reality gets in the way and to block out a couple of hours 22 Sundays a year is not an easy task.

For the most motivated fan who wants to watch every minute of practice, qualifying and the race, that adds up to around seven hours of viewing – allowing two hours for the race and a little time either side. Next year, that will mean 9.625 days watching

“To maintain F1's lustre, every date on the calendar must retain the feeling of significance”

F1 – assuming you allow an eight-hour window for sleep, more than 2.5% of your waking year.

By dividing the length of season from first race to last by the number of grands prix, you can measure the density of races historically. It's no surprise that the 21st century has been the busiest period, peaking with a race every 11.7 days in 2018 – fractionally more frequent than next year's calendar.

The quietest seasons were in the early days of the world championship, with a race every 34 days in 1955 the most leisurely of all campaigns. By the 1980s, when F1 was growing rapidly thanks to the loving embrace of a burgeoning television audience, the race frequency was one every 14.449 days – an increase from 17.998 days the preceding decade. In the 1990s, the figure was one every 14.5 days, holding steady, but in the first

decade of the 21st century it increased to a race every 12.852 days.

In terms of watching live coverage, that makes for a massive commitment even for the most enthusiastic Autosport reader – dedicating more than every other Sunday to watching a grand prix is beyond many not through choice but necessity. Today's race every 11.8 days might not sound that far off the 'every other Sunday' which intuitively feels like the natural order of things, but it's a significant increase over the 18-19 races over the time span that would result in that frequency.

Excessive dilution can be bad for business. If you miss one race live, why not miss three, or four – or all 22 for that matter? While that's less of a concern in today's market, where you can watch while on the move, catch up on time-shifted coverage after the fact or devour highlights on YouTube, the live audience remains the lifeblood of the sport. And at what point of dilution do you give up on your appointment to view and become a more casual fan because each discrete 'package' of F1 – the races – has become disposable?

The NFL is a good example of a sporting entity that rations its offerings. Each team plays 16 regular-season games. Then there's a maximum of four games in the playoffs, which would require a team to make the Super Bowl and get there via the wildcard round that feeds into the playoffs proper.

Other sports series take a different approach. The NBA offers 82 regular-season games plus the playoffs, while the MLB has an astonishing 162. England's Premier League has 38 games per team on top of both domestic and European cup games that can extend the campaign to beyond 60 matches.

This is a little like comparing apples with oranges given F1 races are shared by all fans and constitute a single, defined thread, as opposed to supporters of specific teams watching their own games and all feeding into a broader picture. But it does illustrate that different sports thrive by feeding the market in the way that best showcases their product, with NASCAR's top tier favouring a 36-race championship season with a couple of non-points events. Contrast that to IndyCar, which has a condensed six-month, 17-race calendar.

F1 isn't in a position to offer too many races per season simply because of its size and peripatetic nature. But should the creeping increase continue (and there's a realistic chance it will, given more races means more revenue to be shared by the various stakeholders, teams included), it will eventually push up against the ceiling of what is for the common good, if it hasn't already.

To maintain its lustre, every date on the calendar must retain the feeling of significance – a true *Grand Epreuve*. Dilute that too much and a GP risks becoming something transient and disposable, rather than a race for the ages. ✎



Does the grid need to grow?

More cars racing in F1 means more action on track, but there's a quality threshold that must be met to ensure new teams don't just come and go

ADAM COOPER

Does Formula 1 need extra teams to bolster the grid to 22 or 24 cars? Or should Liberty Media be preparing the ground for a new entrant to come in should any of the current competitors drop out? Those questions have been given extra focus by confirmation that at least one new project is bubbling away in the background.

French-backed Panthera Team Asia F1 has recruited former Super Aguri, Caterham and Manor man Tim Milne as its head of aero, and he's been working since January with a small group in a design office at Silverstone.

The names on Milne's CV provide an unfortunate reminder of the recent history of new teams, and how they struggled to find a foothold before folding. The entities that were originally known as Lotus and Virgin, along with HRT, arrived with high hopes in 2010. The winners in a tender process launched by the FIA, they had first to prove that they had solid backing and a sound business plan. Time would prove how harsh the financial reality was.

It's easy to forget now that when those teams first lodged an interest, the FIA – on Max Mosley's watch – had promised financial and other concessions that made an entry attractive. Over time that all faded away and they eventually joined the 2010 grid on the same basis as the established entrants, except that they had to earn the right to F1 income.

“The bigger question is whether the 10 current teams will all still be around in 2021”

History is repeating itself in that a future entry is again being touted as an enticing financial prospect, thanks to the cost cap and other efforts to curb spending. F1 boss Chase Carey has noted many times that he's had interest from potential new teams (which also happened ahead of the 2010 intake). It's no surprise that he should make that public – just as with new races, talk of a positive demand/supply trend is good PR.

“Clearly one of the goals in terms of the cost cap is to create a healthier sport,” Carey noted last month. “We've talked about the competitive goals, but it is equally important that the cost cap creates a business model that is healthy and growing and positive for our existing teams, and potential new teams coming into it.

“That has been enforced as we've had discussions with potential new teams. All have looked at steps in terms of

cost discipline, and probably a more balanced revenue distribution as being cornerstones to creating what they think is an exciting opportunity.”

It's obviously in F1's interest for Carey to take such a positive line. But should potential entrants be a little wary after what happened a decade ago?

Perhaps this time they should have a little more confidence. Certainly Mercedes boss Toto Wolff believes that the financial climate will indeed be different. “The business model for F1 teams is about to change, with the introduction of the cost cap in 2021,” he says. “There will be some substantial reductions happening at the top teams and I think the gap in performance is going to decrease.

“And I think that owning an F1 team will not only be a marketing exercise, like it is today, for large OEMs or multinational consumer goods companies, or a trophy investment for an individual. It will become a real business.”

At last weekend's Belgian Grand Prix Ross Brawn made the intriguing revelation that those now circling around have been told they will have to wait until at least 2022 for entries to open up. “We have a surprising number of teams that have shown an interest,” he told Sky F1. “But what we have said to those teams is let's get these rules introduced, let's stabilise the situation. Let's get everything working properly before we seek more teams.

“I think with the 10 teams we have, 10 healthy teams in F1 is actually enough. And if we do get any extra teams they have to really add to the show. We must learn from history – so many small teams came and went and didn't really add to F1.”

Brawn gets to the heart of the matter. An increase to 22 or 24 cars will give fans more to watch and create opportunities for drivers, but the quality has to be there. After the demise of the Class of 2010, Haas has proved it is still possible to come in at a respectable level.

Meanwhile the current entrants, while making politically correct positive noises about prospective new competitors, have questions about the potential impact on their slice of F1's income, should the pie be divided into 11 or 12 pieces. That has yet to be resolved.

The bigger question is whether the 10 current teams will all still be around in 2021. The new Concorde Agreement is not yet signed, and boards of directors and wealthy benefactors alike can decide overnight not to continue. Teams have often weathered such storms and emerged with new ownership, but there are no guarantees.

The risk of the entry delay suggested by Brawn is that, should any current team not make it to 2021, there won't be anyone to replace it in the short term and the grid will shrink – and that would be disastrous in a season that F1 simply has to get right. ❄

YOUR SAY

The most obvious solution is to mandate a minimum two stops and all three tyre compounds to be used. Especially if there is a good spread in pace over the three

GUY DORMEHL

Make the drivers use all three tyre compounds

With all this hand-wringing about the tyres – degradation, being able to ‘push’/follow closely etc – surely the most obvious solution is to mandate a minimum two stops and all three compounds to be used. Especially if there is a good spread in pace over the three compounds. This would encourage less tyre management (horrible term for driving slowly to the tyre performance), but throw up diverse strategies and lengths of stints and so on.

Maybe it would also help to allow free choice of starting tyre to roll the dice more. The original aim of trying to tie the fastest 10 to softs was to mix up the field and give 11th place back an ‘advantage’ with free choice, but it hasn’t worked out like that has it?

Guy Dormehl

Via email

Lasting tribute to a young life lost

Can I use this opportunity to suggest that the ‘no name’ corner at Spa be renamed the Hubert corner in memory of this young driver who sadly lost his life at the weekend. Our family’s thoughts and prayers are with everyone who knew Anthoine.

Heather Clapham

By email

Safety should be first thought

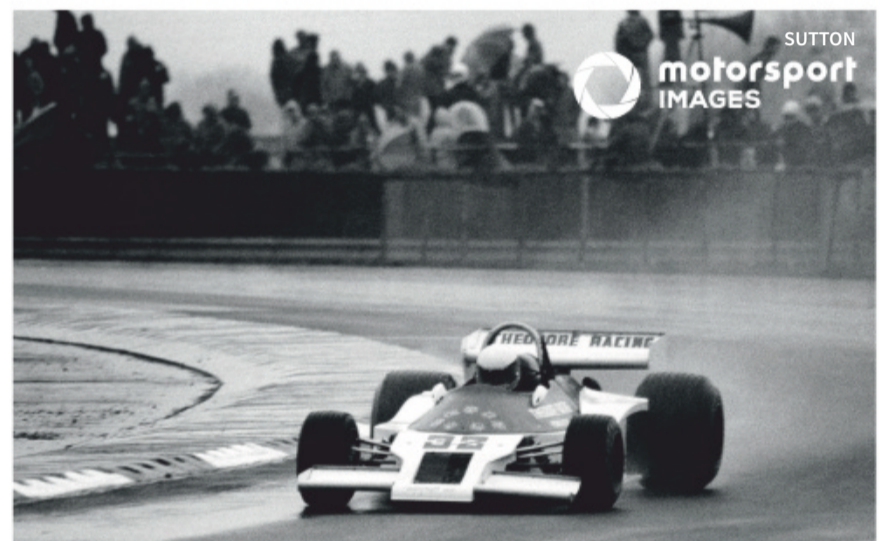
The tragedy at Spa serves to remind us all that our greatest hope at the start of every motorsport event should be, ‘Stay safe everyone, please stay safe’.

Graeme Innes-Johnstone

Elland, West Yorks

Aeroscreen so much more elegant than halo

What a significant improvement in the aesthetic of the IndyCar aeroscreen in comparison to the clumsy halo (Pit + Paddock, 29 August). The rendering by Matt Fiveash of a 2021 Formula 1 car shows a more elegant solution, and a much better looking F1 car as a result.



I enjoyed Edd Straw’s column on the progress made by Williams in its attempts to return to competitiveness and hopefully a return to past glories in the course of time. It’s an interesting comparison to the challenge faced by McLaren in its own response to poor design and technical decisions that led to the demise of the relationship with Honda.

I also note that Ross Brawn has said it would be better for any new F1 teams to wait until the 2022 season before joining the circus. I hope that means there are potential new teams on the horizon to boost the size of the grid.

Neil Davey

Newport, South Wales

Keke Rosberg’s first F1 victory

I’m sure I’m by no means the first person to point out that, although Keke Rosberg’s 1982 Swiss GP win was his first in the world championship (Quiz, 29 August), he had already triumphed in the 1978 International Trophy at Silverstone (now there’s an excuse to print a picture of a Theodore F1 car).

Stuart Groves


Birmingham

Couldn’t resist the opportunity (above) – ed


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108

Leclerc is the 108th driver to win a world championship event





HOW FERRARI HELD OFF HAMILTON'S CHARGE

Charles Leclerc took an emotional first Formula 1 victory after his Ferrari team won a hard-fought battle to keep Hamilton's Mercedes behind

EDD STRAW

PHOTOGRAPHY



motorsport
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SUTTON

The 2019 Belgian Grand Prix may prove to be the moment when Charles Leclerc decisively stamped his authority over team-mate Sebastian Vettel by claiming his first Formula 1 victory to make Ferrari his team. But perversely, it was also a race Leclerc owed partly to Vettel's contribution after a far more slender triumph than his qualifying supremacy had suggested.

Leclerc drove superbly throughout the Spa weekend, particularly when he had Lewis Hamilton bearing down on him in the tense closing laps of the race. The tragic loss of Formula 2 ace Antoine Hubert a day earlier made it even more impressive, and it was only right and proper that he dedicated this victory to his friend and rival. But had Vettel not played his part over five crucial laps, Hamilton would surely have snatched victory despite Ferrari's straightline speed advantage.

When Hamilton closed to two seconds behind Vettel by the end of lap 27 of 44, he was just four seconds behind leader Leclerc. By the time he passed the Ferrari for second place on lap 32, that gap to the lead had grown to 6.6s. On top of that, Hamilton then had to get his rear tyres, which he had described as "on fire" during his chase, back under control and build up the charge in the ERS battery before he could set after Leclerc in earnest.

All told, the Vettel roadblock cost the Mercedes of Hamilton at least six seconds to Leclerc. Given the eventual winning margin of just under a second after a tense chase in the closing stages, this was decisive.

The scenario was the consequence of Vettel running an offset strategy by pitting six laps before Leclerc — a significant margin around the

4.352-mile track — after struggling during the first stint. While Leclerc led from pole position, Vettel was under pressure from Hamilton from the start, or rather the restart given there hadn't been much racing before the safety car intervened.

This was the consequence of a clash between Red Bull's Max Verstappen and Alfa Romeo's Kimi Raikkonen at the first corner. The Dutchman had not been a threat in qualifying, having been forced to run a spec-2 Honda engine (two steps back from the latest specification used in team-mate Alex Albon's car on Friday before he too reverted to spec 2), and made a slow start and slipped behind Raikkonen. He attempted to correct this by squeezing up the inside of the Finn at La Source. While a legitimate move, it was a risky one and Raikkonen turned in from his middle line. The resulting collision briefly pitched Raikkonen into the air and gave both cars damage.

"We had a little wheelspin," said Verstappen. "After that I just tried to keep to the inside and Kimi just expected that he was completely in front of me. I braked a little later than the other two [Raikkonen and Sergio Perez's Racing Point], but it was still very early. He went on to do his normal line and I couldn't go anywhere."

Raikkonen admitted that "honestly, I didn't see him". It was a classic racing accident, but perhaps not the percentage play from Verstappen.

Both did continue, albeit having created the conditions for some further incident as Daniel Ricciardo's Renault was briefly pitched into the air after contact with Lance Stroll's Racing Point. Raikkonen himself



“THE FERRARIS WERE QUICK, PRODIGIOUSLY SO ON THE STRAIGHTS, BUT THE TRIMMED-OUT MACHINES WERE ASKING A LOT OF THE SOFT-COMPOUND PIRELLIS, AND VETTEL COULDN’T SHAKE HAMILTON”

had just landed, so forced Ricciardo to ease off and tighten his line emerging from the corner, resulting in the Stroll clash.

But that Raikkonen/Verstappen collision was only the indirect cause of the safety car, as it wasn’t deployed until the Red Bull piled into the wall at Eau Rouge. This was a result of a front-left toe-link failure that manifested itself just as Raikkonen swooped around the outside of the very cautious Verstappen at Eau Rouge, resulting in the Red Bull clipping the Alfa on its way to the scene of the accident.

The first attempt to restart the race was abandoned without the safety car even leaving the track thanks to Carlos Sainz Jr parking his McLaren in the Bus Stop chicane runoff with an engine-related problem. Leclerc had dropped back from the safety car and was just winding up for the restart when the call was made, so was able to lead the field back up to it without safety car driver Bernd Maylander having to inconvenience himself by leaving the track.

Next time round, at the end of lap four, Leclerc held onto the lead despite not immediately dropping Vettel. But he did pull clear when

Vettel locked up the front-right into La Source and ran wide, which allowed Hamilton to close on him. It proved to be too close and Hamilton wasn’t able to carry a momentum advantage through Eau Rouge, which actually meant he was briefly threatened by team-mate Valtteri Bottas.

During the next phase of the race, Leclerc inched away from his team-mate. He was 1.6s clear at the end of the first full racing lap, then from laps six to 14 pulled an average of two tenths per lap on Vettel. The Ferraris were quick, prodigiously so on the straights, but the trimmed-out machines were asking a lot of the soft-compound Pirellis and Vettel couldn’t shake off Hamilton.

With Leclerc out of range, Ferrari made the logical decision to pit Vettel so he was not vulnerable to an undercut attack from either Mercedes driver. This was a wise move, for the undercut proved to be more powerful than many had anticipated and protected Vettel’s track position. Had Ferrari allowed Mercedes to take the initiative with Hamilton, then it would have left Leclerc with no tailgunner. And Mercedes would have done so because Hamilton had originally been called in on the same lap, only for it to be cancelled when it was clear that Vettel was heading in to cover him.

Vettel pitted at the end of lap 15 to switch to mediums tyres but Leclerc did not follow him into the pits on the next lap, instead running a total of six laps longer. While the conventional strategy would be to pit the leader first to keep him out of range and bring the other car in on the following lap, the race situation forced this divergence that was not, as >>

“VETTEL MADE HIS DECISIVE INTERVENTION ON LAPS 28-32 - HAMILTON WAS FASTER BUT VETTEL’S STRAIGHTLINE SPEED MADE HIM DIFFICULT TO PASS”



some suspected, a symptom of Ferrari favouring Vettel. In fact, had this not happened then Vettel would never have had the track position to play his crucial rear-gunner role.

“We simply had to react to what Mercedes was doing at that time,” said Ferrari team principal Mattia Binotto. “If we could have gone longer with Seb we would have done it, so we were prepared to go as long as possible. But as soon as we saw Mercedes ready for the pit, we simply had to react.”

“Charles got some advantage, some gap, so he stayed out without somehow putting at risk his track position on Hamilton. When it was the right time for him, we simply stopped.”

Leclerc’s advantage over Hamilton had peaked at just under five seconds at the end of lap 15, but by the time he was called in on lap 21 it was close to four. Crucially, Vettel’s pace on the mediums meant that he jumped Leclerc when the leader pitted. Leclerc’s disadvantage peaked at 5.2s during his out-lap.

Inevitably, Hamilton followed suit a lap later, with Bottas, who was sat 4.5s behind his team-mate before the stops, pitting on lap 23. But Bottas wasn’t the threat – that was Hamilton, who finished his out-lap 10.3s behind leader Vettel and 7.1s adrift of Leclerc. Leclerc caught and passed – or rather was let past by – Vettel in just over five laps, which came as something of a surprise.

“When I came out behind Sebastian, first I was not completely confident that the degradation was that much on the medium and that I could catch him,” said Leclerc. “But after two or three laps there was quite a big pace delta, so then I was like, ‘OK, I don’t think we’ll lose

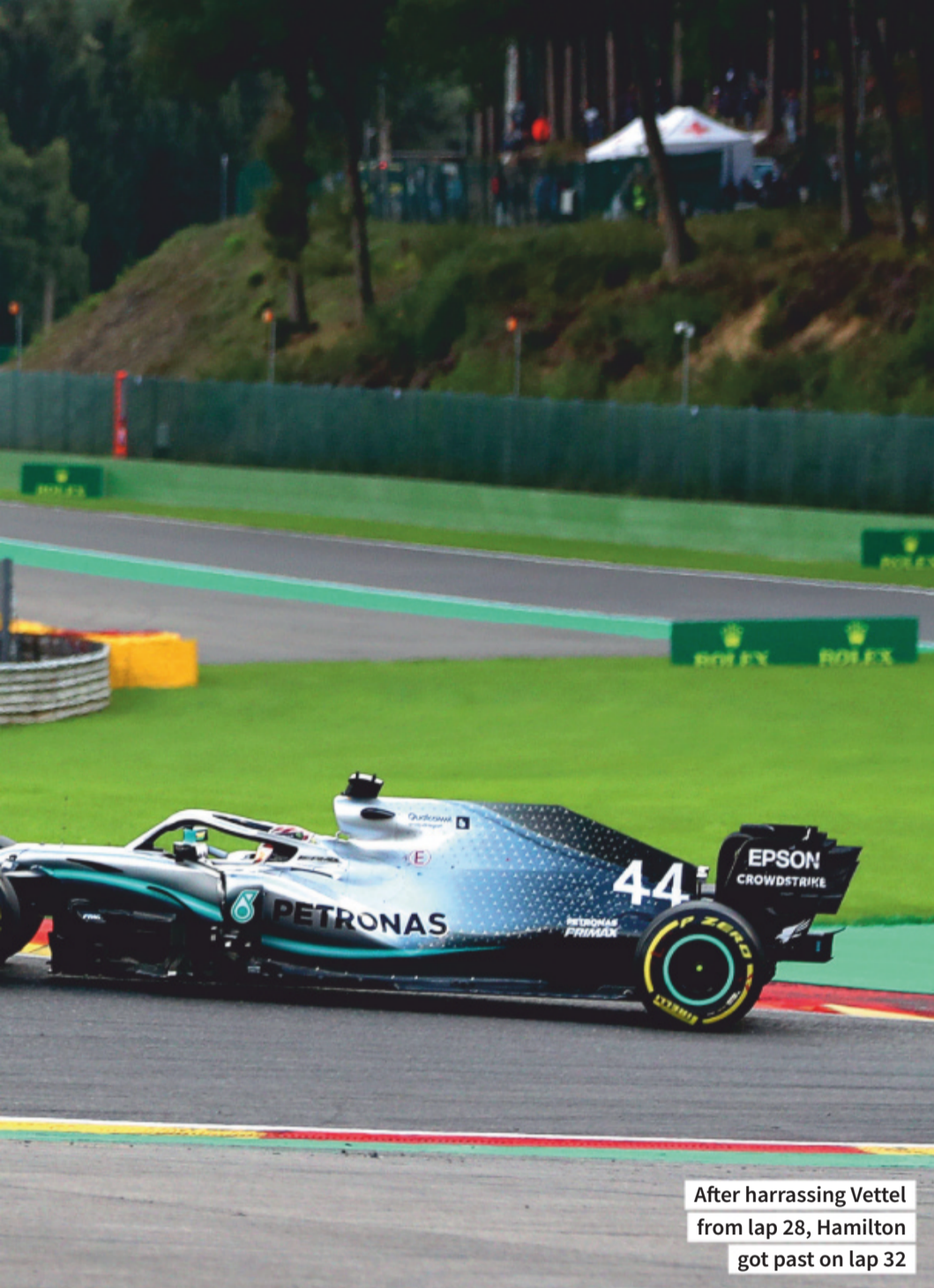
time together, which is exactly what we didn’t do.”

This brings us back to the crucial window: laps 28-32, when Vettel made his decisive intervention. Hamilton was faster, but Vettel’s straightline speed advantage made him difficult to pass. Throughout the chase, Hamilton asked for updates on Leclerc’s pace and there was no doubt he had his eye on victory. He was pushing too, as he proved by running deep at the chicane while on Vettel’s tail.

The pass came on lap 32. Vettel defended on the run to Les Combes, but Hamilton had the advantage of the DRS and sailed around the outside of Vettel. Now it was time to chase down Leclerc, while Vettel headed to the pits to slip to fourth behind Bottas. Vettel inevitably claimed fastest lap as he scythed half a second per lap out of the Mercedes driver over the final 10 laps but came up well short of third place.

Nobody else was a threat to the top four, with Red Bull debutant Albon a distant fifth following a bold, on-the-grass move on Perez on the Kimmell Straight after starting from 17th thanks to engine-change penalties. But that position should have gone to Lando Norris, who was comfortable for 43 of the 44 laps, only to suffer a late engine problem.

But these were only sideshows to the main event: Hamilton’s chase of Leclerc. To the point when Hamilton took second, Leclerc had done a near-faultless job, with the only negative a brief trip across the Les Combes runoff during the first stint that didn’t cost him any significant time. But now he was back in the same situation he faced in the Austrian GP; struggling with his tyres, in the lead with the laps counting down but with a quicker driver chasing him down.



After harrassing Vettel from lap 28, Hamilton got past on lap 32

“LECLERC HAD DONE A NEAR-FAULTLESS JOB, BUT NOW HE WAS IN THE SAME SITUATION HE FACED IN AUSTRIA: STRUGGLING WITH HIS TYRES, IN THE LEAD BUT WITH A QUICKER DRIVER CHASING HIM DOWN”

Initially, it looked straightforward as he was able to edge away from Hamilton, with his advantage peaking at 7s at the end of lap 34 as Hamilton brought his car back into tyre and ERS balance. The gap held relatively steady for the next two laps, dropping to 6.569s, much to Hamilton's frustration. But as the Mercedes pitwall pointed out, this was roughly the point where Vettel had slowed on his mediums. Leclerc was also starting to struggle, albeit not to the same extent.

From laps 37-39, Hamilton whittled the gap down to 5.1s, but then he really started to scythe into Leclerc's lead. The Ferrari's pace slipped from Leclerc's 1m47s bracket of the preceding laps into the 1m48s, while Hamilton kept lapping quickly. On laps 40 and 41, his pace advantage became clear and he took an average of 1.169s per lap out of Leclerc to close to just 2.770s behind.

At that rate, Leclerc would have been in trouble with a mere three laps to go, despite having made improvements to his tyre-management technique since the first half of the season, and set-up changes to reduce the rear degradation that held back Ferrari on the Friday long-runs.

Fate intervened in the form of a gaggle of traffic that limited Leclerc's losses on lap 42 to just half a second. While Leclerc cleared the backmarkers – Ricciardo and Haas duo Kevin Magnussen and Romain Grosjean – without any significant time loss, Hamilton's lap time dropped by almost six tenths, thanks to having to pass them all in the twistier middle sector in which he had been doing the real damage. That time ensured Leclerc stayed just out of range of Hamilton, whose charge was tempered a little by the need to look after the medium Pirellis over the final two laps.

Antonio Giovinazzi crashing his Alfa Romeo out of ninth place while on his penultimate lap as the leaders were on their last time round >>

QUALIFYING

Charles Leclerc pumped his fists as he cruised down the Kettel Straight after taking his third Formula 1 pole position. This wasn't his celebration when he first learned he had pole position – there had been plenty of time to digest that. Instead, this was as he was told the gap to Sebastian Vettel. This wasn't just pole; it was pole by three quarters of a second ahead of a quadruple world champion at one of the grandest circuits of all.

Not that it came as a surprise. Other than Friday's first practice session, Leclerc was fastest throughout the weekend. He also showed a clear head prior to the second runs in Q3 by telling the team he didn't want to chase the perfect tow and instead focus on ensuring his tyres were prepared correctly. Given the traffic jam that built up ahead of the first runs, during which both Mercedes drivers suffered lock-ups and Lewis Hamilton almost rear-ended Valtteri Bottas, that showed wisdom beyond his 21 years.

“At first I really targeted the perfect slipstream for the first run in Q3,” said Leclerc. “But after that I felt the tyres were not ready for Turn 1 and I actually lost quite a bit of time.

“For the second run in Q3 I asked to be sent whenever the car was ready, to be alone and try to do the job alone without slipstreams. In my opinion, on my car, it felt better to have tyres in the right window than having the slipstream so we went as soon as possible.”

While Leclerc happily completed his lap in a gap behind Max Verstappen and set a new pole record of 1m42.416s, Sebastian Vettel was keen to get a good tow given he still had work to do on his second run, having been outpaced by Hamilton on the first. His final effort was four tenths off his theoretical best despite a decent tow, mainly because of struggles in the middle sector. His tyre prep was compromised and the fronts weren't up to temperature for the start of the lap, although his suggestion that sector two was compromised by traffic seemed fanciful given where he was on track.

Hamilton beat Bottas to third by over a tenth, with Max Verstappen slotting into fifth place. But the big winner was Kimi Raikkonen, who earned sixth on the grid in his Alfa Romeo with eighth-fastest time behind the two Renaults, which both carried grid penalties.

“IT FELT BETTER TO HAVE TYRES IN THE RIGHT WINDOW THAN HAVING THE SLIPSTREAM”





TRACKSIDE VIEW

Spa-Francorchamps is a circuit of hidden depths. The iconic corners – Eau Rouge, Pouhon, Blanchimont – monopolise the attention, meaning that other challenging ones are overlooked. Rivage, Turn 8, is one of those.

It's a 180-degree right-hander perhaps best described as an elongated hairpin. Steeply downhill, significantly cambered and deceptively fast, it can be taken in fourth gear on a qualifying lap. Drivers spend roughly five seconds in the corner from the start of the braking phase through to the exit, making it a significant contributor to lap time.

Watching from the inside of the corner during Saturday morning's free practice session, immediately it's clear that there are different approaches being taken from turn-in through to the late apex. The bump at entry caused by a change in track surface, just as the cars turn in, adds some extra problems. In particular, Alex Albon's Red Bull reacts prodigiously to the bump, early in the session forcing him wide and later on contributing to struggles for rear grip. His car stands out because it's on high fuel given he must serve a back-of-the-grid penalty, while others are starting to look ahead to qualifying.



Alfa Romeo driver Antonio Giovinazzi, never one to work his way up to the limit during the session, carries in too much speed early and just manages to keep the car on the track. But while that is taking it to costly extremes, there are different approaches taken that offer good results. Haas driver Romain Grosjean demonstrates one extreme. After initially struggling to get the car into the corner, he consistently adapts and

finds an approach that gets the car in tight far earlier than most.

At the other end of the scale is Charles Leclerc, who takes a relatively wide approach before getting the nose in for the apex. This seems the ideal method, grip allowing, as it ensures the car is under control for the exit phase that immediately precedes the need to yank the car across to the right-hand-side of the track for the entry to the quick

left-hander that follows – colloquially known as 'no-name' for obvious reasons. But it requires a car to have the rear stability and strength of front end to get it in, something Leclerc didn't feel he had when it came to his pole lap, hence staying wide and not taking the apex.

Tackling a corner like this is never an exact science, and drivers must be reactive.

EDD STRAW





“IN A SEASON WHEN FERRARI HAS SQUANDERED SO MANY CHANCES, FINALLY THIS WAS ONE IN WHICH BINOTTO’S TEAM GOT EVERY CALL SPOT ON”

might have helped Leclerc, but despite yellows at Pouhon it remained green for the run to the final chicane and Leclerc stayed just out of reach.

Leclerc, already denied a maiden victory twice, wouldn't have been blamed for cracking – especially given the similarities to the denouement of the Austrian GP, where he was chased down and passed by Verstappen in the closing stages. Many have fallen apart under that sort of pressure, or been distracted by fears of a repeat of the kind of engine problem that cost him in Bahrain. But not Leclerc.

“What happened in Bahrain was never in my mind during the race,” said Leclerc. “But Austria was a little bit different. Verstappen was catching very quickly, and I felt Lewis had quite a bit more pace than we had, especially on the medium [tyres]. I was very confident on the soft, but then on the medium Mercedes picked up some pace and it was a bit more difficult for us.

“I did not think about Austria but I could hear my engineer telling me the gaps and this gap was reduced every lap, so I was trying to focus on the job, trying to cure the balance of the car. We had some problems with the rear tyres – I was trying to help the rear tyres as much as possible to arrive first and that's what we did.”

To take your first grand prix victory under such pressure is no easy thing and Leclerc passed the test of his nerve with flying colours. Considering what had happened the day before, that was remarkable.

“It's very difficult to enjoy this first win with the situation we had yesterday, but overall it's a dream come true,” said Leclerc. “Since I was a child, I've been looking up to Formula 1, dreaming to be first a Formula 1

driver, which happened last year, and then driving for Ferrari this year and then the first win today.

“It's a good day, but losing Anthoine yesterday brings me back to 2005, my first ever French championship. It was him, Esteban [Ocon], Pierre [Gasly], myself and we were the four kids that were dreaming of Formula 1. We grew up together in karting and to lose him yesterday was a big shock for me and for everyone. Hopefully, in two or three weeks I will realise what happened today.”

Had the race been a couple of laps longer, had Ferrari not pitted Vettel when it did, had he then not held up Hamilton so effectively, had Leclerc made his stop a lap or two earlier, had that traffic been distributed a little more favourably to Hamilton, the outcome of the race might have been different.

In a season when Ferrari has squandered so many chances, finally this was one in which Binotto's team got every call spot on. What a way to break its 2019 duck, and for Leclerc to become a grand prix winner.

More significantly, perhaps, he really has established himself as Ferrari's top dog with what is surely the first of many victories. 🏆

NEXT F1 REPORT

ITALIAN GRAND PRIX 12 SEPTEMBER ISSUE

Can Charles Leclerc and Ferrari continue their winning momentum and again hold off the challenge from Hamilton and Mercedes at Monza?



GALLOWAY

Power unit problems ruin McLaren's race

McLaren's Belgian Grand Prix was bookended by engine trouble. Carlos Sainz's early retirement was preceded by an issue on the formation lap, on which he experienced a sudden loss of power, while Lando Norris stopped near the end while running fifth.

"I already had no power there," explained Sainz. "Halfway through the formation lap I lost all the power and got to maybe do some defaults on the steering wheel to see if the power would come back and it didn't for two laps."

Sainz returned to the pits after the formation lap, hoping a reset could alleviate his woes, but could not shake the problem.

After Sainz retired on his second lap at the Bus Stop runoff, McLaren's hopes rested with Norris. But expectations of a surefire fifth place were extinguished when he pulled up on the start/finish straight in the dying stages of the race.

Norris had played with the modes to try to preserve his engine, but there was little he could do as the fault worsened.

"It started to go a little bit so I went on the radio," said Norris, "But then I had the last chicane and it was getting worse and worse. The guys are looking at it, but there's nothing we could do... the team could do."

McLaren team principal Andreas Seidl was unable to confirm the cause, although Renault's engine technicians are investigating.



S BLOXHAM

Hubert tragedy casts long shadow, but show goes on

The death of Anthoine Hubert left some indelible marks on the paddock, with Formula 1's cast of drivers shocked by the events of Saturday's Formula 2 race. Although it sounds callous to declare that the 'show must go on,' it invariably did – albeit with an understandable level of reluctance.

