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A hint of the F1 battle we could enjoy next season?

We're starting to build a handful of examples of the Lewis Hamilton-versus-Max Verstappen battle that everyone has been anticipating. Hamilton came out on top in the Hungarian Grand Prix in August, but Verstappen turned the tables in Brazil last weekend (see page 18).

Passing Hamilton twice in a race is no mean feat, and the fact that Verstappen didn't lose his cool after being baulked by Robert Kubica's Williams indicates the Red Bull ace is becoming a more mature driver.

That Verstappen can defeat Hamilton in a wheel-to-wheel fight is not in doubt; the question is whether he can beat the Mercedes star over a full season. Losing pole in Mexico thanks to needlessly ignoring a yellow flag (and then ranting about it) suggests he could still give away points in a proper season-long championship battle, but we won't really know until it happens.

We'd like to see that in 2020, so perhaps the most promising aspect of the Interlagos event was the apparent strength of Honda power. It's not so long ago that it would have been impossible to imagine a Mercedes not outdragging a Honda-powered machine on the run to the line, but that's exactly what happened when Hamilton tried to pass Pierre Gasly's Toro Rosso. Mercedes did seem to suffer more from the higher altitude than the other engine manufacturers, but Red Bull-Honda must be considered a genuine threat next season.

We should be able to say the same about Ferrari, particularly given its nine 2019 poles, but it is in the midst of a civil war to see which of its drivers should lead the line. Given that Sebastian Vettel *again* managed to instigate race-ruining contact (echoes of the 2010 Turkish GP?), Charles Leclerc is surely the driver the team needs to back if it is to join – or surpass – the Hamilton-Verstappen party.



Kevin Turner

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**NEXT WEEK
28 NOVEMBER**

Are F1's 2021 rules a step
in the right direction?
Plus we report from the
Formula E opener



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PEUGEOT COMMITS TO LE MANS

WORLD ENDURANCE CHAMPIONSHIP

Peugeot almost pulled the rug from under the World Endurance Championship on the eve of its rebirth back in 2012. Seven years on, the French manufacturer has gone a long way to securing the WEC's future with the announcement last week that it will be entering the new top class for hypercars in 2022.

It means that the hypercar division now has a commitment from a third major car manufacturer to go with those of Toyota and Aston Martin, though admittedly Peugeot will not be joining its ranks until the start of the 2022-23 campaign. That may be only season three of the category, but Peugeot's news is still a major fillip for the WEC.

That's because the hypercar entry will be the third sportscar coming from a marque with a rich pedigree in endurance racing after the 905 Group C and 908 LMP1 programmes of 1990-93 and 2007-11 respectively. Its CV boasts three wins at the Le Mans 24 Hours (1992, 1993 and 2009), not to mention a drivers' and teams' title double in the 'old' Sportscar World Championship (1992) and a pair of manufacturers' crowns in the Intercontinental Le Mans Cup (2010 and 2011) that led into the 'new' WEC.

Equally important is the fact that the PSA Group marque has signed up against a background of

uncertainty surrounding the hypercar class less than a year out from its kick-off next autumn. The lack of news from Aston Martin, despite its insistence that the Valkyrie race programme is full steam ahead, has clearly been worrying WEC promoter and Le Mans organiser the Automobile Club de l'Ouest.

It has again started talking up the chances of integrating Daytona Prototype international machinery from the North American IMSA SportsCar Championship into the hypercar division. The ACO had been largely quiet on that one since the spring, when it had to think again on its original plans for the hypercar class.

The announcement appeared to catch the ACO on the hop – it took some time to react to the news. Maybe this was because it didn't know it was coming, or that it was just ultra-cautious after the events of 2017. Back then, it believed it had an agreement with Peugeot to return to Le Mans, only for the marque to choose the World Rallycross Championship over the WEC.

Peugeot has announced that it will be back on the sportscar grid in the autumn of 2022 – and back at Le Mans the following June – but it hasn't revealed much else about its programme.

"The significant cost savings permitted by the WEC's new hypercar regulations and the confirmation that the series will feature hybrid power units led the PSA Group executive committee to approve the Peugeot brand's

2009
Le Mans
victory came
thanks to David
Brabham, Marc
Gene and Alex
Wurz



Eric Helary,
Geoff Brabham
and Christophe
Bouchut shared
winning 905 at
1993 Le Mans

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RETURN

proposal to participate in the world's premier endurance racing championship from 2022," read its statement.

So it is clear that its hypercar will be a hybrid like Toyota's. It has also confirmed in the wake of the announcement that it will be entering the class with a prototype (like Toyota again) rather than a road-going hypercar (like Aston). Who will build that car and who will run it has not been confirmed.

Its successes with the 905 and the 908 were achieved with cars developed and entered by an in-house team from the old Peugeot Sport motorsport headquarters in Velizy in suburban Paris. That has now been integrated with the Citroen Racing facility in nearby Satory. It is from there that the Formula E and World Rally Championship programmes of Peugeot sister marques DS and Citroen are respectively run.

The hypercar programme is being led from Satory by PSA Motorsport technical director Olivier Janssonie. But Peugeot hasn't ruled out teaming up with an established sportscar operation. It has been linked to a tie-up with ORECA, a much wider-ranging one than the French organisation's integration into Toyota's WEC race structure. ORECA does, of course, have history with Peugeot. It ran a first-generation V12-powered 908 HDi turbodiesel in 2010 and 2011, famously winning the Sebring 12 Hours in the second of those years.

GARY WATKINS



Design legend Murray eyes joining hypercar WEC field

WEC

Gordon Murray was adamant that the McLaren F1 would never race, but it didn't end up doing too badly on the track. Nearly a quarter of a century after the F1 GTR's 1995 Le Mans 24 Hours victory, he has revealed that his latest sportscar, the T.50, could have a future in the World Endurance Championship's hypercar division.

The Formula 1 design legend has admitted that a dialogue with WEC promoter and Le Mans organiser the Automobile Club de l'Ouest about the Gordon Murray Automotive T.50 opened some time ago. He also explained that there has been interest from customers wanting to race the car after the unveiling in June of the car's specification, including a bespoke four-litre normally aspirated V12 developed in conjunction with Cosworth.

"The people who run the series are very interested in having us back after our history at Le Mans with the F1 GTR," said Murray (right). "I spoke to the ACO and the FIA back in February this year before the car went on sale. Subsequently we have had some customers who are very interested in racing the car."

"We are all racers here, so we are very interested in racing it too. It is in our DNA."

"We are about to announce very soon a tie-up with a Formula 1 team for the use a windtunnel in the development of the T.50, so we are a step closer to racing already."

Murray stressed that no decisions have been made about racing the T.50, and he revealed that he planned to meet with GT racing boss Stephane Ratel so



that he could "understand what the general thinking is on the direction of sportscar racing".

He conceded that the active aerodynamics of the T.50 road car comprising a six-mode electric fan almost certainly wouldn't be allowed on a race version. "I don't think they'd let us use the fan; I don't think I'd get away with that one again," he said in reference to his Brabham-Alfa Romeo BT46B F1 'fan car' of 1978.

Deliveries of the 100 T.50 road cars will take place through 2022, but Murray didn't rule out having a racer out on track earlier.

The hypercar rules demand a minimum production run of 20 cars completed within two years of the race programme starting.

GARY WATKINS



T.50 SUPERCAR - 2018 - 3.9L V12 - PROTOTYPED



Ogier set to join Evans at Toyota if Citroen pulls out

WORLD RALLY CHAMPIONSHIP

The World Rally Championship driver market is about to be turned upside down, with Elfyn Evans due to be announced with Toyota Gazoo Racing this Monday, Citroen set to pull out, and Sebastien Ogier poised to be wearing his fourth different colour of overalls in five years in 2020.

As we went to press, Evans's departure from the M-Sport Ford line-up and Citroen's pullout – at least in the medium term – were the only certainties. In the wake of Peugeot's return to a hybrid World Endurance Championship and a continuation of DS's participation in Formula E, parent company PSA has confirmed that Citroen won't be present in the WRC from 2022 onwards.

But service-park speculation insists that Citroen will be gone long before then, and some reckon it'll be before the end of this week. Sources in Versailles have confirmed that technicians are already looking for jobs, while another source pointed out that Ogier will be busy with a Swedish development test next week.

If Citroen does go – and this is reckoned the most likely scenario right now – Ogier will be out of the door and off to Puuppola to join Evans and Toyota's third driver Kalle Rovanpera in an instant.

Toyota's top brass is away on an official visit to Tokyo Motor Corporation in Japan this week, but team boss Tommi Makinen confirmed to Autosport that he wanted to make a driver line-up

announcement by the end of this week. Sources say this has now moved back to Monday, 25 November.

Asked for his thoughts on Evans, Makinen said: "We have been following him and his improvements and sure, we are very, very interested."

Makinen insisted that the deal wasn't done, with some reckoning the cancellation of Rally Australia – and the Finn's decision not to travel to New South Wales – is the only reason the contract wasn't signed sooner. It is now.

Makinen wasn't so forthcoming with his thoughts on Ogier, preferring to go middle of the road with: "Let's see what's happening."

If he does capture Ogier and Evans, Makinen will have crafted a team capable of challenging Hyundai's Ott Tanak-Thierry Neuville axis. The big question is: does he keep Kris Meeke or Jari-Matti Latvala on to add further strength in depth? Or does he dip into an increasingly deep pool of very capable drivers including Hayden Paddon, Craig Breen, Andreas Mikkelsen, Mads Ostberg and possibly Esapekka Lappi? Do that, and he could follow a Hyundai-style driver-rotation policy, enhancing TGR's effort to land a second makes' title in three years.

What about M-Sport? Teemu Suninen stays and, following the departure of Evans, Malcolm Wilson will "see what unfolds". It remains to be seen whether 'unfolds' includes an M-Sport return for Latvala or a Brit-for-Brit swap with Meeke replacing Evans. After this week, anything's possible.

DAVID EVANS

Ferrari: engine is unchanged

FORMULA 1

Ferrari insists that it has changed 'nothing' on its power unit following the latest Formula 1 engine-rules technical directives, despite rivals suspecting its straightline-speed advantage has been reduced.

Rival teams had been querying how Ferrari was achieving its power advantage in recent months, before the FIA issued technical directives regarding fuel-flow rules and the use of liquids as combustion. Ferrari started on pole for six straight grands prix, but has not done so at the past two races.

Team principal Mattia Binotto is adamant that the shift in performance has nothing to do with its engine. "No, no, we didn't change nothing," Binotto said in an interview with Sky. "What we did is to read carefully the TDs because you need to meet up with whatever is a new technical directive. It's important to understand it. But we didn't change our operations, our way of using the engines. And that is since the start of the season."

Binotto reiterated that the shift in Ferrari's performance has come from it adopting a higher-downforce approach in the US and Brazil. "We've still got an advantage on the straights," he said. "We know since the start of the season that we are lacking downforce and maybe our car is somehow more fast on the straights. That's why on circuits where we need the maximum downforce, like Hungary or the last one [Austin], or even in Mexico, we were lacking certainly speed in cornering."

While the speculation about Ferrari has been fuelled by the FIA technical directives, motor racing's governing body is clear that it did not issue the documents because it suspected anyone was cheating. Instead, it says it was normal procedure for matters to be dealt with in this way when approached by teams with questions.

JONATHAN NOBLE





MOTOGP Three-time MotoGP champion Jorge Lorenzo rode his last race in the 2019 finale at Valencia last weekend, after a dismal farewell season with Honda. The 32-year-old, a winner of 68 grands prix – including 47 in MotoGP – announced last Thursday at the Valencia track that he was quitting. He will be replaced by Moto2 champion Alex Marquez, who will partner big brother Marc (the 2019 title winner) in the Honda line-up.

Bathurst aims for international tin-top enduro

BATHURST INTERNATIONAL

Australia's famed Mount Panorama circuit is to host a new endurance touring car race at the end of the 2020 season, with the aim of attracting a 55-car international field.

The 500km Bathurst International will be held in late November or early December and will be run for the TCR category, which has exploded across the world in the past half-decade and was successfully introduced to Australia in 2019 (right). If the plans reach fruition, it will be the most international field assembled since the Bathurst 1000 ran to Super Touring rules in 1997 and 1998.

The organising Australian Racing Group

is also planning support races for Australia's new big-banger S5000 single-seater category, which would almost certainly mean an obliteration of the track's lap record, plus LMP3 sports-prototypes and Trans-Am muscle cars.

ARG director Matt Braid said: "Up to now there have been limited opportunities for international drivers to compete at Australia's best race track in cars they are used to racing in their home series. With a date that comes after most global series have concluded, the Bathurst International will see international drivers, teams and their cars compete with Australia best drivers."

MARCUS SIMMONS



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Confident Interlagos says Brazilian president is wrong

FORMULA 1

Brazilian Grand Prix promoter Tamas Rohonyi is '99%' confident the race will stay at Interlagos, despite a mooted switch to a new Rio track for 2021.

Sao Paulo's current contract runs out at the end of 2020 and the fate of the race after that date has not yet been decided. F1 chiefs have been in discussions with representatives from a new track in Rio, with Brazilian president Jair Bolsonaro

supporting that project and declaring earlier this year that it was "99%" likely to happen.

But Rohonyi is sceptical about the Rio plan and said his confidence in keeping the race at Interlagos was "the same percentage that the president mentioned".

He sees Interlagos as the only realistic option for a Brazilian GP. "Either F1 remains here or there will be no Brazilian GP," said Rohonyi. "I make no comments about Rio de Janeiro that I do not know, but what I do know is that there is a land with trees and

animals, and so far there remains a land with trees and animals. I think it is physically impossible for an international event to happen there in 2021. But there are people who don't agree with that.

"Rio became an option because of the president's support, and Bolsonaro had Chase Carey by his side when he said F1 was 99% back in Rio de Janeiro. Today he wouldn't say that. He was badly advised as there was no reason to say that."

ERICK GABRIEL AND JONATHAN NOBLE

Jaguar environmentalist in environmental Jaguar

JAGUAR ETROPHY

Ex-Champ Car racer Mario Haberfeld will make his first racing appearance in more than a decade when he takes part in this weekend's Jaguar I-PACE eTrophy Formula E support races in Riyadh.

The 43-year-old Brazilian, who now devotes his life to saving wild jaguars, will replace Caca Bueno, who is away on V8 Stock Car duty, at Jaguar Brazil Racing. It

will be 1998 British Formula 3 champion Haberfeld's first international racing appearance since he drove in the Le Mans Series at Monza in 2008.

"When I got the invitation from the Brazilian team to replace Caca Bueno it was quite a surprise as I haven't raced for over 10 years, but I'm sure it will be a really fun weekend," said Haberfeld. "I'm inquisitive to drive the I-PACE, as this

will be my first time competing in an electric car. I've talked to Caca, in order to get some tips about the car, and I hope I will do two good races in Saudi Arabia."

Haberfeld will be part of a 10-strong field for the opening round. Also on the grid will be W Series star Alice Powell; Abbie Eaton, who joins the all-female series in 2020; and British F4 competitor Reema Juffali.

JAMIE KLEIN





Verschoor plots Macau leg-up

FORMULA 3

Richard Verschoor is hoping his shock Macau Grand Prix victory will help “open doors” for his future, following a two-year struggle after being dropped by Red Bull.

The 18-year-old Dutchman toiled in the 2017 Formula Renault Eurocup with MP Motorsport and was let go at the end of it by the energy-drinks giant. MP offered him a lifeline with a half-season in GP3 in 2018 and a full year of FIA Formula 3 this term.

Verschoor failed to score a podium in FIA F3 with MP, which is regarded as a relative minnow. But he beat one of the category’s hottest prospects – Red Bull junior Juri Vips – to win F3’s biggest race.

“I feel like for the first time in a long time I did everything I could to win a race and do a good performance,” Verschoor told Autosport. “I’m just grateful for that. I think it’s the right moment [to step up]. I feel ready for anything at the moment, but the budget probably won’t be there to do it. But I will be open to do it. I think I’m quick enough, strong enough.”

“Next week, I’ll party with my friends. But seriously, I’ll be back in training and this is the opportunity for me to get the partners, get the sponsors to show that I can do it. Hopefully next year I’ll have a seat. Hopefully it can open doors.”

JACK BENYON

DOES RED BULL MIX WITH MACAU?

Daniel Juncadella Was a Red Bull Junior in Formula BMW in 2008-09 before getting dropped. Moved into F3 and won Macau Grand Prix in 2011.

Antonio Felix da Costa Wasn’t even supposed to do Macau in 2012. But when he was passed over in favour of Daniil Kvyat for a Toro Rosso drive, da Costa took Kvyat’s F3 seat for Macau – and won. Returned and won again in 2016.

Alex Lynn Macau victory in 2013 propelled him onto Red Bull scheme, and he won GP3 title in its colours in 2014, before splitting to pursue his own path.

Dan Ticktum Won Macau in 2017 and 2018 as a Red Bull Junior, before getting dropped in summer of 2019.

Richard Verschoor Won Russian GP support F4 race in 2016 to earn a Red Bull place. Dropped after his Formula Renault season in 2017, before going on to win Macau last weekend.

MARCUS SIMMONS

IN THE HEADLINES

WSR WINS EXPO AWARDS

British Touring Car Championship leviathan WSR can’t stop winning prizes. Hard on the heels of its drivers’ (Colin Turkington) and manufacturers’ (BMW) BTCC titles, the Sunbury powerhouse won two gongs at the Professional MotorSport World Expo Awards in Cologne. WSR won the European Race Series Team of the Year, while its BMW 330i M Sport was hailed as the International Race Car of the Year.

TUKA ROCHA 1982-2019

A respected competitor in World Series by Nissan, Italian Formula 3000, A1GP and Superleague Formula, Brazilian Tuka Rocha has died as a result of injuries sustained in a plane crash. He was 36. Rocha, who had been racing in recent seasons in V8 Stock Cars, was aboard a plane that crashed last Thursday upon landing. One person was killed at the scene and Rocha was among the nine seriously injured, suffering severe burns and pulmonary intoxication from which he succumbed on Sunday morning.

GUTIERREZ ON MERC BENCH

Ex-Formula 1 racer Esteban Gutierrez has joined two-time DTM champion Gary Paffett on Mercedes’ development-driver roster for the forthcoming Formula E season. Gutierrez, who competed in three FE races for Techeetah during the 2016-17 season, tested Mercedes’ Silver Arrow 01 package at Majorca in August before it announced Stoffel Vandoorne and Nyck de Vries as its driver line-up.

BRISCOE’S DPi CADILLAC

Ryan Briscoe has joined top IMSA SportsCar squad Wayne Taylor Racing for 2020 to share its DPi Cadillac full-time with Renger van der Zande, as Jordan Taylor moves to the Corvette GT programme. Joining them for the Daytona 24 Hours are Kamui Kobayashi and Scott Dixon.

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Carpenter plays down Hulkenberg link, snaps up van Kalmthout



INDYCAR SERIES

Ed Carpenter Racing has dismissed speculation that it could field Renault Formula 1 refugee Nico Hulkenberg at the road and street tracks in next season's IndyCar Series, and was instead set to confirm 2019 Indy Lights runner-up Rinus van Kalmthout as replacement for Spencer Pigot, who was let go last week, as Autosport closed for press.

As recently as late August, team owner Ed Carpenter told Autosport that he intended to retain 2015 Indy Lights champion Pigot (above) as his full-time driver, while

obliquely inferring that 2016 Lights champ Ed Jones – who shares the #20 car with oval specialist Carpenter – would be dumped after a very disappointing season.

But Carpenter has decided to get rid of both drivers, and van Kalmthout – who races under the name Rinus VeeKay – is hotly tipped for a full-time seat after testing impressively for the team at Portland and Mid-Ohio. The 19-year-old Dutchman racked up six wins in Lights this season.

Likely F1 exile Hulkenberg was being tipped at last weekend's Brazilian Grand Prix to drive the road and street courses in the other ECR entry, but when asked about

this Carpenter told Autosport that this information was false. Provided that situation doesn't change, other potential candidates include Charlie Kimball, who is trying to find enough budget to become a full-timer once more. Conor Daly's partnership with the US Air Force appears to be ongoing but is not believed to be enough to fund a full season.

James Hinchcliffe is the most obvious pick in terms of IndyCar pedigree, but the majority of his likely backing would come through Honda, rendering him incompatible with steadfast Chevrolet loyalist Carpenter.

DAVID MALSHER

F2 star Ghiotto switches to Aston Martin GT

GT WORLD CHALLENGE

Luca Ghiotto may have a chance to seal the runner-up spot in this year's Formula 2 standings, but he's already decided that his future lies beyond single-seaters. The Italian will race for the R-Motorsport Aston Martin sportscar squad next season.

Ghiotto, 24, has signed up for a full programme across the GT World Challenge

Europe and will drive an R-Motorsport Aston Martin Vantage GT3 in both the endurance and sprint segments of the contest formerly known as the Blancpain GT Series. After four seasons of GP2/F2, he has decided that the time has come to "be a proper professional driver, to make money from my racing".

"The change from single-seater racing into a professional GT3 team is

an important career step for me and offers a new perspective for my future in the sport," said Ghiotto, who raced a Ginetta LMP1 car in the Fuji round of the World Endurance Championship last month. "R-Motorsport is one of the absolute top teams in international GT sport and my comprehensive race programme in two top GT3 racing series will be a real challenge."

GARY WATKINS





Carlin bids for Le Mans entry

ASIAN LE MANS SERIES

Single-seater powerhouse Carlin is four races away from a Le Mans 24 Hours slot as it spearheads the entry list for the new season of the Asian Le Mans Series, which gets under way at Shanghai this weekend with its strongest grid yet in its top LMP2 category.

Seven of the current-generation LMP2 cars, which are permitted for the first time, make up an 11-car field in the class. This division, plus the LMP3 and GT classes, carries the prize of a guaranteed Le Mans entry for the champions.

Carlin branched out into sportscars this year, campaigning the unloved Dallara P217 in the European Le Mans Series, but has endured a trying season that has featured two heavy crashes. The best finish was ninth at Barcelona with Harry Tincknell, Ben Barnicoat and Jack Manchester at the wheel.

The same trio will drive in the ALMS, and adapt to the control Michelin tyres used in Asia after running on Dunlops in Europe, but Barnicoat believes that Carlin can pose a title challenge and ensure its Le Mans debut next year.

"It's well-known that the Dallara hasn't been the most competitive chassis in comparison to the ORECA but, although we've had a poor year in terms of results, there have been moments where we've shown good potential," said Barnicoat. "There aren't as many LMP2 cars in Asia

and the majority of them are Ligiers, so we're confident that we can match if not be better than them. If everything runs smoothly and we do a good job with strategy, we can be a real threat for the title."

Carlin's main opposition is expected to come from the Algarve Pro Racing Aurus-badged ORECA 07, entered under the G-Drive banner in deference to 2018 ELMS champion Roman Rusinov. The Russian shares with two Silver-graded drivers: team regular James French and youngster Leonard Hoogenboom.

Ex-Formula 1 racer Roberto Merhi will lead Ligier's attack for Eurasia Motorsport, which is set to campaign two JSP217s. Merhi, who last raced in LMP2 with Manor in 2017, is due to share the team's lead entry with GT regulars Nick Foster and Aidan Read, while Super Formula champion Nick Cassidy will join the team's second car – featuring two-time Toyota Racing Series champion Daniel Gaunt – after this weekend, when he is on Super GT duty at Fuji.

Two Normas from Nielsen Racing head the LMP3 entry, in which Polish squad Inter Europol Competition aims to repeat its 2018-19 crown alongside a two-car LMP2 tilt. Ex-Formula 2 racer Antonio Fuoco joins reigning GT champions Takeshi Kimura and Kei Cozzolino in the Car Guy Ferrari 488 GT3, while former F1 driver Rio Haryanto is another in a 488.

JAMES NEWBOLD

SILVERSTONE DROPPED FROM WRX SCHEDULE

WORLD RALLYCROSS

The British round of the World Rallycross Championship at Silverstone has been dropped from the 2020 schedule, just two years after moving from Lydden Hill.

For the first event at Silverstone in 2018, the circuit and WRX promoter IMG jointly promoted the Speedmachine Festival, which included live music and street food. IMG promoted the second Festival itself, but says it will not run the event next year.

"One of the reasons we went to Silverstone was to utilise the whole facility, not just the rallycross track," said WRX boss Paul Bellamy. "What we found is, as the whole car industry moves to electrification, there was less budget for car manufacturers to put people in their ICE [internal combustion engine] cars to test them. Subsequently it meant that the likes of Peugeot and VW didn't require the [F1] track that we used to do passenger rides and things like that. Unless you're utilising the whole circuit, it's economically not viable."

The loss of Silverstone means 2020 will be the first time since 2008 that rallycross's top series has not had a round in the UK. But Bellamy says the country could return to the schedule.

"There's still Lydden Hill and the changes that the Doran family are trying to do there," he said. "And there's Silverstone, a fantastic facility in the centre of the country and we're still on good terms with them, so we wouldn't discount going back."

Bellamy also confirmed that the Canadian round in Trois-Rivières has been dropped.

HAL RIDGE



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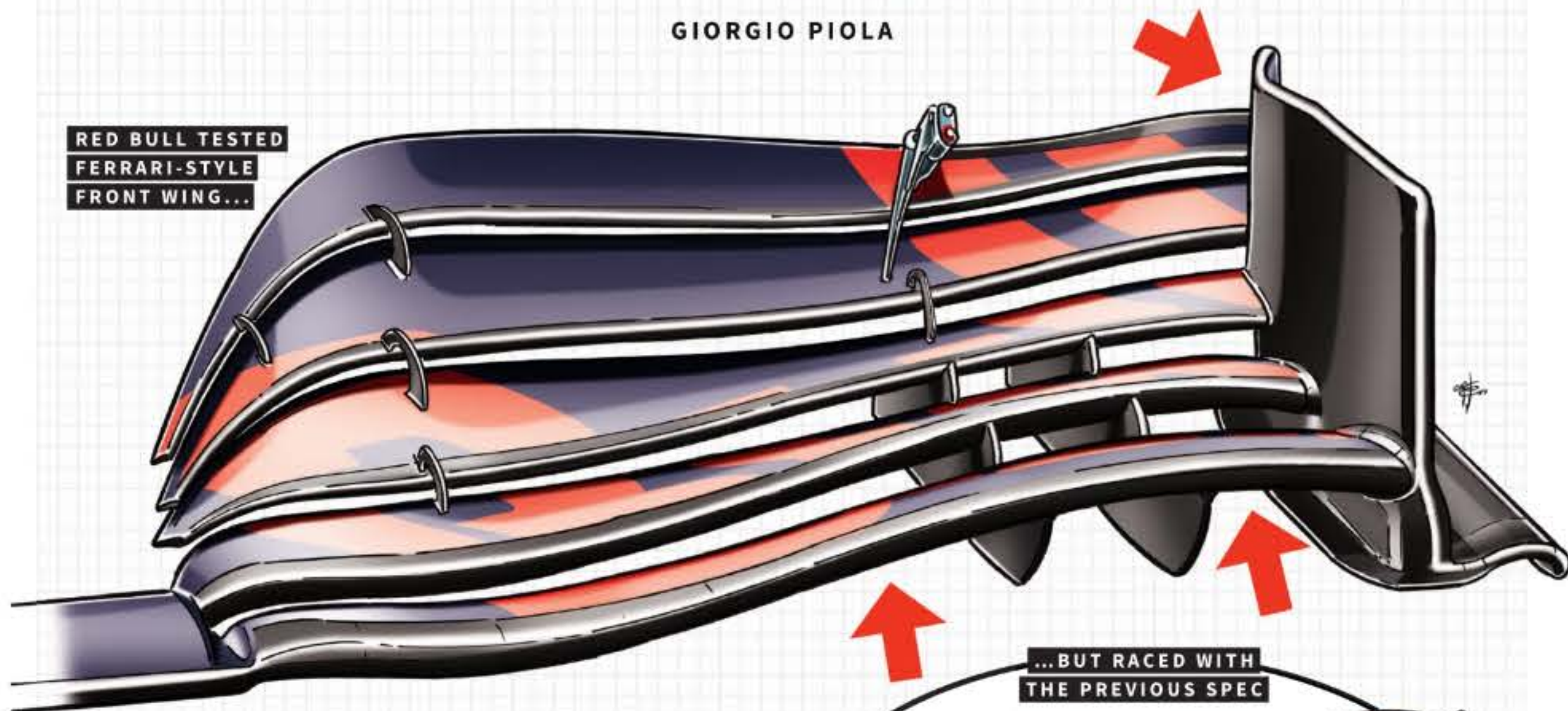
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DRAWING BOARD

GIORGIO PIOLA

RED BULL TESTED
FERRARI-STYLE
FRONT WING...



...BUT RACED WITH
THE PREVIOUS SPEC



NEW FRONT WINGS DIP A TOE IN 2020

As the 2019 Formula 1 season enters its final stages, some of the focus during Friday's practice sessions has shifted towards next year. Since the majority of 2020's fleet of cars will be evolutions of this year's machinery, the teams are able to bolt on new parts to investigate different concepts.

In particular, new front wings can be most easily tested as they are largely unaffected by the rest of the car. Most tellingly, the changes tried by several teams are all in a similar arrangement to Ferrari's front-wing concept, which uses the inboard section to produce downforce and the outboard

section to induce outwash.

Red Bull, one of the last teams left using a 'deep pan' front wing this year, has tested a completely revised design. The outboard section has been pinched up, and the mainplane has been shifted further upwards, while the upper elements sweep downwards at the endplate to allow airflow more space to move around the front tyre.

The team pioneered a split-end middle element earlier in the year, but this has been abandoned in favour of extending the final element downwards – further towards the neutral section. With

such a change in concept, it seems the team is attempting to find the best way to create the strongest rotation of airflow here, before it's released down the flanks of the car.

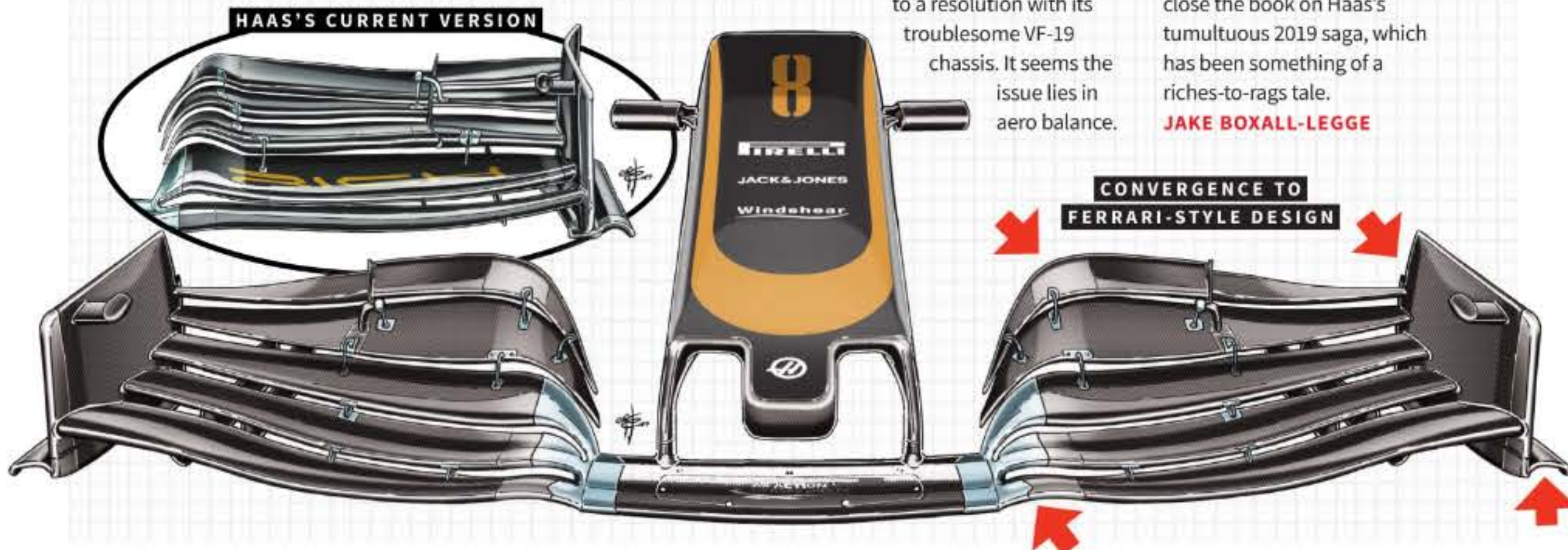
Haas also tried a Ferrari-style front-wing concept at Austin earlier in the month, and Romain Grosjean tried it out once more in practice at Interlagos as the team draws closer to a resolution with its troublesome VF-19 chassis. It seems the issue lies in aero balance.

While this year's front wing has produced a decent chunk of front-end downforce, the rear has suffered, creating a discrepancy in the rates at which the tyres on each axle switch on. This means it's harder for the team to get all four in the right working window.

It's hoped that the experiments with the Ferrari-style wing will close the book on Haas's tumultuous 2019 saga, which has been something of a riches-to-rags tale.

JAKE BOXALL-LEGGE

HAAS'S CURRENT VERSION



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Who is the real Pierre Gasly?

He struggled at Red Bull, yet has thrived after demotion to Toro Rosso. Whether he can maintain this career renaissance is in his hands – or rather, all in his head

EDD STRAW

Is Pierre Gasly the hard charger who has excelled during the second half of the Formula 1 season with Toro Rosso, or the struggler who failed to perform for Red Bull's A-team in the first half?

The answer is both, and neither. F1 is a complicated business, and evaluating performance is a tricky task given the multitude of contributing factors. What is clear is that Gasly is very much at home in the Toro Rosso environment, with the style demanded by the car, and has responded to a potentially career-breaking relegation brilliantly.

To put some numbers on it, he's scored points in five of his eight starts back at Toro Rosso and outperformed team-mate Daniil Kvyat both on qualifying and race performances. While Kvyat has endured some misfortune, there's no doubt who the stronger Toro Rosso driver has been over the second half of the season.

While the redemptive second place at Interlagos was the result of luck, Gasly earned it by winning his race. It's a cliché to refer to 'Class B' as ultra-competitive, but that reached absurd proportions at Interlagos, where the six serious midfield teams were covered by 0.33 seconds in qualifying – and the fastest five of those by just 0.198s! Whoever prevailed in this congested part of the field would automatically have excelled, and it was Gasly who was fastest in qualifying and led the 'Class B' race throughout.

So how do you explain the difference? To revisit his problems

“Gasly's chaotic set-up direction at Red Bull seemed to be chasing something that wasn't there”

of the first half of the year, Gasly was first and foremost not quick enough. On average, he was just over half a second off team-mate Max Verstappen and, even against one of the toughest benchmarks in F1, that's not good enough. In races, he too often got caught up among the midfielders and simply didn't deliver the results.

In pre-season testing, he crashed heavily twice. Once is unfortunate, twice is misadventure. He was also all over the place in terms of set-up, too often overdriving on corner entry and inducing understeer, and fiddling endlessly with parameters such as his seat in the search for a magical perfect car he never got near.

Red Bull didn't want to bust him back to Toro Rosso, but as Gasly was mentally 'gone' felt it had no choice. But from a situation that would destroy most, Gasly has thrived. And all this despite seemingly not accepting, at least in public, the reasons for his

struggles and demotion. After his outstanding qualifying performance, it made sense to put to Gasly the question of why he's performing so well in the second half of the year.

“There are many things together, but clearly the way we are working,” he said. “We managed to extract everything from the car, which wasn't the case at the beginning of the year – not consistently. Every weekend I feel we are closer to maximising the car we have. The engineers, every weekend, manage to give me all the tools I need to be competitive and drive the way I want, to be fast. A whole lot of details make the difference.”

There's a lot in there. First, the car does seem to work better with Gasly's aggressive style. The Toro Rosso is a less lairy car than it was last year, particularly in the first half of the season when his late-braking, throw-it-in and control-the-rear style worked well. But it still responds well to that kind of approach. So, unlike the Red Bull, in which Gasly seemed to push too hard, it responds to him.

Second, he clearly thinks the Red Bull engineers weren't on his wavelength and the car was holding him back. This position would be a source of frustration to the team, which worked hard to adapt to his requirements. But Gasly's chaotic set-up direction seemed to be chasing something that wasn't there.

The logical follow-up question is whether he feels Red Bull failed to give him the car he needed to deliver. Gasly's response focused on extracting car performance rather than his own pace.

“It wasn't the biggest issue or the biggest limiting factor of the performance,” he said. “But clearly at the beginning of the year we were not extracting for some reasons the potential of the car, which we do now and you can see it with the results and it is quite clear.”

What is unquestionable is that Gasly was not able to get the performance out of the RB15 that Verstappen could. Yet there were hints. At Baku, for example, he flew in qualifying even though he was guaranteed a pitlane start. So when the pressure was off, that underlying speed came through. It's something that didn't escape Red Bull's notice, which is why it was more than pragmatism and a driver shortage that played a part in him being kept on.

The Brazilian GP – and the previous seven races – shows that Gasly has ability. He is likely a driver who needs things to be right for him to thrive and isn't the force of nature that the few gold-standard drivers become. But at 23 and in only his second full F1 season, he's spectacular to watch, capable of being very fast and clearly could yet evolve into a driver who can thrive in a top team.

Brazil showed the best of Gasly as the first half of the season showed the worst. It will be the soft bit between his ears, both consciously and unconsciously, that dictates where in between those two extremes he settles in the long term. ✎

P16 BRAZILIAN GP REPORT



Flying the electric privateer flag

Envision Virgin Racing came off a difficult pre-season to impress by taking three Formula E race wins last season, and it will be hoping to do better still in 2019-20

ALEX KALINAUCKAS

Given the quality and strength – particularly in resource terms – of its opposition on the Formula E grid, it's hard not to be impressed by Envision Virgin Racing. Sure, there are other smaller-scale teams that get results and shine occasionally, but, as it was the only customer squad in the last FE campaign, what it achieved was remarkable.

Without works status, the team lost the 15-day private testing programme it had enjoyed when previously partnered with DS, and it spent the 2018-19 pre-season rapidly learning about its new Audi technology before struggling to get a satisfactory set-up together in the few days of testing (three from Audi's allocation and the three-day official pre-season test) it did get.

From there, though, the team scored three race wins (keeping alive its streak of winning in each FE season – which only Audi/Abt can match), pipped mighty Nissan e.dams and newly works-minted BMW Andretti to third spot in the teams' championship, and, had just a few things gone differently, could have been in drivers' championship contention.

The team even impressed itself – with one source expecting it to capitalise on the early chaos (it did, with Sam Bird's win in round three in Santiago) before fading as the others caught up. This did happen in points terms as Bird and Robin Frijns endured terrible luck in battle, but it did not when it came to maintaining

“The only customer squad in the last FE campaign, what Virgin achieved was remarkable”

competitiveness, as Frijns's Paris and New York wins proved.

Given the addition of Mercedes and Porsche to the FE grid, the fight is only going to get more intense, and scrutiny on resources will increase. But what is arguably FE's most punchy team has stepped up its own capabilities ahead of the new campaign.

The squad has now completed the expansion of its Silverstone operations base – which complements its commercial office in London – where it moved from Donington Park at the start of 2017. Virgin chose the Silverstone Park industrial estate for its ideal location near the capital, transport links, and the benefits of motorsport valley: supplies, suppliers and engineering talent.

“We are benefiting from the hard work of the Formula 1 supply chain,” says team boss Sylvain Filippi, who worked with his squad – “collectively, we've walked in like 20 different teams” – to pick

the best elements of other motorsport facilities and build a mini F1 base. It's a nice place to be, with natural light enhancing that feeling.

Work on the final elements of the facility – an upper floor area that houses a new driver-in-the-loop simulator, engineering platform and a conference room – began at the start of 2019 and concluded in the summer, with Bird and Virgin's engineers working hard to calibrate the simulator in the months since. The team will continue to visit Audi's dedicated simulator at its Ingolstadt factory for one day before each race this season.

The dedication is impressive. The floor of the simulator rig stands on four pillars to minimise vibrations from the 25 staff permanently based at the workshop moving about. And it's designed with FE in mind. Although the building will stand relatively empty when Virgin's two race cars and spare chassis are away, travelling constantly from the first round in Saudi Arabia in November to the UK finale in July, the packing cases that the team flies out – usually with spare parts given FE's levels of contact – can be sealed and signed off by specialist customs and security workers so the freight can be loaded straight onto the planes. Those boxes, on the rare times they are all back at the base, fit in their dedicated spaces with just millimetres to spare.

While Virgin has upgraded over the off-season, Bird has too as he “spent the summer break focusing on my fitness and improving myself as an athlete”. Speaking to Bird, it's clear the frustrations of 2018-19 – he was taken out in several incidents – hurt him, but he's using that as motivation to start afresh. On his return to FE after a season away, Frijns showed his pedigree with his wins – so both Virgin drivers start the season as potential title contenders.

That's good because, despite the increased strength of its opposition – even compared to Audi, Nissan and BMW, Mercedes and Porsche must be considered a step above given their recent F1 and LMP1 domination – the team is not content just to repeat its achievements of last season.

“We are independent, we're a smaller team,” says Filippi. “But we are not content finishing third – absolutely not. We want to win this – that's the mentality throughout this building.”

Even with its new capabilities, don't expect Virgin to dominate the new FE season. Frankly, no team is likely to, given the nature of the rules – even the illustrious new additions. But do expect it to carry on what it has done so well over the years: getting in the fight, being successful and doing so in a slick and efficient manner.

In 2019-20, Virgin will be joined in the customer ranks by Venturi, now powered by Mercedes. But both can take inspiration from what has already come to pass in the electric championship – Techeetah's triumph as a Renault customer in 2017-18. *AK*

P52 FORMULA E PREVIEW

YOUR SAY

I simply couldn't believe the collision between Sebastian Vettel and Charles Leclerc last Sunday, but what was predictable was Vettel blaming Leclerc

NEIL DAVEY

Great race, shame about the blame game

I simply couldn't believe the collision between Sebastian Vettel and Charles Leclerc last Sunday, but what was predictable was Vettel blaming Leclerc. It was clear from the head-on pictures that Vettel had turned in, much the same as the 2010 Turkish Grand Prix with Mark Webber.

Mattia Binotto was diplomatic in the extreme, not wishing to blame either driver until he had spoken to them, but again he only had to watch the head-on TV shots rather than study telemetry and talk to the drivers.

Beyond that, a terrific race; plenty of drama and good racing. It was a pity that Alex Albon lost his podium place, but at least Lewis Hamilton held his hand up and took the rap, a lesson probably lost on Vettel.

Neil Davey

Newport, South Wales

Make the punishment fit the crime

It was a sad moment to see Alex Albon lose a possible podium in Brazil and hats off to Lewis Hamilton for taking responsibility. However, it seems to me that a five-second penalty is way too little for the potential damage to Albon's race.

I would like to see penalties for such mistakes place the miscreant behind the injured party.

That would be a fairer judgement in my view.

Chris Willows

By email

Logistics could be part of carbon-neutral plan

I read with interest Scott Mitchell and Adam Cooper's news story on page 7 of last week's magazine, regarding F1's plan to cut its CO2. It reminded me of a conversation I had with a colleague a few weeks back, where we discussed how transportation could be reduced in F1.

The idea we had was to break up the season into three regional 'mini seasons', with mini shutdown breaks between. Have an American mini season, with the US, Brazil, Mexico



and Canada; a European season with Silverstone, Monaco, Spa etc; and a fly-away season for Melbourne, Suzuka etc.

It would mean less transfer between races for cargo etc, especially if a regional hub was set up for each area, as a central logistics centre, and less travel for personnel so a bit less jet lag.

Helen Bendall-Jones

By email

Here's one way to spice up grand prix racing...

I was looking at a short video I took of the IMSA race at Laguna Seca – thundering Corvettes sliding down inside swoopy Lambos, prototypes trying to round them both up at once – when it hit me: multi-class racing always produces excitement. So if you want Formula 1 to be exciting, make it multi-class. Run the Sunday race with F1, F2, and F3 all on the track at the same time.

Bruce Merchant

Carmel, California

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8

Max Verstappen has scored eight wins from his 101 F1 starts

MAX'S REMINDER OF THE RED BULL THREAT

*Verstappen was on top form in Brazil and put on the sort of battle
with Lewis Hamilton we may see more of in 2020*

EDD STRAW

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“VERSTAPPEN HAD TO WORK FOR IT, EVEN THOUGH HE COMFORTABLY TOOK UP THE LEAD AT THE START”

Max Verstappen and Red Bull were the class of the field at Interlagos, assisted by a Honda engine package that thrives at altitude and a car that flew in the twisty middle sector. Early on, he was on target to control the race from start to finish, but this was not a straightforward Brazilian Grand Prix. Instead, he had to make two passes for the lead and negotiate a couple of late-race safety cars to prevail.

On Friday, the talk was of the apparent return of Ferrari's straightline supremacy. But come qualifying Verstappen only gave away a tenth and a half to the red machines on the straights and seized pole by 0.123 seconds from Sebastian Vettel, aided by how well the car was working aerodynamically in the long middle sector. With the Honda turbo characteristics effective in compensating for the 800 metres altitude and resulting reduction in air density, Mercedes losing a little on F1's rare visits to such heights, and Ferrari fastest but not by a massive margin on the straights, everything came up in Red Bull's favour.

As team principal Christian Horner put it, this was redemption for what happened last year when Verstappen's collision with the lapped Esteban Ocon's Racing Point cost certain victory. But Verstappen had to work for it, even though he comfortably took up the lead at the start while Mercedes' Lewis Hamilton worked his way around front-row starter Vettel in the first part of the Senna S.

With track temperatures more than 20C higher than even the peak of the preceding two days, the big question for the race was tyre life. The soft Pirellis that the majority of the field started on, including all the frontrunners – save for the medium-shod Ferrari of Charles Leclerc, down in 14th on the grid thanks to a 10-place penalty – looked durable in the cooler temperatures and a one-stop was possible. But most expected a two-stopper.

Verstappen quickly established himself out of DRS range of Hamilton, with a lead of 1.342s at the end of the first lap growing to 2.057s by the end of lap three. The gap bounced around in the 2-2.5s range throughout the first stint but, with the midfield – led by Toro Rosso driver Pierre Gasly in seventh place once Leclerc had joined the back of 'Class A' – dropping back, the pitstop window soon opened.

Mercedes and Hamilton, who suggested earlier in the weekend that they were open to taking an aggressive approach with both world

championships secured, decided to take the undercut. It was worth a try, especially with Vettel unable to keep pace with the leaders and now five seconds behind. Hamilton came in at the end of lap 20, having closed the gap to 1.8s on his in-lap. With fresh softs bolted on, he headed out for a maximum-attack out-lap.