Celebrations after the race were muted, and many drivers opened up about how Hubert's accident had affected them ahead of Sunday's grand prix.

"I'm glad today is over," said Renault driver Daniel Ricciardo. "I know, weirdly enough, the best way we can kind of show our respect was to race today, but I don't think any of us actually wanted to be here, or wanted to race. At least, I'm speaking for myself, but I'm sure I'm not the only one. It was certainly tough to be here and try to put on a brave face for everyone. I know a lot of people in the paddock are hurting after yesterday."

McLaren's Lando Norris added: "It shook me in quite a big way because I think even us as drivers, we take it for granted sometimes – what we do, how we can have such big pressures and get away with it and be fine. But it can quickly go the opposite way. My condolences go out to all

the family and friends of Anthoine."

Pierre Gasly, who used to share a room with Hubert during their junior racing days, was distraught after his friend's death.

"It was the most emotional pre-race I've ever had," said the Toro Rosso driver. "You're not ready at 22, 23 years old, to live this kind of moment, to lose one of your best mates. I've grown up with him since I was seven in karting, we've been room-mates, we've lived in the same apartment, in the same room, for six years; we've been classmates, I've studied since with him, with the same professor, private school that the Federation [FFSA] did. I'm still shocked.

"I don't realise how it can go so fast. It's just terrible. I already plan to see all our friends who I had in common with Anthoine tomorrow because none of us really understands and realises what happened, and it's just super sad.

"I told Charles before the race, 'Please win this race for Anthoine.' We started racing in the same year, Charles, Anthoine and myself. And actually Anthoine won the French Cup in 2005. We raced together for so many years."

Q & A

ALEX ALBON

The Red Bull debutant finished fifth from 17th on the grid after serving power unit component change penalties. Team boss Christian Horner was impressed with Albion's driving and the way he worked with the engineers.



to get through. This weekend is more the background stuff – [people] hyping up the weekend more than me. I've just been focusing on it

like a normal weekend. I still obviously wanted to do well, to have a good first race.

How much did you enjoy passing Perez for fifth on the grass on the last lap?

It was good fun. We went into the Bus Stop and I knew I had a big pace advantage so I was debating, 'Do I do the overtake at the Bus Stop and hope he doesn't get me by the straights or do I overtake him down the main straight?' So I went for the Bus Stop, we were kind of side by side, he cut the Bus Stop, but he didn't really have any space to go anywhere else. Then [at La Source] we were both waiting to get to the DRS

line second – we [both] wanted the DRS. So it felt like a VSC restart – we were both waiting for each other to cross the line, and he crossed the line first, so I got the DRS. I was on the grass all the way down the straight – it was good fun, I enjoyed it.

Fifth was the best possible result, so it's a big tick for you.

Yeah, definitely. I don't know how my pace was – I think it wasn't very good – on the first run and that's where the work needs to be done. The second stint wasn't too bad, but if you'd told me P5 at the start of the weekend, I would've been very happy.

Have you proved you can do the job in a top team?

I think so. I need time and I know I'm still improving. It's in at the deep end, but I feel I will get better. So that's kind of my attitude.



PORTLOCK

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Gasly ninth on return to Toro Rosso

Pierre Gasly finished ninth on his return to Toro Rosso after being dropped by the Red Bull team – although a late off cost him a place.

He started 13th and rose to ninth in the race's early stages. He passed Kevin Magnussen for eighth on lap 11 but stopped at the end of lap 13 to take mediums. This left him vulnerable to those who'd stopped later during his second stint.

Although Gasly gained two places thanks to the retirements of Lando Norris and Antonio Giovinazzi, he was passed by Alex Albon, Daniil Kvyat and, thanks to an off at Les Combes on the last lap, Nico Hulkenberg.

"In the second part of the race, it was difficult to keep the others with the softer compound behind but I gave everything we had," he said. "Because we decided to stay on the old-spec Honda engine, we knew it would be difficult to fight."

Shunt costs Giovinazzi two points

Alfa Romeo driver Antonio Giovinazzi lost a certain ninth place when he crashed out at Pouhon on the penultimate lap of the race.

The Italian started 18th after an engine failure in qualifying and climbed to 12th early on. He ran long on his starting set of mediums before stopping at the end of lap 29. He then climbed from 13th to ninth, passing Pierre Gasly, Daniel Ricciardo and Romain Grosjean, and getting ahead of Nico Hulkenberg when the Renault driver made his second stop.

Giovinazzi was running in a comfortable ninth when he ran wide onto the exit rumble strip of the first part of the Pouhon left-hander, bottoming out and spinning into the barrier. This cost him the best result of his grand prix career, leaving him with a tally of just one point so far in his first full F1 season.

Perez takes best-of-the-rest honours

Sergio Perez took his and the Racing Point team's first 'Class B' midfield victory since April's Azerbaijan Grand Prix with a strong run to sixth.

Renault had set the pace in qualifying, but both drivers had five-place grid penalties after introducing new-specification engines during Friday practice. That put Kimi Raikkonen at the front of the group, only to have his race ruined by the first-corner clash with Max Verstappen.

Lando Norris should have finished fifth

and ahead of Perez but for his late-race engine problem, leaving Perez to bag his best finish since Baku.

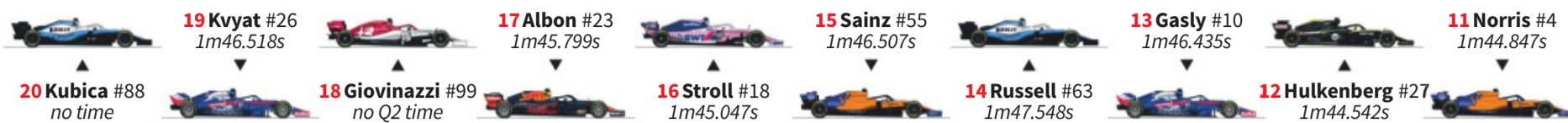
Perez ran eighth in the early stages before passing Kevin Magnussen for seventh, and later overtook the other Haas of Romain Grosjean in the second stint for sixth.

Norris's retirement briefly elevated him to fifth, only for Alex Albon to pass him on the grass on the Kimmels Straight on the last lap after Perez moved right to defend – earning himself a black-and-white warning.



GALLOWAY

RACE CENTRE BELGIAN GP



FREE PRACTICE 1

POS	DRIVER	TIME
1	Vettel	1m44.574s
2	Leclerc	1m44.788s
3	Verstappen	1m45.507s
4	Albon	1m45.584s
5	Bottas	1m45.882s
6	Hamilton	1m45.973s
7	Stroll	1m46.198s
8	Ricciardo	1m46.426s
9	Perez	1m46.433s
10	Sainz	1m46.557s
11	Hulkenberg	1m46.669s
12	Norris	1m46.670s
13	Raikkonen	1m47.024s
14	Grosjean	1m47.176s
15	Giovinazzi	1m47.333s
16	Magnussen	1m47.488s
17	Kvyat	1m47.636s
18	Gasly	1m47.968s
19	Latifi	1m48.784s
20	Kubica	1m48.966s

WEATHER 22C, sunny

FREE PRACTICE 2

POS	DRIVER	TIME
1	Leclerc	1m44.123s
2	Vettel	1m44.753s
3	Bottas	1m44.969s
4	Hamilton	1m45.015s
5	Perez	1m45.117s
6	Verstappen	1m45.394s
7	Raikkonen	1m45.708s
8	Stroll	1m45.732s
9	Ricciardo	1m45.735s
10	Albon	1m45.771s
11	Sainz	1m45.999s
12	Grosjean	1m46.120s
13	Hulkenberg	1m46.209s
14	Kvyat	1m46.214s
15	Norris	1m46.258s
16	Giovinazzi	1m46.328s
17	Gasly	1m46.374s
18	Magnussen	1m46.399s
19	Russell	1m47.887s
20	Kubica	1m48.331s

WEATHER 24C, sunny

FREE PRACTICE 3

POS	DRIVER	TIME
1	Leclerc	1m44.206s
2	Vettel	1m44.657s
3	Bottas	1m44.703s
4	Ricciardo	1m44.974s
5	Verstappen	1m45.312s
6	Perez	1m45.521s
7	Hamilton	1m45.566s
8	Raikkonen	1m45.659s
9	Giovinazzi	1m45.688s
10	Gasly	1m45.752s
11	Grosjean	1m45.806s
12	Hulkenberg	1m45.855s
13	Magnussen	1m46.004s
14	Sainz	1m46.017s
15	Norris	1m46.270s
16	Stroll	1m46.379s
17	Kvyat	1m46.642s
18	Russell	1m47.858s
19	Kubica	1m48.350s
20	Albon	1m50.681s

WEATHER 28C, sunny

SEASON STATS

DRIVERS' CHAMPIONSHIP	PTS	BEST FINISH	BEST QUAL
1	Hamilton	268	1
2	Bottas	203	1
3	Verstappen	181	1
4	Vettel	169	2
5	Leclerc	157	1
6	Gasly	65	4
7	Sainz	58	5
8	Kvyat	33	3
9	Raikkonen	31	7
10	Albon	26	5
11	Norris	24	6
12	Ricciardo	22	6
13	Perez	21	6
14	Hulkenberg	21	7
15	Stroll	19	4
16	Magnussen	18	6
17	Grosjean	8	7
18	Giovinazzi	1	10
19	Kubica	1	10
20	Russell	0	11

CONSTRUCTORS' CHAMPIONSHIP

1	Mercedes	471
2	Ferrari	326
3	Red Bull	254
4	McLaren	82
5	Toro Rosso	51
6	Renault	43
7	Racing Point	40
8	Alfa Romeo	32
9	Haas	26
10	Williams	1

QUALIFYING BATTLE

Hamilton	8	5	Bottas
Vettel	6	6	Leclerc
Gasly	1	10	Verstappen
Ricciardo	8	4	Hulkenberg
Grosjean	5	7	Magnussen
Norris	8	4	Sainz
Perez	12	0	Stroll
Raikkonen	8	4	Giovinazzi
Gasly	1	0	Kvyat
Albon	5	5	Kvyat
Russell	12	0	Kubica

Scores ignore sessions if a driver didn't participate in qualifying or had a serious technical problem

WINS

Hamilton	8
Bottas	2
Verstappen	2
Leclerc	1

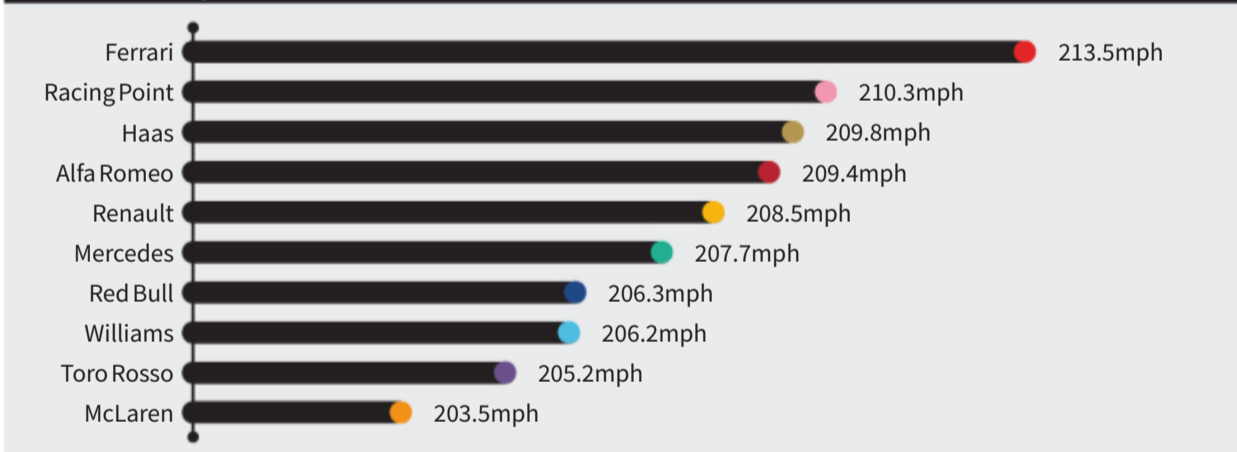
FASTEST LAPS

Verstappen	3
Bottas	2
Gasly	2
Hamilton	2
Leclerc	2
Vettel	2

POLE POSITIONS

Bottas	4
Hamilton	4
Leclerc	3
Verstappen	1
Vettel	1

SPEED TRAP (QUALIFYING)



QUALIFYING 1

POS	DRIVER	TIME
1	Leclerc	1m43.587s
2	Vettel	1m44.109s
3	Verstappen	1m44.622s
4	Bottas	1m45.141s
5	Hamilton	1m45.260s
6	Albon	1m45.528s
7	Ricciardo	1m45.560s
8	Giovinazzi	1m45.637s
9	Grosjean	1m45.694s
10	Perez	1m45.732s
11	Magnussen	1m45.839s
12	Raikkonen	1m45.842s
13	Hulkenberg	1m45.899s
14	Stroll	1m46.000s
15	Norris	1m46.154s
16	Gasly	1m46.435s
17	Sainz	1m46.507s
18	Kvyat	1m46.518s
19	Russell	1m47.548s
20	Kubica	no time

QUALIFYING 2

POS	DRIVER	TIME
1	Leclerc	1m42.938s
2	Vettel	1m43.037s
3	Hamilton	1m43.592s
4	Bottas	1m43.980s
5	Ricciardo	1m44.103s
6	Verstappen	1m44.132s
7	Raikkonen	1m44.140s
8	Hulkenberg	1m44.549s
9	Perez	1m44.707s
10	Magnussen	1m44.738s
11	Grosjean	1m44.797s
12	Norris	1m44.847s
13	Stroll	1m45.047s
14	Albon	1m45.799s
15	Giovinazzi	no time

QUALIFYING 3

POS	DRIVER	TIME
1	Leclerc	1m42.519s
2	Vettel	1m43.267s
3	Hamilton	1m43.282s
4	Bottas	1m43.415s
5	Verstappen	1m43.690s
6	Ricciardo	1m44.257s
7	Hulkenberg	1m44.542s
8	Raikkonen	1m44.557s
9	Perez	1m44.706s
10	Magnussen	1m45.086s

WEATHER 29C, sunny



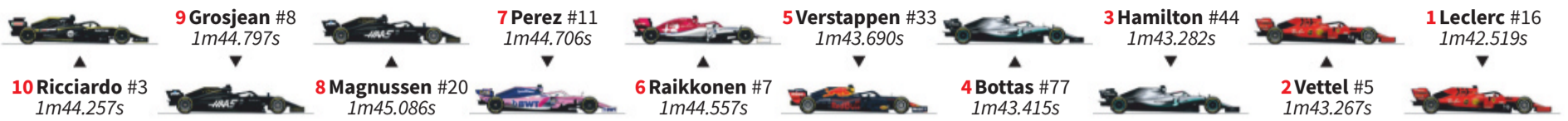


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STARTING GRID



RACE RESULTS ROUND 13/21 (44 LAPS - 191.42 MILES)

POS	DRIVER	TEAM	FINISHTIME	LED	TYRES
1	Charles Leclerc (MCO)	Ferrari	1h23m45.710s	38	Su, Mn
2	Lewis Hamilton (GBR)	Mercedes	+0.981s	2	Su, Mn
3	Valtteri Bottas (FIN)	Mercedes	+12.585s		Su, Mn
4	Sebastian Vettel (DEU)	Ferrari	+26.422s	4	Su, Mn, Su
5	Alexander Albon (THA)	Red Bull-Honda	+1m21.325s		Mn, Sn
6	Sergio Perez (MEX)	Racing Point-Mercedes	+1m24.448s		Su, Mn
7	Daniil Kvyat (RUS)	Toro Rosso-Honda	+1m29.657s		Mn, Sn
8	Nico Hulkenberg (DEU)	Renault	+1m46.639s		Su, Mn, Su
9	Pierre Gasly (FRA)	Toro Rosso-Honda	+1m49.168s		Sn, Mn
10	Lance Stroll (CAN)	Racing Point-Mercedes	+1m49.838s		Sn, Mn, Sn
11	Lando Norris (GBR)	McLaren-Renault	-1 lap		Sn, Mn
12	Kevin Magnussen (DNK)	Haas-Ferrari	-1 lap		Su, Mn
13	Romain Grosjean (FRA)	Haas-Ferrari	-1 lap		Sn, Mn
14	Daniel Ricciardo (AUS)	Renault	-1 lap		Su, Mn
15	George Russell (GBR)	Williams-Mercedes	-1 lap		Mn, Sn
16	Kimi Raikkonen (FIN)	Alfa Romeo-Ferrari	-1 lap		Su, Mn, Su
17	Robert Kubica (POL)	Williams-Mercedes	-1 lap		Mn, Sn
18	Antonio Giovinazzi (ITA)	Alfa Romeo-Ferrari	-2 laps		Mn, Sn
R	Carlos Sainz Jr (ESP)	McLaren-Renault	1 laps-engine		Sn
R	Max Verstappen (NLD)	Red Bull-Honda	0 laps-accident		Su

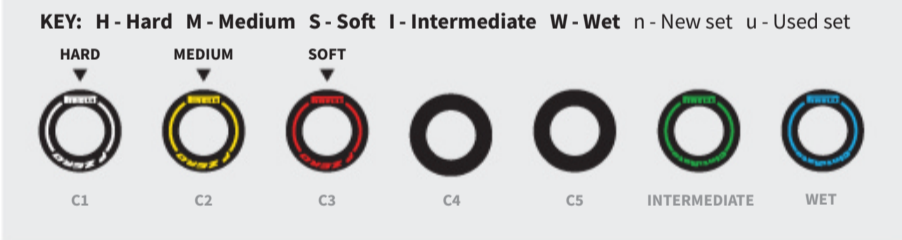
FASTEST LAPS

POS	DRIVER	TIME	GAP	LAP
1	Vettel	1m46.409s	-	36
2	Bottas	1m46.465s	+0.056s	27
3	Hamilton	1m46.580s	+0.171s	24
4	Leclerc	1m46.664s	+0.255s	23
5	Albon	1m47.507s	+1.098s	41
6	Giovinazzi	1m47.560s	+1.151s	31
7	Kvyat	1m48.143s	+1.734s	26
8	Norris	1m48.321s	+1.912s	21
9	Hulkenberg	1m48.349s	+1.940s	34
10	Stroll	1m48.357s	+1.948s	34
11	Magnussen	1m48.677s	+2.268s	33
12	Raikkonen	1m48.753s	+2.344s	37
13	Perez	1m48.781s	+2.372s	29
14	Russell	1m48.860s	+2.451s	34
15	Kubica	1m49.220s	+2.811s	33
16	Grosjean	1m49.274s	+2.865s	18
17	Gasly	1m49.700s	+3.291s	21
18	Ricciardo	1m50.451s	+4.042s	21

WEATHER 17C, cloudy

WINNER'S AVERAGE SPEED 137.12mph FASTEST LAP AVERAGE SPEED 147.25mph

TYRES



RACE BRIEFING

FP1 NICHOLAS LATIFI replaced RUSSELL at Williams

GRID PENALTIES
RICCIARDO and **HULKENBERG** Five-place penalty for replacing the engine

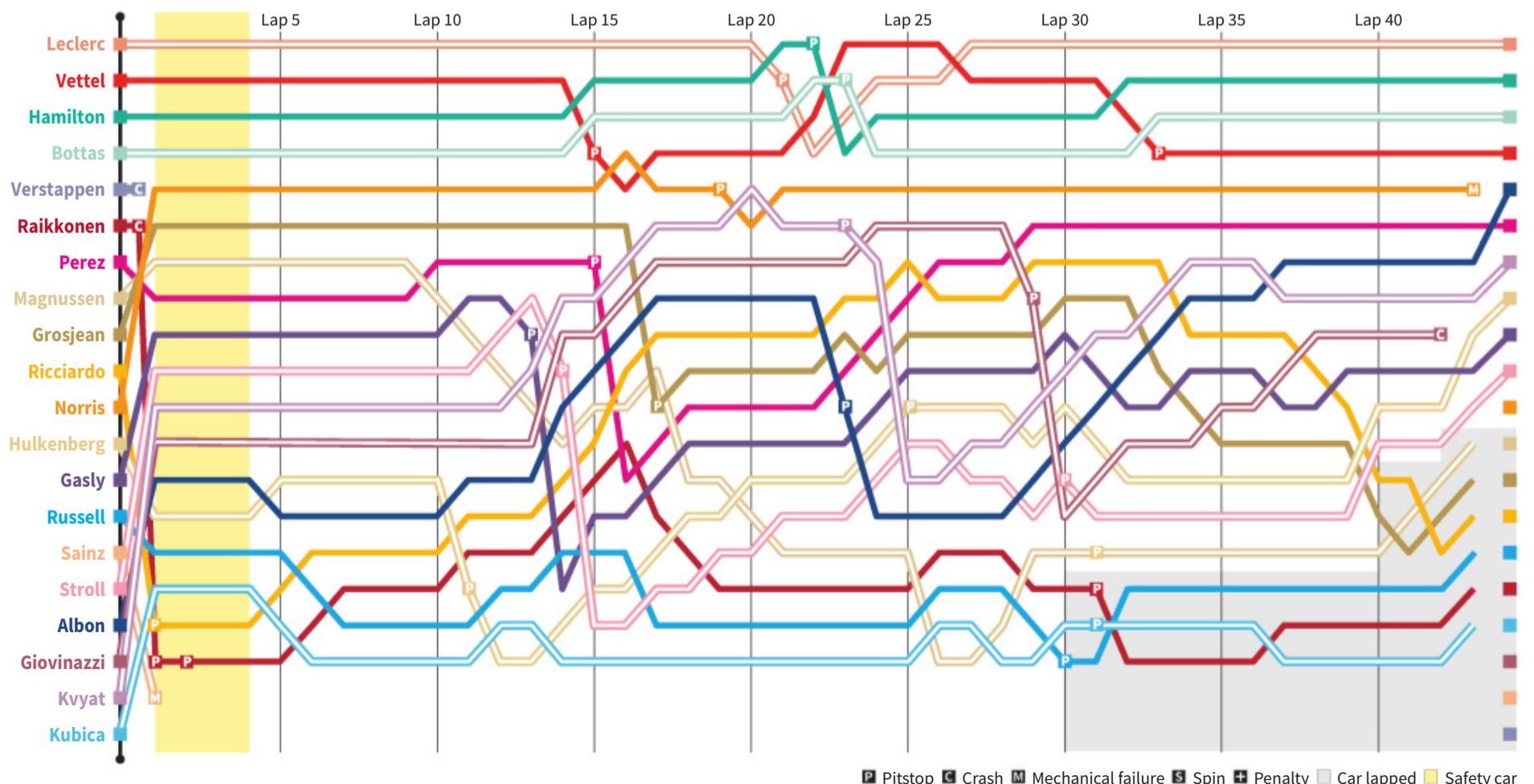
STROLL and **ALBON** Required to start from the back of the grid due to additional power

unit elements used
KVYAT Required to start from the back of the grid due to additional power unit elements used and five-place penalty for replacing the gearbox

SAINZ Five-place penalty for replacing the engine and 10-place penalty for additional power unit elements used

KUBICA Five-place penalty for replacing the gearbox, required to start from the pitlane because car modified under parc ferme conditions
GIOVINAZZI Five-place penalty for replacing the gearbox and required to start from the back of the grid for additional power unit elements used

LAP CHART What happened, when



MAIDEN WIN FOR LECLERC EARNS A PERFECT SCORE

The Ferrari driver is the only one to emerge from the Belgian Grand Prix with full marks, but four come close as young guns impress around a classic circuit

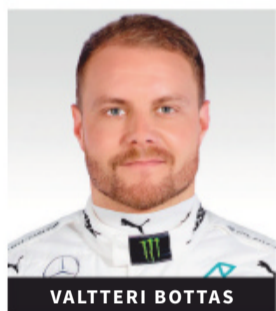
EDD STRAW

MERCEDES



LEWIS HAMILTON

9 The pace disadvantage of the Mercedes meant Hamilton was never a threat in qualifying, although he didn't help himself by crashing in FP3 after the rear stepped out when he turned in at Fagnes. But he kept up the pressure on the Ferraris in the race and came so close to a late win.



VALTTERI BOTTAS

7 Just 0.133s off Hamilton, Bottas backed him up well in qualifying and the race. He wasn't ever able to do battle with the Ferraris given Hamilton never cleared Leclerc and Vettel pitted for the second time before he had the chance to pass him, but his pace ensured he finished well clear of the latter.

FERRARI



SEBASTIAN VETTEL

7 Vettel wasn't as quick as Leclerc, had a messy Q3 and didn't manage his tyres as well. This meant he looked every bit the second Ferrari driver on his way to fourth with fastest lap. But from lap 28-32 he spoiled Hamilton's race, keeping the quicker car behind, and protected Leclerc.



CHARLES LECLERC

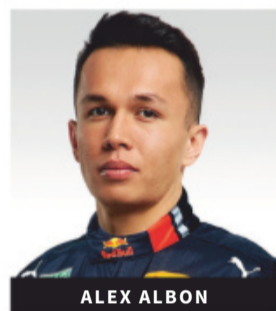
10 Spectacularly fast through practice and dominant in qualifying, when he intelligently eschewed chasing a tow to ensure he optimised tyre prep. Responded to the pressure from Hamilton brilliantly in what was a well-executed race, save for the brief off early on at Les Combes.

RED BULL



MAX VERSTAPPEN

6 Verstappen had to take out his spec-3 Honda engine after Friday so was always up against it in qualifying. Wheelspin at the start led to him attempting to make up for it by passing Raikkonen on the inside at La Source – a legitimate but foolhardy move that led to a collision.



ALEX ALBON

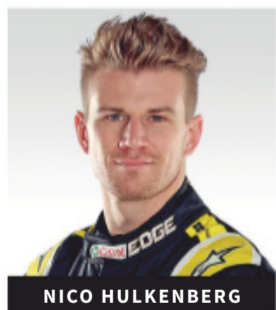
9 Albon was given a back-of-the-grid penalty for taking a new spec-4 Honda engine on Friday (he qualified and raced the spec-2), and spent the first two days on his Red Bull debut acclimatising to a new car. After a quiet first stint on mediums, he came alive on softs to climb from 14th to fifth later in the race.

RENAULT



DANIEL RICCIARDO

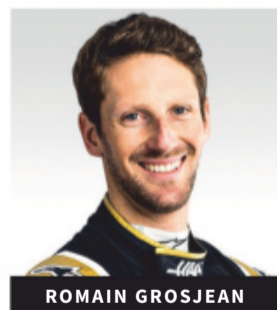
8 A five-place grid penalty for introducing a new engine cost him in qualifying, but he again outpaced his team-mate. Ricciardo was unfortunate in the collision with Stroll at the start, caused by avoiding Raikkonen's slow Alfa Romeo. After an early stop he fell from seventh to 14th in the closing stages.



NICO HULKENBERG

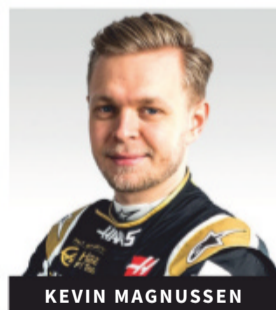
7 Hulkenberg took the news he wasn't being retained by Renault next year with good grace. While not at Ricciardo's level in qualifying, he had a solid race, climbing from 11th to eighth in the closing stages, thanks to Norris's and Giovinazzi's problems, and Gasly running off track at Les Combes.

HAAS



ROMAIN GROSJEAN

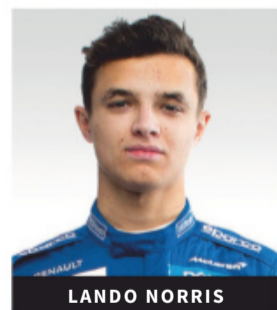
8 Just lost out to Magnussen in qualifying but started from ninth after penalties for the Renault drivers. Grosjean held sixth in the early stages, but struggled more once he switched to the medium tyres, found himself losing time behind Ricciardo and to tyre deg, and slid him out of the points.



KEVIN MAGNUSSEN

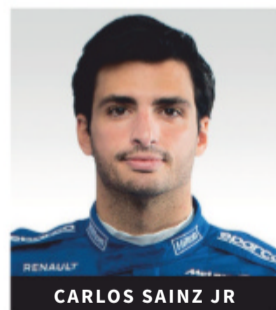
6 Won the Haas war in qualifying but struggled badly in the first stint on soft tyres and dropped out of points contention. After running relatively long, he tried to come back through but, despite passing Grosjean, he didn't have the pace for points, even with others having trouble.

MCLAREN



LANDO NORRIS

9 The McLaren wasn't at its best at Spa and Norris couldn't get the most from it in qualifying. The first-corner chaos helped him climb from 11th to fifth in the race, but an engine problem forced him to retire one lap from the end. That's the third time this year he's lost a big result to such problems.



CARLOS SAINZ JR

7 Using the same set of tyres he ran on before the early red flag in Q1 cost Sainz when another red flag denied him a second run, leaving him 17th. When adjusted for penalties, that left him 15th on the grid, but an engine problem forced him out of the race before it really began.



RACING POINT



SERGIO PEREZ

8 After starting seventh, Perez ran eighth early on as he was unable to capitalise on the first-corner chaos. But he opted for an aggressive approach to the race, passing Magnussen in the first stint then rising to sixth after the pitstops, thanks to late problems for Giovinazzi and Norris.



LANCE STROLL

6 An engine-change penalty left Stroll 16th on the grid and, after surviving contact with Ricciardo at the first corner, he spent the race mixing it in the midfield. But getting stuck behind Gasly and Ricciardo meant he would have finished out of the top 10 without Norris's failure and Giovinazzi's crash.

ALFA ROMEO



KIMI RAIKKONEN

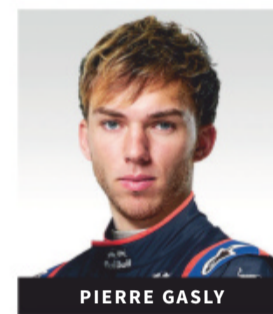
8 Raikkonen did an outstanding job in qualifying that might have laid the foundations for a run to best-of-the-rest but for the clash with Verstappen at the first corner. With significant damage, he did what he could but the loss of pace meant he spent the rest of the race battling with the Williams drivers.



ANTONIO GIOVINAZZI

5 Showed promising pace in Q1 before his Ferrari engine let go, forcing a return to the old-spec unit. That left him down the grid, but a marathon run on mediums allowed him to come through the field on softs late on. He climbed to ninth, but threw it away with a needless shunt at Pouhon late on.

TORO ROSSO



PIERRE GASLY

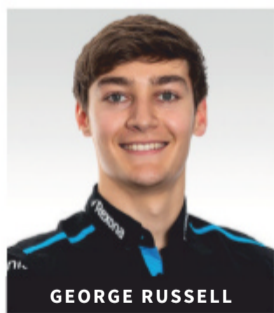
7 Having been demoted to Toro Rosso, Gasly bounced back and netted two points after a busy race in the midfield. He was eighth in the closing stages, but ran off the track at Les Combes, allowing Hulkenberg past. Even so, he started his second Toro Rosso life decently enough.



DANIIL KVIAT

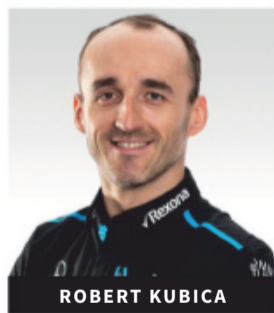
9 A suspension setting problem held him back on his first Q1 lap, so the pace comparison to Gasly was unrepresentative. Executed a medium/soft strategy well in the race, passing five cars in his second stint and picking up another when Norris stopped for a stronger result than expected.

WILLIAMS



GEORGE RUSSELL

7 Having gained places in the draggy Williams on the grid, thanks to others' penalties, Russell dropped back in the race when avoiding the first-corner shunts. Unlike his team-mate, Russell could use the new-spec engine in the race and managed to beat Raikkonen's damaged Alfa Romeo.