Hamilton duly delivered a quick lap, but had some additional help from an unexpected source. Robert Kubica, running 19th just ahead of Williams team-mate George Russell, was released into Verstappen's path at the pit exit. Although he appeared to take an aggressive line to squeeze Verstappen, this was normal to open up the left-hander in the pit exit that followed. The result was Verstappen had to back out, with the anti-stall almost kicking in, and then follow the worst car in F1 through the long, and twisty, pit exit while Hamilton pulled away.

“When I heard [Verstappen was there], it was already too late,” said Kubica. “It is a shame because I know what it means when you are fighting at the front and this is not what should happen, especially when we are only fighting with ourselves. I apologise, but I couldn't do anything and was not aware he was coming.”

Horner suggested the time lost to Kubica, which also included a little at the end of the in-lap, likely cost track position despite a lightning-fast turnaround measured at 1.9s. The Williams pulled out of the way at the first opportunity, by which point Verstappen was 1.7s behind Hamilton. But the Mercedes driver had closed up on Leclerc, running long on his starting mediums, and was seeking a way past. He managed that, brilliantly, by cutting inside the Ferrari at the slow Bico de Pato right-hander, then completing the move around the outside at the Mergulho left-hander.

But Verstappen was coming. He passed Leclerc into the Juncao left-hander, then charged up to Hamilton on the long blast to Turn 1. Hamilton was powerless – literally, as he had no battery charge left after spending it all on the out-lap and in passing Leclerc – and Verstappen cruised past into the lead with the assistance of the DRS. Hamilton had a go at coming back at him into the Turn 4 left-hander, but it was futile. Moments later, he informed the team that he wasn't happy at not being given information about his “friggling battery state”.

“Although Lewis was able to stay with him and even close up a little bit towards the death of that [the first] stint, the pace with our car was



Interlagos was Honda's first 1-2 finish since Ayrton Senna's last world title win in Japan in 1991



Hamilton came in for fresh soft tyres at the end of lap 20

not really there to be able to do the sort of domineering type of race attacks that we've been able to do sometimes this year," said Mercedes technical director James Allison. "So we pulled the trigger for an undercut, just theoretically within range.

"We got lucky with the release of the Williams into Max's path, and we're then in front and we're thinking at that point they probably haven't got the pace to actually breeze past us just as we didn't pass them. But we actually used most of our energy in the battery, making the undercut work, and by the time we went up the hill we're a sitting duck to Max, who's had good straightline speed all weekend. Take our battery away, and you saw what happened."

Mercedes could perhaps have dialled back a little once Verstappen had emerged behind to give Hamilton half a chance of defending, but the need to pass Leclerc complicated matters. Ultimately, though, Mercedes was trying to take and keep the lead with a car that was slightly slower, so it was always a punt.

Amid growing wind, which made life difficult for everyone given its inconsistency, Hamilton struggled to pressure Verstappen during the stint that followed. Initially, the gap was similar to that of the first >>

QUALIFYING

Whether or not you consider this to be Max Verstappen's second pole position, as the record books suggest, or third, as he emphatically insists (given he counts the one in Mexico last month that never was), it's remarkable a driver who is regarded by many as the fastest in F1 – and is unquestionably one of the two quickest – has such a poor strike rate in 101 attempts. Given the Red Bull is so rarely a threat, he has to nail it when he has the chance, and Verstappen did exactly that at Interlagos.

While Ferrari had a significant advantage on the straights on Friday, it was much reduced in qualifying to the point where Verstappen lost only a tenth and a half. That, combined with his pace in the twisty middle sector, ensured he was on pole by 0.123 seconds from Sebastian Vettel.

Verstappen hit the front on the first runs in Q3 despite running wide out of the Pinheirinho left-hander. But that mistake meant he was only eight thousandths quicker than Vettel. Second time round, he made no such error and improved to secure pole. Amid worsening conditions, Vettel failed to improve but, while he believed beating Verstappen on the first runs was possible, the second seemed out of reach. That's despite Verstappen setting a faster time in Q2 thanks to a prodigious tow.

Lewis Hamilton was third after improving on the last attempt to jump ahead of Charles Leclerc – who was never going to start ahead of him thanks to a 10-place grid drop. With all the Mercedes-engined cars a little below par at altitude at Interlagos, it was a good performance from Hamilton. Qualifying was complicated for Mercedes by Hamilton's pacesetter lap in FP3, which he started with the front Pirellis below the desired temps. The team initially attempted to carry this strategy into qualifying, but had to back out of it as it was simply a brilliant lap with the tyres not perfect.

"RED BULL IS SO RARELY A THREAT, VERSTAPPEN HAS TO NAIL IT WHEN HE HAS THE CHANCE"

Valtteri Bottas and Alex Albon were fifth and sixth fastest, with Pierre Gasly prevailing in an ultra-tight midfield battle. The conditions had a big impact on the midfield mix, with both Haas drivers in the top 10 and Kimi Raikkonen making Alfa Romeo's first Q3 appearance in seven races.

Usual midfield pacesetter McLaren had Lando Norris just missing out on Q3, with Carlos Sainz Jr not completing a lap in qualifying after suffering an ignition wiring problem.





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stint, but by the end of lap 35 it had grown to 3.4s. Hamilton then closed up a little through traffic, then lost ground again and was thoroughly fed up with his tyres when he pitted at the end of lap 43.

Predictably, Verstappen covered this move and emerged almost 1.5s clear. And so it might have remained to the finish, especially with no challenges from behind. Vettel still had control of third place having stopped to take mediums at the end of lap 25, making a second stop on lap 49 to take softs. Behind him, Valtteri Bottas had struck out for a one-stopper by taking the hard-compound Pirellis when he made his first stop at the end of lap 26, but found the rubber slower and no more durable on his Mercedes than the mediums. That led to him becoming the first frontrunner to make a second stop on lap 41. Behind him in fifth was Alex Albon in the other Red Bull, who had gone to mediums at his first stop on lap 24, then took softs on lap 50.

But it was on lap 52 that the race changed. At the end of the previous lap, Bottas's engine – which had been consuming oil at a high rate – began to smoke. He made it as far as the back straight before the failure came and he slowed to retire from the race having already banked what would stand as a pointless fastest lap. Responsibly, Bottas parked his car close to a gap in the barriers and, after a struggle to get the steering wheel back on both by driver and a marshal, the Mercedes was set to be rolled out of the way without interrupting the race. But it wouldn't move because the floor of the car was beached on uneven ground so a tractor was required to drag it back a few metres.

As a result, the safety car was deployed when the leaders were on the 54th lap. It also created a strategic flashpoint. Hamilton was given the instruction to do the opposite of Verstappen, who was called in to take on a set of softs.

"It's a game of chess as the leader," said Horner. "The following car will only do the opposite, so to give away track position is quite a brave thing





“THE FOLLOWING CAR WILL DO THE OPPOSITE, SO TO GIVE AWAY TRACK POSITION IS QUITE A BRAVE THING TO DO. YOU HAVE TO BE CONFIDENT OF MAKING THE PASS AND WE’VE DONE IT ONCE WITH MAX BEFORE”

to do. You have to be confident of making the pass on track and we’ve done it once with Max before. We felt that with that tyre advantage, he had only conceded one position, he could do it again.”

Leclerc, in sixth place, opted to do the same, so when the race got back under way at the end of lap 59, Hamilton led from Verstappen, with Vettel, Albon and Leclerc from third through to fifth. Hamilton tried to delay the restart as long as possible to prevent Verstappen from getting a run on him. But it was to no avail and Verstappen drew alongside him and got ahead into Turn 1 to retake the lead for the second and final time, before Hamilton had a forlorn go at getting back past at Turn 4.

Behind, Albon tried a similar move on Vettel. It wasn’t as clear-cut but, despite being put on the artificial grass out of Turn 1, he hung on to move up to third place. Leclerc then had a go at passing Ferrari team-mate Vettel, who held onto fourth place. But Leclerc was determined to make the most of his tyre advantage and mugged Vettel with an inspired late-braking move into the Senna S that appeared to take Vettel by surprise.

Vettel attempted to come back, using the DRS on the back straight to pull alongside Leclerc on the right side of the track. He had the momentum to get ahead and likely complete the move around the outside into Turn 4, but needlessly drifted to his left. The resulting contact gave him a left-rear puncture and both Ferraris were out as a result of Vettel’s disastrous error of judgement. The result was another safety car on lap 66.

Surprisingly, Hamilton then pitted to take on fresh softs for what was going to be a very short run to the end of the 71st lap and the chequered flag. Having been told over the radio that he would lose one place and to offer his opinion, Hamilton justifiably felt the ball was in his court given the pitwall didn’t give him an instruction, so uncertainly he pitted. In fact, he dropped to fourth place behind both Albon and Gasly’s Toro Rosso.

“We just did something plain dumb,” admitted Allison. “We thought we were exchanging a place for fresh rubber with enough laps left to get that place back properly and then have a go for the lead. That was just factually incorrect because we were exchanging two places. We hadn’t factored Gasly in. Secondly, with the amount of debris on the track, there were a lot more laps taken up by the safety car than we’d >>

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TRACKSIDE VIEW

In Brazil, Senna lives. Or at least, the legend does. Particularly in the week of the Brazilian Grand Prix, with the 'Obrigado Senna' festivities marking a quarter of a century since the death of Ayrton Senna. On Sunday morning, two hours ahead of the start of the 2019 race, the years roll back as the familiar red-and-white McLaren, with a Senna at the wheel, rolls from the old first corner onto the modern Senna S.

It isn't the 1991 car in which Senna took his legendary, and long-awaited, first home F1 victory – instead the McLaren-Honda MP4/4 that never raced at Interlagos. It isn't the 'real' Senna either, with nephew Bruno at the wheel and visibly not quite comfortable in the close confines of the cockpit. But the reaction is utterly authentic and can't fail to move you.

Midway through the five-lap run, the chants of 'Ole, ole, ole, ole, Senna, Senna' begin to echo from the grandstands at the first corner, augmenting the loud cheers that are already rippling around the track as Bruno laps Interlagos. For a moment, for all the anachronisms and incongruities, you are transported back to the days when Senna was a real, living, breathing symbol of hope in Brazil.



Watching from the first corner, it's clear that Bruno is well within the limits of the MP4/4. That's no surprise given he has longer legs than his uncle and has only had a brief run on Thursday – shortly after Senna's old British F3 sparring partner Martin Brundle's turn. But that doesn't prevent it being hugely evocative.

Last time round, Bruno is cruising and holding aloft the Brazilian flag – just as Senna

himself did after winning here for the first time 28 years ago. The crowd ramps up its reaction, the arms are raised in salute as they, too, for a few minutes imagine Senna is still with them.

Shortly afterwards, the crowd is again cheering on the drivers' parade. With all the drivers crowded onto the flatbed truck, it's difficult to discern who gets the best reaction. But when Lewis Hamilton – an avowed Senna fan

and seemingly the most popular driver in this country with no home heroes on the grid – waves, the fans seem to get a little louder. They know how to appreciate a racer who they see as being an heir to Senna's great legacy.

But the reception to the earlier demo is a reminder that there can be no replacement for Ayrton Senna do Brasil. Merely fitting tributes.

EDD STRAW



Bruno Senna drives
Ayrton's McLaren MP4/4
to crowd's adulation

"VERSTAPPEN REMINDED EVERYONE WHY HE IS HEIR APPARENT WITH HIS PAIR OF PASSES FOR THE LEAD"



anticipated. That was your rookie error of a not-quite-quick-enough car on the day and trying to stretch too far for victory. It wasn't on, we just made a mistake."

So where had Gasly come from? He'd started sixth having set the seventh-fastest time in qualifying to lead the midfield. Inevitably, Leclerc soon passed him but he'd commanded the midfield brilliantly. There was no hope of a podium before Bottas triggered the safety car, as at that point he was over 1m11s off the lead. But as a lapped car, he was waved back round. The demise of the Ferraris, plus Hamilton's erroneous stop, promoted him to third place.

The debris was cleared, but Gasly had no hope of holding on ahead of Hamilton even with two laps to go. The Mercedes duly blasted past around the outside into the Senna S at the restart and set about Albon. The Red Bull driver looked a sitting duck, but didn't help his cause by taking the orthodox wide approach to the Turn 10 right-hander.

This created an inviting opening for Hamilton, with the contact inevitable as Albon turned into the apex. The Mercedes driver tried to back out of it, briefly locking up, but as the Red Bull spun he continued – later to be hit with a five-second penalty for causing the collision. "It's the first time I've come together with someone for a long, long time but I saw a door open and I went for it," said Hamilton. "It closed very, very quickly. I went straight to him after the race to apologise."

Albon admitted he did not see Hamilton attacking when he turned in, with the spin relegating him to 14th in the final results. While Albon was the big loser from this, the delighted Gasly went from fourth to second

as a result. But he still had Hamilton, the left side of the front wing of his Mercedes battle-scarred, to contend with. On the last lap, he had to defend into Juncao, giving Hamilton a run up the hill to the finish line. But Gasly held firm and, in the final few hundred metres, the Honda power allowed him to edge back ahead. Second was his, by just 0.062s! His reaction over the radio said it all, even though he'd have had the position whether or not he'd held Hamilton off.

Hamilton's penalty also promoted Carlos Sainz Jr to third place despite his McLaren having started from the back of the grid. On a one-stop strategy, he'd somehow managed to hold off the Alfa Romeos in the closing stages, even through the slow final restart that demanded sudden acceleration, to take his first podium finish in F1 with what he rated as his best race drive. Hamilton, meanwhile, was classified seventh, having also dropped behind Kimi Raikkonen, Antonio Giovinazzi and Renault's Daniel Ricciardo.

But while this was a rare bad day for Hamilton in another year of supremacy, what happened up front was Verstappen reminding everyone why he is the heir apparent with his pair of passes for the lead. F1 needs more face-offs between these two.

NEXT F1 REPORT

ABU DHABI GRAND PRIX 5 DECEMBER ISSUE

Can anyone stop Mercedes scoring its sixth consecutive Abu Dhabi GP victory?

Sainz one-stops to first podium

Carlos Sainz Jr claimed his first F1 podium finish in 101 starts after finishing fourth on the road and being promoted when Lewis Hamilton was hit with a five-second penalty for causing a collision with Alex Albon.

The McLaren driver started last after suffering an ignition wiring problem on his first flying lap in Q1 and opted to take a fresh Renault engine. He started on soft tyres, working his way past the Williams drivers, Daniil Kvyat, Nico Hulkenberg and Sergio Perez in the early stages to run 15th, and later on passed Lance Stroll. He also benefited from the collision between Daniel Ricciardo and Kevin Magnussen.

Sainz switched to medium tyres after 29 laps and gambled on running to the end. This allowed him to get ahead of the Alfa Romeos. He was let past by team-mate Lando Norris and jumped Romain Grosjean, on a similar strategy, at the first restart. He gained two more spots when the Ferraris collided. Despite having the oldest tyres in the field at the second restart, he held off Kimi Raikkonen and overtook the stranded Albon on the penultimate lap. Hamilton's penalty then handed him third.

"I had literally no grip," he said. "I was wheelspinning in fourth and fifth gear at the start because we were so slow so I couldn't put any energy on the tyres. Maybe the rally skills started helping."

McLaren has now made sure of fourth in the constructors' championship with its 49-point lead over Renault.



Ferrari to discuss 'silly' collision with drivers



Ferrari planned to meet Sebastian Vettel and Charles Leclerc at Maranello this week to deal with the fallout from the "silly" crash between its drivers in the Brazilian Grand Prix.

Leclerc passed Vettel for fourth place at the first corner towards the end of the race and the two made contact on the run to Turn 4 moments later, when Vettel tried to repass on the outside.

Though Vettel moved over on his team-mate and triggered the clash, neither driver was punished as the stewards determined nobody was wholly at fault.

Team principal Mattia Binotto said an internal review would be held this week in private but would not be about establishing blame or whether to

punish either driver: "Today they were free to fight. They knew that. But 'free to fight' doesn't mean to do silly actions, especially between two team-mates, between the two Ferraris."

"It was simply a silly action."

Four-time world champion Vettel and his new-for-2019 team-mate Leclerc have had tense moments in their first season together, although this has related to Ferrari's use of team orders rather than any flashpoints involving contact.

At the start of 2019 Binotto said managing Vettel and rising star Leclerc was a "luxury", and in Brazil he insisted he still believes that is the case. "I'm still convinced it's a luxury

Q & A

PIERRE GASLY TORO ROSSO DRIVER

Can you describe your emotions?

It's just the best day of my life. As a kid you dream about being in Formula 1, and then when it happens it becomes the best day of your life and then you dream about your first podium. To be fair, I didn't think this would happen, coming back with Toro Rosso during the second part of the season. I just kept working on myself, tried to push the team as much as I could, telling them, 'OK, we need to make the best out of all the opportunities we have until the end of the year.' And today it just came to us. We had a really strong race before that in P7, behind the top teams, and then when they started to battle, first the Ferraris, and then after I knew Lewis would try something. We just managed to get past the two and it's just incredible to get my first podium in Formula 1.



What were your expectations coming into the race?

I felt good in the car the whole weekend. I think we managed to get the car exactly where I wanted. I said, 'OK, if we finish best of the rest again in the race, this will be amazing for us.' So, that's what we were doing. The whole race we had good pace. I was controlling the gap with the guys behind but we always had quite a safe margin. I could push quite nice. Even at the beginning of the race I could see that Albon and Charles weren't pulling away so much, so I think the car was working really well.

Can you just describe the view from up on the podium?

It's crazy. You get used to being on the podium in the lower series, and then after coming into F1, it's a feeling you miss. My last podium was in Formula 2 when I was champion in 2016 [he's obviously forgotten his Super Formula season in 2017]. To be in second place between

Max and Lewis, my first podium in F1, is just insane and amazing and really emotional for me.

How was your battle with Lewis Hamilton to the finish line?

Intense. You see your first podium coming together and then you've got the world champion behind you pushing you to the limit. I tried to defend the best way I could, and coming out of the last corner, just flat out and hoping that the engine can give you every single horsepower it can get. I was pressing the overtake button, trying to get low inside the cockpit and I could see his front wing and I was like, 'Please don't pass me - I'm going to be so pissed off if it happens!'



Stroll denied shot at top-five finish

Racing Point driver Lance Stroll was denied a potential fifth-place finish when he collected debris from the Ferrari collision that damaged his front-right suspension.

The Racing Point driver kept a low-profile in the race after pulling a great double pass on Nico Hulkenberg and Sergio Perez on the opening lap, but was on a one-stop strategy that closely mirrored Carlos Sainz's when he was forced to retire late on. At that point, he was between the two Alfa Romeo drivers, who finished fourth and fifth, so he could have finished strongly had he been as effective as Sainz in the final laps on old rubber.

"It's a shame because up until then I was on a one-stop strategy, my tyres were performing well, and we were definitely in a position to grab some points today," said Stroll.

because they are both good drivers," he said. "Very good drivers. They both certainly represent a boost or a benchmark for each other. We have seen them improve during the season. Seb in the second half, certainly, has been very fast. So I think, overall, it is still a luxury.

"What happened, I would say it is even lucky it happened this season because at least there will be opportunities to clarify with them, in the view of next year, what we need not to happen. So I'm happy to take the opportunity of what happened, at least to clarify with them for the future."

Asked if Vettel and Leclerc had a healthy

relationship, team principal Binotto said: "I think that what I may read or hear is quite different compared to what I may see internally. It's true that in Monza [where Leclerc did not honour a pre-qualifying agreement] it was not an easy situation to manage. They had to clarify, they spoke together, face to face, openly. The same happened after Russia [where Vettel defied a pre-race agreement and in-race instruction].

"Currently they've got a good relationship and they're going well together. Certainly what happened may not help but I don't think there is a drama at all. I see that more as an opportunity in the view of next year to clarify if needed."

Ricciardo recovers after five-second penalty

Daniel Ricciardo recovered from a five-second penalty after a collision with Kevin Magnussen to finish sixth.

The Renault driver attempted to pass Magnussen for 13th place on lap seven into the Turn 4 left-hander. He had the inside line – and the Haas driver left room – but Ricciardo clipped the inside kerb and locked up. This tapped Magnussen into a spin and gave Ricciardo damage, sending him to the pits.

"I tried to avoid it," said Ricciardo. "I got onto the inside kerb to create as much space as possible and I skipped into him. As soon as I hit him I was like, 'Please don't spin', and he spun. I don't want that because obviously it's not nice for him, it doesn't make me look the best and I knew the risk of a penalty and front damage."

Magnussen placed 11th after losing a spot on the last lap.



Alfa Romeo cashes in

Alfa Romeo pairing Kimi Raikkonen and Antonio Giovinazzi delivered the team's best results of the season with fourth and fifth after running in the points for much of the race.

Raikkonen started eighth and held the position on the first lap, running an orthodox two-stop strategy. This meant he was behind Carlos Sainz, on aged medium tyres, at the final restart, but a combination of understeer in the turbulent air and not having as much battery charge as hoped thwarted Raikkonen's effort to

overtake. He did briefly nose ahead out of Turn 5, only to slip back behind Sainz.

Giovinazzi spun on his final Q2 run so started 12th, but jumped to 10th at the start. He mirrored Raikkonen's strategy and was rewarded with a career-best fifth place.

Alfa Romeo has struggled for competitiveness in recent races since introducing a major aerodynamic upgrade for September's Singapore Grand Prix, but is now confident it has got on top of the package.