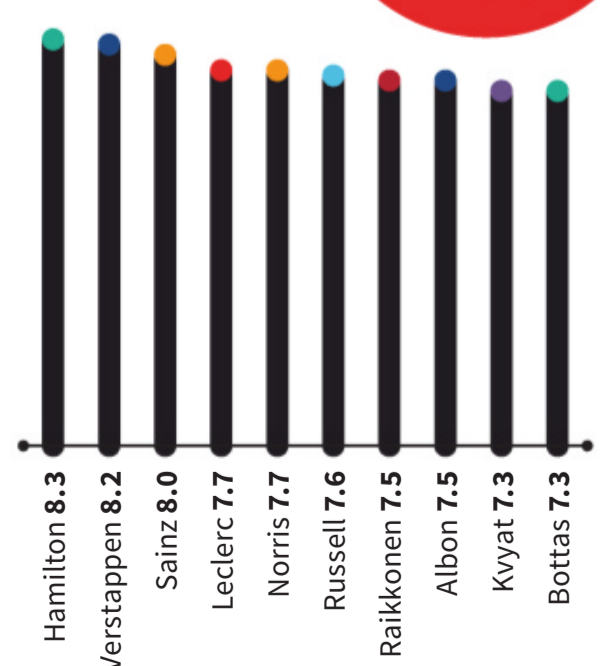
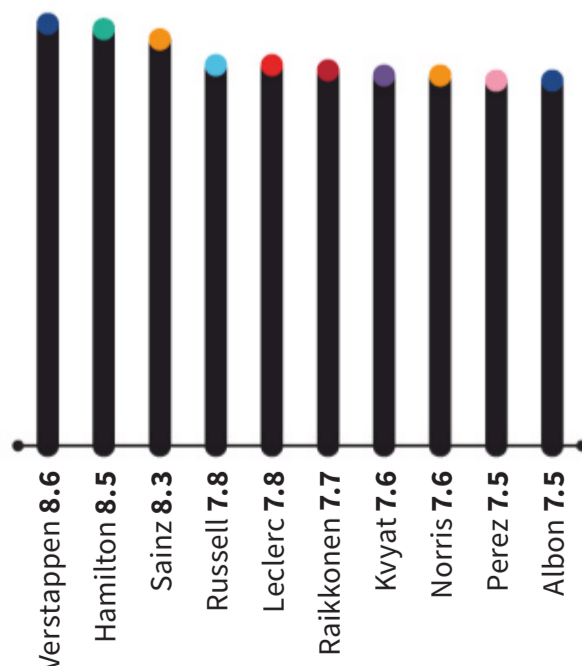
ROBERT KUBICA

7 An engine failure on Kubica's first qualifying lap led to a pitlane start. He turned in a decent opening race stint on mediums to follow Russell. After jumping Raikkonen at the pitstops, he kept him behind for a while but lost the position when Vettel lapped him and gave the Alfa Romeo driver a chance.

TOP 10 AVERAGE RATINGS

AUTOSPORT'S RATING AFTER ROUND 13

READERS' RATING AFTER ROUND 13



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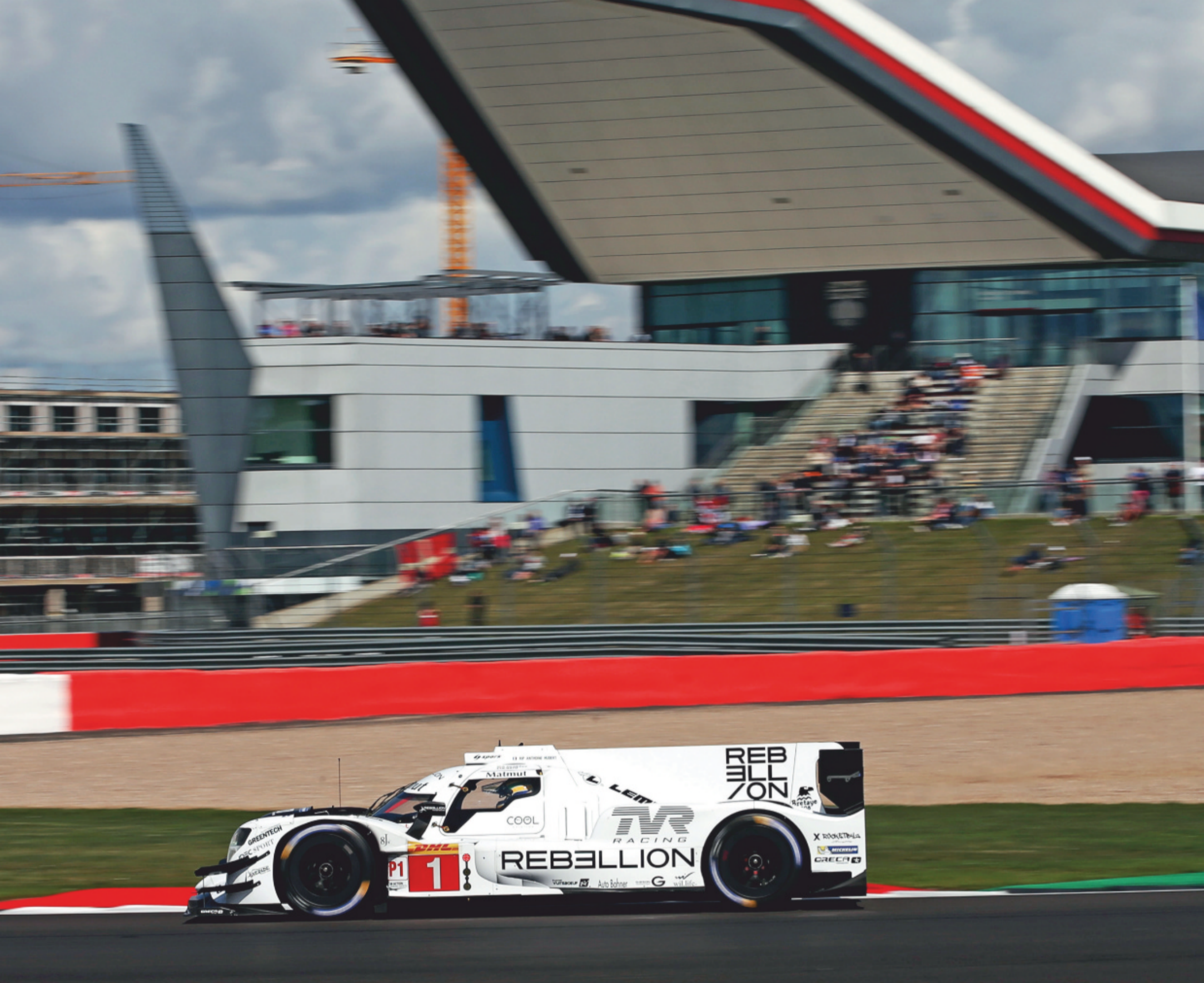
Conway, Kobayashi and Lopez first among Toyota equals

The two Toyota hybrid cars put on a show, swapping places, but the team was in control in mixed conditions at Silverstone, despite a challenge from Rebellion Racing

GARY WATKINS

PHOTOGRAPHY JEP  motorsport
IMAGES





It was business as usual at the front of the World Endurance Championship at the start of the new season at Silverstone last Sunday.

Toyota dominated, putting on a bit of show, and the privateers weren't quite in the mix, even though Rebellion hit the front twice over the course of the four-hour race.

Mike Conway, Kamui Kobayashi and Jose Maria Lopez ended up taking a first WEC victory since Shanghai last November aboard the #7 Toyota TS050 HYBRID on a day when they appeared to have a slight edge over team-mates Sebastien Buemi, Brendon Hartley and Kazuki Nakajima, who finished less than two seconds behind. Or at least that's what Toyota told us after revealing the scrap between Kobayashi and Hartley in the middle portion of the race wasn't quite as frenetic as it looked.

The two Japanese cars swapped places three times over the course of a couple of stints. Kobayashi and Hartley were certainly racing, but when the TS050s got close on track the team management took over. The lead change each time was orchestrated from the pitwall under the strict rules of engagement in place at Toyota Gazoo Racing.

Kobayashi caught Hartley, who lost some of the advantage Buemi had built up as a result of attention to the windscreen wiper, in wet conditions in the second hour shortly after they climbed aboard their respective mounts. The team newcomer had to hand over the lead, before coming back at his team-mate. Then it was his turn to benefit from team orders, only for the positions to be reversed when he couldn't pull away. The consensus on the pit perch was clearly that the #7 car was faster on Sunday.

"We have had three position swaps according to our usual agreement and processes," said Toyota Motorsport GmbH technical director Pascal Vasselon. "We observed the pace of the cars when they joined [closed up] and we have had to change position — it is the process we have to make sure the faster car is in front."

Lopez initially had the measure of Nakajima after they took over, pulling away into a lead that stood at as much as nine seconds. The Japanese driver came back at the leader over the final stint, but by then it was too late. Toyota's racing guidelines mean that the positions are frozen at the final round of stops. The race, said Vasselon, had already been "neutralised".

Conway was a happy man after the race, having won his home WEC fixture for the first time. That means his name will be inscribed on the famous Tourist Trophy, awarded for the Silverstone round, alongside greats such as Tazio Nuvolari, Stirling Moss, Graham Hill and Derek Bell.

"It's great to finally get my name on the trophy," he said. "I was always a bit jealous of my team-mates because of that. We were being hounded all the time by our sister car. It was a very tight race, so it feels great to come away with the win."

The Silverstone 4 Hours wasn't quite as neatly choreographed as Toyota might have planned. Rebellion twice took the lead when the Japanese manufacturer lost out on strategy. The first came through nothing more than bad luck, the second as a result of unfulfilled optimism.

The two Rebellion-Gibson R-13s jumped ahead of the Toyotas in the opening hour during a quick-fire full-course yellow virtual safety car. The yellows came out just as the two TS050s were passing the pitlane entry, whereas the privateer cars were able to duck straight into the pits. When the Toyotas came in a lap later, the race went green while they were still in the pitlane.



Both Rebellions were fast, but the #1 car suffered long delays

In the second hour, when it started raining, Toyota gambled on keeping its cars out on track on slick tyres in expectation of the track drying up quickly. A repeat shower forced it to rethink its strategy and when its cars exited the pits on wet-weather Michelins, the #3 Rebellion was ahead.

Toyota reckoned the Silverstone Grand Prix Circuit surface was going to offer enough grip for the four-wheel-drive TS050s based on the events of Saturday's European Le Mans Series race, which was blighted by similar conditions.

"We had a close look at what happened yesterday and it was clear that slicks had very high grip in damp conditions," explained Vasselon, who revealed that Toyota's weather information suggested the inclement weather would be short-lived.

It didn't take long for the Toyotas to get back to the front on either occasion. The hybrid cars had an advantage on Sunday of more than a second a lap over the 3.67 miles of Silverstone, whereas in qualifying the best of the Rebellions had been only half a second back on aggregate times. What's more, if you pieced together the hypothetical fastest lap of the #1 R-13, it was within a tenth of the pole-winning >>

ALL SMILES AT GINETTA



Ginetta and its in-house Team LNT squad didn't have a straightforward World Endurance Championship debut, although that was to be expected given that the team barely existed a couple of months ago. The British constructor, remember, built the G60-LT-P1 as a customer car and was still ruling out the prospect of racing the thing itself as recently as the spring.

The team mostly comprised personnel from the Ginetta Cars factory and so, reckoned technical director Peter Smith, it is "going to take a bit of time to gel".

"Some of the people have never gone racing at this level; the majority of the team are usually building up our other race cars or working on engines," said the former assistant race engineer with Audi and Joest in the WEC. "This is literally the factory going racing.

"To come in and do what they have done is quite impressive. We were pleased with our work in the pitlane because we

didn't get any penalties. We have, of course, got a way to go operationally, but that's going to be just about time and maybe a bit more manpower."

It was also pointed out by Smith that a series of problems endured by the team during practice, including a glitch in the gearbox electronics on the #5 car, were sorted and did not recur.

"We were happy with what we have achieved as a team and what the car did on track, but then we have always believed in the potential of the car," said Smith. "We've had so many compliments from drivers like Stephane Sarrazin [who drove it at the pre-season WEC prologue test at Barcelona] to confirm what we have always known."

Perhaps Ginetta boss Lawrence Tomlinson, who was in bullish mood after the race, summed it up best. "We've got the pace," he said. "We've just got to get organised."



Toyota, and Vasselon even went as far as suggesting that the Rebellions had had a pace advantage on traffic-free laps in second free practice on Friday.

“We have been surprised by the gap in the race; it wasn’t what we were expecting at all,” said the Toyota team boss. “Some of it was related to tyre warm-up, because in the first two laps the gap was really big. The normal gap for the race was a bit less, but still bigger than we were expecting.”

Vasselon stressed that he couldn’t fully explain why Rebellion lost something for the race, and the Swiss entrant wasn’t entirely sure either, although they did express disappointment at the gap in the face of two rounds of Equivalence of Technology changes that mean the Toyotas are now 28kg heavier than at the last regular WEC race at Spa in May.

“We are disappointed with the pace,” said Gustavo Menezes, who shares what will be the only full-season entry from the team with Bruno Senna and Norman Nato. “We didn’t think we’d be a second off, but the Toyotas are so close to their low-fuel qualifying pace in the race.”

What we know is that the hybrid systems of the Toyota give the car a huge advantage in traffic. They can deploy electrical energy to clear slower cars at the touch of a button.

Rebellion almost did something it failed to do over the course of the 2018-19 superseason, and that was get one of its cars home on the lead lap – one of its targets ahead of the race. Its hopes were aided by a couple of safety car periods, but its failure resulted from what team manager Bart Hayden described as a “failing fuel pressure sensor” on the #3 car shared by Loic Duval, Pipo Derani and Nathanael Berthon.



#7 Toyota TS050 HYBRID of Conway, Kobayashi and Lopez takes flag

That caused a car that won’t be seen again in the WEC until Spa next April to exceed the fuel-flow limit on two occasions. A five-second stop-go was followed by more draconian 30s forfeit in the final hour that gave the TS050s a one-lap advantage.

The lead Rebellion ended up 10th, behind five of the eight LMP2 cars, after a troubled race that began to unravel with the rain in the second hour when Nato locked up entering his mark in the pits and bowled over three mechanics. One of them was taken to hospital, and found to have fortunately only suffered a broken toe.

A minute and a half was lost in the resulting confusion. The car remained fifth until deep into the final hour when a

five-minute stop to fix the power-steering dropped the car right down the order. The team suspected that the issue was triggered by the earlier impact in the pitlane.

Ginetta didn’t challenge Rebellion on what the British marque regarded as the proper race debut of the G60-LT-P1 after last season’s false start to the programme with Chinese entrant CEFC TRSM Racing. But it did outscore the Swiss squad.

Charlie Robertson, Egor Orudzhev and Ben Hanley ended up fourth, albeit four laps down on the #3 Rebellion. But as a race-by-race entry, the car ahead of the best-placed Ginetta wasn’t eligible for points. That means the hastily assembled works Team LNT squad lies in second place behind



The LMP1 podium had a familiar look after another Toyota 1-2



Toyota in the LMP1 WEC points.

More pertinently, a car that was racing with AER power for the first time showed that it can be a match for the Rebellion. Hanley blotted his copybook by beaching the car in the Luffield gravel on his first lap out of the pits, but then made amends over the remainder of the race.

“The off was a bit down to tyre temperatures and a bit down to myself jumping between two cars,” said Hanley, who contested the ELMS race on Saturday in DragonSpeed’s ORECA. “It was my mistake, though, so I tried to make up for it after that.”

The Brit caught the LMP2-winning Cool Racing ORECA to claim fourth on the final lap and in his chase was as quick as the Rebellions over the course of his double stint. He was just behind the #1 car on the averages and some way ahead of the #3 R-13.

The sister car driven by Mike Simpson, Oliver Jarvis and Guy Smith ended up 17 laps off the lead after a troubled race. The car lost a rear wheel early on, and then forfeited more time with an alternator issue. Jarvis went off as he attempted to pass Miguel Molina’s GTE Pro class Ferrari on the entry to the Becketts complex. A piece of gravel wedged itself in the alternator pulley and stripped the belt clean of teeth.

Ginetta knows there is more to come from the G60 and what is a very new team (see sidebar). It is confident of getting on terms with Rebellion pretty quickly. Then it will be down to the new system of success handicaps — a more advanced version of the success ballast concept — that will kick in for round two of the 2019-20 WEC at Fuji next month. That should go a long way to levelling out the inequities between the Toyotas and the non-hybrid privateers that the new EoT has failed to do.

And that, reckons Vasselon, is “going to change everything”. >>

LMP2: LAPIERRE KEEPS IT COOL TO WIN AGAIN



Cool Racing had what may turn out to be a rare shot at a World Endurance Championship class victory, and the series debutant seized it with both hands. The Swiss team’s bronze-rated driver, Alexandre Coigny, was ruled out of the race after an accident in Saturday’s European Le Mans Series race. That put Nicolas Lapierre and silver driver Antonin Borga on level terms with the LMP2 class favourites.

Reigning class champion Lapierre, who was lured away from Signatech Alpine by the offer of a long-term deal by Cool, moved his ORECA-Gibson 07 into the lead early in hour three. The Michelin-shod car finished 50s clear of its nearest rival despite a drivethrough for a safety car infringement and a puncture at the end.

Cool didn’t put a foot wrong in a race many of their rivals seemed not to want to win. “I was really impressed with the team,” said Lapierre. “We managed the tyre choices very well. Thank you to the team because it was the key to our success.”

Borga, who was racing at Silverstone for the first time, sustained a puncture early on. The safety car in the second hour allowed Lapierre to close a deficit of more than a minute to Job van Uiter in the TDS-run Racing Team Nederland ORECA



and then pass the Dutchman in the space of five laps.

RTN still had its bronze driver, Frits van Eerd to come in the rotation, but it looked like he was going to hang on to the runner-up spot until the car lost second gear in the closing stages, Thomas Laurent stealing the position on the final lap aboard the Signatech Alpine ORECA.

But for the safety car that undid Giedo van der Garde’s early good work – he blitzed the field – and the transmission glitch, RTN could have won, according to TDS technical director Jacques Morello. “It could have been our race today,” he said.

Signatech, a Michelin runner like Cool and RTN, never looked like winning the race on a day that the French tyre manufacturer had an advantage over new rival Goodyear. Not only did Andre Negrao spin and Pierre Ragues touch the pitwall exiting the pits in the rain, damaging the nose, the car didn’t have the pace.

Nor did the Goodyear runners. The Jota-run Jackie Chan DC Racing ORECA shared by Will Stevens, Ho-Pin Tung and Gabriel Aubry took fourth, seven seconds behind RTN.

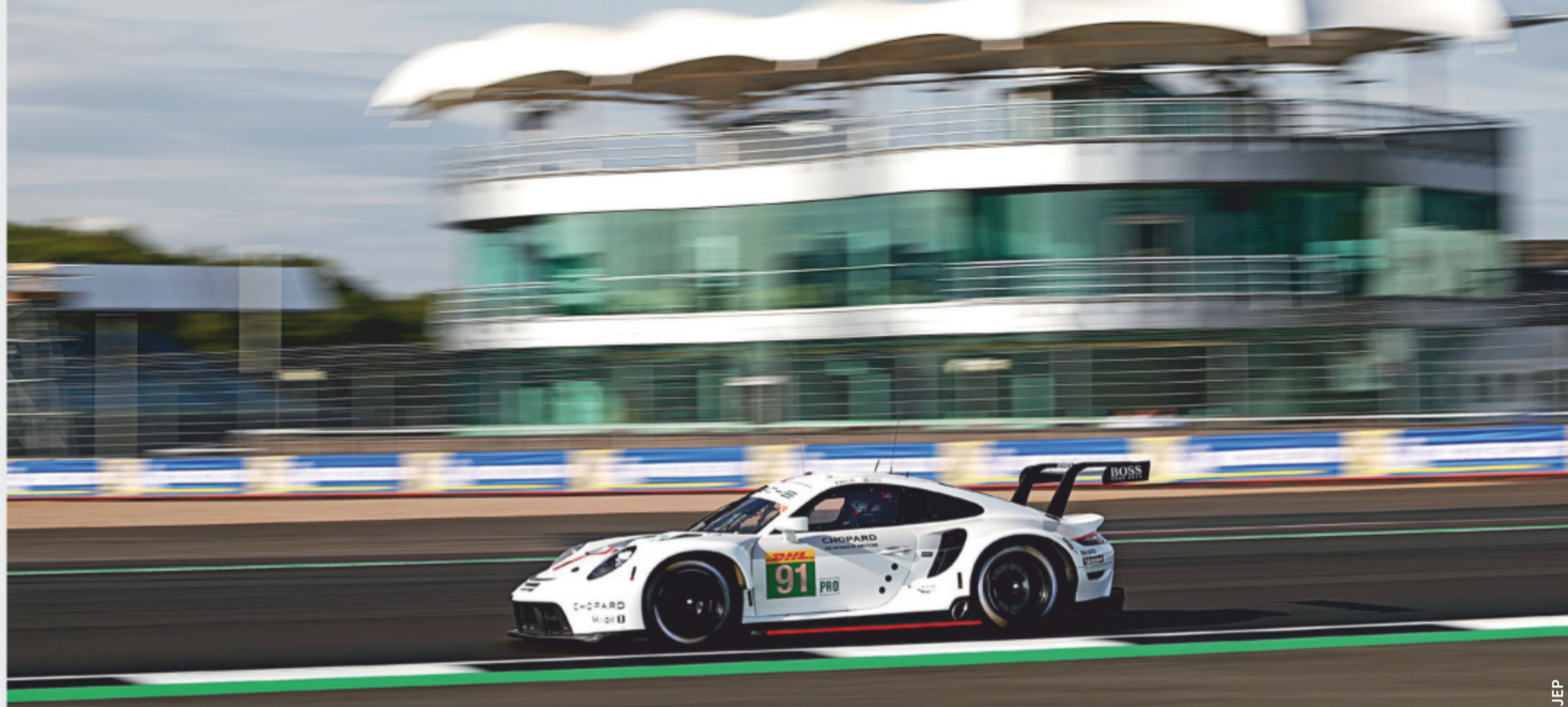
“We were not aggressive on strategy, which cost us early in the race,” said Tung. “But we weren’t as quick as Cool or RTN in either the wet or the dry.”

The same applied to the fifth-placed Jota car driven by Antonio Felix da Costa and Roberto Gonzalez (Anthony Davidson had to pull out with a rib injury). They also lost 40s early on with an electrical glitch.

An electrical problem also did for the United Autosports’ squad’s challenge. Paul di Resta pulled over on the start/finish straight at the end of his second lap in the team’s ORECA when part of the wiring loom shorted out.

Contact leads to winning GTE Pro call for Porsche

#91 Porsche GT Team 911 RSR of Lietz and Bruni took an unexpected win



JEP

A bash from an LMP2 car proved to be the catalyst for an unlikely GTE Pro victory for the new mark two version of the mid-engined Porsche 911 RSR shared by Gianmaria Bruni and Richard Lietz. The incident knocked Bruni down from second to fourth and caused an early final pitstop.

With two new Michelin tyres and a couple of laps on a clear track, the Italian put his head down and got the overlap on the cars ahead of him during the sequence of stops that followed. Bruni leapfrogged not only the sister Porsche with Michael Christensen at the wheel and Maxime Martin's Aston Martin Vantage GTE, the cars that had got past him in the incident, but also the race-leading Ferrari driven by Alessandro Pier Guidi.

Bruni spent the full final stint with Christensen just behind in the Porsche he shared with Kevin Estre. Bruni proved equal to the task, even though the winning car's

traction control system had been playing up for most of the race.

"They pulled me in for fresh rubber, and the tactic worked – it was the perfect strategy," said Bruni. "It was tricky with the traction control issue, especially when the track was wet, but we were able to drive around it."

Christensen was a shade under four seconds down at the end of the four hours. The Dane's bid to start his and Estre's GTE Pro title defence wasn't helped by having Pier Guidi on his tail after the final stops.

That challenge disappeared after four laps when the Ferrari 488 GTE was called in for a drivethrough penalty. The factory AF Corse squad had been notified of the penalty for an alleged safety car infringement incurred by James Calado earlier in the race.

The team believed its efforts to argue against what Calado had insisted was an unjustified penalty had been to no avail.

Race control suddenly changed its mind and notified the team. The problem was that Pier Guidi was trundling down the pitlane at that very moment. The Ferrari dropped to fourth behind the Aston Martin Vantage GTE shared by Alex Lynn and Martin.

Calado, who converted pole in the lead of the race, had been forced to pit with a front left puncture after only a dozen laps. The second safety car allowed the Briton to make up the lost ground, but also proved to be his undoing through no fault of his own. It was even more galling because Pier Guidi had four newMichelins for the final stint when both Porsches had only two new tyres.

"It was such a disappointing day," said Calado. "It was a shame because we had the pace."

The sister car driven by Miguel Molina and Davide Rigon had the pace to win, too. The former was running third on a drying track with the two Porsches ahead of him on wet tyres when Oliver Jarvis attempted an optimistic lapping manoeuvre at Becketts, putting the Ferrari into the barriers and out of the race on the spot.

All three of the remaining manufacturers in GTE Pro after the withdrawal of Ford and BMW had a shot at victory. Aston Martin lost its chance in the second hour. Both cars were put on slicks when the rain arrived, expecting the shower to be short and sharp, but had to come back in for wets.

The 2016 GTE Am champions Emmanuel Collard and Francois Perrodo won the class on their return to the category in an AF Corse Ferrari 488 GTE Evo shared with Nicklas Nielsen. ❄



The Ferraris were rapid, but it proved not to be their day

RESULTS ROUND 1/8, SILVERSTONE (GBR), 1 SEPTEMBER (129 LAPS – 473.006 MILES)

POS	DRIVERS	TEAM	CAR	CLASS	TIME
1	Mike Conway (GBR) Kamui Kobayashi (JPN) Jose Maria Lopez (ARG)	Toyota Gazoo Racing	Toyota TS050 HYBRID	LMP1	4h00m57.709s
2	Sebastien Buemi (CHE) Kazuki Nakajima (JPN) Brendon Hartley (NZL)	Toyota Gazoo Racing	Toyota TS050 HYBRID	LMP1	+1.901s
3	Loic Duval (FRA) Nathanael Berthon (FRA) Pipo Derani (BRA)	Rebellion Racing	Rebellion-Gibson R-13	LMP1	-1 lap
4	Charlie Robertson (GBR) Ben Hanley (GBR) Egor Orudzhev (RUS)	Team LNT	Ginetta-AER G60-LT-P1	LMP1	-5 laps
5	Antonin Borga (CHE) Nicolas Lapierre (FRA) Alexandre Coigny* (CHE)	Cool Racing	ORECA-Gibson 07	LMP2	-5 laps
6	Andre Negrao (BRA) Thomas Laurent (FRA) Pierre Ragues (FRA)	Signatech Alpine Elf	ORECA-Gibson 07	LMP2	-5 laps
7	Giedo van der Garde (NLD) Frits van Eerd (NLD) Job van Uiter (NLD)	Racing Team Nederland (TDS Racing)	ORECA-Gibson 07	LMP2	-5 laps
8	Gabriel Aubry (FRA) Ho-Pin Tung (CHN) Will Stevens (GBR)	Jackie Chan DC Racing (Jota)	ORECA-Gibson 07	LMP2	-5 laps
9	Antonio Felix da Costa (PRT) Roberto Gonzalez (MEX) Anthony Davidson* (GBR)	Jota Sport	ORECA-Gibson 07	LMP2	-5 laps
10	Bruno Senna (BRA) Gustavo Menezes (USA) Norman Nato (FRA)	Rebellion Racing	Rebellion-Gibson R-13	LMP1	-6 laps
11	Andrea Belicchi (ITA) Roberto Lacorte (ITA) Giorgio Sernagiotto (ITA)	Cetilar Racing	Dallara-Gibson P217	LMP2	-7 laps
12	Anders Fjordbach (DNK) Mark Patterson (USA) Kenta Yamashita (JPN)	High Class Racing	ORECA-Gibson 07	LMP2	-7 laps
13	Richard Lietz (AUT) Gianmaria Bruni (ITA)	Porsche GT Team	Porsche 911 RSR-19	GTE Pro	-14 laps
14	Kevin Estre (FRA) Michael Christensen (DNK)	Porsche GT Team	Porsche 911 RSR-19	GTE Pro	-14 laps
15	Alex Lynn (GBR) Maxime Martin (BEL)	Aston Martin Racing	Aston Martin Vantage GTE	GTE Pro	-14 laps
16	James Calado (GBR) Alessandro Pier Guidi (ITA)	AF Corse	Ferrari 488 GTE Evo	GTE Pro	-14 laps
17	Nicki Thiim (DNK) Marco Sorensen (DNK)	Aston Martin Racing	Aston Martin Vantage GTE	GTE Pro	-15 laps
18	Francois Perrodo (FRA) Emmanuel Collard (FRA) Nicklas Nielsen (DNK)	AF Corse	Ferrari 488 GTE Evo	GTE Am	-15 laps
19	Paul Dalla Lana (CAN) Darren Turner (GBR) Ross Gunn (GBR)	Aston Martin Racing	Aston Martin Vantage GTE	GTE Am	-16 laps
20	Motoaki Ishikawa (JPN) Olivier Beretta (MCO) Kei Cozzolino (ITA)	MR Racing (AF Corse)	Ferrari 488 GTE Evo	GTE Am	-16 laps
21	Mike Wainwright (GBR) Andrew Watson (GBR) Ben Barker (GBR)	Gulf Racing	Porsche 911 RSR	GTE Am	-16 laps
22	Christian Ried (DEU) Matt Campbell (AUS) Riccardo Pera (ITA)	Dempsey-Proton Racing	Porsche 911 RSR	GTE Am	-16 laps
23	Egidio Perfetti (NOR) David Kolkmann (DEU) Matteo Cairol (ITA)	Team Project 1	Porsche 911 RSR	GTE Am	-16 laps
24	Salih Yoluc (TUR) Charlie Eastwood (GBR) Jonny Adam (GBR)	TF Sport	Aston Martin Vantage GTE	GTE Am	-16 laps
25	Bonamy Grimes (GBR) Johnny Mowlem (GBR) Charlie Hollings (GBR)	Red River Sport (AF Corse)	Ferrari 488 GTE Evo	GTE Am	-16 laps
26	Thomas Flohr (CHE) Francesco Castellacci (ITA) Giancarlo Fisichella (ITA)	AF Corse	Ferrari 488 GTE Evo	GTE Am	-16 laps
27	Ben Keating (USA) Felipe Fraga (BRA) Jeroen Bleekemolen (NLD)	Team Project 1	Porsche 911 RSR	GTE Am	-17 laps
28	Mike Simpson (GBR) Oliver Jarvis (GBR) Guy Smith (GBR)	Team LNT	Ginetta-AER G60-LT-P1	LMP1	-17 laps
29	Gianluca Giraudi (ITA) Thomas Preining (AUT) Ricardo Sanchez (MEX)	Dempsey-Proton Racing	Porsche 911 RSR	GTE Am	-18 laps
R	Davide Rigon (ITA) Miguel Molina (ESP)	AF Corse	Ferrari 488 GTE Evo	GTE Pro	54 laps-accident
R	Paul di Resta (GBR) Phil Hanson (GBR) Filipe Albuquerque (PRT)	United Autosports	ORECA-Gibson 07	LMP2	2 laps-electrics

* Withdrew due to injury

Winner's average speed 117.779mph. **Fastest lap** Conway 1m37.289s, 135.679mph.

LMP2 van der Garde 1m43.404s, 127.656mph. **GTE Pro** Rigon 1m55.762s, 114.028mph. **GTE Am** Eastwood 1m56.520s, 113.286mph.

QUALIFYING

1 Kobayashi/Conway 1m36.015s;
2 Nakajima/Buemi 1m36.315s; **3 Menezes/Senna** 1m36.560s; **4 Derani/Berthon** 1m37.024s; **5 Jarvis/Simpson** 1m37.220s;
6 Hanley/Robertson 1m37.464s; **7 Uiter/van der Garde** 1m40.948s; **8 di Resta/Hanson** 1m41.683s; **9 Stevens/Aubry** 1m41.976s; **10 Lapierre/Borga** 1m42.017s;
11 Laurent/Ragues 1m42.216s;
12 Yamashita/Fjordbach 1m42.414s;
13 da Costa/Gonzalez 1m42.885s;
14 Belicchi/Sernagiotto 1m43.363s;

15 Pier Guidi/Calado 1m54.171s;
16 Molina/Rigon 1m54.302s; **17 Martin/Lynn** 1m54.992s; **18 Bruni/Lietz** 1m55.067s; **19 Sorensen/Thiim** 1m55.149s;
20 Estre/Christensen 1m55.493s;
21 Eastwood/Yoluc 1m56.034s; **22 Cairol/Perfetti** 1m56.371s; **23 Gunn/Dalla Lana** 1m56.469s; **24 Nielsen/Perrodo** 1m56.489s; **25 Fisichella/Flohr** 1m56.742s;
26 Campbell/Ried 1m57.351s; **27 Preining/Giraudi** 1m57.507s; **28 Mowlem/Grimes** 1m57.934s; **29 Barker/Wainwright** 1m58.199s; **30 Beretta/Ishikawa**

1m58.336s; **31 Keating/Fraga/Bleekemolen** NT.
Fastest in each class: LMP1 Kobayashi 1m35.992s; **LMP2 Uiter** 1m40.850s;
GTE Pro Pier Guidi 1m54.019s;
GTE Am Nielsen 1m55.054s.

CHAMPIONSHIP

LMP1 drivers
1 Lopez/Kobayashi/Conway 26; **2 Hartley/Nakajima/Buemi** 18; **3 Hanley/Robertson/Orudzhev** 15; **4 Borga/Lapierre** 12;
5 Negrao/Ragues/Laurent 10;
6 Eerd/van der Garde/Uiter 8.

LMP1 manufacturers
1 Toyota Gazoo Racing 26; **2 Team LNT** 15;
3 Rebellion Racing 2.

LMP2 drivers
1 Borga/Lapierre 25; **2 Negrao/Ragues/Laurent** 18; **3 Eerd/van der Garde/Uiter** 16; **4 Aubry/Tung/Stevens** 12.

GTE drivers

1 Bruni/Lietz 25; **2 Estre/Christensen** 18;
3 Lynn/Martin 15; **4 Pier Guidi/Calado** 13;
5 Sorensen/Thiim 10; **6 Collard/Perrodo/Nielsen** 8.

GTE manufacturers

1 Porsche 43; **2 Aston Martin** 25;
3 Ferrari 21.

GTE Am drivers

1 Collard/Perrodo/Nielsen 25; **2 Turner/Dalla Lana/Gunn** 18; **3 Cozzolino/Ishikawa/Beretta** 15; **4 Watson/Barker/Wainwright** 12.