20 Sainz #55 no time		18 Russell #63 1m10.126s		16 Kvyat #26 1m09.320s		14 Leclerc #16 1m07.728s		12 Giovinazzi #99 1m08.919s	
	19 Kubica #88 1m10.614s		17 Stroll #18 1m09.536s		15 Perez #11 1m09.035s		13 Hulkenberg #27 1m08.921s		11 Ricciardo #3 1m08.903s

FREE PRACTICE 1

POS	DRIVER	TIME
1	Albon	1m16.142s
2	Bottas	1m16.693s
3	Vettel	1m17.041s
4	Leclerc	1m17.285s
5	Sainz	1m17.786s
6	Hulkenberg	1m17.899s
7	Ricciardo	1m17.985s
8	Gasly	1m18.100s
9	Kvyat	1m18.274s
10	Norris	1m18.559s
11	Russell	1m18.779s
12	Magnussen	1m19.247s
13	Stroll	1m19.414s
14	Raikkonen	1m19.532s
15	Giovinazzi	1m19.600s
16	Latifi	1m20.010s
17	Grosjean	no time
18	Perez	no time
19	Verstappen	no time
20	Hamilton	no time

WEATHER 17C, wet/overcast

FREE PRACTICE 2

POS	DRIVER	TIME
1	Vettel	1m09.217s
2	Leclerc	1m09.238s
3	Verstappen	1m09.351s
4	Bottas	1m09.373s
5	Hamilton	1m09.440s
6	Magnussen	1m10.143s
7	Ricciardo	1m10.194s
8	Raikkonen	1m10.210s
9	Albon	1m10.275s
10	Sainz	1m10.310s
11	Hulkenberg	1m10.325s
12	Gasly	1m10.352s
13	Giovinazzi	1m10.419s
14	Kvyat	1m10.424s
15	Perez	1m10.443s
16	Grosjean	1m10.504s
17	Stroll	1m10.568s
18	Norris	1m10.700s
19	Russell	1m11.818s
20	Kubica	no time

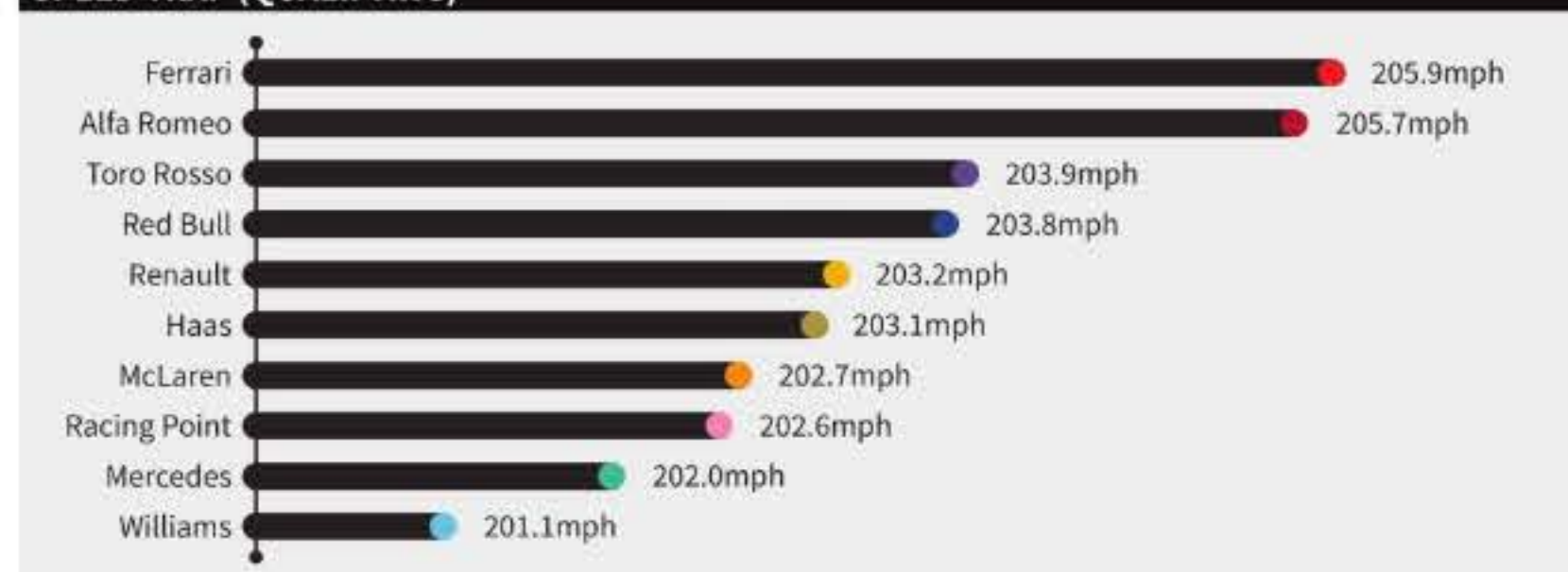
WEATHER 19C, overcast

FREE PRACTICE 3

POS	DRIVER	TIME
1	Hamilton	1m08.320s
2	Verstappen	1m08.346s
3	Leclerc	1m08.611s
4	Vettel	1m08.664s
5	Albon	1m09.136s
6	Bottas	1m09.201s
7	Kvyat	1m09.415s
8	Giovinazzi	1m09.462s
9	Norris	1m09.585s
10	Sainz	1m09.588s
11	Raikkonen	1m09.619s
12	Gasly	1m09.625s
13	Hulkenberg	1m09.650s
14	Magnussen	1m09.713s
15	Ricciardo	1m09.761s
16	Grosjean	1m09.798s
17	Perez	1m09.995s
18	Stroll	1m10.312s
19	Russell	1m10.843s
20	Kubica	1m11.205s

WEATHER 21C, overcast

SPEED TRAP (QUALIFYING)



QUALIFYING 1

POS	DRIVER	TIME
1	Verstappen	1m08.242s
2	Leclerc	1m08.496s
3	Albon	1m08.503s
4	Bottas	1m08.545s
5	Vettel	1m08.556s
6	Hamilton	1m08.614s
7	Magnussen	1m08.875s
8	Norris	1m08.891s
9	Gasly	1m08.909s
10	Hulkenberg	1m09.050s
11	Ricciardo	1m09.086s
12	Giovinazzi	1m09.175s
13	Grosjean	1m09.197s
14	Raikkonen	1m09.276s
15	Perez	1m09.288s
16	Kvyat	1m09.320s
17	Stroll	1m09.536s
18	Russell	1m10.126s
19	Kubica	1m10.614s
20	Sainz	notime

QUALIFYING 2

POS	DRIVER	TIME
1	Verstappen	1m07.503s
2	Leclerc	1m07.888s
3	Vettel	1m08.050s
4	Hamilton	1m08.088s
5	Albon	1m08.117s
6	Bottas	1m08.232s
7	Grosjean	1m08.705s
8	Gasly	1m08.770s
9	Magnussen	1m08.803s
10	Raikkonen	1m08.858s
11	Norris	1m08.868s
12	Ricciardo	1m08.903s
13	Giovinazzi	1m08.919s
14	Hulkenberg	1m08.921s
15	Perez	1m09.035s

QUALIFYING 3

POS	DRIVER	TIME
1	Verstappen	1m07.508s
2	Vettel	1m07.631s
3	Hamilton	1m07.699s
4	Leclerc	1m07.728s
5	Bottas	1m07.874s
6	Albon	1m07.935s
7	Gasly	1m08.837s
8	Grosjean	1m08.854s
9	Raikkonen	1m08.984s
10	Magnussen	1m09.037s

WEATHER 22C, overcast



SEASON STATS

DRIVERS' CHAMPIONSHIP	PTS	BEST FINISH	BEST QUAL
1 Hamilton	387	1	1
2 Bottas	314	1	1
3 Verstappen	260	1	1
4 Leclerc	249	1	1
5 Vettel	230	1	1
6 Gasly	95	2	4
7 Sainz	95	3	6
8 Albon	84	4	5
9 Ricciardo	54	4	4
10 Perez	46	6	5
11 Norris	45	6	5
12 Raikkonen	43	4	5
13 Hulkenberg	37	5	6
14 Kvyat	35	3	6
15 Stroll	21	4	9
16 Magnussen	20	6	5
17 Giovinazzi	14	5	8
18 Grosjean	8	7	6
19 Kubica	1	10	18
20 Russell	0	11	16

CONSTRUCTORS' CHAMPIONSHIP

1 Mercedes	701
2 Ferrari	479
3 Red Bull	391
4 McLaren	140
5 Renault	91
6 Toro Rosso	83
7 Racing Point	67
8 Alfa Romeo	57
9 Haas	28
10 Williams	1

QUALIFYING BATTLE

Hamilton	13	7	Bottas
Vettel	9	10	Leclerc
Albon	0	6	Verstappen
Gasly	1	10	Verstappen
Ricciardo	11	8	Hulkenberg
Grosjean	7	11	Magnussen
Norris	9	9	Sainz
Perez	17	3	Stroll
Raikkonen	11	8	Giovinazzi
Gasly	4	1	Kvyat
Albon	5	5	Kvyat
Russell	20	0	Kubica

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

WINS

Hamilton	10
Bottas	4
Verstappen	3
Leclerc	2
Vettel	1

FASTEST LAPS

Hamilton	5
Leclerc	4
Bottas	3
Verstappen	3
Gasly	2
Vettel	2
Magnussen	1

POLE POSITIONS

Leclerc	7
Bottas	5
Hamilton	4
Verstappen	2
Vettel	2

STARTING GRID

10 Norris #4 1m08.868s	8 Raikkonen #7 1m08.984s	6 Gasly #10 1m08.837s	4 Bottas #77 1m07.874s	2 Vettel #5 1m07.631s
9 Magnussen #20 1m09.037s	7 Grosjean #8 1m08.854s	5 Albon #23 1m07.935s	3 Hamilton #44 1m07.699s	1 Verstappen #33 1m07.508s

RACE RESULTS ROUND 20/21 71 LAPS - 190.07 MILES

POS	DRIVER	TEAM	FINISHTIME	LED	TYRES
1	Max Verstappen (NLD)	Red Bull-Honda	1h33m14.678s	57	Su, Sn, Mn, Su
2	Pierre Gasly (FRA)	Toro Rosso-Honda	+6.077s		Su, Mn, Su
3	Carlos Sainz Jr (ESP)	McLaren-Renault	+8.896s		Sn, Mn
4	Kimi Raikkonen (FIN)	Alfa Romeo-Ferrari	+9.452s		Su, Mn, Su
5	Antonio Giovinazzi (ITA)	Alfa Romeo-Ferrari	+10.201s		Sn, Mn, Su
6	Daniel Ricciardo (AUS)	Renault	+10.541s		Mn, Sn, Su
7	Lewis Hamilton (GBR)	Mercedes	+11.139s	6	Su, Su, Mn, Su
8	Lando Norris (GBR)	McLaren-Renault	+11.204s		Sn, Hn, Mn
9	Sergio Perez (MEX)	Racing Point-Mercedes	+11.529s		Sn, Mn, Su
10	Daniil Kvyat (RUS)	Toro Rosso-Honda	+11.931s		Mn, Sn, Sn
11	Kevin Magnussen (DNK)	Haas-Ferrari	+12.732s		Su, Mn, Su
12	George Russell (GBR)	Williams-Mercedes	+13.599s		Mn, Mn, Sn, Su
13	Romain Grosjean (FRA)	Haas-Ferrari	+14.247s		Su, Mn, Su
14	Alexander Albon (THA)	Red Bull-Honda	+14.927s		Su, Mn, Su
15	Nico Hulkenberg (DEU)	Renault	+18.059s		Mn, Hn, Sn, Su
16	Robert Kubica (POL)	Williams-Mercedes	-1 lap		Mn, Mn, Hn, Sn, Su
17	Sebastian Vettel (DEU)	Ferrari	65 laps-accident	8	Su, Mn, Su
18	Charles Leclerc (MCO)	Ferrari	65 laps-accident		Mu, Hn, Sn
19	Lance Stroll (CAN)	Racing Point-Mercedes	65 laps-debris damage		Sn, Mn, Sn
R	Valtteri Bottas (FIN)	Mercedes	51 laps-engine		Su, Hn, Mn

FASTEST LAPS

POS	DRIVER	TIME	GAP	LAP
1	Bottas	1m10.698s	-	43
2	Verstappen	1m10.862s	+0.164s	61
3	Hamilton	1m11.082s	+0.384s	46
4	Albon	1m11.087s	+0.389s	52
5	Vettel	1m11.384s	+0.686s	51
6	Leclerc	1m11.423s	+0.725s	63
7	Norris	1m12.328s	+1.630s	63
8	Kvyat	1m12.385s	+1.687s	49
9	Gasly	1m12.425s	+1.727s	65
10	Stroll	1m12.603s	+1.905s	65
11	Ricciardo	1m12.733s	+2.035s	44
12	Perez	1m12.840s	+2.142s	64
13	Hulkenberg	1m12.934s	+2.236s	64
14	Giovinazzi	1m13.020s	+2.322s	49
15	Raikkonen	1m13.135s	+2.437s	65
16	Sainz	1m13.158s	+2.460s	63
17	Magnussen	1m13.262s	+2.564s	65
18	Grosjean	1m13.619s	+2.921s	29
19	Russell	1m13.752s	+3.054s	57
20	Kubica	1m14.553s	+3.855s	63

WEATHER 21C, cloudy

WINNER'S AVERAGE SPEED 122.31mph FASTEST LAP AVERAGE SPEED 136.35mph

TYRES

KEY: H - Hard M - Medium S - Soft I - Intermediate W - Wet n - New set u - Used set



RACE BRIEFING

FP1 DRIVER

NICHOLAS LATIFI replaced Kubica at Williams

GRID PENALTIES

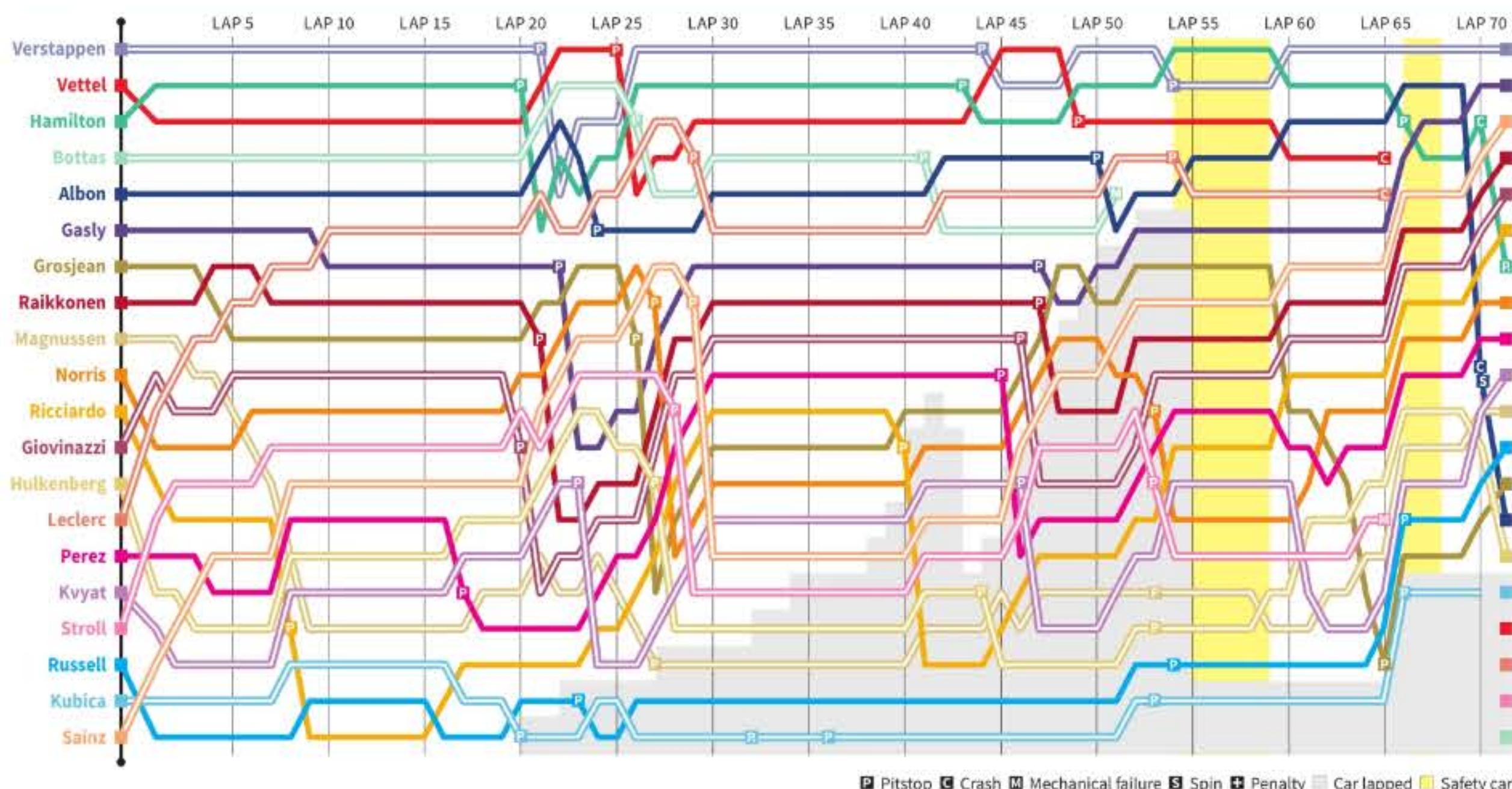
LECLERC 10-place penalty for additional power unit elements used
SAINZ Required to start from the back of the grid for additional power unit elements used

RACE PENALTIES

RICCIARDO Five-second penalty and two licence points for causing a collision with Magnussen
KUBICA Five-second penalty and two licence points for unsafe release from pitstop
HULKENBERG Five-second penalty and one licence point for overtaking Magnussen during a safety car period

HAMILTON Five-second penalty and two licence points for causing a collision with Albon

LAP CHART What happened, when



P Pitstop C Crash M Mechanical failure S Spin P Penalty Car lapped Safety car

VERSTAPPEN, GASLY AND SAINZ THREE OF A TOP-SCORING KIND

The Red Bull star was simply peerless at Interlagos, and he's joined at the top of our scoreboard by the two surprise – but fully deserving – podium finishers

EDD STRAW

MERCEDES



LEWIS HAMILTON

8 Qualified third in the third-fastest single-lap car, then jumped Vettel at the start. Executed an undercut pass on Verstappen but didn't have the battery to hold him back. A risky move led to a clash with Albon, but deserves credit for putting the Mercedes in the victory mix on a difficult weekend.



VALTTERI BOTTAS

6 Never seemed to get things quite hooked up, lagging 0.175s behind Hamilton in qualifying. An aborted one-stop attempt cost him track position to Leclerc, which he was struggling to regain despite a tyre advantage when his engine, which had been losing oil, let him down.

FERRARI



SEBASTIAN VETTEL

4 Performed well in qualifying, and would at least have been ahead of Verstappen on first-run pace without an error at the last corner. Would have been a solid third without the first safety car, which allowed first Albon then Leclerc to pass him and created the conditions for Vettel to wipe out both Ferraris.



CHARLES LECLERC

8 Carried a 10-place grid penalty into the weekend, then made life harder for himself with so-so qualifying. Made great early progress to climb from 14th to sixth, then did a terrific job of holding off Bottas. But his brilliant late pass on Vettel resulted in him being wiped out by his team-mate.

RED BULL



ALEX ALBON

7 Never had Verstappen's pace, qualifying 0.427s behind, and was in a battle for fourth before the first safety car allowed him to jump Leclerc and gave the opportunity to execute a great pass on Vettel for third. Ran second after Hamilton's late stop, but spun after contact with the Mercedes.



MAX VERSTAPPEN

10 A wide moment out of Turn 9 meant pole wasn't certain on his first run, then nailed a strong lap to make sure of it. Lost the lead thanks to a Hamilton undercut and Williams roadblock, but took it back, repeating the trick when he stopped for a third time under the first safety car.

RENAULT



DANIEL RICCIARDO

8 Renault team-mates were nip and tuck in qualifying, but Ricciardo was the more effective in the race despite a scruffy first stint culminating in the Magnussen clash, for which he earned a five-second penalty. Recovered well, surging from 12th at the first restart to earn sixth.



NICO HULKENBERG

6 Was just 0.018s slower than Ricciardo in qualifying, but their races started to diverge when he picked up wheelspin at the start. Fell three places to 16th, and the race never really came back to him, with a penalty for overtaking Magnussen before the safety car dropping him from 12th to 15th.

HAAS



ROMAIN GROSJEAN

7 Made the best of the Haas to qualify as second-best midfielder with the car performing well in the lower temperatures. Executed a one-stopper well in a Haas that isn't generous to its rear tyres, but couldn't hang on and slid from seventh at the first restart to 12th in the final results.



KEVIN MAGNUSSEN

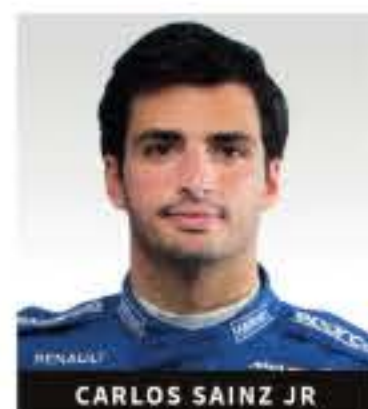
6 Didn't extract as much from the car in qualifying as Grosjean and slipped out of a possible points finish early on. The contact with Ricciardo pushed him further back, but a strong run at the first restart got him into the points hunt, missing out to a last-lap move by Kvyat.

MCLAREN



LANDO NORRIS

7 FP3 showed he had similar underlying pace to Sainz, although he was apologetic for falling in Q2. After spending the whole first lap dicing, he ran 12th, which became 11th when he passed Magnussen. There he stayed, finishing eighth after gaining three places to retirements.



CARLOS SAINZ JR

10 An ignition problem in Q1 put him last. But a combination of eight on-track passes, three places gained through strategy, three retirements, Hamilton's penalty and the Ricciardo/Magnussen collision added up to a superb third on a risky one-stopper.



RACING POINT



SERGIO PEREZ

8 Wasn't able to get out of Q1 and had to dig in in the race after falling behind his team-mate. Fifteenth on the first lap, he did his usual capable job and was rewarded with two points on a two-stop strategy thanks to getting ahead of the Haas drivers and problems for four frontrunners.



LANCE STROLL

9 A quarter of a second off in qualifying, he made up for it with a great double pass on Hulkenberg and Perez on the first lap. Went for the same strategy as Sainz and was between the two Alfas – in a position that would have been fifth at the finish – when he hit Ferrari debris and retired.

ALFA ROMEO



KIMI RAIKKONEN

9 With Alfa Romeo back on form having got on top of its Singapore upgrade, Raikkonen performed well to get into Q3. Held eighth at the start before passing Grosjean, then held position to the flag and benefited from retirements ahead – although he came so close to passing Sainz.



ANTONIO GIOVINAZZI

8 Had the pace to match Raikkonen, but spun on his final Q2 lap. Made up for that by gaining a couple of places on the first lap to run 10th, then passed Magnussen to move back into 10th after Leclerc had blown by. Followed Raikkonen home to nail his best F1 result.

TORO ROSSO



PIERRE GASLY

10 Delighted to nail 'Class B' pole and held the position comfortably through the race. Then, the retirements of Bottas and the two Ferraris, combined with the Hamilton/Albon clash, handed him second place, which he held onto superbly to take a redemptive podium finish.



DANIIL KVIAT

6 Struggled badly in qualifying with lockups and said he was just lacking grip, which led to him falling in Q1. He then dropped back to 18th early on but recovered solidly from that position, helped by retirements at the front and Albon's late off – as well as passing Magnussen and Hulkenberg late on.

WILLIAMS



GEORGE RUSSELL

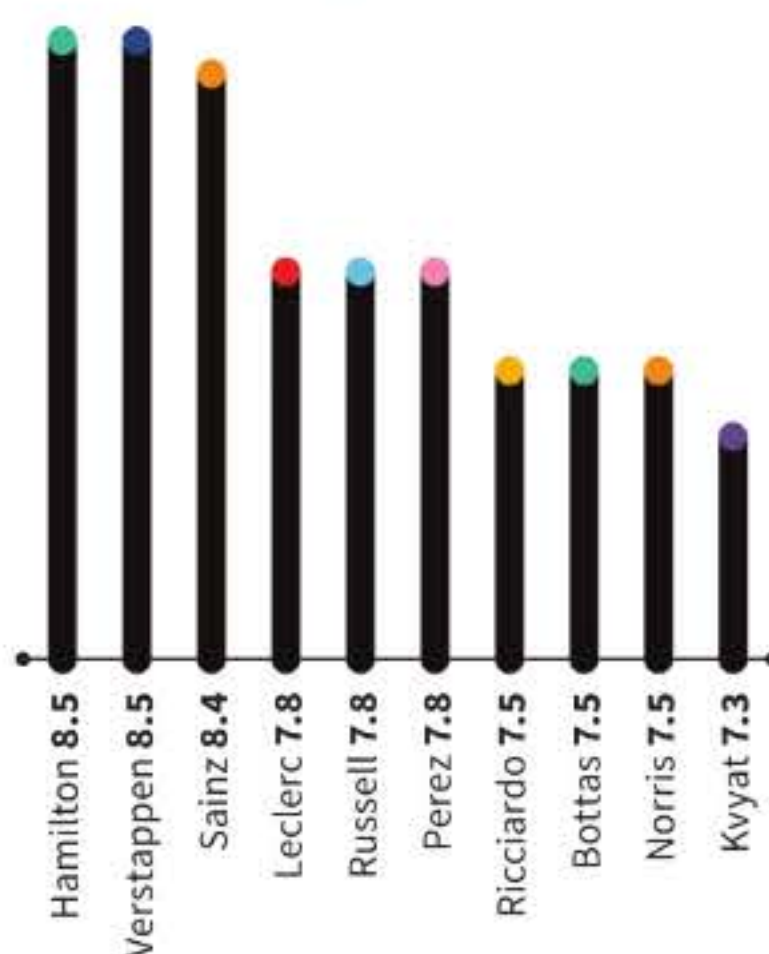
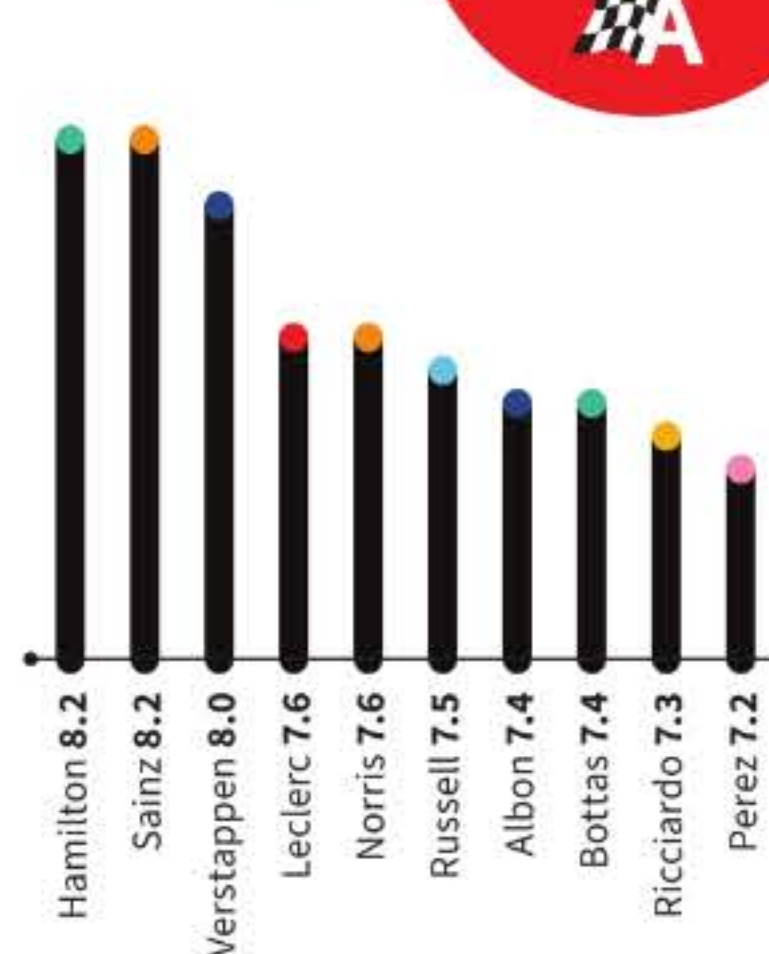
7 On a weekend when Williams was more off the pace than it anticipated, he did his usual capable job. In fact, it was very much in line with recent races, outpacing Kubica in qualifying and the race, but slipping behind him at the start, then taking a while to get past him before pulling away.



ROBERT KUBICA

6 Missed FP1, then crashed in FP2 – for which he blamed water pulled onto the track by Magnussen. Using an old-spec floor thanks to the shunt, he turned in one of his stronger qualifying performances. Ran ahead of Russell for 26 laps before being passed, then vanishing behind him.

TOP 10 AVERAGE RATINGS

AUTOSPORT'S RATING
AFTER ROUND 20READERS' RATING
AFTER ROUND 20GIVE
YOUR DRIVER
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DRIVER-RATINGS

Verschoor provides a new Macau shock

New cars, new teams, revisions to the circuit... But one thing remains unchanged – the ability of the Macau Grand Prix to spring a surprise

JACK BENYON

The Macau Grand Prix is renowned for creating drama, but last weekend it excelled itself by producing one of the genuine giantkilling stories of the past motorsport decade, as the Dutch combination of Richard Verschoor and MP Motorsport won Formula 3's biggest race at their first attempt on the Guia track.

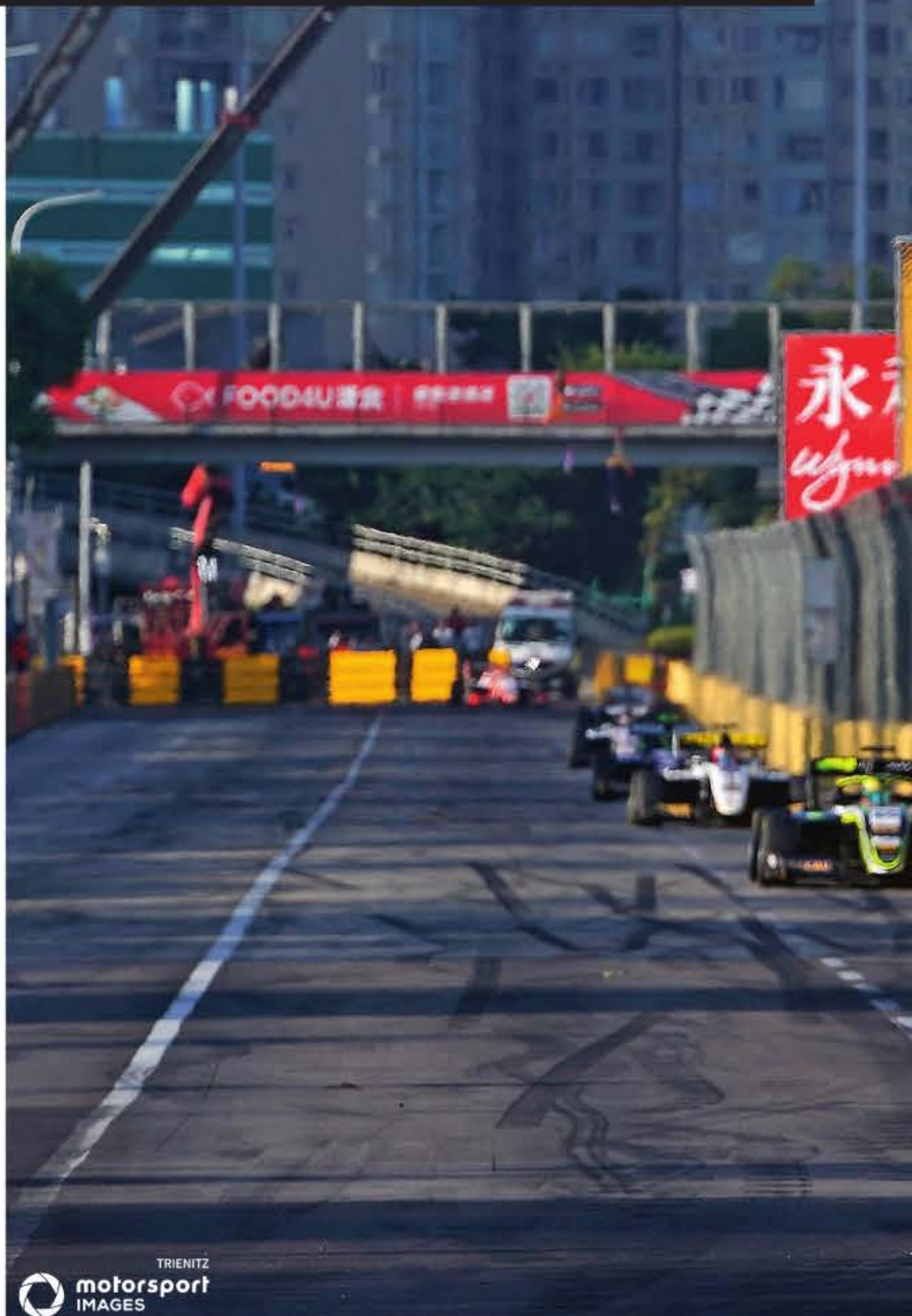
The nature of the street circuit means that drivers with bucketloads of commitment, bravery and sheer skill can make the difference by taking big risks, brushing up against the barriers and leaving their braking until the last moment in a bid to defeat allcomers.

Luckily, none of that had altered for 2019 despite heavy changes to the track. With seven improvements to help safety (see panel, p35), there was potential to ruin the charm and adversity this venue offers, and as Autosport conducted its track walk – a tradition started by veteran old-school-F3 Autosport reporter Marcus Simmons – there was genuine worry that this once great event would be a shadow of its former self, sanitised by the 'fun police'. Quite the opposite was the case, as the FIA and the Macau organisers had improved safety while keeping all there is to love about the fearsome Guia layout.

The changes were required so that the organisers and the FIA could bring the new FIA Formula 3 car to the event in 2019 – because of its higher power-to-weight ratio than the old Dallara machines used here in previous years, an upgraded circuit homologation was needed.

The face of F3 has changed this year. It's no longer a category for multiple chassis and engine manufacturers, instead morphing more into what was GP3 and some of its gimmicks for entertainment, such as degrading Pirelli tyres and DRS. But making the cars equal does have some merit, at least on paper.

In the FIA F3 Championship, the goal of the teams is to run the cars nice and low and drive air over the front end. But >>



TRINITY
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IMAGES



at Macau, that's tough to do over its aggressive bumps, and that means teams were forced to raise the cars and in turn alter the set-up. A combination of this, and the fact that it was the first time here with the car, shook up the order and gave some of the smaller teams a chance.

It also pushed speeds through the roof, the cars up to four seconds quicker than the record-setting pace from the year before. And with the assistance of DRS – which functioned infrequently due to sensor issues – top speeds were up by around 14mph to 191mph for some drivers. That's a staggering speed for an F3 car, especially given that it wasn't even in the proper low-downforce spec used at Monza.

Double Macau Grand Prix winner Dan Ticktum – entering Macau in a bid to secure the first-ever consecutive hat-trick – said it was “dangerous”. The one thing to factor into that is, while the cars are quicker, they also have strengthened chassis and the all-important halo. Most drivers were happy with the new machine and praised it.

Despite that final shake-up of the order, qualifying and the qualification race were more representative of the usual 2019 form. Prema Racing wrapped up the teams'

“Top speeds were up to 191mph for some drivers. That's a staggering speed for an F3 car”

title with a round to spare this year, and it looked like drivers' championship runner-up Marcus Armstrong was able to find another gear as he initially had the pole. But after a purple second sector on the next tour, he crashed at Police and spent the rest of the weekend struggling to recover.

Armstrong's title-winning team-mate and fellow Ferrari Driver Academy ace Robert Shwartzman led the charge instead, while Hitech Grand Prix man Juri Vips – the closest rival to the Prema brigade all

season – also starred from the outset.

Vips was his usual fearless self and, with Prema's advantage seemingly reduced in Macau, the Estonian was loving every minute of the on-track action. He won pole and then, after a first-lap pile-up at Lisboa caused by Logan Sargeant clipping Arjun Maini into a track-narrowing spin, he cruised to victory in the qualification race to start at the front of the Grand Prix.

Where was the drama, the action? The qualification race seemed processional, Vips

getting a demon start and managing the gap – and the degrading Pirelli tyres – to easily keep Shwartzman at bay. Was this a sign of things to come? Were we in for that rarity, a processional Macau Grand Prix?

One thing that suggested otherwise was the number of top drivers out of position. Armstrong, Ticktum and HWA's Jake Hughes (who had topped the first qualifying session on Thursday) were all caught up in the Sargeant-Maini aftermath. While it pretty much ensured that Ticktum wouldn't take his hat-trick and Hughes wouldn't finally score his first win – or even podium – in Macau, it meant that they would cause sparks as they drove through the field.

Under the radar in the qualification race was Verschoor. He eventually wrestled fourth from Callum Ilott – who starred on his Macau return – and believed a win on Sunday was possible. Maybe if he'd had DRS working, he could have got past Ilott sooner. Verschoor – despite finishing 13th in FIA F3 this year – was oozing confidence and appeared to have a new lease of life.

Sure enough, Verschoor proved it. Vips got a clean getaway and moved into the lead, but it looked like ART Grand Prix's Renault junior Christian Lundgaard – who'd finished





a solid third in Saturday's race on his Macau debut – might have the edge. The Dane has struggled with starts all year, but on Sunday he got the best of the lot. The problem was, he became boxed in by Vips and Verschoor – who had slipstreamed past him into the Mandarin kink – and had to lift.

Shwartzman – starting second – didn't get away so cleanly and, after a strong weekend up until that point, would soon be out. Lundgaard took the inside line at Mandarin, but didn't see Shwartzman to his left and ran over the Russian's front-right wing. The flailing appendage then lodged under his car. He pulled slowly into the Lisboa runoff and that was his and Prema's hopes of a win out of the window.

Vips held the lead, but that's where the David-versus-Goliath battle would begin, with Verschoor moving to the inside to take second and stalk the Red Bull junior.

The irony of this was not lost. Verschoor is an ex-Red Bull junior, brought onto the scheme in 2016 during his dominant double-title-winning F4 season, dropped the following year after a disappointing Formula Renault Eurocup campaign. But thanks to MP boss Sander Dorsman and team owner Henk de Jong giving >>

TRYING TO MAKE MACAU SAFER

Shwartzman leads the way into the revised Lisboa

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IMAGES



Macau Grand Prix organisers moved the inside barrier at the Lisboa corner inwards for this year's running of the event in response to Sophia Florsch's 2018 crash.

Florsch skated along the barrier after hitting the back of Jehan Daruvala's car on the long run to Lisboa, and was then launched over the apex kerb, into Sho Tsuboi's car, through the catch fencing and into a photographers' box.

The car was allowed to launch because there was a gap between the inside wall and the kerb on the approach to the corner, but this was significantly reduced for the 2019 race weekend. The idea was to direct cars away from the apex kerb and towards the runoff area beyond the corner, which has been widened.

The fencing behind the corner remained in place, supported by a secondary row of fences around the grounds of the Lisboa hotel, while new tyre barriers were added. The photographers' box was removed.

That was among seven modifications

made to the circuit for this year's race, necessary to ensure the track received Grade 2 circuit homologation for the first running of the event for FIA Formula 3 cars.

Barriers at the Reservoir and Mandarin kinks were realigned, with SAFER barriers installed at both. Tecpro barriers were added at San Francisco Bend instead of the protected tyre stack in place last year, while the original barrier was adjusted.

More barriers were added further up the hill at Hospital, those at Fisherman's Bend were set back by two metres, and additional Tecpro barriers were installed by the pit entry at R Bend. Foam protection mattresses were in place at various points around the circuit, including on the exit of the first-gear Melco hairpin and at Fisherman's.

DRS was used for the first time in the event, although it was turned off during the qualification race when it was discovered that the majority of cars weren't able to use it due to a sensor issue. Additional reporting by Jack Cozens

Florsch did end up airborne in a racing car again!



IN THE HEADLINES



ILOTT RETURNS...

Ferrari junior Callum Ilott missed his simulator session before making his F3 return with the Sauber Junior Team in Macau. Despite that, he was immediately on the pace, but it didn't all go to plan. The Formula 2 racer (above) set the sixth quickest time in the first practice session, but not before he had turned the brake bias the wrong way as the system is the opposite way around in the F3 car from the F2. In his fifth attempt at the event, he finished sixth. Ilott is expected to remain in F2 next year.

...AND FLORSCH RETURNS...

Sophia Florsch's return to the site of her spectacular crash in 2018 did not go to plan. Florsch, who has been competing in Formula Regional this season, made her FIA F3 debut with HWA, but ground to a halt in the second half of the race when she received an error message on her steering wheel and the car shut down. She praised the organisers and the FIA for their work on the scene of her crash at Lisboa, which she called "the right thing". HWA, which had only contested the event as the Mercedes engine builder in the previous era of F3, showed pace with Jake Hughes, whose weekend was ruined by a crash in the qualification race.

...AND LORANDI RETURNS

Alessio Lorandi (below) made a triumphant return from a year out following a thumb-tendon injury by taking fifth in the Macau Grand Prix. The Trident driver, who had made one visit to Macau in the old F3 days in 2015, shook off his rustiness and thought he had the chance to make a late surge in the race before clipping a wall, causing a slow puncture.



Verschuur a favourable deal, he's driven in GP3, F2 and F3 with the team since then.

Dominant in some lower categories, the team is run on a much smaller budget than some of the others in F3, and its results have been poor. Verschuur's team-mate, Red Bull junior Liam Lawson, summed up MP's season: "This year has been pretty difficult. We haven't fully understood how the car works – we sometimes end up leaving the track just as confused as when we got there."

With three Macau rookies in MP's line-up – Verschuur, Lawson and Euroformula Open ace Lukas Dunner – and the team never having been there before, it was always going to be tough. But Verschuur believed his team had found something in the Valencia test two weeks before the event that had made it "easy to go fast".

That wasn't immediately apparent in the race as Verschuur ended the first lap 1.8 seconds down. Thankfully for the neutrals wanting to see a proper ding-dong motor race, the safety car came out shortly after. Leonardo Pulcini had nudged the barrier at Lisboa, and then seconds later ART's Macau-addicted DTM driver Ferdinand Habsburg smashed into the barriers after carrying too much speed at the Esses.

Verschuur prepared for the restart perfectly, and threw his car down the inside at Lisboa for the lead. Could this actually happen? Surely not. Vips just appeared so assured all weekend.



But after a virtual safety car to recover the stricken HWA car of Sophia Florsch, Vips picked up some debris on his tyres, and then for a single lap, just as he looked like he could nudge back in front, his DRS failed him and he ran wide at Lisboa. His Pirellis were now mush.

Vips still closed back in – much to his surprise due to the lack of tyre life – but what was not obvious from the outside is that Verschuur's steering was damaged. He had to fight for every metre for the remaining laps to seal the deal and, once he had, he just cut a figure like a rabbit in the headlights. Completely in shock and in awe, he extended the post-race press conference because he hadn't been happy with his initial answer!

Vips was furious that his lack of DRS had



cost him the win after what he described as a "perfect weekend". He still choked out a "congratulations" to Verschoor after a race that should have been his.

Joining them on the podium was Carlin man Sargeant, who'd escaped without delay from his incident in the Saturday race and looked like he had race-winning pace until the VSC, after which his tyres didn't come back to him. Given his luck in escaping a penalty for the qualification race gaffe, it was a strong result for him and Carlin, which, much like MP, has struggled to suss the new F3 machine.

Lundgaard tailed off in the second half of the race for fourth, and headed Alessio Lorandi, returning to racing with Trident after a one-year lay off with a thumb injury (see sidebar, left). Ilott took sixth in his Charouz-run Sauber Junior Team car under pressure from Lawson, who drove through from 20th to seventh, and Armstrong, who had started 17th.

But there's no doubt that the star of the show was Verschoor. He's now hoping that the victory "opens doors" for his career after two years of relative obscurity. There aren't many things you can do better in F3 than take a fairytale rookie win in the Macau Grand Prix – the first driver to do so since Keisuke Kunimoto in 2008 – to get people talking. ✎

P38 MACAU WTCR

RESULTS MACAU GRAND PRIX (MAC), 16-17 NOVEMBER (15 LAPS – 57.042 MILES)

POS	DRIVER	TEAM	TIME
1	Richard Verschoor (NLD)	MP Motorsport	38m10.330s
2	Juri Vips (EST)	Hitech Grand Prix	+0.792s
3	Logan Sargeant (USA)	Carlin	+1.540s
4	Christian Lundgaard (DNK)	ART Grand Prix	+2.241s
5	Alessio Lorandi (ITA)	Trident	+5.020s
6	Callum Ilott (GBR)	Sauber Junior Team by Charouz	+5.922s
7	Liam Lawson (NZL)	MP Motorsport	+8.594s
8	Marcus Armstrong (NZL)	Prema Racing	+9.365s
9	David Beckmann (DEU)	Trident	+13.239s
10	Frederik Vesti (DNK)	Prema Racing	+13.633s
11	Yuki Tsunoda (JPN)	Hitech Grand Prix	+15.717s
12	Keyvan Andres (DEU)	HWA Racelab	+18.665s
13	Dan Ticktum (GBR)	Carlin	+19.230s
14	Lukas Dunner (AUT)	MP Motorsport	+20.498s
15	Sebastian Fernandez (VEN)	ART Grand Prix	+21.705s
16	Enzo Fittipaldi (BRA)	Sauber Junior Team by Charouz	+26.174s
17	Jake Hughes (GBR)	HWA Racelab	+26.294s
18	Max Fewtrell (GBR)	Hitech Grand Prix	+28.690s
19	Charles Leong (MAC)	Jenzer Motorsport	+33.792s
20	Andreas Estner (DEU)	Jenzer Motorsport	+34.400s
21	David Schumacher (DEU)	Sauber Junior Team by Charouz	+35.894s
22	Enaam Ahmed (GBR)	Campos Racing	+36.521s
23	Arjun Maini (IND)	Jenzer Motorsport	+37.184s
24	Felipe Drugovich (BRA)	Carlin	+37.621s
25	Alessio Deledda (ITA)	Campos Racing	+53.135s
R	Sophia Florsch (DEU)	HWA Racelab	8 laps-electrical
R	Ferdinand Habsburg (AUT)	ART Grand Prix	3 laps-accident
R	Leonardo Pulcini (ITA)	Campos Racing	3 laps-accident
R	Olli Caldwell (GBR)	Trident	3 laps-accident
R	Robert Shwartzman (RUS)	Prema Racing	0 laps-accident

Winner's average speed 89.659mph. **Fastest lap** Hughes 2m06.419s, 108.291mph.

GRID Decided by result of qualification race.

QUALIFICATION RACE (10 LAPS – 38.028 MILES)

1 Vips 2m09.190s; **2 Shwartzman** +1.549s; **3 Lundgaard** +5.625s; **4 Verschoor** +7.402s; **5 Ilott** +10.767s; **6 Sargeant** +11.216s; **7 Lorandi** +11.900s; **8 Habsburg** +13.200s; **9 Beckmann** +20.006s; **10 Pulcini** +25.551s; **11 Andres** +26.416s; **12 Dunner** +28.233s; **13 Leong** +32.905s; **14 Fittipaldi** +33.676s; **15 Fernandez** +34.261s; **16 Tsunoda** +34.698s; **17 Armstrong** +35.403s; **18 Vesti** +35.653s; **19 Estner** +36.687s; **20 Lawson** +37.151s; **21 Florsch** +38.158s; **22 Fewtrell** +38.634s; **23 Caldwell** +39.338s; **24 Deledda** +58.920s; **25 Schumacher** +1m37.059s; **R Drugovich** 8 laps-accident; **NC Ticktum** 8 laps-accident damage; **R Hughes** 0 laps-accident; **R Maini** 0 laps; **R Ahmed** 0 laps-accident. **Winner's average speed** 90.711mph. **Fastest lap** Vips 2m06.317s, 108.378mph.

QUALIFYING **1 Vips** 2m04.997s; **2 Shwartzman** 2m05.376s; **3 Ilott** 2m05.580s; **4 Lundgaard** 2m05.669s; **5 Verschoor** 2m05.723s; **6 Hughes** 2m05.774s; **7 Vesti** 2m05.776s; **8 Maini** 2m05.814s; **9 Armstrong** 2m05.955s; **10 Sargeant** 2m06.043s; **11 Habsburg** 2m06.209s; **12 Fewtrell** 2m06.368s; **13 Ticktum** 2m06.406s; **14 Lorandi** 2m06.428s; **15 Lawson** 2m06.455s; **16 Drugovich** 2m06.637s; **17 Caldwell** 2m06.641s; **18 Fernandez** 2m06.717s; **19 Beckmann** 2m06.844s; **20 Ahmed** 2m07.146s; **21 Tsunoda** 2m07.307s; **22 Andres** 2m07.579s; **23 Schumacher** 2m07.587s; **24 Dunner** 2m07.892s; **25 Pulcini** 2m08.287s; **26 Estner** 2m08.651s; **27 Florsch** 2m09.259s; **28 Leong** 2m09.568s; **29 Deledda** 2m10.114s; **30 Fittipaldi** 2m10.124s.