NEXT EVENT
FUJI 6 HOURS
10 OCTOBER ISSUE
Will any of the privateers challenge Toyota at home?

Power celebrates his
37th IndyCar win, and
another track ticked off



Dixon's problem prevents epic finish

Will Power was set to challenge the reigning IndyCar champion in Oregon before he had victory handed to him

DAVID MALSHER

PHOTOGRAPHY  motorsport
IMAGES

Last weekend's Grand Prix of Portland could and should have evolved into a classic fight between two wily and superfast IndyCar veterans, something to help eradicate the memory of the early laps when — as in too many races this year — a couple of highly experienced drivers made elementary errors.

Approaching the halfway point of the race, Scott Dixon's Chip Ganassi Racing Dallara-Honda held a three-second lead over Will Power's Chevrolet-powered Team Penske machine. The five-time and defending champion was confident he could win; Power was confident that his car was better at looking after its tyres, so had a

pace advantage in the second half of a stint. Theoretically, we could have had a gripping classic like 22 years earlier at the same venue, when Mark Blundell edged Gil de Ferran to the chequered flag by 0.027 seconds.

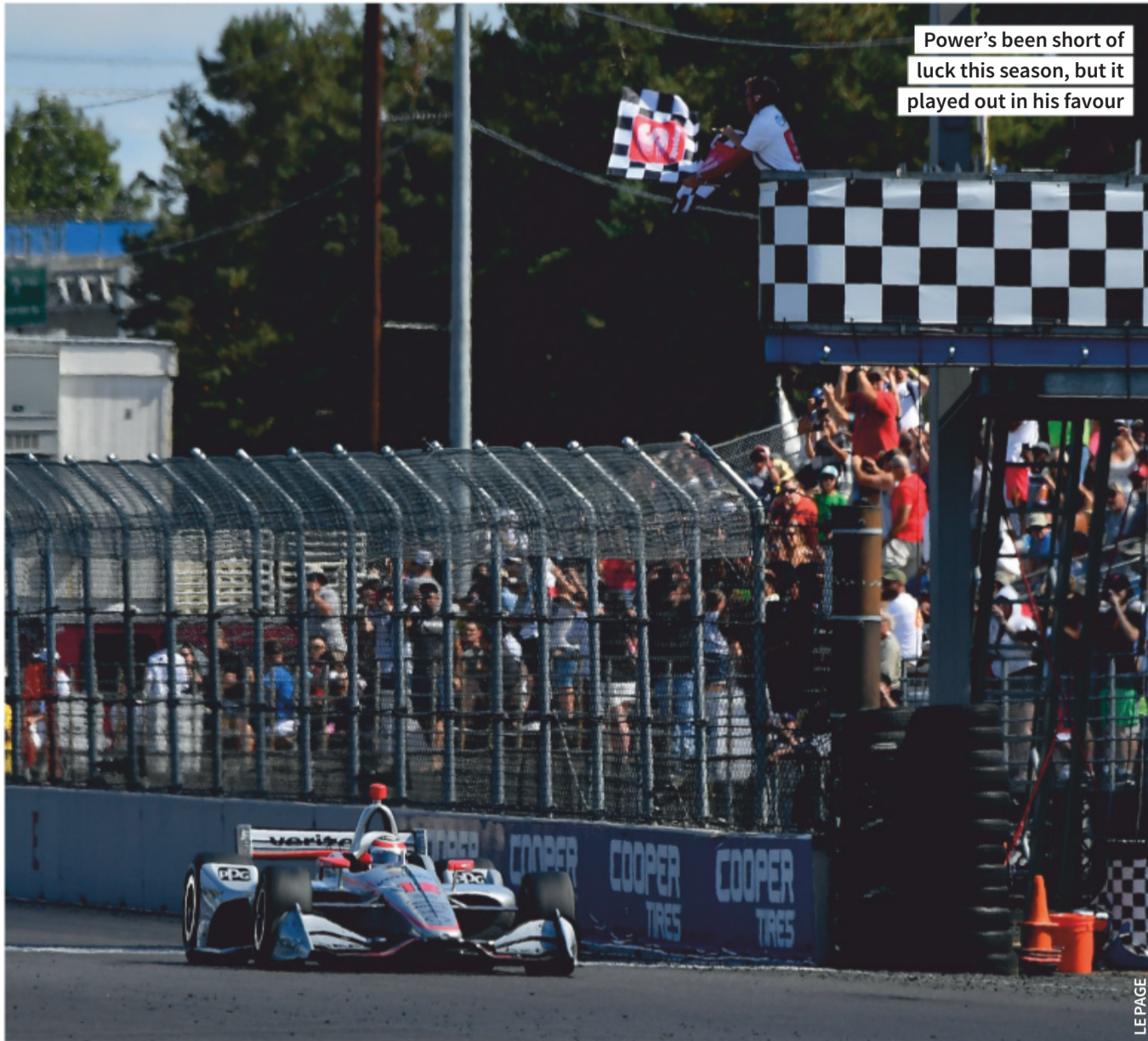
Instead, at the end of lap 52, Dixon lost electrical power, coasted into the pitlane and ground to a halt. His team had to sprint down to push him into his pitbox and a change of battery allowed the car to re-fire, but now Dixon was three laps down. And so for the second straight race he was eliminated from strong contention by something out of his control.

It's not so much that Power didn't deserve to be the beneficiary of good luck after a torrid season, but Dixon

didn't deserve the bad luck that has all but eliminated him from the championship fight.

There was one other driver who might have given the old boys a hard time, and that was rookie sensation Colton Herta, whose Harding Steinbrenner Racing entry had been a tenth or two faster than its Andretti Autosport stablemates through practice and eventually helped the 19-year-old earn his second pole position of the season. He had edged Power — who gave himself a slight flatspot on his right-front with a Turn 1 lock-up on his flying lap — by 0.0192s, and Dixon by 0.0244s.

Starting fourth would be highly impressive part-timer Jack Harvey in



Power's been short of luck this season, but it played out in his favour

DALY MAKES HIS MARK DESPITE MISFORTUNE



With Arrow Schmidt Peterson Motorsports rookie Marcus Ericsson called to Spa at the 11th hour by the Alfa Romeo Formula 1 squad, which wanted him on standby should Kimi Raikkonen be unable to race due to a muscle injury, Sam Schmidt and Ric Peterson were left casting around for potential replacements. They didn't have to look far, in the form of their part-time 2011 Indy Lights racer.

Conor Daly raced for Andretti Autosport at Indy and will again at Laguna Seca, and he has also been competing on ovals for Carlin since Max Chilton stepped away from left-turn-only tracks. But he had nothing arranged for last weekend until he got the call...

Considering he hadn't raced an IndyCar on a road course this year, and had never raced at Portland – not even on a simulator – the Indiana native did an excellent job. Team-mate James Hinchcliffe is fast around the Oregon track but throughout practice Daly slashed away at his pace deficit, and peaked at the perfect moment, falling less than 0.02 seconds shy of outqualifying him.

"I am honestly just super happy," he said. "The Arrow SPM engineers worked on making the car more suitable for me and the way I prefer to drive. I'm just really thrilled to be a part of this operation this weekend and I can't wait for the race."

Poignant, in retrospect, given that his race lasted about 15 seconds.

"We have to focus on the positives," he commented pragmatically in the wake of the lap-one shunt. "We had a great qualifying – all the team cars were in the top 10. It was a true pleasure working with this team again.

"Sometimes we can't control some of the factors in these races and sadly James and I got caught up in someone else's mistake."

Daly did himself proud both in and out of the cockpit last weekend.

the Meyer Shank Racing with Arrow SPM Dallara-Honda, which outpaced the second Ganassi car of another rookie, Felix Rosenqvist, by 0.06s, and Ryan Hunter-Reay in the top Andretti Autosport car.

More intriguing was that the top three in the championship had suffered mediocre-to-poor qualifying sessions. Alexander Rossi would start seventh after "going aggressive" with his set-up, which left his car very difficult to drive, points leader Josef Newgarden in the second Penske car had made crucial errors on his two flying laps and would roll off 13th, while team-mate Simon Pagenaud had never looked comfortable on this low-downforce track and was a mere 18th.

Besides Harvey, the other (good) surprise in qualifying had been Conor Daly, subbing for Marcus Ericsson in the #7 Arrow Schmidt Peterson Motorsport car, as the Swede headed to Spa to be a fruitless standby for the Alfa Romeo Formula 1 team. Daly (see right) qualified ninth, just one place and a couple of hundredths from well-established team-mate James Hinchcliffe. Sadly, it was all for naught.

At the start, Power moved across to the inside line to try to tuck in behind Herta but found Dixon already there and in no mood to be intimidated, thus the Penske driver swung out to the racing line again and into the first corner he dropped to fourth behind Harvey, ahead of Hunter-Reay and >>



Electrical glitch dropped Dixon to 16th, three laps down

Rossi. Further back, however, Graham Rahal missed his braking point and ran into the rear of Zach Veach's Andretti Autosport machine, which shoved him into Hinchcliffe, while Rahal's now crippled car collected Daly and these two spun Spencer Pigot's Ed Carpenter Racing car around. All but Pigot were eliminated on the spot, and Rahal, to his credit, immediately took the blame.

Others caught up in the melee included Takuma Sato, who ran over the front wing of Daly and damaged the Rahal Letterman Lanigan Racing car's sidepod and rear suspension, forcing him to limp to the pits for repairs, while Pagenaud had braked early to avoid the pile-up but been clipped into a spin by Max Chilton's Carlin car. Newgarden swerved through the Turn 1 runoff area and emerged 18th and last of the runners without damage, but got re-ordered into 11th for the restart, with Pagenaud 13th.

Dixon applied pressure to Herta on the lap 12 restart but remained behind, while Harvey, who had started on primary tyres, was a sitting duck for Power, who bolted out of the final turn and drafted past on the run down to Turn 1 despite the MSR driver's heavy defence. The following lap, Harvey didn't even feel the need to defend against fellow primary-tyred users Hunter-Reay and Rossi, he was that far clear of them. Yet while trying to defend from team-mate Rossi, Hunter-Reay missed his braking point by the proverbial mile, got up onto the Turn 1 kerbs and slid hard into a disbelieving Harvey. Like Rahal, Hunter-Reay accepted full responsibility.

Rossi, who had wisely backed out of his passing attempt long before the braking zone, couldn't believe his luck and went by, followed by Rosenqvist as the field went under caution again, effectively guaranteeing the top contenders could make 105 laps of the 1.964-mile course on just two stops.

Everyone behaved on the restart, and the remainder of this opening stint saw Herta, Dixon, Power, Rossi and Rosenqvist running in a five-car lead train, well clear of sixth place – initially held by Marco Andretti, then the charging Pigot.

Toward the end of the stint, however, Herta had clearly burned through his



Rahal (15) put his hand up to causing crash that took out Daly (7) – among others

alternate tyres faster than his pursuers and started coming under immense pressure. On lap 37 Dixon took the lead, with Power, Rossi and Rosenqvist quickly demoting the youngster to fifth, at which point he ducked into the pits.

Two laps later, Dixon, Power and Rossi followed suit, with Rosenqvist stopping on lap 41 – the lead pair to switch from alternates to primaries, the latter pair to go the opposite way – and a strong stop from Ganassi and a hot in-lap from Rosenqvist allowed him to jump Rossi. Also pitting at this point was Newgarden, who had started on primaries, now switched to reds, and emerged ahead of primary-tyred Herta.

Dixon, who had pitted with a 2.6s lead over Power, eked this out to three seconds when, suddenly, going through the final sequence of turns on lap 52 he made that unscheduled stop that would drop him down to 16th at the finish.

Power, now leading, kept a wary eye on his mirrors for Rosenqvist, whose alternate tyres should have conferred a grip advantage, but he couldn't get quite close enough for a serious attack into Turn 1. Soon, Power was

creeping away. On the plus side for Rosenqvist, though, he and Power soon started to edge away from Rossi, who would come under threat from a new challenger – Herta, who had deposed Newgarden at Turn 1 on lap 67. By the time the Harding Steinbrenner driver pitted for the second and final time, he was right on Rossi's gearbox.

To protect themselves from being jumped by Herta should an inopportune caution period occur, Power and Rossi stopped the very next lap – as did Newgarden – while again Rosenqvist went a lap longer. However, there was nothing the Swedish rookie could do about closing the gap to Power, which stood at three seconds, the same as his own advantage over Rossi.

The Andretti Autosport driver, unable to maintain the pace of the leading pair, would lose 10s to them by lap 80, but semi-team-mate Herta remained dutifully playing the tail-gunner role. As such, he didn't need to do much: Newgarden was six seconds further back and not gaining.

With 10 to go, Rosenqvist had fallen over six seconds behind Power, but was given another chance when, two laps later, Santino Ferrucci stopped on the front straight, bringing out the caution flag.

In fact, it was an anti-climax. When the green flag waved with four laps to go, Power escaped easily from Rosenqvist so that next time by the finish line his lead was already 1.4s and he would eventually win by 2.8s. Rossi tried to apply some pressure to Rosenqvist, but came up 1.8s short, with Herta and Newgarden in close attendance.

If Harvey and Daly had been the heroes of qualifying, Pigot took on that mantle on race day. Following his innocent involvement in the first-lap farce, the Ed Carpenter Racing driver had topped up with fuel under yellow and taken on another fresh set of alternate



Super-rookie Herta took his second pole position of the season



Rosenqvist, Power and Rossi on the podium



Rossi chased Rosenqvist home (above), but Newgarden still has a healthy points lead



RESULTS ROUND 15/16, PORTLAND (USA), 1 SEPTEMBER (105 LAPS - 206.220 MILES)

POS	DRIVER	TEAM/CAR	TIME
1	Will Power (AUS)	Team Penske / Dallara-Chevrolet	1h58m43.0036s
2	Felix Rosenqvist (SWE)	Chip Ganassi Racing / Dallara-Honda	+2.7885s
3	Alexander Rossi (USA)	Andretti Autosport / Dallara-Honda	+4.5839s
4	Colton Herta (USA)	Harding Steinbrenner Racing / Dallara-Honda	+5.2280s
5	Josef Newgarden (USA)	Team Penske / Dallara-Chevrolet	+5.8539s
6	Spencer Pigot (USA)	Ed Carpenter Racing / Dallara-Chevrolet	+6.7477s
7	Simon Pagenaud (FRA)	Team Penske / Dallara-Chevrolet	+7.9418s
8	Matheus Leist (BRA)	AJ Foyt Enterprises / Dallara-Chevrolet	+8.1898s
9	Sebastien Bourdais (FRA)	Dale Coyne Racing with Vasser Sullivan / Dallara-Honda	+9.5957s
10	Charlie Kimball (USA)	Carlin / Dallara-Chevrolet	+10.1665s
11	Max Chilton (GBR)	Carlin / Dallara-Chevrolet	-1 lap
12	Tony Kanaan (BRA)	AJ Foyt Enterprises / Dallara-Chevrolet	-1 lap
13	Marco Andretti (USA)	Andretti Herta Autosport / Dallara-Honda	-1 lap
14	Ed Jones (GBR)	Ed Carpenter Racing / Dallara-Chevrolet	-1 lap
15	Takuma Sato (JPN)	Rahal Letterman Lanigan Racing / Dallara-Honda	-2 laps
16	Scott Dixon (NZL)	Chip Ganassi Racing / Dallara-Honda	-3 laps
17	Santino Ferrucci (USA)	Dale Coyne Racing / Dallara-Honda	96 laps-mechanical
18	Ryan Hunter-Reay (USA)	Andretti Autosport / Dallara-Honda	81 laps-accident
19	Jack Harvey (GBR)	Meyer Shank Racing with Arrow SPM / Dallara-Honda	13 laps-accident
20	James Hinchcliffe (CAN)	Arrow Schmidt Peterson Motorsports / Dallara-Honda	0 laps-accident
21	Conor Daly (USA)	Arrow Schmidt Peterson Motorsports / Dallara-Honda	0 laps-accident
22	Zach Veatch (USA)	Andretti Autosport / Dallara-Honda	0 laps-accident
23	Graham Rahal (USA)	Rahal Letterman Lanigan Racing / Dallara-Honda	0 laps-accident

Winner's average speed 104.225mph. **Fastest lap** Bourdais 59.0022s, 119.833mph.

Q3 1 Herta 57.8111s; 2 Power 57.8303s; 3 Dixon 57.8355s; 4 Harvey 58.1008s; 5 Rosenqvist 58.1620s; 6 Hunter-Reay 58.1823s.
Q2 Power 57.4156s; Herta 57.7143s; Hunter-Reay 57.8193s; Harvey 57.8395s; Rosenqvist 57.8523s; Dixon 57.8587s; 7 Rossi 57.8864s; 8 Hinchcliffe 57.9994s; 9 Daly 58.0192s; 10 Pigot 58.0415s; 11 Veatch 58.2149s; 12 Bourdais 58.3001s.
Q1 - GROUP 1 Herta 57.4224s; Power 57.4454s; Rossi 57.5548s; Rosenqvist 57.7050s; Harvey 57.7311s; Pigot 57.7490s; 14 Ferrucci 57.8476s; 16 Andretti 57.8527s; 18 Pagenaud 57.9479s; 20 Chilton 57.9866s;

22 Kimball 58.0582s; 23 Jones 58.2165s.
Q1 - GROUP 2 Dixon 57.5996s; Hunter-Reay 57.6053s; Bourdais 57.6301s; Hinchcliffe 57.6581s; Daly 57.7793s; Veatch 57.9422s; 13 Newgarden 57.9585s; 15 Rahal 57.9648s; 17 Sato 57.9668s; 19 Kanaan 58.1030s; 21 Leist 58.1558s.
CHAMPIONSHIP 1 Newgarden 593; 2 Rossi 552; 3 Pagenaud 551; 4 Dixon 508; 5 Power 469; 6 Sato 397; 7 Hunter-Reay 380; 8 Rosenqvist 365; 9 Rahal 353; 10 Ferrucci 339.

tyres, before scything through the field. From 14th on the second restart (lap 17) he was up to sixth by lap 30, having not only dispensed with the likes of Tony Kanaan of AJ Foyt Racing, Sebastien Bourdais' Dale Coyne Racing with Vasser-Sullivan machine and Andretti, but also zapping the Penske cars of Pagenaud and Newgarden. He would later cede a spot to Newgarden but remained ahead of Pagenaud.

Pagenaud had a largely anonymous day until a coming-together with Andretti saw the latter run off the road and tumble down to 13th after his best performance of the year. Despite losing a spot in the points race to Rossi, Pagenaud remains in title contention as IndyCar heads to its finale.

The Penske driver who won't be fighting for the crown is the man who dominated the second half of the Portland race to score his second win in three races.

"There's a lot of IndyCar history here," said Power. "There have been some great races and great drivers win at this track. Growing up, these are the tracks that you looked at, like Long Beach, Portland, Road America... These tracks are the ones that you really want to win at just because of the history of the sport. I love winning at tracks I haven't won at, too, to add to my list."

And that's quite some list now: with his 37th triumph, Power has moved to joint sixth in IndyCar's all-time winners roster. 🏆

NEXT REPORT

LAGUNA SECA
26 SEPTEMBER ISSUE

Can Rossi or Pagenaud stop Penske's Newgarden from securing his second title in the season finale?

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Armstrong helps Prema to F3 title as grid honours Hubert

**FIA FORMULA 3
SPA (BEL)
31 AUGUST-1 SEPTEMBER
ROUND 6/8**

With two full rounds remaining, Prema Racing wrapped up the teams' title in the first year of the new-look FIA Formula 3, and its Ferrari/SMP Racing-backed driver Robert Shwartzman took a leap towards the drivers' crown at Spa. But no one cared. The loss of Anthoine Hubert was too fresh.

The drivers observed a minute's silence – with Hubert's mum and brother holding his crash helmet – before getting ready for the second race of the weekend on Sunday, in what were horrendous circumstances.

Marcus Armstrong had turned a woeful qualifying and 19th on the grid into eighth in race one, and that gifted him pole for Sunday's race. His engineer told him to clear his head and be "an animal" on track. He didn't need to be. He was dominant.

Another Prema driver/Ferrari junior,

Armstrong judged the race perfectly. He escaped out of the uber-powerful DRS at the start and worked a big gap until lap three. After the Hubert incident, the last thing anyone needed was a puncture-induced diversion into a tyre wall for Simo Laaksonen. Luckily, he escaped unscathed despite being buried in a tyre wall, where the halo device may well have saved his life.

After a clean-up operation, the race got back underway on lap eight and Armstrong got a demon restart to take victory.

"I've never been this deflated after a race win in my whole life," Armstrong perfectly summing up the mood after Hubert's passing.

Behind him, a three-way fight for second ensued. Yuki Tsunoda held it for the first half of the race in a breakthrough for Honda's most impressive junior driver. But Renault junior Christian Lundgaard wanted the spot and wrested it in the second half, after a bout on the Kemmel Straight where Tsunoda defended aggressively – Lundgaard was straight on the radio to complain.



A minute's silence marked Hubert's death prior to the second F3 race

ALL PHOTOGRAPHY
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ANDRE

WEEKEND WINNERS

FIA FORMULA 3

SPA (BEL)

Race 1 Pedro Piquet
Trident

Race 2 Marcus Armstrong
Prema Racing



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In the closing laps, though, Tsunoda closed in again and snatched second back from Lundgaard, while Shwartzman passed Lundgaard around the outside into Turn 7 at Les Combes to steal the final podium spot.

It was Shwartzman's second podium of the weekend. The third Prema of Jehan Daruvala started on pole for race one but Pedro Piquet of Trident jumped ahead at the start and his lead ballooned to over four seconds at one stage after an early virtual safety car. The gap fell later but it didn't go lower than two seconds and he gave Trident a first win of the year in the process – the series' eighth different winner in 12 races.

Shwartzman had qualified fourth, fell back at the start but worked his way forward again, passing Daruvala for second on lap 10 of 17. His weekend total reached 28 points and his lead is 23 with four races remaining.

Daruvala, third in race one and fifth in race two, has moved into second, with Juri Vips in third and Armstrong closing up behind. Vips fell back at the start of race one and did well to recover to fifth. In race two, he was pushed off at La Source on the first lap and then hit Max Fewtrell, breaking his front wing. The Red Bull junior now trails Shwartzman by 30 points.

JACK BENYON

PORTLOCK

Caldarelli/
Mapelli's timing
couldn't be better,
with only one round
remaining



Victory pushes FFF Racing into points lead

**BLANCPAIN GT WORLD
CHALLENGE EUROPE
NURBURGRING (DEU)
31 AUGUST- 1 SEPTEMBER
ROUND 4/5**

FFF Racing's Andrea Caldarelli and Marco Mapelli made an impressive surge to the top of the Blancpain GT World Challenge Europe standings with a win and a third place at the Nurburgring last weekend.

In a season where momentum has often been hard to come by, the Lamborghini duo made the most of a frustrating weekend for erstwhile points leaders Maro Engel and Luca Stolz in their Black Falcon Mercedes to take an eight-point advantage heading into this weekend's final round in Hungary.

Not that you could have predicted such

a result after qualifying. Indeed, the form book was bucked when Mirko Bortolotti put his GRT Huracan on pole, with Engel alongside the Italian on the front row.

Mapelli struggled to make inroads during the opening stint from sixth. However, things began to turn in FFF's favour after the pitstops as Black Falcon was handed a drivethrough penalty for an unsafe release.

This promoted the FFF car, now with Caldarelli at the wheel, to second behind Bortolotti's co-driver Christian Engelhart, with pace in hand over the leading Lambo.

Caldarelli was aggressive immediately and it was this tactic that nearly proved his undoing following contact with Engelhart as the pair braked for Turn 1 with 11 minutes of the race remaining. While the two Huracans drifted wide, the Audi R8

of Christopher Haase took second ahead of Caldarelli, but the German ran too deep at Turn 6, allowing the Lambo back in front.

Caldarelli immediately attacked Engelhart again and eventually grabbed the lead with a daring lunge around the outside of Turn 7.

From then on, it was plain sailing for Caldarelli, who won by 9.047s and took the points lead. "I tried to attack Christian as much as I could," he said. "I tried on the outside at Turn 1, but we had a small contact. I was afraid I would lose my power-steering afterwards, but luckily this was not the case."

Sunday's second encounter was no less dramatic as the WRT Audi team blew a golden opportunity to record a 1-2 following a clumsy late-race incident that put both cars out of the race.

The R8 of Dries Vanthoor had led away from pole and held its advantage in the hands of Ezequiel Perez Companc after the pitstop window shut. Having closed on the leader, the sister car of Charles Weerts made a dive down the inside of Perez Companc, who turned in on his team-mate at Turn 1.

Both suffered terminal damage, which gave the R-Motorsport Aston Martin Vantage of Ricky Collard – who had been closing in rapidly – an unlikely lead. Collard stroked the Vantage started by Marvin Kirchhofer to the team's first series victory, with Simon Gachet/Haase rounding off a superb weekend in their Audi with second.

STEPHEN BRUNSDON

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Aston rose to
the lead when
the Audi R8
pair pinged
each other off

Pereira denies charging Guven for second win

PORSCHE SUPERCUP
SPA (BEL)
1 SEPTEMBER
ROUND 7/9

Dylan Pereira absorbed Ayhancan Guven's last-lap attack to secure his first full-distance Porsche Supercup victory in the round at Spa, having already won in the red-flagged round at Hockenheim. Michael Ammermuller also drew level with points leader Julien Andlauer after the two finished eighth and ninth respectively.

From pole position, Pereira defended his lead into La Source from a fast-starting Guven, who harried the Luxembourger off the line. With two strong opening laps, Pereira opened up the lead to 1.4 seconds, leaving Guven in the clutches of Jaxon Evans, who posted the fastest lap of the race at the end of the second lap.

Guven then halved the lead gap on the following tour, finding a healthy chunk of pace on the Kemmel Straight to wind in Pereira, remaining well within a second



throughout the remaining laps. Evans stayed within touching distance, but couldn't make any further challenges to the two frontrunners.

However, a final-lap showdown was in the offing instead as Guven profited from a strong slipstream on the run to Les Combes, and was millimetres away from Pereira's bumper as the two braked.

So began a thrilling battle for the lead; Guven threw everything he could at clinching control of the race at the last minute and almost did so as Pereira left the door open at Les Fagnes. Pereira

regained his composure, and managed to defeat Guven by just 0.268s, with Evans only 0.4s further behind.

Larry ten Voorde drove a largely lonely race to fourth, 0.7s clear of the race-long battle between Florian Latorre and Tio Ellinas, while Jaap van Lagen was seventh.

Ammermuller dropped down the order in the opening laps to eighth (from fifth on the grid), with Lechner team-mate Andlauer just behind. The two retained their positions, both leaving the round on 92 points at the top of the standings.

JAKE BOXALL-LEGGE

Penalties prevent Vesti hat-trick

FORMULA REGIONAL EUROPEAN
IMOLA (ITA)
31 AUGUST-1 SEPTEMBER
ROUND 5/8

Formula Regional European Championship leader Frederik Vesti was twice denied victory at Imola as safety car infringements resulted in time penalties.

Vesti took a hat-trick of wins on track, but only the first – which came after a battle with team-mate Olli Caldwell in race two – resulted in maximum points.

In race three Vesti led from start to finish, but was penalised five seconds for an improper safety car restart. Though he was



able to pull away from the field, it wasn't enough to keep him ahead of team-mate Enzo Fittipaldi on the corrected timings.

Fittipaldi thus scored his second win of the season, with DR Formula's Igor Fraga relegating Vesti to third.

In the finale, the rerun of the cancelled Vallenga race, Vesti was initially awarded a 10-second penalty for making contact with Sophia Florsch behind the safety car.

Florsch was sent into a spin, though Vesti was able to continue. He put in a series of fast laps to extend an advantage of 10.015s over second-placed Caldwell by the flag.

After a second analysis of Vesti's recovery, the penalty was extended to 25s, dropping him to sixth and handing Caldwell victory.

McLaren eSports driver Fraga had won the opening race of the weekend, ahead of Caldwell and Vesti.

Despite the penalties, Vesti extended his championship advantage to 75 points over Fittipaldi with three rounds remaining.

BETHONIE WARING

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WEEKEND WINNERS

BLANCPAIN GT WORLD CHALLENGE EUROPE NURBURGRING (DEU)

- Race 1** Andrea Caldarelli/Marco Mapelli
 FFF Racing
 (Lamborghini Huracan GT3 Evo)
- Race 2** Ricky Collard/Marvin Kirchhofer
 R-Motorsport
 (Aston Martin Vantage GT3)

PORSCHE SUPERCUP SPA (BEL)

Dylan Pereira
 Lechner Racing

FORMULA REGIONAL EUROPEAN IMOLA (ITA)

- Race 1** Igor Fraga
 DR Formula
- Race 2** Frederik Vesti
 Prema Powerteam
- Race 3** Enzo Fittipaldi
 Prema Powerteam
- Race 4** Olli Caldwell
 Prema Powerteam

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Hansen (21) won in 208 to set up epic showdown for final two rounds

French drama sets up three-way fight

WORLD RALLYCROSS
LOHEAC (FRA)
1 SEPTEMBER
ROUND 8/10

When the World Rallycross Championship left the French round at Loheac in 2018, Johan Kristoffersson was just an event and a half away from securing his second straight title. At that stage of the season, with four events still to run, Kristoffersson held a 59-point margin over Andreas Bakkerud in second.

Moving forward 12 months, as the series departed the venue last Sunday evening, it was Bakkerud who led the standings, but with just a two-point margin over brothers Timmy and Kevin Hansen, tied in second with two rounds remaining.

Four different drivers set a fastest time

in qualifying. Toomas Heikkinen set the best time in Q1, returning for a one-off with Marcus Gronholm's GRX team. Reigning European rallycross Super1600 champion Rokas Baciуска took Q2, while it was Bakkerud and then Timmy Hansen who set the fastest times in Q3 and Q4 on Sunday to line up together on the front row in the first semi-final.

Using fresh rubber, Bakkerud made the best start from the outside and led Timmy Hansen throughout to net pole for the final. Niclas Gronholm beat polesitter Baciуска off the line to win semi-final two and joined Bakkerud on the front row for the finale.

Meanwhile, points leader Kevin Hansen qualified 10th and only made the final by the skin of his teeth when Timo Scheider lost time on the final lap of his semi.

As the pack hurtled towards Turn 1 in the

final Gronholm moved over on Bakkerud, but the Norwegian ran deep into the right-hander, forcing both cars wide and leaving the door open for Timmy Hansen to lead the pack through. Behind, Anton Marklund passed GCK team-mate Baciуска for second around the outside of Turn 2.

Baciуска and Bakkerud were the first to take the extra route joker on lap one. While Bakkerud would only finish fifth, ahead of Gronholm, Baciуска almost made a maiden podium. Seemingly without the ultimate pace, Kevin Hansen stayed out until the final lap, pushed hard through the joker and threw his Peugeot 208 back onto the main circuit sideways. A nudge in the rear from Baciуска helped rotate the car in the correct direction and he finished third, behind victor Timmy Hansen and Marklund.

HAL RIDGE



Jones earned his team's 13th win of 2019 on his 100th NASCAR Cup start

Jones bags first win of the year

NASCAR CUP
DARLINGTON (USA)
1 SEPTEMBER
ROUND 25/36

Joe Gibbs Racing scooped its 13th win of the Cup season, but it was a first Victory Lane appearance of the year for Erik Jones.

After eight top-five finishes this season, Jones clinched his playoff spot with a second career win on his 100th Cup start.

Having started at the rear on account of a post-qualifying engine change, Jones's team-mate Kyle Busch surged through the field to lead at the start of the final stage.

But Jones gained track position through

the penultimate pitstop cycle and, though Busch threatened late on, Jones kept his cool while Busch clouted the wall with three laps to go and ended up third.

In the battle for the playoff places, Clint Bowyer leapfrogged his Stewart-Haas Racing team-mate Daniel Suarez, with a sixth-place finish propelling him eight points clear of the cut-off.

Suarez and Ryan Newman are level on points either side of the playoff line entering the final race of the regular season. Seven-time champion Jimmie Johnson is 18 points adrift after he was tangled up in a multiple car pile-up.

KYRAN GIBBONS

Penalties/pitstops boost IDEC

**EUROPEAN LE MANS SERIES
SILVERSTONE (GBR)
31 AUGUST
ROUND 4/6**

Just four minutes of the four-hour European Le Mans Series race at Silverstone denied G-Drive Racing from taking a third win on the bounce. Jean-Eric Vergne was at the wheel in the final stint when he was forced to pit for fuel, forcing the reigning champions to settle for the runner-up spot.

G-Drive may well have held on to its lead at the top of the standings, but it was the IDEC Sport crew who topped the day. Paul Lafargue/Paul-Loup Chatin/Memo Rojas netted the team's first win



in the championship, having survived the treacherous early laps in a weather-affected bout.

Rain prior to the green flag lap meant a wet race was declared, but the cars were running on slick tyres. Conditions deteriorated further, although early leader James Allen decided to remain on a dry compound in the #21 DragonSpeed car but fell foul of the low-grip running and had a spin.

After a brace of safety car periods, it was the Graff ORECA of Jonathan Hirschi that held the lead with an hour to run. He was then promptly bumped out of victory contention thanks to a drivethrough penalty for potentially dangerous driving under the safety car.