Priaulx and Muller on top amid team orders

WORLD TOURING CAR CUP
MACAU (MAC)
16-17 NOVEMBER
ROUND 9/10

A collective sigh may well have spread from the Guia circuit to Guernsey last Saturday, such was the frustration over Channel Islander Andy Priaulx giving up what would have been a first podium since returning to World Touring Cars in order to elevate team-mate Thed Bjork in the race-one order.

Priaulx's season with the Cyan Performance Lynk & Co has been a trying one at times, but his pace has been nowhere near as bad as suggested by the 20th place in the points in which he started the weekend, and his form during the Asian leg of the season has been among the best. So to see that come so close to being rewarded, only to be taken away on the final lap, was irritating from a sporting standpoint.

It did not come as a surprise, though, as Priaulx's Cyan stablemate Yann Ehrlacher had moved over in exactly the same fashion out of Fisherman's Bend (Ehrlacher, tongue firmly in cheek, said after a pause for thought he had "missed a shift") early in the race. Bjork finished fifth, a result that put him 47 points off the championship lead and down to fourth in the standings behind team-mate Yvan Muller, who happened to have won the race.

To its credit, Cyan and its drivers didn't shy away from admitting team orders were in place during the Guia Race weekend.

Who could blame them? It's crunch time in the title fight; the Cyan Racing-bannered cars on the right-hand side of the garage take precedent, as the main hope in the teams' battle, and the team has two drivers in contention for the drivers' crown.

Or does it? Mathematically, the answer is of course yes, but there was another twist in the orders debate on Sunday that revealed one now has priority over the other — and it's not the Swedish driver racing for a Swedish team.

That would have been the natural assumption to make, given team orders were used to favour him first, but then Muller didn't need that assistance. He was off at the front of the pack, winning the race ahead of overall points leader Norbert Michelisz (BRC Racing Hyundai).

Muller did require help to win the following day, though, and it's this that

made it abundantly clear that he's the horse Cyan is putting most of its money on to claim the crown. That's not to say Muller only won the reversed-grid second race through orders. A blistering start hauled him past Munnich Motorsport Honda title hopeful Esteban Guerrieri and Kevin Ceccon's Alfa Romeo Giulietta Veloce into third, behind polesitter Ehrlacher and second-place starter Bjork. It was no surprise to see Ehrlacher make way for the two title hopefuls exiting Maternity, but what was a shock was seeing Muller emerge from the mountain section ahead of Bjork.

There were no further changes thereafter — Bjork stayed in his team-mate's draft for the remaining seven laps but did not threaten the leader — as Muller clinched his second victory of the weekend and fourth of the season. "We knew of course straight away,



Priaulx is at last
a winner again in
World Touring Cars

MARIN/DPPI



Priaulx leads Bjork and Muller, during the Cyan Lynx & Co jiggery-pokery



Muller claimed a double victory



Huff couldn't quite add to Macau win tally



Michalski rebounded and still leads points

because they were starting one and two with Yann and Thed, if that was the case at the first corner Yann would let Thed past and, if I was joining them, I would pass both of them," said Muller. "It happened and thanks very much to Thed and Yann because that victory could have been them."

Bjork would move over again in the final race, dropping from fifth to seventh to give an extra point to Muller, who had been frustrated all race by the Hyundai of Nicky Catsburg, on his own mission to keep the Lynk & Co at bay and help limit the damage of team-mate Michalski's grid slot of 12th.

Did Cyan need to do it? Had the positions not been reversed in either race two or three, Muller and Bjork would now have 297 points each (rather than 305 and 288 respectively), and both would be within 20 of the summit. Given 85 points are still up for grabs at next month's Sepang season finale, and the go-to cliché quote in the paddock currently appears to be that "there's still so much to play for", it seems "no" is a fair answer to that question.

Bjork was keen to stress, though, that he could hardly claim the race-two win should have been his, given Ehrlicher made space for him too. "Now he has more points than me and that's the way we do it," said Bjork. "And you cannot say the first one was my win, because then Yann was slowing, so it's everybody helping out."

As for Priaulx, there was just deserts on Sunday for his previous act of sacrifice. Nobody could match Rob Huff's Volkswagen

Golf GTI in qualifying trim on Friday, the Sebastien Loeb Racing driver scoring his ninth pole at the Guia circuit, but Priaulx got closest with a fine shootout effort of his own. Things got better at the start of the finale too, when he got his Lynk & Co 03 off the line better than Huff and dragged the field through Reservoir and Mandarin.

This wasn't a classic, but there was a fittingly tense conclusion as the balance of power shifted between the two cars. The Lynk & Co didn't have the top speeds of the Hyundai or, in particular, the Audi RS3 LMS on the run to Lisboa, but its Balance of Performance boost curve did allow for better speeds in the second acceleration phase, making it less susceptible to attack into the first braking zone. By contrast, the VW was at its worst through the first sector so, while Huff was glued to Priaulx's rear bumper through the mountain section, a superior exit from the Melco hairpin usually gave the Lynk & Co a comfortable margin (by Macau standards) until the pack got back to Lisboa.

Huff was within four tenths of Priaulx over the line on a couple of occasions and made one final attempt to catch the Lynk & Co by setting a new fastest lap on the antepenultimate tour, but it was in vain, as Priaulx went quicker next time by and, one lap later, took the chequered flag.

As for the title race, Michalski – who salvaged 10th and 12th-place finishes from his mid-pack grid slots, a consequence of a crunch with the Audi of Gordon Shedden, who had crashed out of sight at Moorish –

recaptured the lead from Guerrieri. The Honda driver was nowhere in Friday's first qualifying, then briefly landed the reversed-grid pole in second qualifying, only to lose that for an on-track altercation with Catsburg. A hard-earned fourth in race two – Guerrieri was visibly sawing at the wheel to keep the rear of his Civic Type R happy – and 10th in the finale means he is nine points down, with Muller a tantalising two further back. Should the Frenchman conquer the odds in Malaysia, Cyan can rest easy knowing it backed the correct runner.

JACK COZENS

WEEKEND WINNERS

WORLD TOURING CAR CUP MACAU (MAC)

Race 1 Yvan Muller
Cyan Racing
(Lynk & Co 03 TCR)

Race 2 Yvan Muller
Cyan Racing
(Lynk & Co 03 TCR)

Race 3 Andy Priaulx
Cyan Performance
(Lynk & Co 03 TCR)



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Marciello finally breaks his Macau duck

GT WORLD CUP
MACAU (MAC)
16-17 NOVEMBER

Raffaele Marciello soaked up a weekend's worth of pressure from Porsche drivers Laurens Vanthoor and Earl Bamber to win the FIA GT World Cup for Mercedes in Macau.

Early signs were that the Rowe Racing-run Porsches would be unstoppable, Bamber leading Vanthoor in comprehensive 1-2s in both free practice sessions. But it was Marciello who triumphed in qualifying, the GruppeM driver banking what Mercedes-AMG customer boss Stefan Wendl would later describe as a "perfect" lap to steal pole from the Porsche drivers.

That track-position advantage would prove to be crucial. The Porsches were quick across the mountain section, but the Mercedes had the edge through the final sector. And that made Marciello hard to catch on the run to Lisboa.

That's precisely how the qualifying race played out, Marciello and Bamber staging a game of cat-and-mouse across the 12 laps. Marciello could never shake the Kiwi, but he was fast enough in the right areas to never have his lead truly threatened.

For Sunday the plan was clear, Marciello aware that getting to Lisboa in front on lap one, and again on any subsequent restarts, would allow him to control the race. The start went off without a hitch, Marciello quickly establishing a half-second gap over Vanthoor, who'd made the swifter of the starts out of the Porsches. But his hard



work was undone by a safety car four laps in, after Kevin Estre fired his Porsche into the wall on the way out of Mandarin.

Things were a little tighter on the restart, Vanthoor glancing the rear bumper of the AMG as he tried his best to make a move at Lisboa. It didn't quite work, the Belgian settling into second place as Marciello charged to a 1.3s lead.

Sensing that he didn't have the pace to challenge the Mercedes, Vanthoor let his team-mate through with five laps to go. The subsequent charge from Bamber was spectacular, particularly when he sent his left-hand mirror flying with a cheeky glance of the wall at Police a few laps from home.

It all boiled down to a thrilling final lap, Bamber even getting into the back of the leader at the Melco Hairpin as he tried desperately to find a way past.

Marciello, however, refused to bow to the pressure. By the time they got to the final turn at R Bend, Bamber was forced to concede defeat, slowing to let Vanthoor back into second as their Italian rival secured a much-wanted win at Macau.

"I'm really happy that I've finally won here at Macau," said Marciello. "I've always been close. I was on pole in Formula 3 and last year in the GT, but Macau is Macau. It's really special – everything needs to

be perfect. And finally I did it."

Behind the top three, 2018 winner Augusto Farfus emerged as the best of the rest. The big BMW M6 gave a number of its rivals headaches in the first sector thanks to its straightline speed, the Brazilian even briefly snatching third at the restart during the main race by blasting past Bamber on the way through Mandarin.

But the Schnitzer Motorsport-run car didn't have the outright pace of the top three. Once Bamber had snuck back through at Lisboa the leading trio skipped away, Farfus more than 20s down at the finish.

While it was a brilliant weekend for one Mercedes driver, the same couldn't be said for the manufacturer's other main contenders Edoardo Mortara and Maro Engel. The German made a costly misjudgement on the way to Lisboa midway through the qualifying race, clipping Kelvin van der Linde's Audi before clattering out of control into Mortara.

Mortara was able to recover to sixth, behind the Audi of Christopher Haase, in Sunday's main race. Engel, forced to start from the pitlane as a penalty for causing the Saturday crash, finished ninth behind Joel Eriksson's BMW and Dries Vanthoor's Audi, with van der Linde completing the top 10.

ANDREW VAN LEEUWEN

WEEKEND WINNERS

GT WORLD CUP
MACAU (MAC)

- 1 **Raffaele Marciello** (Mercedes-AMG GT3)
18 laps in 45m14.442s
- 2 **Laurens Vanthoor** (Porsche 911 GT3-R)
+3.818s
- 3 **Earl Bamber** (Porsche 911 GT3-R) +4.700s

QUALIFICATION RACE

- 1 **Marciello** 12 laps in 33m05.753s
- 2 **Bamber** +0.866s
- 3 **Vanthoor** +1.538s

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Busch takes his second crown

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NASCAR CUP
HOMESTEAD (USA)
17 NOVEMBER
ROUND 36/36

Kyle Busch won the final race of the NASCAR Cup series season at Homestead-Miami Speedway to claim his second title and end a 21-race winless streak.

The Toyota driver (below), one of three Joe Gibbs Racing entrants with a shot at the crown in the finale, beat team-mate Martin Truex Jr to add to his 2015 success. Truex dominated the early part of the race, winning the first stage and leading a total of 103 laps, but ultimately had to settle for second place in both the race and the championship for the second year in a row.

After a pitstop blunder, which led to the wrong tyres being fitted to the front of his car, 2017 champion Truex's hopes of a second crown faded on lap 121 of 267. The incident, and subsequent stop to correct it, dropped him a lap down, but a caution for a spinning John Hunter Nemechek on lap 136 allowed Truex to get back on the lead lap. He returned to the top five before the end of the second stage, and stayed

there until the conclusion of the race.

Erik Jones, the only Joe Gibbs Racing driver not in title contention, took third ahead of Kevin Harvick, who like Busch was chasing a second championship. After leading 41 laps, the Stewart-Haas Racing Ford driver dropped out of contention when he made his final green-flag stop much later than his rivals in the hope of capitalising on a caution that never came.

Outgoing champion Joey Logano rounded out the top five, ahead of Clint Bowyer, Ryan Newman, Austin Dillon and Alex Bowman, while final title contender Denny Hamlin missed out on a maiden championship by finishing 10th.

Hamlin was initially the slowest of the 'Championship 4' but came to the fore as the sun went down. After challenging Busch up front, too much tape was put on his car's grille during a pitstop, causing overheating issues. Following another stop to rectify the issue, he dropped off the lead lap but was able to rally back and pass nine cars in the closing laps of the race.

Chip Ganassi Racing's Kyle Larson was the only non-championship-contending driver to fight for the win, until engine issues brought an early end to his day on lap 208. William Byron, another Chevrolet entrant, also retired after losing oil pressure.

Busch's win follows his regular season points triumph, a feat achieved by Truex in 2017. It also means that, just as in 2018, each of the three manufacturers has won one of NASCAR's big three titles, with Matt Crafton claiming his third Truck series title for Ford and Tyler Reddick clinching his second consecutive Xfinity crown with Chevrolet.

DOMINIK WILDE



WEEKEND WINNERS

NASCAR CUP
HOMESTEAD (USA)
Kyle Busch
Joe Gibbs Racing (Toyota Camry)

NASCAR XFINITY SERIES
HOMESTEAD (USA)
Tyler Reddick (below)
Richard Childress Racing (Chevrolet Camaro)

NASCAR TRUCK SERIES
HOMESTEAD (USA)
Austin Hill
Hattori Racing Enterprises (Toyota Tundra)

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Felipe Fraga/Cooper MacNeil
Black Falcon (Mercedes-AMG GT3)

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THE BEND (AUS)
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Marquez makes his Marc one more time

MOTOGP
VALENCIA (ESP)
17 NOVEMBER
ROUND 19/19

The final round of MotoGP's longest season ended in familiar fashion, with Marc Marquez overcoming a challenge from 2019's rookie sensation Fabio Quartararo to win his 12th race of his sixth title-winning campaign in the premier class.

Though the riders' championship was sewn up in October in Thailand, and the manufacturers' crown sealed for Honda in Japan, Marquez still had one final task: to secure the teams' title to complete Honda's second successive triple-crown success. Marquez has almost single-handedly carried the Repsol Honda Team this year, with team-mate Jorge Lorenzo struggling with injuries and difficulties adapting to the RC213V, and only able to score 28 points to Marquez's 420.

The reigning champion had strong pace throughout practice, but was once more expected to come under threat from Sepang race winner Maverick Vinales on his Yamaha, while Petronas SRT Yamaha-riding poleman Quartararo would likely be a factor to consider.

But Vinales's charge never materialised. The colder temperatures on Sunday at the Ricardo Tormo circuit meant he struggled for grip and "never had a chance to be fast".

Off the line, it was third-placed Jack Miller who grabbed the holeshot on his Pramac Ducati, though Quartararo forged



Marquez celebrates his latest achievement

ahead on the way into Turn 3 just moments later. With clear air ahead, Quartararo tried to replicate Vinales's Sepang-winning tactic by using the Yamaha's supreme corner speed to build an advantage. Already half a second clear by the end of the first lap, it seemed to be working for him.

Marquez got hung out to dry on the outside of Turn 1 at the start and ended up in sixth as a result. He soon regrouped and took third on lap two by blasting past the dicing Suzuki of Alex Rins and Ducati of Andrea Dovizioso – a crucial move in Honda's quest for the teams' title.

Miller was unable to repel Marquez's advances at Turn 14, and the Honda rider now began the hunt for Quartararo, who now led by more than seven tenths.

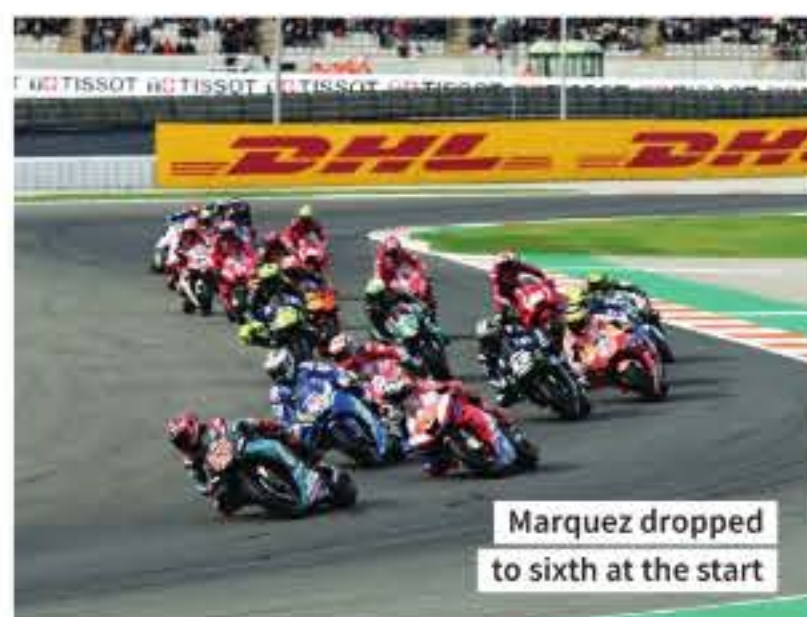
Marquez cut time out of Quartararo over the next three laps, meaning the SRT rider would be in the same position as at Misano and Buriram earlier in the year – leading, with Marquez piling immense pressure on the 20-year-old's shoulders.

Marquez scythed up the inside of Quartararo at Turn 11 on the eighth tour, and unleashed the full power of the RC213V on the main straight to immediately build a gap the SRT Yamaha man could do nothing about at Turn 1. From that point, the race was done as Marquez opened his lead to well over a second. With Dovizioso fourth and team-mate Danilo Petrucci out, Honda's triple crown was assured.

Quartararo's MotoGP career began at Valencia 12 months ago during the post-race



Marquez seized the lead, and control of the race, on lap eight



test. Few would have thought he'd now be celebrating a seventh podium and heading into 2020 as a genuine title contender.

Third place for Miller marked his fifth podium of the year. With rumours swirling that he could take former team-mate Petrucci's place at Ducati's works squad next season, he's certainly justified himself should such a switch happen.

While Quartararo has been the golden boy of this year's rookie crop, Joan Mir's nine top-eight finishes – the latest of which was a seventh in Valencia ahead of Valentino Rossi – will have a few riders worried about what the Suzuki man will be capable of next season. Chief among them will be team-mate Rins, whose fifth at Valencia wasn't enough to secure third in the standings, that honour going to Vinales.

Johann Zarco's final race for LCR Honda ended horribly. After crashing out at Turn 6 late on – which Petrucci had also done seconds before – Zarco was wiped out by the errant KTM of Tech3 debutant Iker Lecuona (replacing the injured Miguel Oliveira), who suffered a similar tumble. Mercifully, the Frenchman came away mostly unscathed.

The chaos allowed Lorenzo to take 13th on the works Honda. It was a muted end to a spectacular career, which he had announced he'd be concluding at Valencia. The difficult RC213V and numerous injuries ground away his confidence and motivation to the point where continuing was a needless risk. Five times a world champion and winner of 68 grands prix across all classes, Lorenzo may have been denied the chance to go out on the high a career like that deserves, but he retires as one of the greatest riders MotoGP has ever seen.

LEWIS DUNCAN

RESULTS ROUND 19/19, VALENCIA (ESP), 17 NOVEMBER (27 LAPS – 67.192 MILES)

POS	RIDER	TEAM	TIME
1	Marc Marquez (ESP)	Honda	41m21.469s
2	Fabio Quartararo (FRA)	Petronas Yamaha	+1.026s
3	Jack Miller (AUS)	Pramac Ducati	+2.409s
4	Andrea Dovizioso (ITA)	Ducati	+3.326s
5	Alex Rins (ESP)	Suzuki	+3.508s
6	Maverick Vinales (ESP)	Yamaha	+8.829s
7	Joan Mir (ESP)	Suzuki	+10.622s
8	Valentino Rossi (ITA)	Yamaha	+22.992s
9	Aleix Espargaro (ESP)	Aprilia	+32.704s
10	Pol Espargaro (ESP)	KTM	+32.973s
11	Tito Rabat (ESP)	Avintia Ducati	+42.795s
12	Mika Kallio (FIN)	KTM	+45.732s
13	Jorge Lorenzo (ESP)	Honda	+51.044s
14	Karel Abraham (CZE)	Avintia Ducati	+1m04.871s
15	Hafizh Syahrin (MYS)	Tech3 KTM	+1m16.487s
R	Andrea Iannone (ITA)	Aprilia	26 laps-accident
R	Franco Morbidelli (ITA)	Petronas Yamaha	18 laps-accident
R	Danilo Petrucci (ITA)	Ducati	13 laps-accident
R	Johann Zarco (FRA)	LCR Honda	13 laps-accident
R	Iker Lecuona (ESP)	Tech3 KTM	13 laps-accident
R	Cal Crutchlow (GBR)	LCR Honda	10 laps-accident
R	Michele Pirro (ITA)	Ducati	8 laps-illness
NS	Francesco Bagnaia (ITA)	Pramac Ducati	accident in FP3

Winner's average speed 97.478mph. **Fastest lap** Marquez 1m31.116s, 98.324mph.

QUALIFYING 2 1 Quartararo 1m29.978s; 2 Marquez 1m30.010s; 3 Miller 1m30.086s; 4 Vinales 1m30.178s; 5 Morbidelli 1m30.449s; 6 Dovizioso 1m30.511s; 7 Mir 1m30.573s; 8 Rins 1m30.595s; 9 Crutchlow 1m30.726s; 10 Petrucci 1m30.771s; 11 P Espargaro 1m30.908s; 12 Rossi 1m30.954s.

QUALIFYING 1 1 Rins 1m30.538s; 2 P Espargaro 1m30.543s; 3 Zarco 1m30.826s; 4 Pirro 1m30.949s; 5 A Espargaro 1m30.972s; 6 Lorenzo 1m31.295s; 7 Kallio 1m31.383s; 8 Rabat 1m31.507s; 9 Lecuona 1m31.658s; 10 Iannone 1m31.714s; 11 Abraham 1m31.815s; 12 Syahrin 1m31.839s.

RIDERS' CHAMPIONSHIP 1 Marquez 420; 2 Dovizioso 269; 3 Vinales 211; 4 Rins 205; 5 Quartararo 192; 6 Petrucci 176; 7 Rossi 174; 8 Miller 165; 9 Crutchlow 133; 10 Morbidelli 115; 11 P Espargaro 100; 12 Mir 92; 13 Takaaki Nakagami 74; 14 A Espargaro 63; 15 Bagnaia 54; 16 Iannone 43; 17 Miguel Oliveira 33; 18 Zarco 30; 19 Lorenzo 28; 20 Rabat 23; 21 Stefan Bradl 16; 22 Pirro 9; 23 Syahrin 9; 24 Abraham 9; 25 Sylvain Guintoli 7; 26 Kallio 7; 27 Bradley Smith 0.

MANUFACTURERS' CHAMPIONSHIP 1 Honda 426; 2 Yamaha 321; 3 Ducati 318; 4 Suzuki 234; 5 KTM 111; 6 Aprilia 88.



WEEKEND WINNERS

MOTO2

VALENCIA (ESP)

Brad Binder (below)
Ajo Motorsport
(KTM)

MOTO3

VALENCIA (ESP)

Sergio Garcia
Team Estrella Galicia
(Honda)



NEXT WEEK

SEASON REVIEW 28 NOVEMBER ISSUE

How Marquez stormed to his sixth premier-class title in seven years



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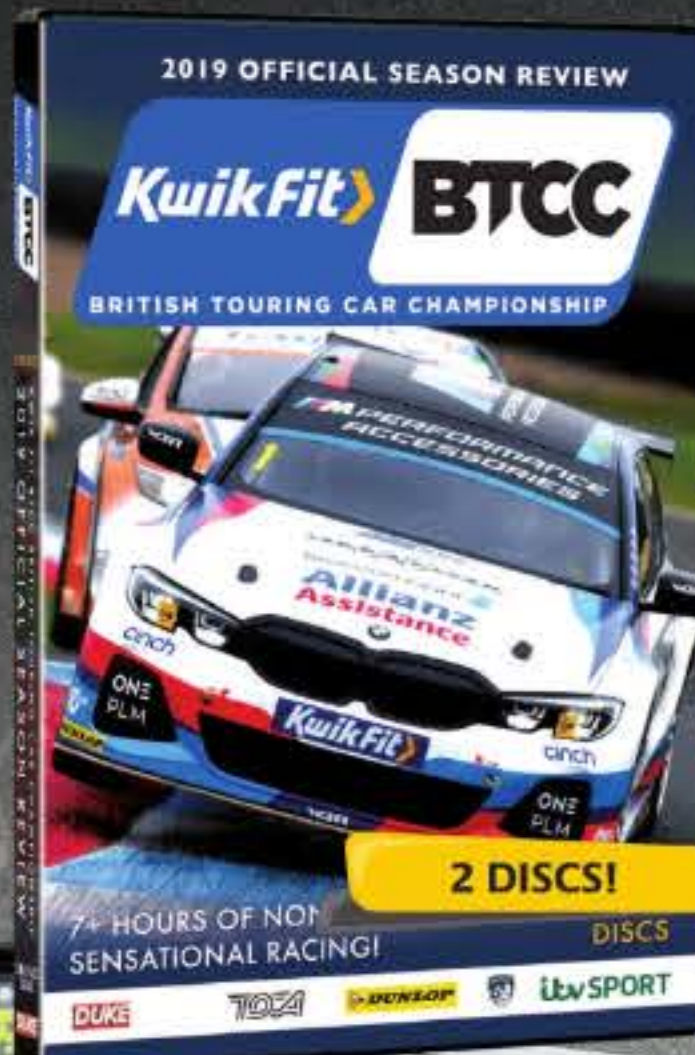


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INSIGHT

FORMULA E 2019-20 SEASON PREVIEW • AUTOSPORT AWARD WINNER TOM GAMBLE DRIVES DTM CHAMPIONSHIP WINNER



WHY THE FORMULA E BAT

Motorsport giants Mercedes and Porsche will be in the



FORMULA E IS ABOUT TO STEP UP A GEAR

mix as the sixth season of the all-electric championship kicks off in Saudi Arabia this weekend

ALEX KALINAUCKAS

f 2018-19 was the season Formula E grew up with its Gen2 car, 2019-20 is when it gets serious. While not to denigrate what came before, Mercedes and Porsche don't mess around.

These motorsport giants are about to take their electric-racing bow, and will join Audi and BMW in the FE whirlwind. All four luxury German OEMs racing in the same series – it's another achievement for FE to savour, and the championship is understandably keen to promote this battle throughout the upcoming campaign. It feels historic, but is it actually so significant in terms of previous motorsport competition?

"I reckon GT3 blows that as a first out of the water," says one Autosport sage. With all four German giants effectively sending factory squads to major sportscar races – the Nurburgring and Spa 24 Hours events, plus the GT World Cup in Macau – they've certainly all shared grids. Given Mercedes' long absences from works motorsport competition, Le Mans 1999 is probably the closest they've come to competing for a gold-standard prize, but Porsche's decision to step down to the secondary GT class after winning overall in 1998 means all four weren't in the same battle. All that considered, the first time all four works teams have competed for a major FIA championship is the safest description for these particular bragging rights.

Let's start with the new arrivals. Mercedes' entry is tied to the Gen2 car – the absence of car swaps was crucial to getting the company to consider FE. It's been a long time coming, with the announcement that Mercedes would exit the DTM to prioritise its new venture made in July 2017. But Porsche's journey to the FE grid – from the World Endurance Championship LMP1 class – has been just four days shorter.

Since then, they've gone about their respective preparations in different ways. Mercedes got a feeler year with HWA's exploratory 2018-19 season, while Porsche switched its LMP1 team's focus to FE from afar (although with plenty of visits to the paddock to gain insight).

Given their illustrious motorsport histories, there's no denying that Mercedes and Porsche have top billing in the eyes of many going into the new season. For that reason, their fortunes will be under great scrutiny – which was evident in the pre-season group test at Valencia last month.

It has been suggested by various sources that degrees of sandbagging and glory-running occurred up and down the grid. But, given the unrepresentative nature of the Circuit Ricardo Tormo compared to a normal FE track, that is understandable. Reigning champion Jean-Eric Vergne even said his DS Techeetah car felt "awful" to drive because there was simply no point in

"GIVEN THEIR ILLUSTRIOUS MOTORSPORT HISTORIES, THERE'S NO DENYING THAT MERCEDES AND PORSCHE HAVE TOP BILLING IN THE EYES OF MANY GOING INTO THE NEW SEASON"

setting it up to be good at Valencia.

That is a natural preclusion to predicting the pecking order, but the initial view is that both Mercedes and Porsche have varying amounts of work to do. Porsche set the 10th-fastest time of the 12 teams with Andre Lotterer's 1m15.699s effort, while Mercedes was just behind in 11th with Stoffel Vandoorne's 1m15.736s – which puts them 0.612s and 0.649s behind the overall quickest time of 1m15.087s from BMW Andretti's Maximilian Gunther.

But, as ever in FE, being fastest over a lap isn't the ultimate consideration when it comes to assessing car performance. An efficient package remains key and, based on an analysis of the second test 'race' organised by FE at Valencia, it's Mercedes ahead, with Vandoorne's average lap time sixth-best, 0.427s slower than 'winner' Sebastien Buemi (Nissan e.dams) per the accumulated times. Porsche was eighth in the average order, with Lotterer 0.611s down.

Neel Jani is anticipating the season opener in Riyadh this weekend >>



BMW's Sims leads Audi's di Grassi at Valencia test



All four German giants raced at Le Mans in 1999



Jani reckons first race will be tough for Porsche



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F2 champ de Vries is on
Mercedes' driver roster



DS TECHEETAH

THE CASE FOR THE DEFENCE

'I DON'T THINK THEY WILL COME AND KICK OUR ASSES'

That was Jean-Eric Vergne's prediction of his DS Techeetah team's chances against Mercedes and Porsche in 2019-20, days before he sealed his second crown last season. But, now he's seen them on track – and 'raced' them – at Valencia, does he still feel the same?

"Yeah," says Vergne at his squad's official season launch as part of the promotional E-DS Week at the luxurious Molitor hotel in Paris last week. "Because if somebody had come with something revolutionary we would have seen it."

Vergne is certainly confident that Porsche has not found a magic bullet thanks to his strong friendship with former team-mate Andre Lotterer, who left DS Techeetah with a year left on his contract.

"I know if he thinks they have something amazing I would feel it," says Vergne. "It's not going to be an easy season and we're all going to be in an extremely close fight. I don't think anyone has something fantastic like Nissan had last year."

In Lotterer's place is Antonio Felix da Costa – widely regarded as one of the friendliest and most open FE drivers. Vergne clearly agrees with this assessment: he took it upon himself to approach da Costa at Le Mans this year (Vergne racing in LMP2, da Costa in GTE Pro) as he sensed Lotterer would pick up Porsche's offer.

"The team was very happy to know that Antonio was an option because they were too late otherwise," says Vergne. "It's in my own interest to have a very quick team-mate."

DS Techeetah certainly has a strong line-up, even if it is now unfamiliar and da Costa has had little time to prepare. "Two months is not near enough to get everything ready," he says after only being allowed to work with DS Techeetah from the start of October following his BMW exit.

But, in Vergne, da Costa has a team-mate willing to help to boost the team overall, and in turn himself. It's an approach that clearly works, and one Vergne hopes will lead him to a third FE title in three years.



being “a tough one” for Porsche, but write off the 19-time Le Mans winner at your peril.

Testing times suggest Mercedes could also be heading for a low-key FE debut, but one source has reported optimism in the camp, particularly when it comes to qualifying. It is suggested that Mercedes could do well against the clock, but then slip back in the races – as HWA often did last season. Ultimately, both newcomers will have a boost in Riyadh as their rookie status guarantees them group-four slots at a track that is likely to have a significant qualifying track-evolution factor.

While many eyes are on Mercedes and Porsche, Audi and BMW can hardly be dismissed. Although DS Techeetah has usurped Audi as the FE benchmark over the past two seasons with Vergne’s title successes, the team still felt it was up there in terms of efficiency at the end of last season. Daniel Abt’s best time of 1m15.673s had Audi ninth at Valencia, and just 0.026s ahead of Porsche, but crunching Lucas di Grassi’s lap times from the Buemi-headed test race put Audi fifth and just 0.273s back in the efficiency stakes.

BMW stole the testing show for the second year in a row with Gunther’s best time. But BMW dropped to 11th in the ‘race’, 0.761s off the best average and only ahead of NIO. The Andretti-operated BMW team, which scored its first win in Riyadh last year, is targeting a step with its evolved package.

“The key to success in FE is really having a clean race weekend – you don’t necessarily have to be the fastest, but you need to be able to execute,” says BMW team boss Roger Griffiths. “So, we did a lot of reflection on what happened, where we needed to improve and really focused on that. Some of that was operational, some of that was engineering, some of that was development.”

On the driver front, the four German OEMs sparkle with talent on an already glittering grid.

Mercedes has added recently crowned Formula 2 champion Nyck de Vries to HWA’s ex-F1 racer Vandoorne, while Porsche has brought in Lotterer from DS Techeetah to partner rookie (with two starts from Hong Kong in 2017) Jani – so just the four Le Mans wins between them. Audi continues with the di Grassi/Abt alliance that has enjoyed so much success in FE’s opening years, while BMW has brought in Gunther to replace Antonio Felix da Costa. Gunther shone in trying circumstances at Dragon last year, and will be partnered with the impressive Alexander Sims, who is targeting a smoother run in his second FE campaign.

“It’s good for the championship,” McNish says of FE’s “Bundesliga” (his word) subplot. “It’s also a confirmation that decisions we’ve all

“THE KEY TO SUCCESS IN FORMULA E IS REALLY HAVING A CLEAN RACE WEEKEND - YOU DON’T NECESSARILY HAVE TO BE THE FASTEST, BUT YOU NEED TO BE ABLE TO EXECUTE”

made have been right in terms of electrification and the future, and I think it will only boost us all together. However, clearly there can only be one winner. There are four of us here, but there are also eight others out there that want to make sure they’re that one.”

Given it has won the past two drivers’ titles, DS Techeetah heads those eight other squads. The team was close on overall pace at Valencia – with da Costa putting it fourth. But the team knows that nothing counts just yet, and its past success means it goes into the new season holding the biggest target.

Expect Envision Virgin Racing to continue punching above its weight (as an Audi customer squad, with Venturi now joining it in that status as an immediate Mercedes customer), with its slick race operation and rapid line-up in Sam Bird and Robin Frijns.

Perhaps the biggest congratulations ahead of the new campaign should go to Nissan, which successfully adapted its banned twin-motor powertrain from 2018-19 in time to make the Valencia

FORMULA E CALENDAR

ROUND	LOCATION	DATE
1	Diriyah (SAU)	22 November
2	Diriyah (SAU)	23 November
3	Santiago (CHL)	18 January
4	Mexico City (MEX)	15 February
5	Marrakech (MAR)	29 February
6	Sanya (CHN)	21 March
7	Rome (ITA)	4 April
8	Paris (FRA)	18 April
9	Seoul (KOR)	3 May
10	Jakarta (IDN)	6 June
11	Berlin (DEU)	21 June
12	New York (USA)	11 July
13	London (GBR)	25 July
14	London (GBR)	26 July

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running. This was capped by Buemi’s ‘win’ and its place at the top of our average lap time calculation. But, given the sandbagging suggestions emanating from the paddock, it would be unwise to declare any team a clear favourite.

There are new faces at Dragon with Brendon Hartley and Nico Muller, and at Jaguar too, as James Calado makes his single-seater return for the first time in six years. All three are set to miss a race due to FE’s unfortunate WEC (Hartley and Calado) and DTM (Muller) clashes, with the former also a possible sticking point for Buemi’s title hopes.

The Gen2 car remains unchanged for its second season and, other than the revised Nissan package and those of the new entrants, powertrains are generally considered to be evolutions of last year’s designs. Many drivers reported little in the way of noticeable differences from behind the wheel in testing.

FE and the FIA have altered the sporting rules for 2019-20, which could have a big impact on the racing. In addition to an



Buemi won test race, but there's no early favourite

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Envision Virgin is an Audi customer squad

FORMULA E SEASON PREVIEW INSIGHT



FORMULA E ENTRY LIST

NO	DRIVER	TEAM
2	Sam Bird (GBR)	Envision Virgin
4	Robin Frijns (NLD)	Envision Virgin
3	Oliver Turvey (GBR)	NIO 333
33	Ma Qing Hua (CHN)	NIO 333
5	Stoffel Vandoorne (BEL)	Mercedes
17	Nyck de Vries (NLD)	Mercedes
6	Brendon Hartley (NZL)	Dragon
7	Nico Muller (CHE)	Dragon
11	Lucas di Grassi (BRA)	Audi Sport Abt
66	Daniel Abt (DEU)	Audi Sport Abt
13	Antonio Felix da Costa (PRT)	DS Techeetah
25	Jean-Eric Vergne (FRA)	DS Techeetah
18	Neel Jani (CHE)	Porsche
36	Andre Lotterer (DEU)	Porsche
19	Felipe Massa (BRA)	Venturi
48	Edoardo Mortara (ITA)	Venturi
20	Mitch Evans (NZL)	Jaguar
51	James Calado (GBR)	Jaguar
22	Oliver Rowland (GBR)	Nissan e.dams
23	Sebastien Buemi (CHE)	Nissan e.dams
27	Alexander Sims (GBR)	BMW Andretti
28	Maximilian Gunther (DEU)	BMW Andretti
64	Jerome d'Ambrosio (BEL)	Mahindra
94	Pascal Wehrlein (DEU)	Mahindra

attack mode boost of 10kW to 235kW and drivers being banned from activating the system during full-course yellow or safety car periods, a point is now on offer for the fastest driver in group qualifying (plus the existing one for topping superpole), which could be a crucial factor come the finale. But the major change is that a set amount of energy will be deducted from each car after each race suspension – equal to 1kWh per minute for the duration of the caution period. So, a five-minute safety car means a 5kWh subtraction. The thinking behind this change is to increase energy management tests – ideally creating more 2019 Mexico City last-gasp finishes, and eliminating the crashfests seen at the start of the last campaign.

FE had eight teams win in just 13 races in 2018-19 – a success spread that's easily the best of any major championship (NASCAR has had six in 2019 so far, DTM and IndyCar five, Formula 1 three and WEC two) and one the series is keen to retain.

A difference of 0.649s between the top 11 teams in the overall

testing order (sorry NIO, at 1.481s adrift) hardly indicates that FE's unpredictable reputation is going to disappear but, if the new rules work as intended, then the most efficient packages *should* come to the fore. Plus, the qualifying-order rule (generally, the higher you are in the championship the less-ideal conditions you get in qualifying) that worked so effectively in shaking up the grids last season will again be a major factor.

FE may be more serious than ever – the prestige of Mercedes and Porsche joining gives added reward to success for the established squads – but the latest chapter in this exciting series will no doubt be as chaotic as ever. *W*

NEXT WEEK

DIRIYAH
28 NOVEMBER ISSUE
We report from Saudi Arabia – who will win the opening contest?



DTM champ Rast just thinks, 'Bring it back in one piece'



Our Award winner didn't want to stop when 'box' call came



DTM cars are "so cool in the way they look and sound", reckons Gamble

STEPPING INTO RENE RAST'S SHOES

When Audi made its DTM title-clean-sweeping RS5 available for a test, there was no hesitation from our 2018 Award winner in accepting the opportunity for a trip to Hockenheim

TOM GAMBLE

PHOTOGRAPHY AUDI

Audi's DTM season was one of utter domination as Rene Rast swept to a commanding drivers' title – his second in three years – and the Four Rings also took the manufacturers' and teams' titles with relative ease. And its success was made all the more impressive by the fact that it was achieved during a period of regulatory uncertainty as the full switch to Class One rules threw up continued headaches for Audi, BMW and the R-Motorsport Aston Martin squad.

In celebration of Audi's superb 2019 season, Autosport was offered the chance to drive Rast's RS5 DTM at Hockenheim, just days after the DTM season wrapped up. The 2018 McLaren Autosport BRDC Award winner, Tom Gamble, was the man chosen to get behind the wheel after his season racing an Audi R8 LMS in the Blancpain GT World Challenge Europe, and here gives his assessment of the RS5 DTM.

I've always dreamed of racing in the DTM. I've watched it for a long time and they're such cool cars in terms of the way they look and the way they sound. I like everything about them.

Everyone loves Formula 1, but it's very hard to make it there without the financial backing and it needs a little bit of luck too – being in the right place at the right time. In the DTM it's a bit more achievable, but it's still a very hard category to get into. I think there are opportunities there maybe, just not for me at the minute! So when Autosport was offered the chance to drive Rene Rast's 2019 title-winning Audi RS5 DTM, I was keen to make the absolute most of the chance.

“IT WAS COOL TO MEET RENE. HE GAVE ME A BIT OF ADVICE: ‘YOU’LL BE FINE’. I SAID: ‘I HOPE SO!’”

We got there the day before the test on Thursday, and we went for a meal and met all of Team Rosberg. It's such a professional team, well known for being a good outfit, and it won the teams' title this year. I met the engineers and the team boss Arno Zensen. Rene was there as well, so it was cool to meet him as I think a lot of drivers look up to him because he's so fast and dominated the >>



DRIVING LESSON FROM RAST

Audi's DTM champion Rene Rast was on hand to provide support to those getting a run in the RS5 DTM, and explained the key points for Tom Gamble to get to grips with before the Brit climbed aboard.

"You have a two-lap peak of the tyre which you need to extract, and then after those two laps maybe the lap time will drop off by one-point-something seconds at Hockenheim," said Rast. "Obviously managing the brakes, getting them in the right temperature window, is important.

"Getting the power down is not that easy with the 600 horsepower we have nowadays. He will have a lot of wheelspin out of the slower-speed corners, so you have to be very careful on corner exit to not get too much oversteer. I think that will be the most difficult part. In the high-speed corners the car is quite well balanced and he will not have a problem – it's more on the understeer side.

"To extract the full braking performance, to brake late and carry a lot of speed into the corner, will be key to manage a good exit of slow-speed corners without having too much oversteer."

Gamble's career path changed in 2019 after just one season in the BRDC Formula 3 Championship as he made the move to race for WRT Audi in the Blancpain GT World Challenge Europe. Sharing with sometime Australian Supercars driver Shae Davies, he earned a best result of sixth at Brands Hatch.

Rast, who is also experienced in the GT3 Audi machinery Gamble campaigned this season, said: "We have no ABS and no traction control in the DTM car – they are the first two big differences. We have a lot more power, better brakes and less weight, so the car is a bit more nimble, a bit more aggressive on everything – on steering input, on throttle input, on brake input.

"Without ABS you kind of lock the wheels quite easily under braking, so they're two completely different cars, but I'm sure he will be able to adapt quickly."

JAMES NEWBOLD

"GETTING THE POWER DOWN IS NOT THAT EASY WITH THE 600 HORSEPOWER WE HAVE NOWADAYS"



championship this year. Rene gave me a bit of advice – he said, 'You'll be fine' and I said, 'I hope so!' But he was a good help and showed me around the cockpit, showing me what does what, and it was really good of him.

On the Thursday, I was the first one in the car. It was wet, which was a bit annoying, but you could really feel the power. Trying to control the wheelspin was phenomenal. It was my first time at Hockenheim, so I was learning the track at the same time. I've played it a lot on games as it's so well known. But even Rene said before I went out that it's a very tricky track as the grip just isn't that high compared to some of the other circuits.

It meant wet lines were really important in finding the grip. Through the high-speed stuff, you don't notice the turbo so much kicking in out of the corners, but the wheelspin through third and fourth gear is crazy. It's strange, because Turn 1 in the dry is so fast, but in the wet it quickly becomes a slow corner and you have the exit kerb, which is also slippery.

If it was dry and we were testing the whole day, Rene would have given more tips. But it was interesting to drive because it's only a two-litre engine and it's producing 650bhp. It's incredible to get so much out of a small engine as a lot of the power comes from the turbo. When you come out of the hairpin, for example, you get on the throttle and you don't feel too much initially, but as the turbo kicks in you're hit with all this power as it spins up.

It reminded me a bit of the MotorSport Vision Formula 2 car at the Autosport Awards shootout as that had a big turbo on it as well, but we never drove the F2 car in the wet. A lot of cars now are going towards turbo power, but a lot of what I've raced hasn't. The Audi I raced this year in Blancpain GT World Challenge Europe was normally aspirated, and British F3 last year was too. The more you drive it, the more you'd get used to it and know when the turbo is going to kick in. I wasn't sure on the set of revs where it did kick in, but you can predict it and have the throttle ready to come off slightly as it hits. It's indescribable and crazy – like nothing, and then all of it at once to try to tame.

Down the straights for the first time on the out-lap going full throttle, I was thinking, 'Jesus Christ this is fast!' I missed that in GT3 this year. The DTM car feels a bit more like a racing car and you can tell it's built for the job, whereas the GT3 car is built for the road and into a race car. The DTM car is made to go fast and the sound is incredible going up the gears and revving high. The gearchanges on it are so sweet. It's a quality, well-built car and you can see when you drive it why it dominated the championship.

Racing in GT3, I've become used to ABS and I was having to get used to not having it in the DTM car. There are carbon brakes



“DOWN THE STRAIGHTS FOR THE FIRST TIME, I WAS THINKING, ‘JESUS CHRIST THIS IS FAST!’”

as well, which I've not really used a lot. You could feel the brakes coming in right at the end of the run as the temperature came in, but you've got to be ready to let the brakes go to prevent locking up. Traction control on the DTM car is non-existent. In a GT3 car, in the wet, coming out of a corner you'd get straight into the traction control and use it to your advantage. In the DTM, you have to balance it more and drive it a bit more with the throttle, be ready for wheelspin and to let go of the throttle.

You definitely need more skill to drive a DTM car. I love that – it reminded me of F3 last year where you had to do everything yourself. In the wet, the set-up was a bit safe obviously, as there were several more inexperienced people driving the car too. It was a little understeery, so you can really feel it out of the slower corners and when you touch the throttle.

Luckily we were sent out with tyre warmers, which the DTM doesn't use in its race weekends. If it was on cold tyres, it would've been a different story. Hockenheim obviously has a lot of slow corners, like Turn 2, so you're always trying to tickle the throttle and wait for the turbo to come in. It was funny when they came on the radio and said, 'Box this lap'. I was tempted to put it down and say, 'No'!

I pushed at some points, but at some places I was wary of braking too hard. I saw in this year's German Grand Prix that when the Formula 1 drivers got to the exit dragstrip out of the penultimate corner they would go off into the barriers, so I was cautious in places as the runoff isn't very forgiving – taking it a little easy on the braking but pushing through the corners. It was just a shame that the track dried up as we were leaving the circuit! 🌀

NEXT WEEK

FUJI DTM/SUPER GT 28 NOVEMBER ISSUE

The DTM and Super GT championships have been decided, but there is still the prospect of the combined event at Fuji to savour. Look out for our report next week.