It was then Ben Hanley's turn to lead in the car taken over from Allen, with Vergne in tow, but both cars were forced to stop late on, boosting Rojas to a surprise triumph.

In the LMP3 class, Mikkel Jensen and Jens Petersen claimed the spoils for their EuroInternational-run Ligier, while the seven-way fight for GTE honours fell to the Proton Competition Porsche 911 of Thomas Preining/Gianluca Giraudi/Ricardo Sanchez.

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WEEKEND WINNERS

**WORLD RALLYCROSS
LOHEAC (FRA)**

Timmy Hansen
Team Hansen MJP (Peugeot 208 WRX)

**NASCAR CUP
DARLINGTON (USA)**

Erik Jones
Joe Gibbs Racing (Toyota Camry)

**NASCAR XFINITY SERIES
DARLINGTON (USA)**

Cole Custer
Stewart-Haas Racing (Ford Mustang)

**INDY LIGHTS
PORTLAND (USA)**

Race 1 Rinus van Kalmthout
Juncos Racing

Race 2 Toby Sowery
HMD Motorsports

**EUROPEAN LE MANS SERIES
SILVERSTONE (GBR)**

Paul Lafargue/Paul-Loup Chatin/Memo Rojas
IDEC Sport Racing (ORECA-Gibson 07)

**FORMULA RENAULT EURO CUP
NURBURGRING (DEU)**

Race 1 Oscar Piastrì
R-ace GP

Race 2 Oscar Piastrì
R-ace GP

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Piastrì swings Eurocup title race with brace

**FORMULA RENAULT EURO CUP
NURBURGRING (DEU)
31 AUGUST-1 SEPTEMBER
ROUND 6/10**

Oscar Piastrì and Victor Martins could not have had more contrasting fortunes at the Nurburgring as the Formula Renault Eurocup title momentum swung in Piastrì's favour last weekend.

The pair came into the meeting tied on points, but a dominant performance across the two races allowed R-ace GP driver Piastrì to open up a commanding 40-point margin leaving the Eifel Mountains.

Piastrì dealt the first blow on Saturday by topping qualifying, while Renault Junior Martins toiled to eighth on the grid.

Saturday's opener was a cagey affair, with Arden's Patrik Pasma getting the jump on Piastrì off the line and leading



the majority of the 16-lap race.

The Finn came under attack from Piastrì, newcomer Alex Quinn, Alexander Smolyar and Martins entering the final laps, with Piastrì decisively seizing the win on the exit of Turn 1 with three minutes remaining.

While Piastrì started race two from another pole, Martins sat in the pitlane following a suspension issue identified on the formation lap.

Despite being beaten away initially by Quinn, Piastrì led the opening lap and began pulling clear with relative ease over

the course of the 17-lap encounter.

His victory margin of 14.823s over Quinn's Arden machine highlighted just how comfortable Piastrì had been as he eased to a fifth win of the year.

A return to form for Martins will be required if he is to get back on track in Hungary as Piastrì now has the initiative.

"I was quite competitive in Hungary last year," said Piastrì. "So I hope I can keep the momentum going next week and have a look at the points next Sunday."

STEPHEN BRUNSDON



Chadwick bookended the season with pole positions

SEASON REVIEW

GOLDANDGOOSE

HOW CHADWICK WON AND W SERIES PROVED A POINT

Jamie Chadwick's winning pedigree meant she was the title favourite, but the series' other rising stars made sure she didn't have it all her own way

LUCY MORSON

PHOTOGRAPHY motorsport IMAGES

Jamie Chadwick set the fastest time in the first ever W Series free practice session at Hockenheim, then set it again in the second, and in qualifying blitzed the field on her way to pole. A dominant win followed and, just three months later, Chadwick stood on the W Series hospitality balcony lifting the inaugural championship trophy at Brands Hatch.

Ahead of the season, critics lampooned W Series for segregating women from male competition in motorsport. Many used the argument that there was a risk of one proven talent – which Chadwick is, having won the 2015 GT4 championship in British GT and taken the MRF Challenge crown at the start of this year – eclipsing the rest of the field and doing more damage to the reputation of female racing drivers.

That blase summary of the first W Series season would be exactly what those critics feared, but it doesn't do justice to why everything that happened between FP1 at Hockenheim and race day at Brands Hatch can be considered a hugely successful debut year for the championship.

Chadwick's dominance on her way to victory that Hockenheim weekend is indisputable, though she *was* challenged by Alice Powell in the race and *did* lose the lead initially to Sarah Moore. Behind her, Marta Garcia's drive to third to take a podium on her return to single-seaters after an enforced year-long hiatus began to

show that there were many other names to keep an eye on.

At Zolder in round two, Beitske Visser ensured that Chadwick didn't convert her second successive pole to a second successive win, securing what was ultimately Visser's only victory of the year. That put her into a championship fight that would last the duration of the remaining rounds. Powell once again duelled with Chadwick, the pair going wheel-to-wheel, and took third behind Chadwick. Powell looked as though she might too be on the cusp of joining the title battle and probably would have done, had it not been for how the stars aligned at Misano.

Fabienne Wohlwend took a surprise pole in Italy, but lost out at the start to Chadwick and Visser, with Chadwick taking her second win of the season and tightening her hold on the championship lead. Having dropped back to third, Wohlwend tangled with Powell and pitched the Briton's car into retirement.

At the Norisring, it was neither Chadwick nor Visser who played the starring role. Instead, they came second and third to Garcia, who led the race unchallenged from start to finish. Powell's championship took another blow with a crash in FP1 and then a technical failure in the race that forced her to retire.

But just as Powell can be considered unfortunate not to have been a championship contender, so too can Emma Kimilainen, who returned to W Series at the Norisring having missed both Zolder and Misano recovering from the neck injury she sustained

in an opening-lap collision with Megan Gilkes at Hockenheim.

Kimilainen scored an impressive fifth-place finish on her return in round four, before swiftly following that up with both pole and victory in the penultimate round at Assen two weeks later. Visser's home race was a disappointing one as she finished off the podium, but Chadwick could only manage third behind Kimilainen and Powell. That kept the title fight alive for a down-to-the-wire finale that couldn't have been more appropriate for W Series' newfound Channel 4 audiences.

Just as at Hockenheim, Chadwick began the Brands Hatch finale sitting on pole and still the favourite for the title. But in the space of the three months since that opening race, many other names had emerged as rightful contenders for the crown – and promising motorsport talents in their own right. Chadwick still did enough to take the title, but Powell won that race, with Kimilainen second and Visser third.

As W Series heads towards its second year, with its leading drivers guaranteed the option to return to the series if they wish, it will be fascinating to see what happens and who emerges next to challenge at the top. Despite any early misgivings, Chadwick didn't have it easy this year, even if it did go her way in the end. ❄



Powell's up-and-down season ended on a high at Brands Hatch



Injury-hit Finn Kimilainen took pole and victory at Assen

PREPARING FOR SEASON TWO



Preparations for the 2020 W Series season are already underway, with the selection process for next year's grid set to start at Almeria in southern Spain later this month.

The top 12 finishers from the 2019 championship have all earned the option of a guaranteed return to the series for its second year, where superlicence points will be on offer for the first time.

Those dozen drivers will not be required to attend the private Almeria test from 16-18 September, but a handful may be invited in order to set comparative lap times for hopeful applicants.

"Altogether we've had more than 40 new applications," says W Series race director Dave Ryan. "Inevitably some look quite promising and others rather less so, so there's no way we'll test anything like 40. We'll more likely test about a third of that number."

"The reason for that is that, whereas prior to the 2019 W Series season we were looking to find and appraise drivers about whom we didn't necessarily know very much at that stage, things are very different now."

"The first W Series season has been a roaring success – it was hugely popular and it was televised in more than 60 countries – so most female drivers have made themselves known to us by now in one way or another. So we're not proactively recruiting, if you like."

SEASON STATS

WINS

Jamie Chadwick	2
Beitske Visser	1
Alice Powell	1
Marta Garcia	1
Emma Kimilainen	1

POLES

Jamie Chadwick	3
Marta Garcia	1
Emma Kimilainen	1
Fabienne Wohlwend	1

FASTEST LAPS

Emma Kimilainen	3
Beitske Visser	2
Miki Koyama	1

W SERIES STANDINGS TOP 12

POS	DRIVER	PTS
1	Jamie Chadwick	110
2	Beitske Visser	100
3	Alice Powell	76
4	Marta Garcia	66
5	Emma Kimilainen	53
6	Fabienne Wohlwend	51
7	Miki Koyama	30
8	Sarah Moore	24
9	Vicky Piria	24
10	Tasmin Pepper	22
11	Jessica Hawkins	12
12	Sabre Cook	12

Note: Megan Gilkes won the non-championship, reversed-grid race at Assen. Sabre Cook set fastest lap.

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AUTOSPORT'S TOP 10 DRIVERS



JAMIE CHADWICK

1 For all of the impressive performances by others in the field and the emergence of new female racing talent, it would be very difficult not to give top spot to Chadwick. Having stamped her statement of intent on W Series with her dominance in the season opener, she was never off the podium for the next four rounds, with even an “awful” fourth at the finale not stopping her clinching the title in what’s been a stratospheric year for the Williams F1 development driver.



EMMA KIMILAINEN

2 As one of the oldest drivers in the field (at 30) and with a semi-established career behind her already, Kimilainen moves three places above her championship finishing position as a result of her impressive performances at the Norisring, Assen and Brands Hatch after missing two rounds. Had it not been for the neck injury she sustained in her clash with Megan Gilkes at Hockenheim, Kimilainen would surely have been battling Chadwick and Visser for the title.



BEITSKE VISSER

3 Visser took one win at Zolder compared to Chadwick’s two at Hockenheim and Misano, but her consistent podium finishes kept her well within the title hunt, ultimately finishing just 10 points adrift. A disappointing showing at her home race at Assen, where she finished off the podium, drops her back and allows Kimilainen to move ahead of her in this ranking, but her gutsy late moves on Chadwick at the Brands finale keeps her within the top three.



ALICE POWELL

4 Like Kimilainen, had her fortunes been a little different it’s likely that Powell would have made it a four-way fight for the championship. The clash with Wohlwend on the first lap at Misano, as well as a practice crash with Esmee Hawkey and further technical problems at the Norisring, cost her, but a win at Brands elevated her to third in the championship. Points are also awarded for her stunning wheel-to-wheel battle with Chadwick for second at Zolder.



FABIENNE WOHLWEND

5 A slightly more unknown name ahead of this season, Wohlwend emerged as a contender to watch for next year with a fine pole at Misano. The clash with Powell and pressure from Chadwick and Visser meant she was unable to take her chance and deliver a victory, but her consistency – as well as the experience she has gained in a Formula 3-spec car – means we should hope to see her on the podium more regularly when she returns in 2020.



MARTA GARCIA

6 Garcia was among the first of the lesser-known drivers to emerge as a talent to watch after her performance in the opening race at Hockenheim, where she took a well-deserved third place and breathed new life into her career after she was dropped from the Renault F1 development programme at the end of her 2017 Spanish F4 season. A lights-to-flag win at the Norisring was followed by a slight dip in results, but she’s another to keep an eye on as a future title contender.



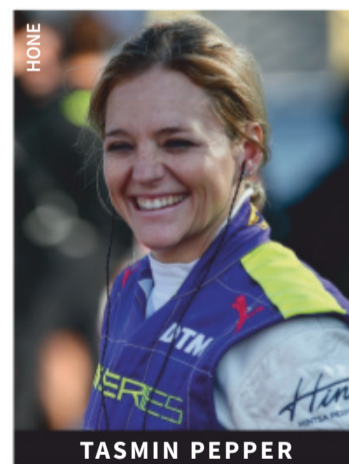
JESSICA HAWKINS

7 Moves higher in this ranking than her real championship position as a result of her upwards trajectory over the course of the series. She initially struggled to get to grips with the Tatuus, but had found her groove by the fourth round at the Norisring, only to suffer a technical failure as she was about to record a best finish of fifth, which would have been enough to secure a place in the top 12 to guarantee a seat for 2020. She just elevated herself to 11th at Brands.



MIKI KOYAMA

8 Koyama was another driver to establish herself at Hockenheim, scything her way through the field from 17th to finish seventh. She followed it up with another battle through the field at Zolder, this time from 13th to eighth, and admitted to a language barrier initially causing set-up problems for her in qualifying. This improved as the season wore on and she kept up her consistent points finishes to secure her place in the championship next year.



TASMIN PEPPER

9 Pepper was the most consistent performer in the midfield pack behind the regular frontrunners. She continually took solid points hauls to keep her within the top 12 cut-off, only twice failing to finish in the top eight. She ended up 10th in the final standings and, as with several drivers on this list, it will be interesting to see what she can do next year with a season of experience behind her.



MEGAN GILKES

10 Though she finished last in the W Series championship, Gilkes deserves the final slot here as a result of her win in the non-championship reversed-grid race at Assen. Gilkes endured a miserable first half of the season, after her crash with Kimilainen at Hockenheim and then a demotion to reserve driver at the Norisring. But, having lined up on pole for the experimental Assen race, she led from start to finish and withstood incredible pressure from Powell.



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BRABHAM BT62 TO RACE AT BRANDS TWILIGHT EVENT

BRITCAR

While the Brabham marque remains strongly represented throughout historic racing, it has not featured in contemporary motorsport since the 1992 Formula 1 season. But the BT62 track car, which revived the brand last year, is set to end that absence.

Across 9-10 November, the BT62 will take part in the twilight Britcar race at Brands Hatch in preparation for a planned campaign in the 2022 World Endurance Championship.

After a tie-up with tyre manufacturer Goodyear, with which Jack Brabham became the first and so far only driver to win the F1 world title in a car bearing his own name, the 5.4-litre V8-powered BT62 will run as an invitational entry.

David Brabham – 2009 Le Mans 24 Hours winner, director of Brabham Automotive and son of Jack – said: “It’s where the opportunity is. We’ve had customers say that they’d like to race [the BT62].”

“At that time we weren’t sure where we could race it because it doesn’t really fit into any regulations for

any series. Racing is in our DNA and we’re on the road to Le Mans and building the business. There’s so much to do but this opens up another avenue for us.”

Thanks to its 700bhp output and an ability to produce more than 1200kg of downforce, in February the car unofficially beat the Mount Panorama lap record during the weekend of the Bathurst 12 Hour.

That record had been set by an unrestricted Audi R8 LMS, of the same GT3 type that features at the head of the Britcar field. To bring the BT62 in line with the GT3 machinery, it will run in a less powerful trim.

“We’re not going to go there and be five seconds quicker than [our competitors],” Brabham added. “We’re going to be right with their pace so we don’t make people look stupid.”

The driver line-up is yet to be confirmed, but David’s son Sam has recently returned to racing in the Porsche Carrera Cup GB. Ross Wylie, who drove the BT62 up the Goodwood Festival of Speed hillclimb earlier this year, is another possible contender. He is eighth in the Britcar standings driving a Ferrari 488 Challenge.

MATT KEW



BT62 produces
1200kg of downforce



Customers want to
race, says Brabham

Tregurtha keen to finish season in Nissan GT-R

GT CUP

Former British GT4 champion Will Tregurtha is hopeful he will be able to see out the remainder of the GT Cup season and build on the progress he made with team-mate Grahame Tilley after making his first appearance in this year's championship at Brands Hatch.

Tregurtha, who has been competing in the ADAC GT Masters series this year, shared a Nissan GT-R with Tilley at the Kent venue last weekend. Despite the lack of running in free practice on Friday due to a clutch problem, the duo claimed victory in a rain-affected pitstop race on Saturday, before taking a third-place finish in the equivalent second encounter.

"I would like to be able to join Grahame again for the next rounds at Donington and Snetterton," Tregurtha said. "My aim this weekend has been to do the best for Grahame and make him more comfortable in the car.

"There is still work to do and the car still has its weaknesses, particularly in the wet, so I've just tried to give the engineers the best feedback I can.



"I've taken on the role of driver, engineer and driver coach this weekend, but that has all been part of the enjoyment for me."

Tilley, who only recently acquired the car before the Snetterton round in late July, admitted that Tregurtha's input has been most welcome.

"The car is a handful and has very little rear-end grip, so to have Will along to offer me his coaching skills and strong feedback is very helpful," Tilley added. "He just makes the car go faster. I really hope to work with him again."

MARK LIBBETER

MAZDA SERIES MERGE TO HELP BOOST GRIDS

BRSCC MX-5

The Mazda MX-5 Supercup and Super Series categories will merge back into one series for next year to create a single championship for the Mk3 version of the car.

The British Racing and Sports Car Club created the non-championship Super Series at the start of last season when the MX-5 Supercup moved to join the support bill of the new TCR UK series, instead of running alongside the club's Mk1 championship.

But the two Mk3 divisions have had modest entries for this season and, with the TCR UK concept failing to take off, the decision has been taken for the BRSCC to have a single Mk3 championship again.

The Supercup and Super Series have combined twice this year (below), running as separate classes on the same grid, and that format will be in place for all events in 2020.

"We've told all the guys in Mazdas that we're looking for them to combine," said BRSCC competitions director Dominic Ostrowski.

"We will have the Mk1s and Supercup at the same meetings, and Super Series will cease to exist.

"The Super Series will be part of the Supercup, and having their own class – not too dissimilar to Formula Ford where you have the Pro class and the Clubman class. I think that's the best way forward as it brings the Mazda community back together."

STEPHEN LICKORISH



PORSCHE CARRERA CUP GB

Dan Harper extended his Porsche Carrera Cup GB points lead, despite a messy second race at Silverstone last weekend when he twice spun after contact with title rival Lewis Plato.

Harper won the opening race from pole. Then, despite the incidents, the JTR driver took fourth in the reversed-grid race two.

The second contest was won by 2014 champion Josh Webster after he passed polesitter George Gamble early on.

"In a weird way, I really enjoyed race two," said Harper. "I felt we had the pace to win it, so it's a shame we didn't get the chance to challenge, but it was an exciting race with lots of overtaking and a chance to put on a show.

"The two races couldn't have been much more different, but we got a great haul of points across them."

The Porsche races were part of the support package for the first round of the 2019-20 World Endurance Championship season on the Silverstone Grand Prix circuit.



Formula Ford fraternity have been critical of track

Knockhill reversed layout slammed by Scottish FF1600 teams and drivers

SMRC

Leading Scottish Formula Ford 1600 figures voiced frustration over the continued use of Knockhill's reversed-layout configuration following last weekend's Scottish Motor Racing Club meeting.

Jordan Gronkowski secured the title with third place in race one, but elected not to take part in the second contest in order to preserve his car for the season finale next month.

"We feel, and have felt for some time, that the anticlockwise circuit layout is unsuitable for Formula Ford cars – as evidenced by the damage we and others have sustained," he said.

Graham Millar's Rotor Racing team has been outspoken over the nature of the reversed circuit and did not field either of its two Mygales, for Kenny Cowie and James Pinkerton.

Critics of the layout referred to the raised 'sausage kerbs' at the chicane's entry and exit as particular dangers, with privateer Neil Broome – who won both races last weekend – requiring a major engine rebuild after the first reversed-layout meeting of the year in May.

"Formula Ford cars aren't built to run on the reversed layout – they're just too fragile," Broome said.

SMRC business development

manager Rory Bryant confirmed to Autosport that a review of the number of reversed-direction meetings will be conducted ahead of the 2020 racing calendar being announced.

LIBRE RACES PUSHED BACK

The SMRC has elected to move its proposed Formula Libre races back to the season finale next month.

Bryant announced in June the return of the formula to the Fife circuit for last weekend's penultimate round of the year. But it has now been pushed back to the final event following consultation with the club's competitors and concerns over safety.

"We did a survey of club members and the consensus was that they wanted Libre back, but we haven't received as many entries as we had hoped for," Bryant said.

"So with that in mind, we elected to push it back to October to give people a chance to join that meeting. I'm confident we can get it running and that we can have some racing then."

RAMSAY TRIBUTES FLOOD IN

Tributes have been paid to reigning Scottish Fiesta XR2 champion Martin Ramsay, who died last month at the age of 42 following a long battle with illness.

Ramsay, from Shetland, made his racing debut halfway through the 2017 season

when the XR2 championship shared a grid with the Scottish Fiesta ST category.

He claimed the XR2 title last year when it moved onto the Classic Sports and Saloons grid, winning every race.

Friend and fellow Fiesta competitor Nick Forsyth, who drove Ramsay's car in last weekend's Classic races, said: "His character was such that I'm confident that anyone else in our motor racing family who met him will hold him in the same regard, and he will be missed by many in the paddock."

A minute's silence was arranged during the public grid walk last weekend, with a special trophy dedicated to Ramsay's memory announced for the final round of the Scottish Classics season in October.

HELPING LOCAL SCHOOL

Knockhill Racing Circuit has offered children from Woodmill High School in Fife free entry to three of its September events following a disastrous fire last month. The school has been closed since 26 August after it was ravaged by the blaze, resulting in the displacement of over 1400 pupils.

Knockhill director of events Stuart Gray said: "The fire has had such an effect on so many families in the local area that we want to give them a day out on us to take their minds off all the upheaval they are going through."

STEPHEN BRUNSDON

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IN THE HEADLINES

SERIES SWITCH FOR POWNEY

Locost frontrunner Ben Powney will switch 750 Motor Club categories for the Donington Park meeting this weekend when he joins the F1000 grid. The event will mark Powney's single-seater debut after he finished third in the Locost standings in his second season of racing in 2017. He will be run by Team Sellars Racing.

10 WINS AND KARTING TITLE

Liam Morley wrapped up the Karting UK British Superkart Championship for the F125 Open class at Cadwell Park last weekend with three more wins, bringing his season's tally to 10. The championships for the Division 1 and F250 National classes are in the balance with three races remaining. Carl Kinsey leads the twin-cylinder category by seven points from Andy Bird, while Paul Platt has taken over the lead in the F250 National class.

RACING AGAINST DEMENTIA

Leading figures in Scottish motorsport took part in a series of endurance kart races at Larkhall last week to raise money for three-time Formula 1 champion Jackie Stewart's Race Against Dementia charity. Scottish Motor Racing Club regulars Jordan Gronkowski, Robbie Dalgleish and Ryan Smith teamed up with Lamborghini Young Driver Sandy Mitchell, winning the first two-hour team event on Thursday.

WALKER'S WEDDING MISS

Robin Walker's best-ever win and third place haul from last weekend's MG Trophy meeting at Oulton Park came with an unusual bonus, as it means he now can take part in the season-concluding Snetterton round next month rather than attend a family wedding that clashes with the Norfolk date! "I have permission that if today went OK I can skip the wedding; that [the win] should be sufficient," said Walker (below).



WALKER



SS1 features 1.8-litre, 16-valve turbo engine from Nissan 200SX

HAWKINS

Gough gets behind the wheel of Reliant Scimitar SS1 at Brands

SPECIAL SALOONS & MODSPORTS

A Reliant Scimitar SS1 joined the Classic Sports Car Club's Special Saloons and Modsports grid at Brands Hatch at the end of last month in the hands of marque specialist Ben Gough.

Gough debuted the car two weeks earlier in the CNC Heads Sports and Saloon Championship race at Donington Park, but spun in wet conditions. He was restricted by teething issues at Brands, notably high water temperatures in the very hot ambient conditions, but managed to finish the final race of the weekend in 11th overall.

The car features a 1.8-litre, 16-valve turbocharged engine from a Nissan 200SX.

"I bought it about two and a half

years ago as an unfinished project," said Gough, who previously raced a Marcos 3-Litre with the CSCC. "I've flared all the arches and put all the 'Wacky Races' stuff on it.

"It came about because I've got a history in hillclimbing with Scimitars. I used to hillclimb a GTE and a friend of mine had an SS1 – we used to be very closely matched. He's got another car that's got the same engine as this with quite a bit more power and I'd driven it a couple of times and thought, 'There's some potential there.'

"I'm just working through the issues. At Donington it was a bit twitchy on the back end. I've done some adjustments and it feels a lot better."

MARK PAULSON

Winstanley makes rare MG outing

COCKSHOOT CUP

Double Caterham Seven 420R champion Danny Winstanley took part in the MG Car Club's Cockshoot Cup at Oulton Park last weekend, showcasing Howard Hunt's for-sale MG ZS 180.

Qualifying was the first time Winstanley had driven the car and the first time in around three years that he'd driven a front-wheel-drive machine.

Despite this, he took pole

by 2.5 seconds and led until crashing out on oil at Old Hall on the final lap, sustaining rear-end damage.

"I've been meaning to get into the car for a while," said Winstanley. "I've known Howard for years. We go back to when I was 15 years old – I'm 27 now – and he coached me all the way through TVRs in the Tuscan. He's always supported me.

"I was just learning more about the car [today],

playing around with the set-up. I wasn't pushing at 100%. I was definitely just building it up this morning [in qualifying] and you only get 15 minutes so that was more like a test session.

"There's a lot more time in the car. It'll easily go 1m56s around here."

Hunt and Winstanley also plan to do endurance racing as a driver pairing with the ZS 180.

GRAHAM KEILLOH

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Welcome to mad September

With blue-riband events at Zandvoort, Goodwood and Spa coming up, there's no rest for the historic racing community. Each is a fabulous event in its own right

MARCUS PYE

September has become a crazy month for historic racing's hardcore competitors. The first Zandvoort Historic Grand Prix in 2012, so close to the established Spa Six Hours and Goodwood Revival events (originated in 1993 and 1998 respectively) test their support teams to the limit. And that's if the cars – some of which do all three – survive each meeting intact, therefore 'just' need servicing. If they sustain repairable damage, the routine becomes a logistical nightmare. Many a time battle-weary mechanics have rejoined the circus, disgorging a patched-up machine on which they worked up to the moment it was loaded into the transporter, perhaps still to be finished.

Even in current truncated form, the Dutch seaside circuit of Zandvoort rewards proper drivers who love its challenging contours in the dunes and the brightest points of its history, including Jim Clark's debut victory in the revolutionary Ford Cosworth DFV-powered Lotus 49 in 1967.

This weekend's eighth Zandvoort HGP is set to centre around Historic F2 of 1967-78. As at July's Silverstone Classic, the Historic Sports Car Club's championship round is oversubscribed. A big pack of two-litre and earlier 1600cc cars will be fantastic to watch on the swoops; indeed a talking point is bound to be where the polesitter would have qualified for the FIA Masters Historic F1

“Saturday evening's parade into Zandvoort town centre is back”

round on the same bill, should conditions be comparable. The annual FIA F3 European Cup double-header (catering principally for air-restricted two-litre cars of 1974-84) has also hotted up.

With the Dutch GP returning to the F1 World Championship calendar in 2020, after a 35-year hiatus, a spotlight is on the 100th birthday year of local heroes Dries van der Lof and Jan Flinterman. The well-heeled duo contested the inaugural top-line Dutch GP at the venue in 1952, driving HWM and Maserati A6GCM respectively. That celebration will be showcased by demonstrations, plus Historic Grand Prix Cars Association members racing cars from the 1950s to 1965, the end of the 1500cc F1.

The FIA Lurani Trophy Historic Formula Junior Championship makes a welcome return, as do the FIA Sports Cars and Masters Pre-1966 Touring Car and Gentlemen Drivers' GT races, both of which thrilled onlookers last year. German Touring Car Legends and the brilliant all-embracing Dutch Catawiki GTTC

series (for pre-1982 cars of many marques) guarantee fun alongside Porsche and BMW competition car demos. Saturday evening's traditional parade of racers into Zandvoort town centre – a unique facet of the gathering – is back too.

For those continuing the pilgrimage, a week later Goodwood's 22nd Revival meeting (13-15 September) will be as popular as ever, with an extra race slotted into Sunday's sensory feast. The clocks go back 60 years, with celebrations of the Cooper Car Company (for which Jack Brabham won its first F1 world titles in 1959) and Tourist Trophy race (in which Aston Martin secured that year's world sportscar manufacturers' crown). Alec Issigonis's immortal Mini, which debuted that year, also takes centre stage in the St Mary's Trophy touring car set.

To the intense relief of all involved in both, the Spa Six Hours classic – around which, from a personal perspective, the greatest historic racing weekend of the season is built – is not back-to-back with Goodwood. This doesn't mean that turning cars around will be any easier, just less intense. Having reported Roadbook's enduro since 1997 and commentated on the event for towards two decades, I arrive at Francorchamps on the Thursday, when a test and tune day (which some backroom boys rue as 'an opportunity for drivers to wear their cars out') is in full swing. From Friday to Sunday the schedule is flat-out though.

The atmosphere at the Belgian GP venue is astonishing. Looking left from the paddock entry checkpoint, before the tunnel perpendicular to the old pit straight between La Source and Eau Rouge – the sheer gradient of the climb to Raidillon takes my breath away every time. Tragically, it has claimed lives. Poor Anthoine Hubert's F2 accident last Saturday reminded me that 34 years ago [last Sunday] I witnessed Stefan Bellof's fatal Porsche 956 accident. For me, a long-time club racer who has tramped on through the daunting sweeper in Kent Abrahamsson's unique three-litre Chevron-BMW B19 but regret missing out on the single-seater experience, it is the world's greatest piece of asphalt.

Zandvoort, Goodwood and Spa all have many wonderful qualities. But if a trip to Holland is too far, may I commend you to a super event closer to home on Saturday? The Brighton Speed Trials, first run on the Sussex town's seafront in 1905, is a tradition well worth checking out. And should you have a fallow weekend between the Revival and the Six Hours? Sample the Classic Sports Car Club's annual Thruxton Thriller on 21-22 September for a slug of amateur motor racing at its finest. ✨

NEXT WEEK

ZANDVOORT REPORT AND HISTORICS SUPPLEMENT
12 SEPTEMBER ISSUE



Father-and-son duo took three out of four GT Cup wins

Neary family enjoys successful Brands outing

BRANDS HATCH
MSVR
31 AUGUST-1 SEPTEMBER

Treacherous track conditions in the closing laps of Saturday's second GT Cup race could not stop Will Tregurtha playing a starring role at Brands Hatch as he helped Grahame Tilley claim a thrilling victory in their Nissan GT-R.

In the early stages of the race, Richard Neary had set the pace in his Mercedes GT3, chased hard by the Lamborghini Huracan GT3 of Michael Igoe. After running close for several laps, Igoe attempted to make a move as the duo came across backmarkers along Cooper Straight.

Neary tried to defend the line, but found himself pitched into a lurid spin. Amazingly, he avoided further contact with either the barriers or nearby traffic as he gathered back

control, but the damage suffered in the collision forced him onto the sidelines. Moments later, the battle for third between the Porsche 911 GT3 of Shamus Jennings and Tom Webb's Lamborghini Huracan also resulted in a clash, forcing both to visit the pits for repairs.

Following a caution period, Tilley was among several of the chasing pack to make their compulsory pitstops as he handed driving duties over to 2017 British GT4 champion Tregurtha, but new leader Igoe remained on track.

By the time Igoe had made his stop a few laps later, his advantage over the charging Tregurtha had been reduced to just over six seconds. Igoe looked all set to resist Tregurtha's challenge, but a heavy shower transformed the fortunes of both. Igoe spun twice in the closing laps, including on the final tour, helping Tregurtha to snatch the

win despite the Nissan "wheelspinning in sixth gear" on the slippery track.

Neary's fury at his exit from the endurance contest was in stark contrast to the emotions experienced by his son Sam after the first sprint race of the weekend. Competing on the GP track for the first time, Neary Jr claimed a lights-to-flag victory in the family-run Mercedes.

Igoe recovered to second after slipping back down the field at mid-distance, while Webb secured third. Gearbox trouble ruled Igoe out of Sunday's pair of races, and both turned out to be dominant victories for the Neary father-and-son duo. Neary Jr completed his perfect weekend by easing to victory in the sprint before teaming up with his father to claim the pitstop contest ahead of Jennings (partnering with Greg Caton) and Tilley/Tregurtha.

An opening-race win and a third-place finish (second in class) in race two was enough for Ashley Dibden to clinch the Monoposto F3 title, although he acknowledged that issues for closest rival Alex Fores aided his cause. Fores had taken pole for race one, only to see his time disallowed when his Dallara F301 failed post-session scrutineering. Forced to start from the back of the grid, Fores charged his way up to fourth before a fuel-pump problem brought his race to a premature end.

Fores dominated race two ahead of newly crowned Moto 1400 champion Jason Timms in his Dallara 301, while Dibden finished third to guarantee the title.

Another driver relegated to the back of



Dibden (94) took Monoposto F3 title

BRANDS HATCH WEEKEND WINNERS

GT CUP

Races 1 & 3 Sam Neary (Mercedes GT3)

Race 2 Grahame Tilley/Will Tregurtha (Nissan GTR Nismo GT3)

Race 4 Richard Neary/Sam Neary (Mercedes GT3)

MONOPOSTO MONO F3/2000/CLASSIC/ MOTO 1400

Race 1 Ashley Dibden (Dallara F301)

Race 2 Alex Fores (Dallara F301)

F3 CUP

Race 1 Stefano Leaney (Dallara F313)

Race 2 Darragh Daly (Dallara F308)

PRODUCTION BMW CHAMPIONSHIP

Race 1 & 2 Matt Swaffer

RACING SALOONS

Race 1 & 2 Peter Seldon (BMW E36 M3)

MAGNIFICENT SEVENS

Tim Davis (Caterham C400)

MONOPOSTO 1800/1600/MOTO 1000

Race 1 Michael Watton (Jedi Mk6)

Race 2 Dan Gore (Jedi Mk6)

SPORTS 2000

Michael Gibbins (MCR S2)

TRACKDAY CHAMPIONSHIP

Chris Payne (Caterham Super 7)

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the grid due to issues in qualifying was Cian Carey in the F3 Cup double-header. Engine problems with his regular Dallara F311 forced the Irishman to use team-mate Phillip Jeans's vacant F312 for both races.

Stefano Leaney took full advantage to take victory in race one, having got ahead of the fast-starting Shane Kelly on the run into Hawthorn on the opening tour. Leaney was handed a 10s penalty for an out-of-position start in race two, enabling Darragh Daly to inherit the spoils. Kelly took another second, while Carey bounced back from an off in the opening event to claim the final podium spot.

Two rapid starts from Ross Stoner were not enough to deprive former double champion Matt Swaffer of both wins in the two Production BMW Championship races. Stoner had led the majority of the first race, only to lose out to Swaffer at Clearways as the duo powered towards the flag. Nigel Innes claimed a pair of thirds.

Peter Seldon claimed a Racing Saloons double in his BMW M3, despite the best efforts of Peter Osborne in his Vauxhall Astra VXR. Osborne was not immune from pressure himself from the XJS of Jaguar Saloon and GT Championship regular Colin Philpott in either race, but Osborne stood firm.

MARK LIBBETER

A DECADE OF MAGNIFICENCE



The first ever Classic Sports Car Club Magnificent Sevens event was held at Snetterton in 2009, attracting 22 entries.

A decade on, the popularity of the series has grown to such an extent that grid numbers now regularly exceed 30. And the field was even bigger still at Brands Hatch last weekend.

A capacity grid of 46 Lotus Seven-derived cars – reduced from an initial 51 after qualifying – took to the Grand Prix circuit for a single race on Sunday, providing the kind of frantic action for which the series has become synonymous.

Series coordinator Peter French, a racer himself in the category in his Caterham Superlight, has little doubt why the series has such great appeal for drivers.

“I think the main factors that encourage drivers to the Magnificent Sevens are the camaraderie they can build with each other and the high driving standards,” he said. “Not many series can claim to have such healthy respect between drivers on such a large grid. I do not do this job for any other reason than to see happy faces in the paddock and if I can achieve that, then I know I’ve done my job.”

French’s faith in the positivity of the driving standards was justified in the early stages of the event on Sunday as the entire field powered through the first lap without major incident. At the start, Christian Pittard snatched the lead in his Caterham 7



from polesitter Tim Davis in his C400 model, while Jonathan Mitchell ran close behind in third in his CSR version.

Triple TVR Challenge champion Davis reversed the position by the end of the lap and began to pull out a sizeable gap. Pittard was left to battle with Mitchell over second, while Gary Bate, Jonathan Pittard and Colin Watson were providing action aplenty of their own in a tussle for fourth.

A brief safety-car period enabled the leading contenders to make their mandatory pitstops, but Mitchell made his stop a lap earlier than Davis and emerged as leader once the caution period was over. Watson had worked his way up into second at the same point, but hopes of further progress were scuppered when a trip into the Clark Curve gravel dropped him back down to fifth.

Davis, who had fallen to fifth himself following his stop, soon powered his way back into second. Mitchell then made an unscheduled second stop, dropping him out of contention, which left Davis with a seemingly comfortable run to victory.

“I had actually started to ease off in the closing laps because I thought I had enough of a lead and then suddenly I saw them [Christian Pittard and Watson] closing in on me,” said Davis.

Pittard briefly got ahead on the last lap, but Davis fought back with an audacious move at Clearways that paid off. At the flag, the trio were covered by just 0.221 seconds. “I was always going to make the move there,” Davis added. “I think we may have made slight contact but that was no problem for me. I wanted that one.”

Incredibly, 41 of the 46 starters finished, underlining the rude health the series is currently in as its second decade gets under way.

MARK LIBBETER

Ross left to rue start error but still takes a win

**OULTON PARK
MGCC
31 AUGUST**

Reigning MG Trophy champion Graham Ross added another win to his sizeable 2019 collection at Oulton Park, though a penalty denied him a double triumph.

The first race was held in wet conditions and its green-flag running was truncated by a safety-car period, caused by a multi-car accident at the Shell Oils hairpin on lap one. This left three laps of racing to the end, which poleman Ross completed in first place. But just as he took the chequered flag, he was given a 10-second penalty for being lined up incorrectly on the starting grid. This dropped him to fifth overall and second in class, and Robin Walker inherited victory.

Ross made some amends by winning the dry race two. He led all the way but was wary of the closing Doug Cole, who was charging back from a lap-one off at Shell Oils after locking the rears. Cole had also made an almost identical error in race one.

"I have to be fairly satisfied," Ross said of his day. "The first race it was very annoying. Rules are rules, and I broke the rules, so I've got to take my medicine. Whether I could ever have made it [the 10s] up is hugely debatable, but I didn't find out about it until I came across the finishing line.

"The second race went according to plan. I was thinking, 'Don't do anything stupid, pace it,' then all of a sudden I saw Doug Cole in my mirror, and I thought, 'You've got to get a move on!'"



Mike Williams continued his strong form in the MG Cup in his rapid Metro GTi by dominating race one, despite the challenge of an oil slick at Druids and confusion when a safety car was signalled then quickly recalled. Williams looked set to make it a double win in race two but a brake problem at Druids pulled him right and pitched him off, letting points leader Richard Buckley's Rover Tomcat through to victory.

Jack Ashton continued his 100% record in this year's MG Metro Cup by winning both races from pole and taking each fastest lap. This time, though, he had his long-awaited close challenge from Dick Trevett, whose A-series ran well after an engine rebuild – which Trevett described as "suck it and see".

Trevett finished 6.5s shy of Ashton in race one, though afterwards discovered his boost was too low. Having sorted this for race two he gave an even stronger challenge. He led at the start and, although Ashton got back past on lap two at Lodge, Trevett chased him strongly for the remainder.

"We had a good ding-dong," Ashton said.

Paul Clackett had wrapped up the Cockshoot Cup title in the previous round at Anglesey in his MG ZS, and at Oulton was joined by guest multiple Caterham champion Danny Winstanley, driving Howard Hunt's for-sale ZS 180. The 2018 champion Ray Collier, absent until the Anglesey round owing to clashes with his day job, also put in an appearance.

Winstanley qualified on pole comfortably from Collier, while Clackett started down in eighth after electrical problems. But on lap one Clackett stormed through to the lead from the fourth row.

Winstanley and Collier soon passed him, though, and Winstanley led as the laps ticked down, with Collier on his tail. Then, sensationally, the pair crashed out at Old Hall on the final tour on oil dumped by Karl Green's expiring MG ZS engine.

This let Clackett through to win. "It's the old saying: to finish first, first you have to finish," Clackett said. "It's nice to top it [the season] off with a win in the last race."



ALL PICS: WALKER

OULTON PARK WEEKEND WINNERS

MG TROPHY

Race 1 Robin Walker (ZR 190)

Race 2 Graham Ross (ZR 190)

MG CUP

Race 1 Mike Williams (Rover Metro GTi)

Race 2 Richard Buckley (Rover 220 Tomcat Turbo)

MG METRO CUP

Races 1 & 2 Jack Ashton (Rover Metro GTi)

COCKSHOOT CUP Paul Clackett (MG ZS)

CLASSIC RESTORACING CHAMPIONSHIP

Races 1 & 2 Ben McLoughlin (Boxster S)

PORSCHE CLUB CHAMPIONSHIP

Race 1 Simon Clark (Cayman S)

Race 2 Chris Dyer (Cayman S)

For full results visit: tsl-timing.com

The MG Car Club was joined at Oulton Park by two Porsche Club GB championships. Ben McLoughlin was expected to secure the Classic Restoracing Championship for Boxsters here, and he claimed the title emphatically by winning both races. The second win was controversial since he prevailed after a last-lap collision with Will Heslop when trying to pass him at Cascades.

Class championship leader Simon Clark in his Cayman led every lap of the first Porsche Club Championship race, despite a couple of safety-car interruptions, heading double champion Pete Morris in his 997 C2S.

Chris Dyer claimed the second race in his Cayman, leading home Clark and Morris after early leader Glen Broster dropped out.

GRAHAM KEILLOH



CHAMPION CROWNED Ben McLoughlin only needed a single decent result at Oulton Park to wrap up the Classic Restoracing Championship, which pitches UK Porsche Centres against each other in restored Boxsters. With 60kg of ballast, McLoughlin planned to play percentages, but sealed his crown by storming to race-one victory in streaming conditions. He also won the dry race two, albeit in dramatic circumstances after a last-lap collision. “Two wins at the end of the season with all the weight in the car is very pleasing,” he said. “The first was a case of trying to keep it on the island.”



COLLIER BACK OUT The Cockshoot Cup’s 2018 champion Ray Collier got a rare 2019 outing in his highly distinguished MG ZR 190 at Oulton Park. “It was the only left-hand-drive shell that was on the production line when Rover went bust, and it was e-coated only so it’s only ever been a racing car,” Collier explained, “and it’s the only car that’s won the Class B championship as well as the Class C championship and the Cockshoot Cup.” He was also happy to race with guesting Caterham champion Danny Winstanley. “He’s pulled my driving on a long way,” Collier added.



TESTING TIMES In a season in which he has juggled racing with exams, Sam Kirkpatrick entered the Oulton Park round second in the MG Trophy’s overall table and leading the Class B championship for MG ZR 170s. But Oulton was a frustrating meeting. First he spun from the class lead on lap one in wet conditions, then sustained rear damage avoiding another spinner at Old Hall in the second race. “I’m pretty happy with how I’ve been driving,” he said. “I’ve just been having unfortunate results.” With schooling done he’s looking further afield for 2020, including racing his dad’s historic MGB.

Smith stars as Equipe GTS provides the pick of the action



SNETTERTON
AMOC
31 AUGUST

Equipe GTS provided the biggest grids and the best drama at Snetterton, with the GTS 'A' race just edging it for action.

Tom Smith was the best of the 43 entrants, repeating his 2018 win at the same meeting. He claims to not be a huge fan of the Norfolk circuit, but he looked completely at home as he

powered into a substantial lead, timing the compulsory pitstop perfectly in his MGB and retaining his advantage.

While Smith was impressive, the real drama took place behind him. Neil Fisher narrowly edged out Ollie Neaves (MGB) for second in his Austin-Healey Sebring Sprite, settling their battle by passing around the outside at Riches on the final lap.

Lee Atkins was fourth on-track in his TVR Grantura, but dropped to 29th after a three-lap penalty for pitting too late.

He was also reprimanded for his scuffle with Rob Cull's Grantura on the first lap – Cull retired later with a gear-linkage problem. David Keers-Trafford (MGB) had challenged for the podium early on, but gearbox troubles left him needing a tow at the end of the race.

GTS 'B' ran alongside the Pre '63 cars, making up another giant grid. Austin-Healeys dominated, making up the first seven finishers. Mark Holme (3000) credited his endurance-racing

Newall unable to capitalise on Paterson's new car struggles

KNOCKHILL
SMRC
1 SEPTEMBER

Steve McGill, David Newall and John Paterson were all victorious in the Scottish Legends as Paterson was left to lament a change to a new chassis around Knockhill's anti-clockwise configuration.

Paterson struggled with the handling of his car, but managed to keep his championship deficit to Newall at 55 points – the same margin that separated the duo ahead of the weekend.

McGill won from pole position in the first heat before it was Newall's turn to grace the top step in the following contest. Paterson survived a heart-stopping moment in the final while leading – he was being pushed along the straight by team-mate Duncan Vincent

but speared off onto the grass at high speed. Sensationally, he managed to gather the car together and rejoin the track in second but behind Newall. A move around the outside of Hislop's granted Paterson the inside of Clark's, and he took the lead to win the race ahead of McGill, who passed Newall at the chicane.

Robbie Dalglish "stamped authority" on the Scottish Mini Cooper Cup as title rival Michael Weddell hit trouble in the second race. The pair came to blows early on as they ran each other into the gravel at the hairpin on the opening lap of the first contest, triggering a four-way scrap through Hislop's that left Hannah Chapman in the tyre wall. Weddell followed Dalglish as they carved through the field, but moved ahead in the title race as Dalglish was muscled wide at Duffus on the final tour.

Race-one winner Mark Geraghty spun



out from the lead of race two at McIntyre's as changeable track conditions caught him out. Dalglish fought his way through the pack and sealed second behind Vic Covey Jr, boosted by a retirement for Weddell, whose Cooper popped a driveshaft. Dalglish then dominated the final encounter as Weddell climbed from 21st to seventh, trailing by 34 points heading into October's decider.

Finlay Brunton overhauled Ryan Smith to lead by 13 points in the Citroen C1 Cup, declaring he was on "full send". Starting fifth, Brunton climbed to second behind Steven Brewster with a succession of moves into Clark's, including on Smith.

He then took the second race as Smith



Holme took top spot in Equipe Pre-'63 & GTS 'B' encounter

STYLES



Kemp won AMOC Intermarque & Aston Challenge

STYLES

experience for his win, settling himself in third place, putting in consistent laps and acing his pitstop before turning it up at the end.

Richard Hywel Evans, in another big Healey, started from pole but ended up second after a disastrous start: the car's gear knob came off and then the overdrive started to malfunction, meaning Evans had to recalibrate all his racing lines. Jonathan Smare, whose 3000 was third after leading early on, was happy with

the result. "It's a masterclass driving with guys like this," he said.

Keers-Trafford won the GTS 'B' class in his MGB, finishing 13th overall. Ben Tinkler led the class in a TVR until a couple of spins dropped him down the order. The first non-Healey home was the Morgan of Andrew and David Wenman.

British Touring Car driver Jake Hill won the GT Challenge race, sharing an Aston Martin Vantage GT2 with Paul Whight. The favourites, Gleb Stepanov and Stephen Tomkins in a Vulcan, were hamstrung by a combination of success penalties, a slow pitstop and an out-of-practice Stepanov not quite being up to Tomkins' pace.

Tomkins led by two minutes at one point, but the pitstop troubles allowed Hill/Whight and Nigel Jenkins' Ferrari 458 Challenge through.

Roger Wills won the Jack Fairman Cup race in dominant style in his Lotus 15, even though a rain shower slowed him down considerably. The experienced Kiwi was never seriously challenged by Anthony Ditheridge's Cooper Monaco or third-placed John Young's Jaguar Mk1. Young hounded Ditheridge for the whole race, but Ditheridge kept a gap of at least a second throughout.

Robi Bernberg's stark unpainted Cooper Bobtail was fourth, having not got away too well and skirmished fiercely with Martin Brewer's Aston Martin DP214. Brewer had the upper hand until quite late, but Bernberg proved quicker than the bigger GT in the corners.

RACHEL HARRIS-GARDINER



Gronkowski took FF1600 title

MOIR

frantically battled Brewster and Kieren Preedy, Smith grabbing third behind Preedy with a late lunge into McIntyre's.

Jack Davidson thought he'd made a winning return to the Scottish Ford Fiesta Championship, but was disqualified when he failed post-race scrutineering. There would be no denying him at the second time of asking though, as he profited from an early termination of the race when Stewart Scott and Russell Morgan collided at the hairpin. He won the contest outright, with the race-one winning Mini of Oly Mortimer only fourth.

Neil Broome took a clean sweep of Scottish Formula Ford 1600 wins but



Top Mini driver Oly Mortimer

MOIR

couldn't deny Jordan Gronkowski the 2019 title. Due to a depleted grid of just five cars, Formula Junior controversially shared the track with FF1600, which helped dictate the race results.

Gronkowski had led the opener, but was forced wide out of McIntyre's when trying to lap the Formula Juniors, dropping to third but still earning the title. Gronkowski then sat out race two.

Broome was defending from Matthew Chisholm when an issue of his own trying to lap a Formula Junior left Broome vulnerable and he crossed the line just 0.019 seconds ahead of Chisholm.

LUKE BARRY

WEEKEND WINNERS

SNETTERTON

EQUIPE GTS 'A'

Tom Smith (MGB)

EQUIPE PRE '63 & GTS 'B'

Mark Holme (Austin-Healey 3000 MkII)

GT CHALLENGE

Paul Whight/Jake Hill (Aston Martin Vantage GT2)

JACK FAIRMAN CUP INCLUDING JAGUAR XK & MIKE HAWTHORN CHALLENGE & INNES IRELAND CUP

Roger Wills (Lotus 15)

AMOC INTERMARQUE & ASTON MARTIN GT4 CHALLENGE

Chris Kemp (Aston Martin Vantage GT4)

PRE-WAR TEAM CHALLENGE

John Polson (Talbot AV 105, below)



STYLES

For full results visit: tsl-timing.com

KNOCKHILL

SCOTTISH LEGENDS

Heat 1 Steve McGill

Heat 2 David Newall

Final John Paterson

SCOTTISH MINI COOPER CUP

Race 1 Mark Geraghty

Race 2 Vic Covey Jr

Race 3 Robbie Dalgleish

SCOTTISH CITROEN C1 CUP

Race 1 Steven Brewster

Race 2 Finlay Brunton

SCOTTISH MINI COOPER S & FIESTAS

Race 1 Oly Mortimer (Mini)

Race 2 Jack Davidson (Fiesta)

SCOTTISH FORMULA FORD 1600

Races 1 & 2 Neil Broome (Ray)

SCOTTISH CLASSIC SPORTS & SALOONS

Races 1 & 2 Alastair Baptie (MGB GT, below)

SCOTTISH SPORTS & SALOONS

Races 1 & 2 Ron Cumming (Nemesis Kitcar)



MOIR

For full results visit: speedhive.mylaps.com



Official WRC release is a credible alternative to latest rival titles

WRC 8 GETS ITS HANDS DIRTY



VIDEO GAME
WRC 8
 RRP £49.99

It's been a long wait for the next official World Rally Championship game, but Kylotonn Games' *WRC 8* is worth it. And that's utterly crucial, considering the world

of rally games is now so much more competitive.

Codemasters upped the level for what's expected from rally simulation with its sleeper *DiRT Rally* hit, before improving on an already strong first instalment with *DiRT Rally 2.0*. Considering that the last few WRC games felt like basic, no-frills and largely forgettable efforts with a lick of paint from the official WRC license, it's fair to say Autosport was sceptical about a return for the game series – especially after Kylotonn's rather average *V-Rally 4* release in 2018.

Truthfully, those fears are almost realised instantly. *WRC 8* assesses your skill before you jump into the game with a short-stage run aboard the Hyundai i20 Coupe, and it's nothing short of infuriating on a gamepad. Ridiculously twitchy, it's like trying to control an excitable Labrador. The one consolation is that the scenery is generally breathtaking, with great care and attention paid to even the smallest bit of nature, which we can admire as the i20 bounces off the terrain – realistically, but with great irritation.

But once clear of that nonsense, the game quickly reveals itself to be a marked improvement on its predecessors – particularly in the career mode. Taking elements from other motorsport games such as *F1 2019*'s development tree, *NASCAR Heat 3*'s staff allocation and *Motorsport Manager*'s resource management and then linking them together adds another layer of playability and depth. As does the

Forza-style manufacturer reputation that promises players the chance to build a legacy with a major player.

Once you clear that tutorial section, the game expands to over 100 stages across the WRC's 14 rounds, and the inclusion of dynamic weather adds another layer of strategy. For example, gamers can begin a stage in clear, dry conditions and be challenged with a sudden downpour at the end of the route, having a knock-on effect in areas such as tyre decisions. Players can tackle those stages in any of the WRC, WRC 2 or Junior WRC machinery, as well as a selection of historic cars for the first time in this console generation.

While there's still a lingering sense of the gamepad in unison with the WRC cars being too twitchy, you do eventually learn to drive around it and corrections are nowhere near as troublesome as they were in *WRC 7*. That's a testament to *WRC 8*'s development approach, in collaboration with Citroen's engineers and rally drivers to redesign the physics engine for the transmission, differentials, turbo, grip, suspension and tyre behaviour.

The game was played pre-public release, meaning that Autosport did not get the chance to sample the online multiplayer mode, although attention will have been paid to this area considering the growth of Esports.

But one thing is for sure, this is the WRC series' most complete and sim-like entry yet and pitching it against the impressive *DiRT* series can only further elevate rallying games.

TOM ERRINGTON



YouTube youtube.com/AUTOSPORTdotcom



🏁 Before his Formula 1 comeback in 2010, Michael Schumacher spent three days testing a GP2 car. Given the differences between grand prix and the slower feeder-series cars, what was really in it for Schumacher, and what did GP2 get out of it? **Go to bit.ly/SchuGP2**

autosport.com/podcast



🏁 The Autosport grand prix team reviews the Belgian Grand Prix, while Formula 2 correspondent Jack Benyon discusses the loss of Anthoine Hubert during the Spa weekend and pays tribute to a driver that he knew well.

WHAT'S ON

INTERNATIONAL MOTORSPORT

Italian Grand Prix

Formula 1 World Championship
Round 14/21
 Monza, Italy
8 September
TV Live Sky Sports F1, Sunday 1230
TV Highlights Sky Sports F1, Sun 1800, Channel 4, Sun 1900

FIA Formula 2

Round 10/12
 Monza, Italy
7-8 September
TV Live Sky Sports F1, Saturday 1535, Sun 0945

FIA Formula 3

Round 7/8
 Monza, Italy
7-8 September
TV Live Sky Sports F1, Sat 0930, Sun 0830

Porsche Supercup

Round 8/9
 Monza, Italy
8 September
TV Live Sky Sports F1, Sun 1105

Blancpain GT World Challenge Europe

Round 5/5
 Hungaroring, Hungary
7-8 September
Livestream Motorsport.tv, Fri 0930, Sat 1340, Sun 1215

Formula Renault Eurocup

Round 7/10
 Hungaroring, Hungary
7-8 September

Super GT

Round 6/8
 Autopolis, Japan
8 September
Livestream Motorsport.tv, Sun 0620

NASCAR Cup

Round 26/36
 Indianapolis, Indiana, USA
8 September
TV Live Premier Sports 1, Sun 1830

NASCAR Xfinity Series

Round 25/33
 Indianapolis, Indiana, USA
7 September

Titans Rallycross

Round 4/6
 Fuglau, Austria
8 September
TV Highlights Eurosport 2, Sun 2330

UK MOTORSPORT

Silverstone BRSCC

7-8 September
 International GT Open, Euroformula Open, Alpine Elf Europe Cup
Euroformula Open
TV Live BT Sport 3, Sat 1500, BT Sport 2, Sun 1345
International GT Open
TV Live BT Sport 3, Sat 1600, BT Sport 2, Sun 1445

Anglesey BARC

7 September
 Caterham Graduates, Hyundai Coupes, Allcomers

Cadwell Park MSVR

7 September
 Heritage FF1600, Mini Challenge, Classic Touring Cars

Brands Hatch MSVR

7 September
 Trackday Trophy, Focus Cup, Radicals, Lotus Elise, Bernie's V8s

Snetterton BARC

7-8 September
 Trucks, Pickups, Legends, Super Silhouettes, Kumho BMW

Donington Park 750MC

7-8 September
 Clio 182s, Formula Vee, Formula 1000, Toyota MR2s, RGB Sports 1000, Roadsports, 750 Formula, Historic 750 Formula, Classic Stock Hatch, Hot Hatch, Armed Forces Race, BCV8

Brands Hatch MSVR

8 September
 Focus Cup, EnduroKa, Ford Allcomers, FF1600



Italian Grand Prix

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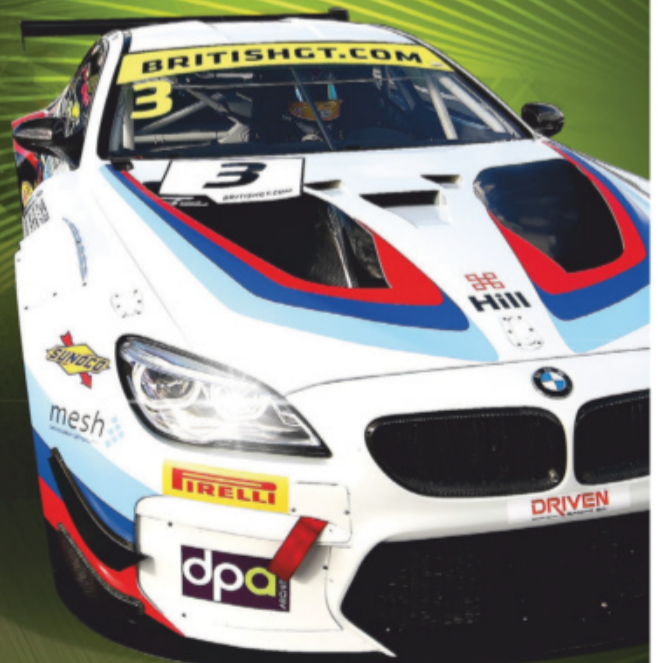
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TOP FIVE



LAST HURRAHS

KUHNS

When obsolete technology finished on top one last time as new eras arrived

MATT KEW

DESPITE CHANGES TO THE regulations, developments in alternative technology or even global political crises, these five picks extended a dying breed's time in the limelight.

5 TWO-WHEEL-DRIVE WRC

Around 300kg lighter than their World Rally Car bigger brothers and built closer to race car specification, the short-lived 2-Litre World Rally Cup sub class had the potential to cause an upset on asphalt stages. Philippe Bugalski did just that during 1999, taking the naturally aspirated, front-driven Citroen Xsara Kit Car to consecutive wins – first in Catalunya and then on the Tour de Corse. To date, it is the last time a two-wheel-drive car has won a WRC event overall. After upstaging the premier class cars, the Cup died at the end of the season.



McKLEIN

4 SUPER TOURING ENCORE

It's still regarded as the greatest era of the British Touring Car Championship, but spiralling costs and complexity killed off Super Touring in the UK thanks to a manufacturer exodus. A Super Production class had to be introduced to bolster the grid in 2000 before new BTC-T regulations were brought in for the following season. But in the European Touring Car Championship, the two-litre screamers lived on for one last season. Fabrizio Giovanardi won the 2001 title in an Alfa Romeo 156 against Volvo, Nissan, Audi, Opel, BMW and Honda competition.



3 PRE-DIESELGATE LMP1

It didn't matter that two manufacturers belonged to the same automotive leviathan, for the 2016 World Endurance Championship enjoyed a three-way fight in the LMP1 class: Porsche, Audi and Toyota. But after a \$3bn fine from the US government and plans to spend \$18bn rectifying its emissions-test-cheating cars, VW slashed its motorsport programmes. In consecutive seasons first Porsche then Audi withdrew from the WEC (maybe it did matter that two marques were from the same group), leaving Toyota to swat away the minnows on its own.



JEP

2 F1 PRIVATEER SUCCESS

After Matra's merger with Simca, Ken Tyrrell faced a dilemma ahead of the 1970 Formula 1 season. Should he switch to the new Matra V12 engine and lose both Ford (supplier of the Cosworth DFV) and Elf money, or go his own way and build his own car? With reigning champion Jackie Stewart as his driver, Tyrrell went for the latter. But he needed a stopgap while a new car was in development, and so bought a March 701 chassis. Stewart won round two in Spain, lapping every other finisher to score the last grand prix win for a privateer.



1 FRONT ENGINES ON TOP

Following the lead of its Formula 1 cousins, rear-engined machinery had shown itself to be the dynamic way forward in Indycar during the early 1960s. But thanks to AJ Foyt, front-powered roadsters enjoyed one last run in the sun. Already a winner of the Indianapolis 500, Foyt doubled his tally three years later in 1964. Early leaders Jim Clark (tyre, then suspension) and Bobby Marshman (transmission) had troubles of their own, but Foyt was there to guide his Watson-Offy to victory having led a staggering 146 laps.



PHIPPS



FROM THE ARCHIVE

Ayrton Senna (McLaren-Honda MP4/5B) leads Alain Prost (Ferrari 641/2), Jean Alesi (Tyrrell-Ford 019) and Senna's team-mate Gerhard Berger at the start of the

1990 Monaco Grand Prix. Moments later, as the charging Alesi seized second place into Mirabeau, Prost and Berger collided, causing the race to be red-flagged. Both were able to take the restart, albeit in

spare cars set up for their team-mates (in Prost's case, Nigel Mansell). Senna was peerless up front, while the pursuing Prost had to retire when his battery burst. Alesi and Berger followed Senna home.



For classic 1990s Formula 1 DVDs head to dukevideo.com/F1



QUIZ



1) Who, what, where, when?

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motorsport
IMAGES

2) Who is this?

Fast but unpredictable, this charging silverback played a cameo role in the sport's halcyon era.

From hallowed grounds he started on two wheels, a passion that remained. With a full understanding of the nuts and bolts in a family affair, domestic success came quickly after the switch to four wheels and he held his own among future greats as he made the step up to the second tier.

He marched into the top flight, where the pace was apparent but the finesse was lacking. In the right place at the right time he took his chance with both hands (although things went less well when he removed one to celebrate).

Partnered with a fellow bike lover he was the forgotten casualty of a terrible crash from which he did well to recover. He returned alongside a legendary name who had failed to move with the times.

3) On this day...

A Which maverick Frenchman made his world championship Formula 1 debut on this day in 1971?

B It's Taki Inoue's birthday. He's often regarded as one of the worst F1 drivers of all time, but what was his best finish?

C Clay Regazzoni was born on this day in 1939. He raced for five different F1 teams. Name them.

D Who scored the last of his three NASCAR Cup wins on this day in Atlanta in 2004?

E Tin-top great Andy Rouse announced his retirement from top-line driving on this day in 1994. How many BTCC races did he win?

4) Name the helmet



LAST WEEK'S ANSWERS Who, what, where, when? Buddy Rice, Lola-Zytek B05/52 A1GP, Brno, 14 October 2007. Who is this? Dan Gurney. On this day 1) Brabham. 2) Swiss GP. 3) Surtees. 4) Kawasaki. 5) Mario Moraes. Name the helmet Peter Revson.

IN NEXT WEEK'S ISSUE

ITALIAN GP

Can Leclerc win again for the tifosi?

GALLOWAY

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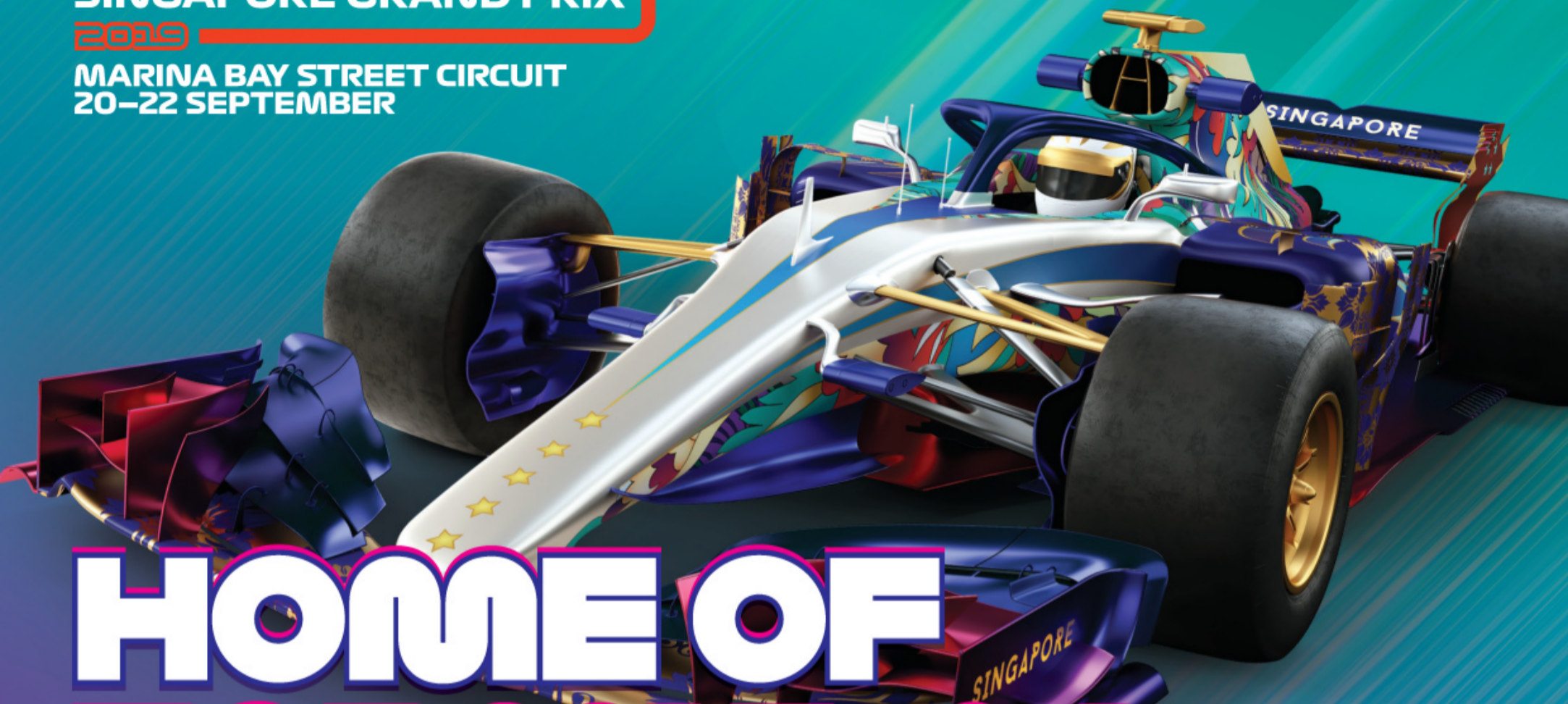
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HOW SUZUKI
IS WORKING
TOWARDS
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GLORY





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Rins (42) hunted down Marquez (93) then passed him on the line

SILVERSTONE SHOWDOWN POINTS TO SUZUKI JOINING THE BIG LEAGUE

You didn't have to be a dyed-in-the-wool MotoGP fan to appreciate the thrilling conclusion to the British GP at Silverstone last month, as Alex Rins prevailed in the joint fourth-closest finish in top class history – just 0.013s – over runaway points leader Marc Marquez.

Rins' second win of the year was also significant as the first time a Suzuki rider has managed more than one victory in a season since 2000, when the Spaniard was four years old. That's a remarkable statistic given the manufacturer's storied history in motorcycle racing that dates back to Barry Sheene's mid-1970s pomp.

But even if the Silverstone result had been reversed in Marquez's favour, the efforts of Davide Brivio's team to be regularly challenging for wins and have Rins splitting the two Ducatis in the standings would still merit recognition.

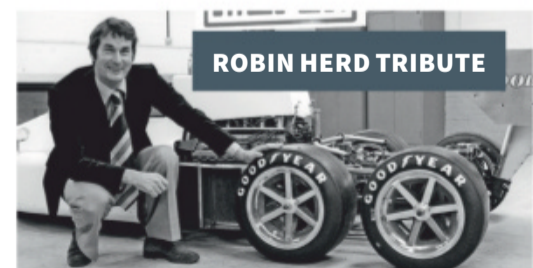
As Oriol Puigdemont and Lewis Duncan explain in the cover feature (p8), since its return from a three-year exile in 2015, Suzuki has gone about its business smartly and is now reaping the rewards. It's refreshing that a factory that doesn't have a satellite squad and has developed talent from the lower ranks rather than splashing the cash on a big name signing is flourishing, and don't rule out more eye-catching results over the second half of the year.

Another Italian success story is that of Hexathron Racing Systems (p18), the consultancy tasked with turning the unloved Infiniti Q50 into a winner in the British Touring Car Championship. That might seem like a tough ask having not turned a wheel in competition in three years prior to Snetterton in August, but if anybody can pull it off, it's Marco Calovolo's group. Watch this space.



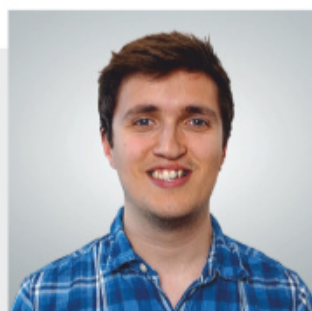
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ROBIN HERD TRIBUTE

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Hybrid systems will be on track in 2022 season, replacing success ballast

DELTA TO SUPPLY BATTERY FOR BTCC HYBRID

Cosworth partners with Silverstone-based firm for 2022 deployment

Delta Motorsport will partner with Cosworth to supply batteries for the British Touring Car Championship's hybrid system when it is introduced for the 2022 season.

Cosworth Electronics won TOCA's supply tender with a 60-volt system that will weigh no more than 64kg when the full set-up is installed. The BTCC currently uses success ballast to slow the most successful cars – that will be dropped in favour of an incremental restriction on the amount of hybrid power available to the leading drivers.

The system, which will be available on an annual lease scheme from Cosworth Electronics complete with support for £20,500, will be

equipped with batteries developed by Silverstone-based technology firm Delta Motorsport, which is best known in motorsport circles for its success in the LMP2 division of the World Endurance Championship in 2012 and 2013, as well as for the design, build and running of the GP Masters single-seater series in the mid-2000s.

Founded in 2005 by former Reynard colleagues Simon Dowson and Nick Carpenter, the company has made significant strides into the electric and hybrid sectors in recent years, having collaborated on supercars built by Jaguar and Ariel, and partnered with Gordon Murray Design on an autonomous vehicle project supported by

Innovate UK. It is also a partner in a research project funded by the Advanced Propulsion Centre (APC) that aims to improve the power-to-weight ratio in hybrid lithium-ion batteries, along with BMW Motorsport, McLaren Automotive and the University of Warwick.

"It is a very sophisticated battery system that's required – motorsport environments and requirements are a challenge and the duty cycle that the battery system goes through is a lot greater than in a road vehicle," said Dowson.

"But we will be able to utilise a technology that Delta has been developing in a high-performance vehicle application."

LYNK & CO CONCEPT CLAIMS NORDSCHLEIFE FRONT-WHEEL-DRIVE RECORD

A road-going version of the Lynk & Co WTCR racer has set new Nurburgring Nordschleife lap records for the fastest front-wheel-drive and fastest four-door vehicle.

Developed by Cyan Racing, the competition arm of the Geely Group that owns the Lynk & Co, Volvo and Lotus brands, the 528bhp 03 Cyan Concept lapped in 7m20s with 2017 World Touring Car champion Thed Bjork at the wheel. It was three seconds quicker than the Jaguar XE SV Project 8's previous record for four-door cars, and 25s faster



Bjork set records in road-going version of WTCR racer

than Renault's front-wheel-drive record with the Megane R.S. Trophy-R set in May. The 03 Cyan Concept is set to undergo further development during the rest of

the year before it is made available for limited sale.

Bjork said: "The record that we achieved here is something I rank on the same level as my racing

titles and a highlight in my part of transitioning development from race to road cars."

Having gained experience in TCR last year staffing the Yvan Muller Racing Hyundais, Cyan's return to top-flight touring car racing with WTCR newcomer Lynk & Co has been a qualified success so far. Bjork has won three races and currently sits third in the standings.

Meanwhile, Porsche has also set a Nordschleife record for a four-door electric car with its Taycan model. Driven by Lars Kern, it lapped in 7m42s.

SUPERCARS DEVELOPING IN-CAR WARNING LIGHT SYSTEM

The Australian Supercars championship is planning to introduce a dashboard warning light system as an additional safety aid next year, following the adoption of a similar system at the Bathurst 12 Hour in February.

The topic of in-car warning systems, which would complement trackside yellow flags and lights deployed by race control to warn drivers of hazards on the road ahead, was raised by Supercars and Australian motorsport governing body CAMS after the race-ending shunt in last year's 12 Hour when an unsighted John Martin

T-boned the stricken Audi of Ash Walsh at the top of the Mountain. Both avoided serious injury.

After MoTeC developed a warning system that was fitted to every car in the 12 Hour, Supercars has commenced work on its own system, which could be incorporated into the 2020 rules outlined in September.

Red Bull Holden driver Shane van Gisbergen said the system would be "a big improvement".

"I've had it in America in the past and it works really well. Everyone just shuts it down when they see a yellow and it's the way we've got to go."



Drivers will have advance warning of on-track incidents

IN BRIEF



AVL SIGNS GARCIA TO YOUNG DRIVER PROGRAMME

Austrian engineering giant AVL RACING has signed W Series race winner Marta Garcia (above) to its young driver programme. The Graz firm, which provides manufacturing, simulation and testing solutions to race teams across all motorsport disciplines, has provided drivers with training opportunities since 2012. Garcia joins DTM racer Ferdinand Habsburg on the programme, and will assist in developing projects using its state-of-the-art simulator, linked up to a full-vehicle testbed, while benefiting from its engineering expertise. AVL RACING director Michael Resl told Autosport: "She makes a super impression in the sim and has potential to go beyond W Series in future."

LOTUS T125 PROJECT REVIVED BY RODIN CARS

The Formula 1-inspired Lotus T125 single-seater track car project has been revived and could form the basis of a new one-make championship.

David Dicker is the CEO and chairman of Dicker Data, an Australian computer hardware company that bought the rights to the project in 2016. Styled like a mid-2010s F1 car, the renamed Rodin FZED has been re-engineered with a new Neil Brown-developed engine, titanium 3D printed steering wheel, brakes and tyres.

Built and tested at a private facility in New Zealand, five FZEDs are expected to be built and sold for \$650,000. They have been granted eligibility in local Formula Libre races as well as in the BOSS GP series.

"The Rodin FZED is a far more practical and durable proposition compared with buying and running an historic grand prix car," said Dicker. "We have significant plans to expand Rodin Cars in the future. This is a serious, maximum high-performance track-car building business."



MoRe Modena Racing excelled at Silverstone



ITALIAN UNIVERSITY PREVAILS IN FORMULA STUDENT

MoRe Modena Racing became the first Italian team to win the UK edition of Formula Student in July, as the University of Modena and Reggio Emilia beat over 100 undergraduate squads from 20 countries at Silverstone. MoRe's petrol-engined M19L scored maximum points in the endurance and acceleration tests, and placed second in the autocross and design categories. MoRe also entered a hybrid that won the best powertrain installation award, finishing 39th overall.

Oxford Brookes held onto its runner-up spot from last year and was again the best-placed British university, while the universities of Loughborough, Huddersfield, Aberdeen, West of England and Hertfordshire featured in the top 10. Huddersfield's rise from 69th last year to sixth was recognised with the breakthrough award.

Following demonstrations of AI technology in 2018 commissioned by organiser the Institution of Mechanical Engineers, the inaugural AI class attracted four entries, headed by the University of Edinburgh. The University of Portsmouth's team, founded in 2017, took Class 2 honours ahead of a planned graduation to Class 1 next year.

PORSCHE REOPENS NARDO TECHNICAL CENTRE

The Nardo technical centre in Italy has been reopened after seven months of renovation work. Porsche Engineering Group, which has owned the complex since 2012, resurfaced its famous 7.8-mile circular track and installed new guardrails designed for the high-speed tests conducted there by its customers. The site was first opened in 1975 and was the scene of Niki Lauda's test in the six-wheeled Ferrari 312T6 in 1977, although the car never raced.

EX-PENSKER MAN JOINS FORMULA E CHAMPIONS

Veteran British engineer Nigel Beresford (below left) has joined title-winning Formula E squad DS Techeetah as team manager ahead of the 2019-20 season. Beresford is best known for his spells at Penske, as race engineer and latterly as technical director, and for engineering Jean Alesi at Tyrrell. He had led the Dragon FE team since its inception in 2014 as technical director and race engineer Jerome d'Ambrosio to fourth in 2014-15, but they parted company in 2018.





DRIVING CHANGE
LUCAS DI GRASSI

WHY THE FIRST
AUTONOMOUS OVERTAKE
CAN'T BE IGNORED

Momentum is building towards Roborace's first season of competition in 2021, and there's a lot to get excited about

Staging a race between autonomous race cars was much harder than anyone thought, so it was exciting to see a first autonomous overtake on the race track at Montebianco in April. But the hard work is only just starting.

Roborace is pretty much the only company in the world doing complex vehicle dynamics work with autonomous drivers above 200km/h (124mph), but we don't have a team of hundreds of people or a budget running into the billions of dollars that some global OEMs in the automotive and technology sectors – such as GM, Ford and Google – have.

What we do have are teams of PhD university students working with us

to push the limits of these technologies to advance the software at a more rapid pace.

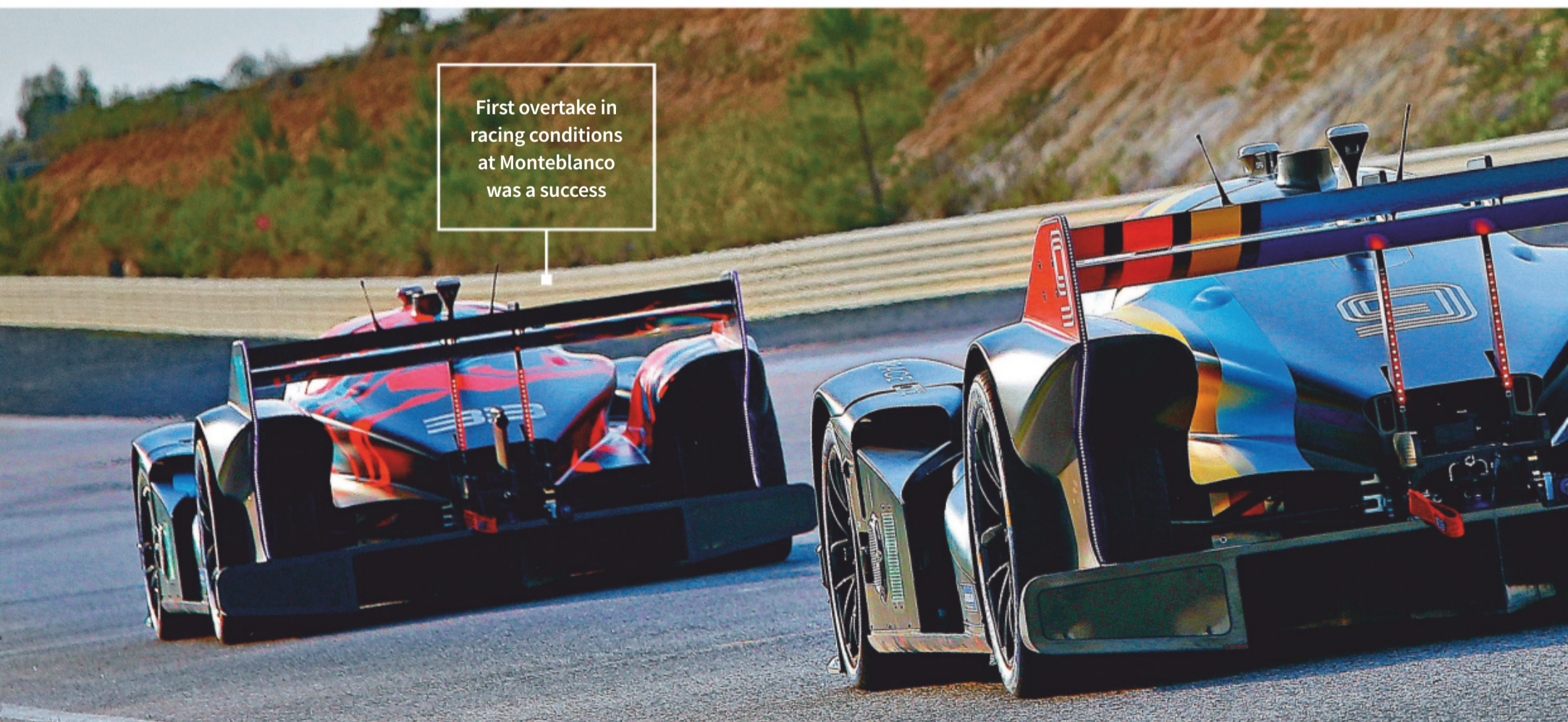
Before Season Alpha the focus was on developing the hardware for an autonomous racing series. It's like Formula E in the beginning – since there were no electric race cars, there was no competition of electric race cars and there was nobody making electric race cars. That chicken-and-egg scenario sums up the situation facing autonomous motorsport at the moment. First, we had to develop the cars that would compete in an autonomous series.

We're currently using our rear-driven twin-motor DevBot 2.0, which has allowed us to experiment with formats that involve a human driver. We also have Robocar, a

four-wheel drive, fully autonomous 700hp vehicle that ran successfully on the Goodwood hillclimb last year.

At this stage, all the cars used for testing are leased and operated by Roborace, so we're providing the teams with the hardware in return for them improving our base algorithm. In the meantime, the car is also improving as, for example, we understand what kind of LIDAR sensors work – because the best-developed sensors have been for road, rather than race applications – so we've been learning for the past two years a lot about the hardware and software it needs.

Now we have the hardware, Season Alpha has been about developing the software alongside the teams taking





part. It's a huge test, but we're happy that already we can control the car at over 250km/h on the track and saw our first autonomous overtake, which was almost like a DRS scenario where the car behind was faster and triggered extra power on the front straight while reducing the power from the car in front.

The way I see it, somebody always has to be the first to do something and we are very proud that we are the first taking autonomous cars into a competitive environment. I can say with a very high likelihood that motorsport in 50 years will be very different and, for safety reasons, higher levels of autonomy will be implemented almost everywhere. This is unavoidable and as I see it, there is no

way that the big companies can ignore autonomy because it will be fundamental to the success of their businesses in this new scenario of mobility.

Going into 2020 and Season Beta, we will be continuing to develop the software and new teams, such as TU Graz, will join the competition, but we will also be developing the entertainment proposition. What should autonomous racing look like?

Since another successful demonstration at the Goodwood Festival of Speed, conversations are picking up with companies eager to find out how they can be involved with the series – including CEOs from some of the biggest names in the sector, and I anticipate that Roborace can be much more mature in the years to

We don't exactly know how Roborace will be in 10 years, but there are definitely huge possibilities that nobody has thought of yet, so we have to keep an open mind and be flexible in our way of operating.

For example, in endurance racing we are looking at how a driver could teach the car in the first stint of the race and then jump out, leaving the car to drive itself from what it learned before the driver gets back in, doing one stint at a time. We also think it would be interesting to have different races at the same time, like at Le Mans where you have different classes together, so then the car has to negotiate and overtake, which will lead to a very intense algorithm.

We don't anticipate that autonomous racing will ever replace human racing. Even if Deep Blue beat Gary Kasparov at chess in 1997, people still want to know who plays better chess – me or you – so it's not going to replace motorsport as we know it, but add something different that people can enjoy for its own merits.

Roborace is definitely ahead of its time, almost like if Formula E had started in 2010. When we started, an autonomous driven DevBot was 15 or 20 seconds per lap slower than a human; it wasn't even a comparison. Now it's only around 3% slower, which over a lap time of 60 seconds is around two seconds. That's already on the level of a Bronze driver at Le Mans.

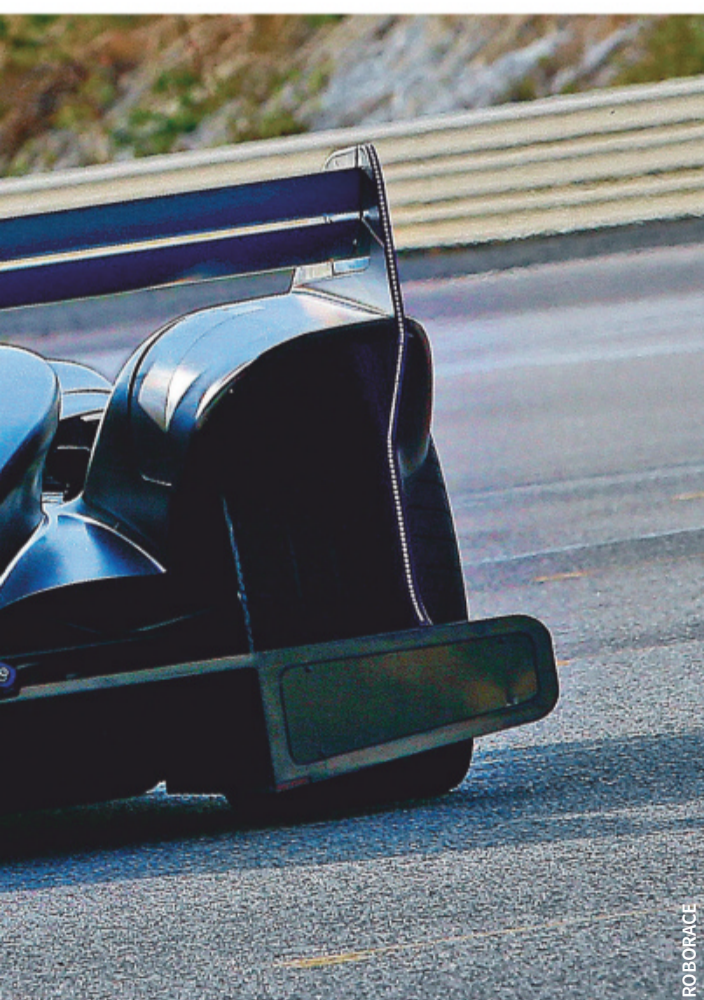
It will take more time and effort than previously thought for an algorithm to be faster than a top driver with the same car because now the improvements are coming slower. But we've been driving for many years and the car has only been driving for three, so it's not a fair comparison yet. The tendency is only to get better, the algorithm does not get worse and could evolve indefinitely for decades to come. Then it will be very interesting to understand the consequences. ■

“There is no way that companies can ignore autonomy because it will be fundamental to their success”

come as the autonomy world matures too.

Competition is inherently good to make technology evolve, and will also help manufacturers improve public trust in autonomous technology. We are talking to many traditional motorsport environments about how Roborace can bring a whole new element to their existing competitions – and in the process attract a new demographic of fans.

DevBot 2.0 has an LED display showing the emotions of the car in that moment and has loudspeakers so teams can program their own sound to interact with the public. The possibilities are endless.



GOING ITS OWN WAY HOW SUZUKI'S SMART PHILOSOPHY IS REAPING MOTOGP SUCCESS

Suzuki's best season since 2000 owes much to following its own convictions
BY ORIOL PUIGDEMONT AND LEWIS DUNCAN

Alex Rins' recent victory at Silverstone carries with it a series of connotations way beyond the last-corner move that the Suzuki rider put on Marc Marquez. First, the result puts the Spaniard into third place in the championship, 23 points behind Andrea Dovizioso. Along with Marquez and Dovizioso, Rins is also the only rider with two wins to his name this season, and given that his chances of fighting for the title remain mathematically alive, as much as they are remote, his performances throughout the campaign so far can only mean that the title has to be the next target for the Hamamatsu factory.

Suzuki has always been something of an oddity. Willing to strike back-room deals to get Ernst Degner to defect from East Germany with MZ and Walter Kaaden's two-stroke secrets under his arm in the 1960s so it could transform its own 125cc machine's fortunes, Suzuki's top brass have displayed an unwillingness to commit fully to its grand prix project in the premier class – witness the three-year hiatus from 1984 to 1986, and again from 2012 to 2014.

However, its biggest signal of a change in philosophy came at the end of 2018 when the company created a separate race division – an administrative and organisational decision, but one that reinforced its current commitment to the MotoGP project.

Following the path that larger Japanese rival Honda has ploughed for decades with the Honda Racing Corporation, the Davide Brivio-run Suzuki team – based in Milan – no longer has to wait to be given the green light when it has requests: it now has its own budget to crack on with.

“Suzuki have always been good at getting the best out of their resources,” 1993 500cc world champion and Suzuki legend Kevin Schwantz remembers. “Let's say that they are more efficient with what they have than the others, although this means that certain processes get held up more. I remember in my day when we asked for a new part, it could take four races for it to come, while Honda could have one ready for the following week.” ▶





The last time Suzuki won more than one race in a season was in 2000, when Kenny Roberts Jr claimed his first and only title – which remains the most recent for a factory that had experienced glory in each of the previous three decades with Barry Sheene in 1976 and 1977, Marco Lucchinelli in 1981, Franco Uncini in 1982 and Schwantz in 1993.

The situation right now, however, is very different. Roberts' four victories at Sepang, Jerez, Catalunya and Motegi were enough to win the championship in a season that featured almost as many wet races as dry. Five-time champion Mick Doohan had already retired, Valentino Rossi was in his rookie 500cc season and the physical issues that forced Alex Criville into retirement in 2002 were starting to plague the defending champion.

“The world championship in 2000 was nothing like what we have now,” explains Criville, who became Spain's first premier-class world champion in 1999. “Kenny's bike had great traction in the wet and he was a specialist in those conditions. The situation now is very different because Suzuki has built the most balanced bike on the grid.”

It's also worth noting that Roberts won on a bike that had its own Team Roberts-developed chassis, and engine cylinders and expansion chambers tuned by Bud Aksland in his California workshop.

Suzuki's first four-stroke bike in the MotoGP era – the GSV-R V4 – was a fairly difficult machine. But, like the RGV500 Roberts won the 2000 title on, it was a solid bike in the wet and helped propel Chris Vermeulen to its and his only MotoGP win in a sodden French Grand Prix in 2007. The V4 is generally a faster engine: Honda and Ducati currently run V4 variations, and both have annexed the top of the speed-trap tables. After Suzuki pulled out at the end of 2011 due to financial issues, it returned with a changed engine philosophy, opting instead for a Yamaha-esque inline-four.

But while both Yamaha and the GSX-RR lack the grunt of the Honda and Ducati,

they do have the better-handling chassis. Suzuki now arguably has the most neutral bike on the grid, thanks largely to its belief that more can be reaped from a bike that handles better than one that simply goes quickly in a straight line. The compact design of the inline-four allows engineers to build a frame how they want, rather than what's dictated by accommodating the larger V4s. Suzuki's chassis is a carbon-covered aluminium design that aids turning and traction, which most other manufacturers have been replicating since its introduction as an evolution of the all-aluminium design in the second half of last year.

Ducati is famed for its impressive speed, but is also infamous for its lack of mid-corner turning. Honda brought a new engine for this year with power to

match its Italian rival and, while it has succeeded in this area, the RC213V has also become much harder to turn. It makes the fact that Marquez is dominating the championship even more impressive.

At Silverstone last month, Marquez had to compensate for the RC213V's front-end deficiencies by turning the bike with the rear tyre. This ultimately chewed up his rear rubber more – as did his desire to thin out the chasing pack by pushing from the off – and prevented him scampering away from Rins despite having a power advantage. Rins could utilise the GSX-RR's brilliant handling to hunt the Honda in the corners, and kept him at arm's length out of the turns by opening the throttle earlier. Throw in the Suzuki's greater braking stability – another benefit of its chassis – and the result was a thrilling win by 0.013s.



Rins (left) beat Marquez in epic MotoGP finish at Silverstone last month



Suzuki's recent history has been dogged by underachievement

HEATH
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Rins has revelled in the responsibility of leading Suzuki's challenge



SUZUKI

“We have to be creative if we want to fight with our rivals”
Daive Brivio

All of these elements were robbed from the bike in 2017 when then-lead rider Andrea Iannone selected the wrong engine pre-season. To ensure this didn't happen again, Suzuki set up its own European-based test team last year headed by 2014 World Superbike champion Sylvain Guintoli and experienced crew chief Tom O'Kane.

O'Kane has been around the grand prix paddock for decades, and introduced the first datalogging kit in the 500cc world championship to – ironically – Kenny Roberts Sr's works Yamaha team in the late 1980s. The experience of both O'Kane and Guintoli has been pivotal in steering development of the GSX-RR into the genuine threat it is now.

A European test team spearheaded by an experienced hand is nothing new. Ducati

has made best use of this for years with Michele Pirro – a man whose pay cheque deserves an extra zero with each passing season. Honda has since set up its own, with Yamaha following suit this year having previously only had a Japanese test team.

In essence, Suzuki is cherry-picking the key elements that have made its rivals successful and is adapting them to suit its own relatively small-by-comparison operation. In the ultra-tight current era of MotoGP, working smarter is worth just as much as making radical steps.

“We have to be creative if we want to fight with our rivals,” team boss Brivio explains. “We have a great team of engineers in Japan, who are very efficient and have come up with a motorcycle that I think is very well balanced. An in-line four-cylinder engine needs a very particular kind of chassis and it is delivering a very interesting level of performance.”

The philosophy at Suzuki is completely different from its Japanese rivals in Honda and Yamaha, as well as Ducati, in terms of investment strategy, operational matters and rider management. Brivio's current focus is to sign young riders like Maverick Vinales – now at Yamaha – Rins and his rookie team-mate Joan Mir, then develop their talent. Rins and Mir, the 2017 Moto3 champion, are the youngest factory line-up on the grid.

This is equal parts brave and “creative”.

Plucking fresh talent from Moto2 is a risk, but one that can pay off handsomely. It was Vinales, signed by Suzuki in 2015 after only a single year in Moto2, who delivered the company its first MotoGP win since its return at Silverstone in 2016, and not experienced team-mate Alex Espargaro. And it was 23-year-old Rins, also put straight on a factory bike when plucked from Moto2 in 2017, who delivered under immense pressure at Austin and Silverstone to give the factory its first brace of wins in a season since 2000. Yamaha, Honda and Ducati on the other hand haven't put a rookie on one of its works-team bikes since Marquez stepped up with Honda in 2013.

One thing Brivio leaves no doubt about is that Suzuki will not go down the route taken by Honda, Yamaha or Ducati in terms of making a big-money rider signing, as the Italian factory did with Jorge Lorenzo in 2017, or as whoever tries to prise Marquez from Honda will have to do.

Impressively, Suzuki has got into its current position without the support of a satellite team. Honda has LCR's Cal Crutchlow carrying out development work at every round on a works RC213V, while Ducati has given Jack Miller factory machinery at Pramac. Even Yamaha has altered its mentality and has given a works bike to Petronas SRT's Franco ▶



GSX-RR benefits from excellent handling

GOLD AND GOOSE
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“Suzuki has arguably built the perfect bike”

Morbidelli, and works parts to team-mate Fabio Quartararo, while this year KTM added two more works bikes to the grid with Tech3.

Suzuki came close to joining forces with Marc VDS for this year before the Belgian outfit withdrew from MotoGP. While Suzuki is now in a position to challenge for regular wins, it's clear it has to field a satellite team if it wants to make that final step.

Asked about the possibility of a Suzuki satellite team in 2021, Brivio is unsure of exactly how to answer. “It would help accelerate the development of the bike, that much I am optimistic about,” he concedes, carefully.

Suzuki hasn't had an official satellite partner since the 1980s, with its management never quite willing to lay down the budget for two more machines.



Dovizioso, Marquez and Rins are the only riders who have won twice this year

GOLD AND GOOSE
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However, the setting up of the Suzuki Racing Corporation now makes this a realistic possibility.

To be successful in motorsport you have to have the best machine. But that doesn't necessarily mean it has to be the fastest. Suzuki has spent the past couple of seasons extracting enough power from its engine to mitigate its loss on the straights relative to its V4-powered rivals in Honda and Ducati without compromising its key strength: its chassis.

That can only be achieved by working in a considered manner, which is something Suzuki – despite its prior title successes – seldom achieved pre-2015. But by taking a step back and looking at what has made its rivals so successful, and adopting new philosophies in all areas, Suzuki has arguably built the perfect bike. Now nearing a title tilt with Rins, perhaps Suzuki is the reference for Aprilia and KTM to follow as they look to establish themselves as consistent podium challengers. ■

KTM AND APRILIA – STUDIES IN SINGLE-MINDEDNESS

MotoGP's newest manufacturer KTM is attempting to do something only one manufacturer has previously done in MotoGP: win the world championship on a steel frame. Casey Stoner propelled Ducati to its one and only premier-class title on a Desmosedici running a steel-trellis chassis in 2007 before the concept was ditched in 2009.

Yet since its arrival at the final race of 2016, KTM has persevered with the steel-chassis philosophy, having used it to dominate in off-road disciplines and win three Moto3 titles since 2012. In such a tightly regulated series, finding a technical edge isn't easy. KTM's rivals expect it will have to ditch the steel frame one day, but this goes against the Austrian marque's ethos, as its CEO Stefan Pierer (right) explains.

“If we follow Ducati's path, we'll lose,” he says. “We will never leave aside the tubular chassis because it is one of the main advantages of our bikes. You gain flexibility and lose weight, that's how we dominate the motorcycling world in many disciplines. We needed 11 years to win in Supercross, but when we got it we won five titles in a row. We needed seven to do the same in the Dakar, and now we've taken 18 titles in a row. We'll maybe need 10 [years], but sooner or later we'll dominate in MotoGP too.”

KTM's progress in MotoGP has been rapid.



From 3.5s off the pace in its debut, it slashed its deficit to 0.8s by the end of 2017 and managed its first podium at a wet Valencia last year. It has continued to chip away, with Pol Espargaro just 5.9s from the win in sixth at Le Mans in May. The RC16 may not be easy to ride, but KTM's belief in its approach could one day lead to a steel future in MotoGP, if Pierer's predictions are realised.

One team a long way off that is Aprilia, which joined Suzuki as a factory returnee in 2015.

MotoGP's smallest manufacturer spent last year chasing its tail as a revised engine threw its sweet-handling chassis out of balance. It had improved this by the end of the year, taking sixth at Aragon, but Fausto Gresini's team has only four top 10 finishes so far this year and looks no closer to bridging the gap to the podium.

It stands to reason that an Aprilia satellite operation to carry out development may have allowed it to resolve its issues sooner. Instead it has shunned this approach in favour of building a strong test team that can contest wildcard races to a high level.

But the more a test team focuses on racing, the less it can focus on development. KTM no longer does wildcards for that reason, especially after losing its sole tester Mika Kallio last season to a knee injury sustained in a crash racing in Germany. KTM isn't missing them either, as the two Tech3 bikes give it 19 races worth of data.

Aprilia has hired ex-Tech3 and KTM rider Bradley Smith as its tester this year – a solid if unspectacular choice, whose desire to return to full-time racing mean he is unlikely to be onboard long-term. Single-mindedness may be working for KTM, but what's good for the goose isn't necessarily good for the gander in MotoGP, and Aprilia will eventually come to realise this.

LEWIS DUNCAN



TECHNICAL EXPERT
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Ask Gary

Autosport's technical expert answers your questions in a monthly online feature for Plus subscribers. We've selected a few of the best recent ones

You've written in the past about how in a wet race you need to adjust the set-up to give better grip in adverse conditions. But what effect does the moisture in the air have on the aero effect? Is this noticeable in high humidity as well as rain? *Matt Buck, via email*

The atmospheric and track conditions that yield the biggest differences from a car are cold, damp conditions (not wet) and hot, dry conditions.

The car will produce more downforce in the cold conditions and that downforce will be more robust to any airflow separation problems. In the hot conditions, everything will get that little bit worse and small airflow separation problems – which every car has somewhere on their downforce-producing devices – will become more of a problem.

That's why if a team wants to impress during testing, they will always go for a quick lap time early in the morning, or last thing at night – but not in the midday sun.

When it's wet with some standing water,

the rideheight of the car needs to be increased, especially at the front – which basically runs more or less on the ground in the dry – otherwise the car will be very pointy and can suffer from aquaplaning. The intermediate and wet tyres are both a step bigger in diameter than the slicks, so this happens automatically when the tyres are fitted.

Also, normally a team will either increase the rear downforce if it has the capability, or decrease the front wing angle. This is because in the wet you don't want the car to be on the edge of oversteer, you just need the confidence of that minute amount of understeer to allow the driver to commit to the corner carrying more speed.

The aerodynamic changes for the wet are not for better grip, they are for better balance. Mechanically, you might also soften the rear anti-roll bar, but with the regulations as they are that's just about it other than the electronic set-up of the differential. After that it's down to the drivers and their feel for the grip levels, which is where Lewis Hamilton is exceptional.

SUTTON



Hamilton's 2018 Hungarian GP pole was a perfect case of driver and car in tune

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Optimal lap times in testing are achieved early in the morning or late in the day

Assuming the regulations for 2021 will be finalised in October, is 14 months (November 2019 to December 2020) enough time for the teams to prepare?

Tono Villalobos, via Twitter

I'm pretty sure that before anything gets agreed for 2021, what we have seen so far will be dramatically diluted. But 14 months is not a long time for a completely new concept. Normally, if the regulations are staying the same, or with visually minor but aerodynamically major changes like we have had for the 2019 season, research will always be ticking away in the background and some time will be allocated to researching what the changes might do to the current package.

That initial research would start about nine months before the car is due to run and this gives you some thinking time. But there will usually be a switch and a higher degree of focus on the new cars at least six months before they are due to



Mercedes' staffing level means it is better able to react to rule changes

MERCEDES

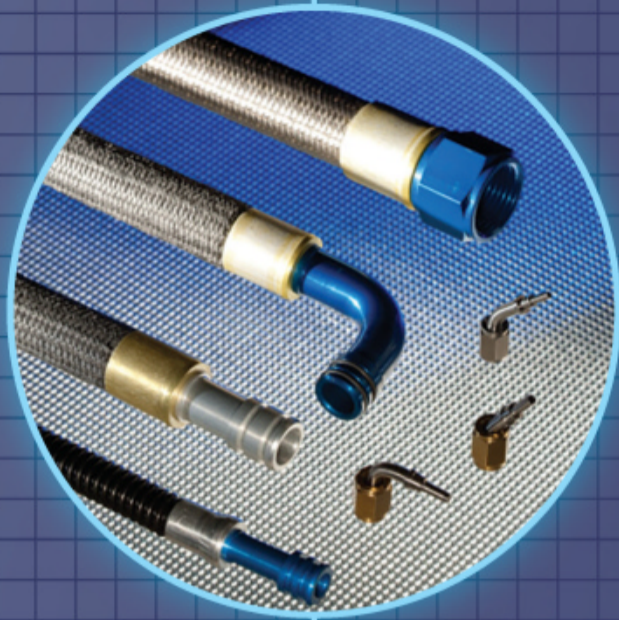
test. With a new concept that is anything like the proposals that we have seen for 2021, it will need significantly more time otherwise, once again, the rules will favour the bigger teams with more manpower.

The unfortunate thing is that the bigger teams have the weight to delay the decisions, leaving the smaller teams to make choices later and spend lots of money just getting a car together for the start of the 2021 season. Those smaller squads will then have to spend again

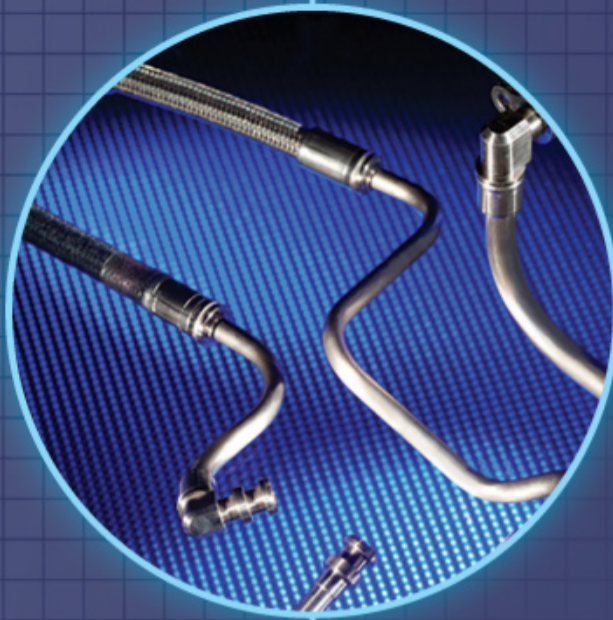
on developments, just to get up to where they would have been if the regulations had been decided earlier.

Perhaps a simple regulation could be introduced based on team headcount. Let's say Racing Point has a total of 450 people, so it gets the regulations one year before the first race. A team like Mercedes, which let's say has three times as many people, gets the regulations four months before the first race. Something like that might just level up the grid. ►

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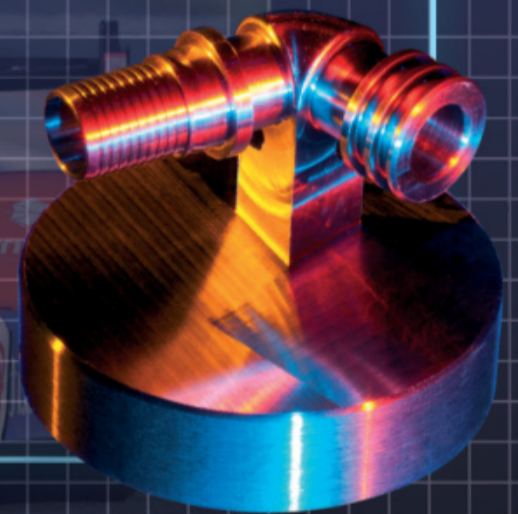
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Jordan 191 had a design team of three

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F1 teams are so big now, can it really be possible for a technical director to be across everything involved in the car, and is this problem a reason why so many teams underachieve? In your time, were you able to be and how did it change over the years that you were in the role? *David Stephens, via email*

When we started to design the Jordan 191 in 1990, there were three of us – Andrew Green, Mark Smith and myself. That’s nearly 30 years ago and the team, now called Racing Point, probably has 150 people doing the same job. In my time, it probably went from those three being the design team to around 25, so not really a major change, but still it made it much more difficult to have your finger on the pulse in all areas.

Things have changed dramatically over those 30 years. Racing Point will have around 150 people, but Mercedes or Red Bull will have well in excess of double. The cars are much more complicated and it does take a lot more people to detail everything, but managing it must be a nightmare. The team that creates the car will be divided into lots of smaller groups, so it all ends up as a fir-tree-shaped organisation. But there still has to be someone at the top steering the ship.

Many teams have tried and failed to create a flat structure, with perhaps 10 people or even more all having the same level of authority. With the egos involved in F1, you don’t have to be a brain surgeon to work out that this style of organisation was doomed to failure. All the systems that make up the car are as important as each other, but there still needs to be a priority. Currently, aerodynamics rules the roost so it gets the number-one priority and after that everything else falls into place.

If you take the Red Bull structure, Adrian Newey is the chief technical officer and below him there will be many other people all heading up the various systems that make up the car. They will all be pulled together by a technical manager – or perhaps more than one – whose responsibility is to make sure that everyone is pulling in the same direction. If they have any problems achieving their objectives, Adrian is informed.

If for some reason it doesn’t all pull in the same and correct direction, then that is when a team underachieves. More importantly, it loses its way and takes time to understand where it all went wrong.

McLaren is a good example of this. In the Honda years it had a fairly flat technical structure, but now that has changed. Everyone knows what the objective is and who they report to, so it’s just a matter of getting on with it.



Changed technical structure has aided McLaren’s recovery

TEE

F1 cars have grown ever larger in recent years, so is there a case for limiting the total length and also reducing overall width slightly?

Sven Orup, via email

Everything is possible, but change is change and it costs a lot of money for the teams, especially the smaller ones that are basically still fighting to exist.

In reality, the increase in width brought in for the 2017 season should never have happened. It was completely unnecessary, as it was always going to make the cars take up more of the track width, but at that point in time the philosophy was all about making them as fast as possible with as much downforce as possible. Now, it’s all change once again for 2021 and less downforce produced more consistently, especially in traffic, is the order of the day.

All that said, I think the cars actually look like racing cars for the first time in many years. Gone are those stupid-looking, narrow and high rear wings that were at one point in time going to fix all the problems of the loss of downforce in traffic.

I don’t really see the need for shorter cars, or the need to put the driver’s feet in front of the front axle. I’m not sure what that will do for the show. As the regulations stand, the cars can be shorter but a maximum overall length at whoever has the longest car currently would probably do no harm to limit it for the future.

Until now, the regulators have been very good at introducing changes that have done very little for the overall show but cost the teams huge amounts of money. Yes, we still get some great races but we also get some pretty bad ones. This is the area that needs to be addressed – while we have the fastest car on a Saturday afternoon starting on pole, if everything goes as it should, then I see no reason for the races not to be a procession. ■



Narrow, high rear wings failed as a panacea for F1’s woes

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JEP



Calovolo (left) ran Giovanardi to multiple tin-top titles in late 1990s and early 2000s

SUTTON



Thompson won both WTCC races at Valencia in ageing Alfa in 2007

THE HIDDEN ENGINEERING CONSULTANCY THAT MAKES TIN-TOP WINNERS

Italian engineering group Hexathron Racing Systems is making waves in the BTCC and overseas

BY MATT JAMES

One of the key factors that a driver will assess when they look to do a deal with a racing team is the engineering strength behind that particular operation. It is a vital cog in how well a squad will perform from weekend to weekend, and also an indicator as to how a season will run, particularly if there are obstacles to be overcome.

This is something that generally takes place with a team of in-house brains, but veteran Italian engineer Marco Calovolo figured out a new way of helping teams to perform at a higher level 10 seasons ago, when he founded Hexathron Racing Systems.

Calovolo's history in motorsport dates back to his time as a technician on the Lancia Deltas that won four out of five world rally championship drivers' titles between 1987 and 1991, and includes a stint with Minardi as Ukyo Katayama's race engineer in 1997. But he is best-known for his work with N.Technology, running Alfa Romeo and Honda machinery in the World Touring Car Championship, and it was his time there that spurred the idea for Hexathron.

Having gathered together a crack group of engineering brains, the N.Tech project came to a halt when Honda withdrew from tin-top racing in 2009. Calovolo didn't want to squander the talent pool that he had created and so started to think about how to capitalise on it.

The firm, which is based in Milan,

a stone's throw from Monza, is effectively a one-stop shop for engineering back-up. Teams can approach Hexathron, which has the capability to provide high-level engineers to any operation that comes calling. That means they can help turn an average team into a race-winning one with a roster of back-up that is unrivalled, and one which would cost a team a small fortune if it was to collect together that level of talent off its own bat.

It was the relentless success with Alfa – where Calovolo masterminded multiple titles with Nicola Larini, Fabrizio Giovanardi and Gabriele Tarquini in Italy, Germany, Spain and Europe, including a lockout of European Super Touring and S2000 championships between 2000 and 2003 – that was the underpinning of the reputation Hexathron established and has gradually been rolled out over many other global series.

From its early beginnings supporting Alfa racer Mattias Andersson in the Swedish Touring Car Championship and running Danish Honda team Hartmann Racing to European Touring Car Cup glory with James Thompson, Hexathron is now a multi-faceted company reaching around the world. It is a major player in the British and Chinese Touring Car Championships and has a number of programmes in one-make sportscar championships. That led it to long-distance races, including the Nurburgring 24 Hours with niche US manufacturer Glickenhaus, and it supported the Ebimotors team at Le Mans in 2018 with a Porsche 911 RSR driven by Fabio Babini, Christina Nielsen and Erik Maris.

Calovolo, who is chief executive officer of Hexathron, has worked with Ciceley Motorsport's Adam Morgan on his Mercedes A-Class in the BTCC since 2016. Although he's recently parted ways with the team, Calovolo has overseen the engineering of the hatchback, which has been a multiple winner in the series. His colleague Federico Turrata works with Aiden Moffat, who until this year was part of the same Ciceley stable. Moffat and the Laser Tools Racing team ran a Mercedes until the mid-point of the 2019 campaign, when it switched to running the rear-wheel-drive- ▶



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Hexathron has also been represented in sportscars with the Ebimotors team

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specification Infiniti Q50 – a decision taken in full consultation with Hexathron, which had crunched the numbers back at HQ and convinced Laser Tools Racing boss Bob Moffat to take the leap.

Switching to the Infiniti, which had not been raced since it was originally campaigned by Support Our Paras Racing in 2015, was a left-field choice, and Moffat has yet to score a point with the Q50 after two rounds. But the underpinning engineering advantages of the car's layout was something that Hexathron spotted when it checked out the dynamics of the machine on its high-powered computers, and it anticipates that the long-term payout will make up for the short-term struggles.

This ability to do the groundwork away from the circuit, cutting out the need for miles and miles of big-budget testing, is one of Hexathron's key strengths and a huge advantage for any team that is looking to make a step forward without deep pockets.

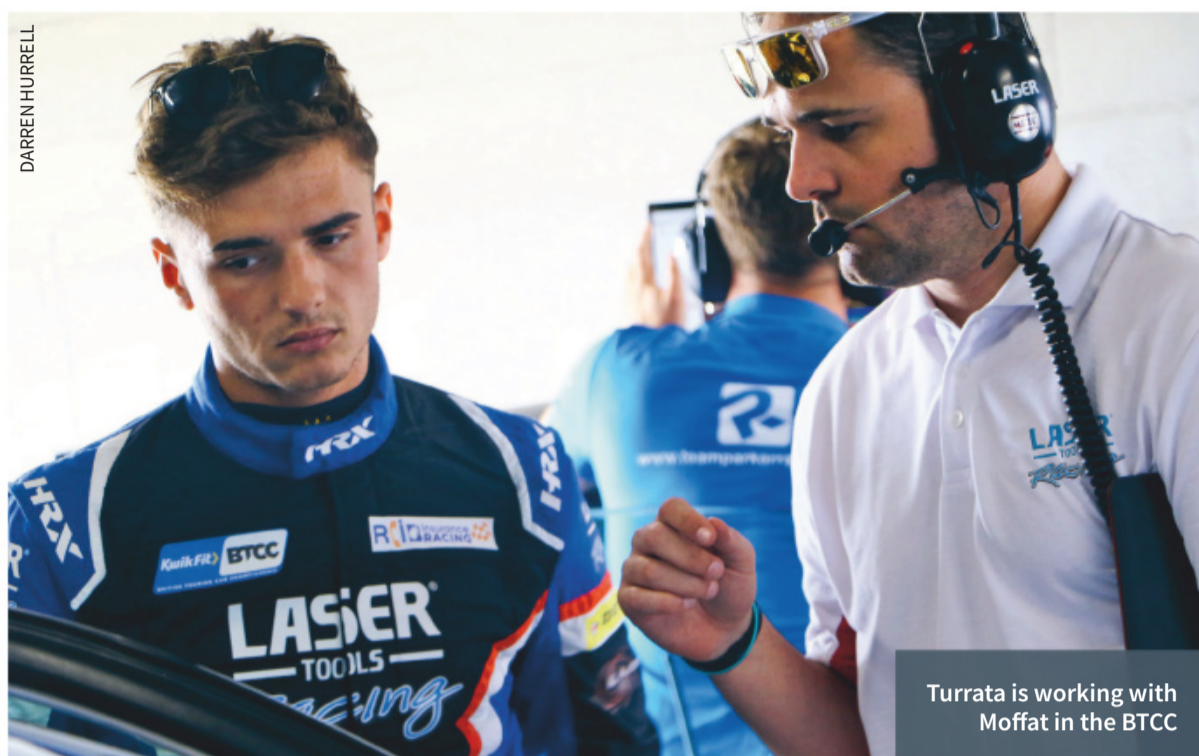
Turrata is the chief operating officer of Hexathron, but that's not how he sees himself: "I prefer to be called a race engineer – that's what we all are," he says. "It's what we all pride ourselves on, and it's the ethos of what we do."

In effect, Hexathron is an employment agency for engineers, with up to 10 staff on its books who can be dispatched to any programme around the globe. But, as Turrata explains, the company is expanding all the time, with dedicated design facilities and a professional driver training simulator available to its clients.

"We can look at redesigning things like suspension systems from the ground up, and we can do that totally in-house," he says. "We also have the technology to be able to run them through simulation models to make sure that they provide exactly the results we are looking for."

"Drivers are able to come to our offices too and use the equipment to help push themselves forward rapidly."

The fruits of these efforts can be seen in Hexathron's efforts with redesigning the two-litre turbocharged Kia K3, which tackles the Chinese Touring Car Championship as a



DARREN HURRELL

Turrata is working with Moffat in the BTCC

“We want to make sure that we are in a position to react to anything”

factory-backed team. Kia has won three manufacturers titles since 2015, and propelled Leo Ye Hong Li to the drivers' crown last year.

Several drivers – including Morgan and 2012 WTCC champion Rob Huff, who won races in Lada and privateer Citroen machinery run by Hexathron – have travelled to China to tackle the domestic tin-top series, which is in no small part thanks to Hexathron's influence.

It is the expanded design skills that Tarruta thinks will put Hexathron on the front-foot for the future, as being a one-stop shop for teams to approach to solve specific problems puts it in a unique position.

"As well as the design capability, we also have high quality driving simulation tools with a range of the tracks that we race on modelled," he says. "That allows us to do a lot of work from base before we are deployed onto the tracks. It saves time and money, and adds expertise to what we are able to do."

As well as the engineering skill that the firm provides across the globe, there is another interesting string to Hexathron's bow. It has a very close working relationship with the University of Milan to help develop the engineers of the future.

"We run something which is, if you like, a boot camp for future talent," says Tarruta. "We take the students and we put them on-track initially, which is something that I am not sure happens elsewhere. These students are young, and many of them haven't experienced oversteer or understeer. By putting them in the cars, they get a chance to experience first-hand how a car should

work and the troubles that a driver is likely to explain to them.

"Then we take them to our offices and run through a live programme with them, all the time with our experts next to them to help them through the process."

"This is a vital programme because, not only does it help us to protect the next generation of engineering talent that is coming up through the ranks, it helps us to look at what they are learning and get a first-hand look at the stars of the future."

The educational part of what Hexathron does is not just a magnanimous gesture, but has had a serious impact on launching young people's careers.

"We recently did a survey of all the people who had been through some training with us," says Tarruta. "We discovered that 45% now have jobs in motorsport; we have a female engineer who is now working in MotoGP."

While the work that Hexathron does at circuits keeps it busy on race weekends, the education programmes and the new ability to remodel engineering solutions for teams with its in-house boffins makes it a firm that hits all the right notes.

"We want to make sure that we are in a position to react to anything," says Tarruta. "Even if there is a problem that a team needs a solution for and we haven't got the immediate capability, there are always avenues we can explore to try to help people."

"We are keen to expand even more, so if there are new routes, we want to be there and ready to make progress and help. The journey is as much for the teams as it is for Hexathron, and that is what makes this firm such an interesting and exciting place to be." ■



Developing the RWD Q50 is Hexathron's latest challenge

THE ARROWS THAT MISSED THE TARGET

Two small British teams came into 1979 hoping to build on promising grand prix debuts the year before. Where Williams went from strength to strength, Tony Southgate's Arrows A2 was wide of the mark

BY GRAHAM KEILLOH



Even 40 years on, Gilles Villeneuve versus Rene Arnoux at Dijon in 1979 remains Formula 1's ultimate battle, so you would be forgiven for not noticing much on its periphery that day. But up the road there was something just as remarkable, appearing like nothing of this Earth. Low, squat, wingless, like a gold bullet with bodywork, the Arrows A2 resembled something from the future – and still does.

"It was different looking, that's for sure," says Tony Southgate, designer of the car in question. "We kept calling it the Heinkel Bomber, as it had this round nose and whatnot."

The A2 reflected its era. This was the apex of F1's ground-effect exploration, using airflow under the car to create downforce. Lotus was the pioneer – in 1977 the team's 78 'wing car' was a habitual pacesetter and the following year the Lotus 79 swept the titles.

For 1979, all sought their own solution and few had more experience in ground-effect than Southgate. He had worked alongside its pioneer, Peter Wright, at Lotus – and prior to that at BRM – until 1977 when, after a brief return to Shadow,

he formed part of the breakaway group comprising financier Franco Ambrosio, Alan Rees, Jackie Oliver and designer Dave Wass that formed Arrows.


His first design for Arrows, the FA1 with which Riccardo Patrese led at Kyalami until being sidelined by engine failure, was deemed to be a copy of the Shadow DN9 and prompted Southgate to go back to the drawing board to create a new car in 57 days. Despite a hasty gestation, the A1 took fourth in the 1978 Canadian Grand Prix and fifth at the Belgian GP in 1979,

so its successor had plenty to live up to.

"I knew that [Wright] had been keen on this wing [car] concept for some time, and we tried it at BRM but it never worked there for various reasons," says Southgate. "When I went to Arrows I continued the same thought, because by then aerodynamics had really taken off.

"At Lotus, we used to talk about the ultimate aerodynamic car not needing wings because it would do it in the body shape, where the whole car was an aerofoil. That's exactly what the A2 is."





Southgate's
visionary idea
didn't transfer
to the track

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COLOMBO

“I was so keen on this aero package that I ignored the centre of gravity”

Southgate tested the concept in Imperial College's windtunnel, and was astounded by its numbers.

“It was getting 1600lb of downforce at 150mph,” he recalls. “The best of the non-aero [non-ground effect] cars would be about 700lb. Even the Lotus wing car was only about 1100lb.

“These figures were so impressive, you'd say, ‘What the hell are we going to do with it?’ Jackie Oliver couldn't resist it either so he said, ‘Blow it, let's make it!’”

Yet even amid this optimism, the seeds of the A2's downfall were sown.

“I put the engine and gearbox at an angle [of two and a half degrees],” Southgate explains. “The underside was incredibly smooth. You turned it over and it looked like a sleek boat, whereas normally you'd have an engine and gearbox sticking down.

“I was so keen on this aero package that I conveniently ignored the fact that it would be lifting the centre of gravity. I thought that I'd get over that, but actually I didn't!

“The CG was effectively a couple of inches higher than normal and in an F1 car that's a big difference. The car didn't like changing direction – it would try to

fall over going from left to right and the only way we could stop it rolling was to put great big stiff anti-roll bars on, which aggravated the normal road-holding. You couldn't use the aero.”

As a result, Patrese and team-mate Jochen Mass asked for the front suspension to be softer than the rear to compensate, but that had its own knock-on effects with porpoising. Running 25kg overweight didn't help either.

“I made the chassis particularly stiff because I was anticipating much stiffer springing,” says Southgate. “It lost about half a second or three-quarters of a second a lap just on sheer weight.”

It showed in the results. The A2 debuted at Dijon, where Patrese finished three laps down and Mass five adrift. The car subsequently managed two sixth-placed finishes, both distant.

“We realised, ‘This isn't going to go any quicker’. You can tell straight away with these things,” Southgate says. “There was an almighty panic and we decided to make a new car.”

Should Arrows have persisted with the A2, given its promise? Southgate reasons that the compromises needed would have completely transformed the concept.

“If I'd put the engine [in a] conventional [position], just laid it level so the centre of gravity was down, I imagine it would have lost a couple of hundred pounds of downforce but it would have still meant the downforce was high,” Southgate muses. “If I'd gotten it down to the weight limit, the car would have been much better, but that would have been a different car because you couldn't modify the existing car like that. To put the engine level would have been too fiddly, you'd have to start afresh.”

Mass laments that the team didn't experiment more with its spring set-up – “the easiest thing to do normally, but we didn't even try it” – however Southgate and Oliver both dispute the impact such a change would have had.

Arrows' modest finances also dictated abandoning the A2 quickly and, in an age when on-track data acquisition was close to non-existent, Oliver didn't have much choice but go mainstream with Arrows' next machine, the A3, for 1980.

“If I'd had the budget we would have produced a development car and carried on with the A1 and I would think [Southgate] would have ended up resolving the problems,” explains Oliver. “Without a development car to prove the concept, ▶

the only way to resolve the problem was to ditch it.

“In these processes, you commit to a design of the car as provided by your designer,” he adds. “If there’s a problem with it you work with that problem; it’s too late to change the design. That’s what happened with A2.”

“When you have an error like that, the team owner – me – takes the cost both in terms of performance and having to make another car. I told Tony, ‘Copy a Williams’, which he did.”

Southgate recalls it differently – “I would have said, ‘No, we’ll do it how we want’, because if you copy anybody you’re always a car behind” – but regardless the A3 had little of its predecessor’s radicalism.

The A2 may also have been a sliding doors moment for Arrows, as Williams had that same year reached for the stars with Patrick Head’s effective FW07, which took its first win at Silverstone, the race after Dijon, with Clay Regazzoni (see below).

If the comparison seems fanciful, consider the parallels. Both debuted as constructors in 1978 as offshoots of existing squads – after splitting from Wolf, Frank Williams had run a customer March in 1977 – and both could have won a race that year with better luck. They even finished 1978 level on 11 points.

The 1979 season was a crucial one for Williams. Its then-chief mechanic Ian Anderson reasons that “Frank would have gone bust” if Head’s FW07 hadn’t worked, but Regazzoni’s victory laid the foundations for a late-season surge. Four wins from the last six races of 1979 for Alan Jones lifted the team to second in the constructors’ points and was followed by the 1980 world title.

Williams’ then-team manager Jeff Hazell recalls: “The team needed results because we needed to keep sponsors on board and increase the sponsorship with the Saudis, and we had a very fortunate race at



A2’s failure was a costly setback for the team’s future

Silverstone with Saudi visitors there.”

Despite the arrest of Ambrosio for fraud, loss of its Warsteiner sponsorship and Southgate leaving near the end of 1980, Arrows initially looked to have profited from the sudden withdrawal of Goodyear and subsequent switch to Michelin tyres for 1981. Patrese bagged pole – the only time an Arrows would start from that position – for the curtain-raiser at Long Beach, but dropped out with engine trouble, allowing Williams through to score a 1-2 finish.

Goodyear returned mid-season and Michelin – wanting to concentrate its efforts – ditched Arrows, leaving the team on less-competitive Pirellis. It would

not come so close to another victory until Damon Hill’s brave effort at the Hungaroring in 1997, and went bust in 2002 without ever taking victory.

“I would trace all of their problems – losing sponsors, not getting the Michelin tyres – all down to the fact that Tony had pushed the boat out on the A2 and it didn’t perform,” Hazell says. “Arrows just didn’t have the foundation and the slow growth and the consistency that Frank and Patrick [Head] managed to put together.”

Arrows’ experience with the A3 – which twice finished second with Patrese, at Long Beach in 1980 and Imola in 1981 – could have been worse, but the team failed to break into the top six in the

HOW HEAD’S CAUTION LAUNCHED AN F1 LEGEND



Head’s vision was key in Williams’ rise

Williams’ chief mechanic in 1979, Ian Anderson, doubts that Williams could have survived the FW07 flopping as Arrows’ A2 did, but his former colleague, then-team manager Jeff Hazell, isn’t so sure.

“If the car hadn’t worked everybody would have buckled down and just redoubled their efforts,” he says. “I have no doubt they’d have just kept going somehow.”

Where both men agree is that

the motivational powers of the Frank Williams/Patrick Head axis were crucial to its early success.

“I worked at Fittipaldi and the people there, compared with Frank and Patrick, were chalk and cheese,” notes Anderson. “They were extremely well driven, they knew what they wanted, and Patrick was an exceptional engineer.”

“I don’t know what went on behind closed doors at Arrows, but I know the chemistry between

Patrick and Frank,” adds Hazell. “They spurred each other on to do better. You’re not going to meet a more determined and resilient individual than Frank Williams.”

Following the unreliable but promising FW06, the FW07 was a cautious progression from 1978’s all-conquering Lotus 79. According to Hazell, not making Arrows’ mistake of over-reaching was a conscious decision by Head, and paid rich rewards.



Patrese led Reutemann in 1981 US GP West before trouble struck

constructors' championship in the early and mid-1980s while Williams racked up victories and titles. It could be argued it never recovered from the A2 experiment, though it's important not to forget the lack of budget too.

"There was only one thing wrong with the A3; it wasn't developed because we didn't have much money and development takes money," says Southgate. "At Lotus, money wasn't an object, you just did it, whereas at Arrows you needed money to go and make the bits."

"When the new car appeared, that basically had to be how you raced it, within adjustable range and very little modest development. That's where we fell down all the time with Arrows."

Mass concurs: "[Arrows] had good people, they had good ideas and, with a bit more funding to research better in various fields, we could have made great steps forward."

It would prove an issue that dogged Arrows until the bitter end after Oliver sold out to Tom Walkinshaw, even when Ross Brawn joined from Beatrice-Lola in the late-1980s.

"Ross produced my most successful car," says Oliver of the A10B that finished fifth in the constructors' championship in 1988. "But I didn't have the budget to supply him and somebody else did, so he left."

Mass also admits that driver errors held Arrows back, another point that distinguished Arrows from Williams.

"We were just not in a winning mode yet as a team, which was a shame," Mass says. "It was just small areas. It's a lot of reasons for everybody why they didn't succeed as much as they could have, should have."

"The management was OK, it was just getting to this winning mode you have to accumulate some successes. Then suddenly it all falls into place."

For Arrows, its ambitious but flawed A2 meant this never happened. ■

"Patrick looked at us as such a young, fledgling organisation having difficulty making quite a simple race car finish races," he recalls, "and thought, 'I can't push this engineering performance envelope into a step beyond what's known at the moment, because the team is not ready to handle it'."

"He was completely correct. The most important piece of strategy was saying, 'We've got to learn to walk before we can run'."



Regazzoni's Silverstone victory kick-started the bandwagon

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HOW TO BE AN ACE ENGINEER

Paul Crosby explains the dual challenge of race engineering and composite manufacturing

BY JAMES NEWBOLD

Race engineers must have a unique skillset, combining an intricate knowledge of vehicle dynamics with a flair for amateur psychology when instilling belief in the driver. Having engineered Jean Alesi to the 1989 International Formula 3000 title and subsequently turned his hand to contesting regularity rally events – with great success – in his 1969 Porsche 911, Paul Crosby knows this balancing act well.

“It’s like being a tennis coach,” he says. “You don’t have to be able to hit the ball as well as them, but you still need to know the theory on what’s good and what isn’t.”

But Crosby isn’t your typical race engineer – and not just because he eschewed the now ubiquitous route of a mechanical engineering university degree for an apprenticeship at his local British Leyland garage. Starting off as a mechanic for “eccentric genius” Dr Joseph Ehrlich, Crosby rose through the ranks to become the lead engineer on March’s Formula 3 operation, running Nigel Mansell in 1979. But when March canned F3 in favour of IndyCar, he left in 1981 and, with the blessing of March boss Robin Herd, set up his own fibreglass and composites business from an industrial unit at Silverstone.

Crosby started out doing repairs for local teams Alan Docking Racing and Dave Price Racing “and then a few pirate bits” using a mould of a Ralt F3 nose, gradually expanding to cater for teams further afield. By the time he sold up in 2015, Crosby Composites was producing intricately machined parts for



Crosby (second right) compares notes with Eddie Jordan Racing's Trevor Foster as Alesi (right) looks on

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the majority of Formula 1 teams, including the first all-in-one brake duct for McLaren, subsequently coined the ‘mega-duct’.

Unable to resist the lure of trackside engineering, he combined the two pastimes running the likes of Allan McNish and Gil De Ferran until 2005 when his business demanded more of his time. But Crosby says the two sides of his career are not as different as one might expect, both rewarding constant improvement.

Whether chasing the ideal car set-up – “we might win a race but I would feel like I had failed because the car wasn’t perfect” – or pursuing increasingly intricate composite constructions, Crosby was constantly motivated by the next big gain.

“You can’t have a perfect race car,” he says, “there’s always something you can do to improve it and it’s the same in an engineering project.

“I enjoyed the technical problems that came from doing something that had never been done before and then improving on it.

“When you screw up the part that you’ve

made and work all night making up another part because that one wasn’t quite good enough, that’s what I mean. I wasn’t that interested in making money.”

As an engineer, he gained most satisfaction from finding “that different approach that makes a difference”. That lateral thinking was in evidence when he and chief mechanic Alastair Gibson developed an auto-blip throttle from some bicycle brake cables to aid Kenny Brack’s problems with heeling and toeing in 1995, although it was banned after one round.

Crosby even ran his own F3000 team – Alpha Plus – in 1996 but folded it after one season. It was intended as a vehicle for Brack until his sponsors backed out and he signed with Super Nova, so Crosby was saddled with two middling drivers who failed to score a point. But the experience didn’t dampen his enthusiasm and he has no plans to end his motorsport love-affair anytime soon.

“I can’t imagine not doing it,” he says. “It’s a drug and I’m addicted!” ■



BAR 002 had composites made using early CNC machinery

TOP TIPS FROM PAUL CROSBY

- Having the driver in the right frame of mind and trusting in what the engineer has put underneath them is paramount for success. So don’t just work on the car, work on the driver too.
- Always seek to challenge conventional ways of doing something. Forget about what people say about how you should solve a problem and think of it as a completely fresh problem that has never been solved.



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