AUDI RS5 DTM TECHNICAL SPEC

Chassis CFRP monocoque with integrated fuel cell, tubular steel frame

Engine two-litre, longitudinal, inline-four, spark ignition with petrol direct injection, four-valve technology, double-overhead camshaft, efficiency combustion process, exhaust turbocharger with intercooler limited to 3.5 bar

Engine management Bosch MS 7.4

Fuel system central high-pressure injection, rail pressure 350 bar, fuel flow limited by regulations to 95kg/h (push-to-pass: 100kg/h)

Power output more than 610bhp; approx 30bhp boost with push-to-pass

Torque more than 650Nm

Drive rear-wheel via driveshaft

Clutch four-plate CFRP

Transmission semi-automatic six-speed with paddleshift

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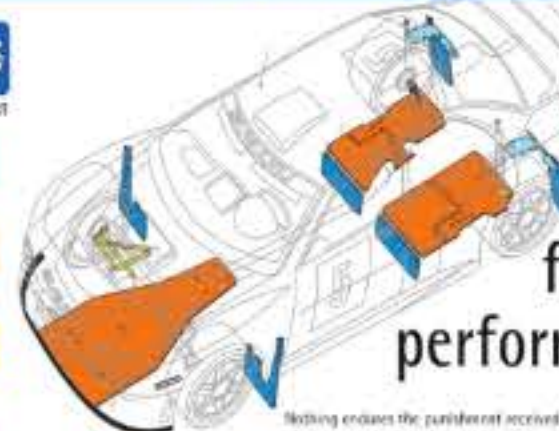
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NEW STRATEGY FOR NATIONAL MOTORSPORT



MOTORSPORT UK

Motorsport UK has unveiled a new strategy for the 2020 season and beyond in a bid to promote the sport more, but clubs are concerned by a significant increase to event permit fees.

British motorsport's governing body has revealed a raft of changes for next year as it tries to simplify its structure and raise additional income to allow it to reinvest more into the sport.

It is aiming to increase income in order to not only fund more promotion but also offer more education and training initiatives, as well as pay for future innovation projects. By investing in these key areas, Motorsport UK hopes to try to secure the future of motorsport in this country against a backdrop of reducing numbers of licence holders and an ageing demographic of participants.

Motorsport UK also intends to offer more to members and has already launched a range of discounts and offers. It has also scrapped licence fees for officials, taken away the requirement for all drivers aged between 45 and 60 to have a medical in order to receive a licence, and increased the amount of personal accident insurance cover that is included with a licence.

Its licence structure has been completely revamped for 2020. A new RS Clubman licence, which is free of charge, has been introduced for those competing in grassroots disciplines such as autotests and autosolos. The National B licence has been replaced by an Interclub one and National A is now simply known as National. It will also now be easier to upgrade a licence and the licence non-production fee has been reduced to 50%

of the licence cost, capped at £100.

To help fund the investment strategy, additional income is being sought from a number of sources, including fee increases for licences and event permits.

Circuit racing licences have increased between 3% for some of the International licences to 55% for the new Interclub licence (see tables). Almost all event permit fees have also increased by a standard £5.

"We studied the challenges very carefully, and concluded we need a fresh approach and a five-year plan to reinvest in the sport," said Motorsport UK CEO Hugh Chambers. "This will involve a rebalancing of the economics and, in time, the diversification of revenues away from our current reliance on the competitors."

"In the short term we have new initiatives that will bring money into the sport and ease that burden right away. We have a fantastic and committed community, and based on the feedback we have to these changes, I am sure that we can all work together to build a stronger future for the sport."

Racing clubs can understand the change in licence fees but are worried about the impact of the increase

Permit fees for each event will also be raised for 2020



RACE LICENCE FEES

LICENCE	2019	2020	% INCREASE
International A	£1158	£1193	3.0%
International B	£417	£430	3.1%
International C	£214	£220	2.8%
International D	£214	£220	2.8%
International Truck	£214	£220	2.8%
National Truck	£101	£155	53.5%
National (Nat A)	£101	£155	53.5%
Interclub (Nat B)	£64	£99	54.7%

EVENT PERMIT FEES (PER DRIVER)

TYPE OF EVENT	2019	2020	% INCREASE
Car Race International	£57.80	£62.80	8.7%
Endurance Race International	£66.05	£71.05	7.8%
Car Race National (Nat A)	£29.75	£34.75	16.8%
Endurance Race National (Nat A)	£35.25	£40.25	14.2%
Car Race Interclub (Nat B)	£26.00	£31.00	19.2%
Endurance Race Interclub (Nat B)	£30.90	£35.90	16.2%
Car Race Clubmans	£22.95	n/a	n/a
Endurance Race Clubmans	£27.10	n/a	n/a



P77 OPINION



Chambers believes now is the time for change

in event permit charges. Every club has to pay a set fee to Motorsport UK for each entry it receives at every meeting it organises, and this figure varies depending on whether or not it is for an endurance race and what type of meeting it is.

Club bosses say those increases will have to be passed on to competitors, with the British Racing and Sports Car Club calculating it will increase the amount it pays by £30,000 per year.

"It's disappointing," said BRSCC chairman Peter Daly. "Motorsport UK is actively working to try and promote the sport but they are using the hard-earned cash of people that have been supporting the sport for years. It's the clubmen that are being hit pretty hard. An increase in entry fees is a small percentage in the budget of circuit racing but increases in fees become a barrier to people competing in motorsport – it's such an emotive topic."

"I fully understand the other side of it. A competitor may spend £1000 on new tyres to go a tenth of a second quicker and they also moan about an increase of £10 in entry fees, but that's the competitor's choice."

British Automobile Racing Club general manager Ian Watson added: "Any time that prices go up, it concerns us. I can see a lot of logic in the licence fee changes because of the benefits competitors can get in return."

"The permit fees is a completely separate issue. We, like a lot of folks, are very concerned. It will hit us quite hard in terms of the amount of money we have to give to Motorsport UK."

Watson admits it is difficult to know what impact the increase in fees will have on entry numbers. One of the Classic Sports Car Club's concerns is the removal

of the Clubman permit for events, which some of its meetings ran under. Instead it now has to run all of its fixtures on an Interclub permit, the equivalent of the old National B. This represents a 35.1% increase per entry.

"It's going to have a big impact because every club, however they are run, is not going to be able to absorb those costs," said CSCC director David Smitheram. "By dropping the Clubmans permit, and by making us run Interclub, it means every one of our entries is going to pay around £8 more per round – and we've got no choice but to pass that on."

"For your average club racer, what's six or seven rounds of £8 more? But it's all cumulative. Some drivers gain by not having to pay for a medical but they will pay more for their licence."

A Motorsport UK spokesperson said: "We have removed the Clubman's grade to simplify the system so the permit grade system now aligns fully with the licence grading system. Previously, to compete in a Clubman's car race, competitors required a Race National B Licence – that did not make sense."

"At the Interclub level, clubs will be able to invite other championships to their meetings; whereas at the Clubman level, it was restricted to only championships organised by the organising club. The original concept was the 'closed to club grassroots' events at a Clubman permit level."

"But over the years this was perhaps adopted differently by some clubs, as many championships were fronted by one of the organising clubs, so this resulted in a shift from the Nat B to Clubman event permits, and this was contrary to the intention of that level of permit."

STEPHEN LICKORISH



Tandy aims for more Ka outings after Brands win

ENDUROKA

2015 Le Mans 24 Hours winner Nick Tandy wants to contest more EnduroKa races after his JTR team's victorious debut in the IndyKa 500 at Brands Hatch last weekend.

JTR entered two cars in the event, with Porsche factory driver Tandy joined by Lewis Selby, Elliot Mason and early-1990s Formula Renault UK ace James Rhodes in the winning machine.

"We could have done with a bit more practice with four drivers, but the cars are fun to drive and a pleasure to build and race," said Tandy. "Co-driver Lewis Selby is our front-wheel-drive expert for set-up and driving. What I like is the whole team aspect in long-distance racing. You can get a buzz from the short stuff, but here your team-mates become friends and the motivation is not to let the team down."



"It has been such a great weekend with a good atmosphere in the paddock. We would like to come back and do it again."

The event was less successful for the second JTR car. Co-driven by Porsche

Carrera Cup GB regulars Lewis Plato and Dan Vaughan with James Robinson and Vic Lee, it finished 16th after making 10 pitstops.

BRIAN PHILLIPS

Barcelona round completes Clio Cup 2020 calendar

RENAULT CLIO CUP UK

The final round of the relaunched Clio Cup UK has been confirmed, with the series joining up with its French and Spanish equivalents at Barcelona at the end of next year.

The series will move to the British GT support package for 2020, having previously raced alongside the British Touring Car Championship, and will be supported by Renault Sport Racing France after Renault UK withdrew its funding. It had already been confirmed that the Clio Cup would appear at five of the British GT events



and with Clio Cup France at Magny-Cours in September.

The Barcelona finale will run on 7-8 November.

Prospective teams and drivers had a first chance to look at the new fifth-generation Clio at Renault's Formula 1 base in

Enstone last weekend as the series was officially launched for 2020. As well as the new car and calendar, entry fees have been reduced to around £8000 plus VAT for next season. One team that has already revealed it will place new-car orders is Westbourne Motorsport.

"We will be on the Clio Cup grid for sure," said team boss Richard Colburn. "With the Clio Cup UK, we're going to great tracks both in the UK and abroad. It's a bit different to race at Silverstone GP and Brands GP – it's something new for the drivers."

STEPHEN LICKORISH

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IN THE HEADLINES

TRIBUTE FOR MARTIN DOWN

The last Champion of Brands FF1600 event of the year was contested for the Martin Down memorial trophy as a tribute to the late Getem builder Martin Down, who died a week before the Brands finale. Down built his first FF1600 Getem in the 1970s with Alan Brunning and challenged the establishment for 40 years. Down's son Jason scored two fourth places in his Getem Mygale on Saturday and was sent out first in qualifying with a gentlemen's agreement that nobody would pass for a lap.

VSCC CALENDAR ANNOUNCED

The Vintage Sports-Car Club has confirmed a reduced programme of race meetings for 2020, with a four-event schedule concluding with a return to Mallory Park on 23 August. The season starts at Silverstone, as usual, on 18-19 April before taking in one-day race meetings at Oulton Park (30 May) and Cadwell Park (20 June).

COFFEY HANGS UP HELMET

Four-time Historic Road Sports champion Dick Coffey has retired from racing and put his Turner Mk1 up for sale. It has just completed its 34th consecutive season in the Historic Road Sports Championship. Chris Horner won the overall title with it in 1996 and Coffey took it over in 2002, adding four more overall titles as well as eight class titles in the 1300cc division.

INQUIRY INTO NORTH DEATH

Long-time motorsport enthusiast and backer Colin North (below) was killed at Birmingham Wheels on Saturday following an incident with one of the support vehicles during the build-up to the event. North had a senior role at Teng Tools, which had backed a host of drivers and championships in short-oval and circuit racing. BriSCA F1 organisers have begun an inquiry into the fatal accident.



Villeneuve and Lemarie flank winner Kremers



Kremers wins Villeneuve-backed British Formula 4 Carlin drive

BRITISH F4

Dutch karting champion Marijn Kremers has secured a funded seat with Carlin in British Formula 4 next season after winning a shootout co-organised by 1997 Formula 1 champion Jacques Villeneuve.

Dutch driver Kremers, 21, triumphed in the competition held by racing school FEED Racing France at Magny-Cours last week.

Villeneuve founded the school alongside Patrick Lemarie, a test driver for the BAR F1 squad while Villeneuve was at the team, and the duo were part of a judging panel for the shootout that also featured 1996 Monaco

Grand Prix winner Olivier Panis.

Nearly 100 drivers registered for the scholarship, and these were whittled down to a final six who contested the shootout in Mygale F4 cars.

"It feels great!" said Kremers, who this year won the CIK-FIA KZ world karting title. "I see the season in British F4 as a great opportunity for me to boost my racing career to the next level and it is a great feeling to have secured a seat with such an amazing team as Carlin.

"Even as a rookie I'm sure with their guidance I'll put on some good results and hopefully a championship fight."

Reid to contest full Mini campaign

MINI CHALLENGE JCW

Former Sunoco 240 Challenge winner Kyle Reid will contest a full season of the Mini Challenge JCW series next season when it joins the British Touring Car Championship package.

Reid, 30, dominated the Cooper Pro series in 2018 to earn his Sunoco Daytona prize drive but work commitments on an oil rig limited his outings

this season. He only contested one JCW round at Brands Hatch, but failed to finish any of the races. He now plots a full season with Excelr8 Motorsport.

"I can't wait to get stuck into the JCWs next year and start to show progress," said Reid. "I've bought a brand-new car and running with Excelr8 was a bit of a no-brainer for me because the team really know what is best for the car and also for

the driver. This will be my first time getting the opportunity to run alongside a professional team as I have always run cars myself.

"There's such a high-quality grid in the JCWs that going in thinking you'll win straight away is probably a bit naive, so I'll be looking for a few big reversed-grid results at the start and hopefully kick on to fight for outright podiums from there."

BRIAN FISHER
1941-2019

OBITUARY

Three-time Castle Combe Special GT champion Brian Fisher, who died peacefully last week following a long neurological illness, was among the West Country's best-loved club racers.

A celebrated Bridgwater hairdresser, Brian personified popular period perception of the genre. Fashionably long locks, cheeky chappie banter and a penchant for flash cars made him one of the Somerset town's most recognisable characters.

Fisher started competing in the mid-1960s, initially in autocross, sprints and hillclimbs, before switching to the circuits. Racer Tony Dolley, a friend for more than 40 years, recalls watching him at a local autocross: "Most of the competitors had Minis, Imps and Escorts, but Brian, being Brian, raced a Porsche 911!" Castle Combe historian Pete Stowe's first record of Fisher competing there was in Clubmans in 1967, when he finished a class-winning fourth in a 999cc U2-BMC.

A stalwart in the circuit's GT championship, Fisher won the title in 1986 and 1987 in a Skoda S130RS clone and in 1995 in a Shrike P15, all powered by a 1500cc Ford BDA built by Dave 'Philspeed' Phillips.

A great family man, Fisher nurtured the talents of sons Josh (a triple Combe FF champ) and Felix, although sadly his illness kept him away in recent years. To them, wife Lorraine, family and friends, Autosport extends sincere condolences.

MARCUS PYE

Up to four standalone events could be held for the Mk4 model



New series for Mazda MX-5 Mk4 launched by BRSCC for 2020

MAZDA MX-5s

The British Racing and Sports Car Club plans to introduce a new series for the Mk4 version of the Mazda MX-5 next year.

The club runs a very successful series for the Mk1 model of the sportscar, and will amalgamate its two series for the Mk3 edition – the MX-5 Supercup and Super Series – for next season.

"We very much plan to run this as a series and it would come along with the [existing] Mazda package, but probably not at all of them – we will probably have four standalone events for the Mk4s," said BRSCC competitions director Dominic Ostrowski, who added the cars could also

compete in the new Clubsport Trophy.

"It probably won't be until May, just as a way of introducing it and trying to build a good amount of interest for 2021."

A car built by long-time MX-5 competitor Paul Sheard Autosport was available for interested drivers to sample at the recent Motorsport Days Live event at Silverstone.

There is not at present a dedicated series for the Mk4 version of the MX-5, but a number of them do compete in the BARC's MaX5 Championship. That series has struggled for entries, averaging just nine cars this year, and BARC chiefs say the category's future is under review.

STEPHEN LICKORISH

Hat-trick of wins for Collins in NZ

FORMULA 5000

McRae GM1 racer Michael Collins made a perfect start to his New Zealand Formula 5000 Tasman Cup Revival Series campaign last weekend, winning all three races in the opening round at the Circuit

Chris Amon Manfeild.

The Christchurch driver, who gave five-time champion-elect Ken Smith a run for his money last year, qualified on pole, heading off Grant Martin (Talon MR1A) by 0.92s. Auckland Martin ran him closest in Saturday's race,

and repeated in Sunday's pair.

Behind them, David Banks (Talon MR1) and Aaron Burson (McRae GM1) shared the third places. Lola trio Brett Willis (T330), Glenn Richards (T400) and local Kevin Ingram (T332) jostled with them on Sunday. Ex-hillclimb king Ingram – 1983-84 national Formula Ford champion in his self-built Keram – bested at fifth.

Period F5000 ace Smith was a non-arrival, having sold his Interscope Lola T332. The Manurewa maestro has not ruled out a comeback in his 62nd successive season.

MARCUS PYE

Collins (leading) was the man to beat in New Zealand





The price of change

Declines in licence holders and younger people getting involved in racing meant that Motorsport UK needed to make changes – but some are proving controversial

STEPHEN LICKORISH

“Sitting on your hands and doing nothing is not really helping anybody,” says Motorsport UK CEO Hugh Chambers. Certainly no one can claim Chambers and David Richards have sat on their hands since taking over at what was then the Motor Sports Association nearly two years ago.

Ever since Richards became chairman of the governing body, there has been a noticeable focus on the grassroots and an acknowledgement that more needed to be done to promote the sport in this country. And he and Chambers have acted on that.

In the rallying world, they’ve extended the life of belts and seats to help bring costs down. They’ve brought in a wide-ranging benefits scheme for members that gives discounts at a whole host of relevant companies. They’ve even changed the name of the organisation to try to reflect its role as a promotional body rather than just being in charge of rules and regulations (although the merits and downsides of doing this are probably a separate column on their own).

But now they want to go further. And rightly so. It’s no secret that there’s been a slow but continuous decline in licence holders in recent years. That, combined with an ageing demographic of motorsport competitors and volunteers, meant something had to be done to attract the next generation and try to avoid the slow death of motorsport in the UK. So the

“It’s no secret that there’s been a slow but continuous decline in licence holders in recent years”

investment strategy, which you can read about on page 72, has been created to try to address this issue. It focuses on key areas such as promotion, education and training, and innovation for the future to keep the sport relevant. All are worthy areas for investment. But all need significant sums of cash. And that’s where things become more controversial.

Motorsport UK is looking to diversify its revenue streams to take the burden off competitors, who at present provide over three quarters of the governing body’s income. It’s looking to increase its consultancy services to major events around the world and, by launching its Trackside benefits scheme – designed for motorsport fans rather than just competitors – it’s attempting to reach a new audience. But it’s also got to raise some additional income from drivers and clubs too,

hence the increases in licence and event permit fees.

For the good of the sport in this country, every single competitor and motorsport fan needs to support Motorsport UK’s strategy and hope that it works – as the alternative is pretty bleak. And yes, that does mean paying a little bit more to go racing. No one likes price rises and they are such an emotive topic but, in this case, there is a bigger picture and clear justification.

But what makes these necessary increases far less palatable is the amount the licences have gone up by. Take the bottom-tier circuit racing Interclub licence (formerly National B). This has increased by a whopping 55%, compared to just 3% for the top-level International A. That 55% may only equate to £35, but did the licence really need to go up by such a high percentage? And the discrepancy between the National and International licence increases completely goes against the notion of supporting the grassroots. Far from encouraging new competitors, this appears more likely to put off existing ones.

There are a couple of salient points that are worth bearing in mind here, though. Even with these increases, UK licence fees are on a par with other ASNs around the world, and it’s certainly not the case that the UK is suddenly now topping all the price charts – in fact, it’s still cheaper than many. Also, there are other savings that Motorsport UK has introduced that offset the cost of the licence. These include the scrapping of a compulsory medical for those aged 45–60 and an increased level of personal accident insurance cover. And we’re still not talking huge amounts of money in what is an inherently expensive sport.

Grassroots circuit racing also appears to be hit hardest with the changes to event permit fees. The previous bottom bracket of race meeting permit – the Clubman – has been scrapped as this was never intended to be widely used and was instead designed to cater for meetings featuring series that don’t run with one club in particular. But with this now gone, clubs who previously ran under the Clubman permit will now have to pay £8 more to Motorsport UK per entry at each of their race meetings. And clubs say those costs will have to be passed on to competitors. This has raised serious concerns and it is perhaps no wonder, therefore, that one club chief describes national circuit racing as being used as a “cash cow” to fund other types of motorsport.

As necessary as the changes are, they do raise one big question. And that’s whether or not drivers will be put off and not renew their licence for next year. Motorsport UK is confident there won’t be a significant reduction in entries, but we won’t know the true picture until the start of the new season. ❧



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Le Mans winner Tandy and friends won the IndyKa 500 endurance race

Tandy takes IndyKa 500 victory

**MSVR
BRANDS HATCH
16-17 NOVEMBER**

A colourful and incident-packed IndyKa 500 race brought the Brands Hatch season to a close in darkness on Sunday and gave victory after 432 laps in 500 minutes – or eight hours 20 minutes – to JTR's Nick Tandy and co-drivers James Rhodes, Elliot Mason and Lewis Selby.

Tandy ended a short opening stint by stopping early to refuel and swap drivers during a safety-car period. This helped the JTR team to overcome a two-lap penalty for a refuelling infringement to finish four laps in front on the road, reduced to a two-lap victory margin. The Le Mans winner completed more than 100 laps in darkness on his dash to victory, setting the race's fastest lap on the 365th tour.

Second was taken by Octane Junkies (Adam Smith, Martyn Smith, Laurence Wiltshire and Barry Ward) after a major setback when its race-leading car punctured on debris from an early incident, dropping to 18th after an hour. Another lap back in third came Matt Hibberd, Nick Holmes and Stefan Marsh for Club Racing UK, delighted with their first top-three finish. They had to ask directions to the podium.

One of the many hard-luck stories

affected CHR Motorsport, favourite for the podium and very possibly victory after Stratton Mackay, Dave Mayer, Paul Robson and James Rankin put in a stirring performance until Mayer put the car off at Clearways with about two hours to go. Another incident at Clearways was suffered less than 10 minutes before the end by Mark Mathieson, who put the car shared by ex-McLaren Formula 1 boss Eric Boullier on its roof. The race was punctuated by 10 safety-car interventions and a long list of penalties, mainly for track limits and a number of refuelling misdemeanours.

Neil MacLennan (Spectrum 011C) cruised to his third and fourth Champion of Brands Formula Ford victories on Saturday, the race one-winning margin limited only by two caution periods to remove cars.

Both races featured gripping duels for second place involving Richard Tarling's Jamun M92 and the Van Diemen RF89 of Oliver White. A brief excursion by White in race one dropped him to fifth, promoting Castle Combe regular Tom Hawkins to a surprise third place, out for the first time in a Kevin Mills Racing Spectrum.

While MacLennan headed into the distance in race two, White probed Tarling's defences endlessly until finally edging alongside at the final corner to take second by 0.062 seconds, or well under a car's



Neil MacLennan took two more Champion of Brands wins in dominant fashion

WEEKEND WINNERS

ENDUROKA

JTR (Nick Tandy, James Rhodes, Elliot Mason, Lewis Selby)

CHAMPION OF BRANDS - FORMULA FORD 1600

Races 1 & 2 Neil MacLennan (Spectrum 011C)

TRACKDAY CHAMPIONSHIP

Chris Payne (Caterham Super 7)

MSV SUPERCUP CHAMPIONSHIP

Colin Tester/Hugh Gurney (BMW M3, below)

TRACKDAY TROPHY

James Baldwin/Miguel Faisca (Nissan 370Z)



length. "Every time he got a better line out of Clearways and just tucked his nose up the inside on the last lap, and I couldn't chop across," said Tarling.

A stop-go penalty for making his pitstop 2s short cost Ben Davis (Renault Clio) the Trackday Championship title, although he conceded that Scott Parkin (SEAT Ibiza), second in the race, was a worthy champion. Caterham racer Chris Payne "drove like an idiot" in wet qualifying and charged from 23rd on the grid to win in the dry.

Darren Goes (SEAT Leon) successfully defended a small MSV Supercup points lead, doing the mental arithmetic as he drove to take third in class, fifth overall and the title. Colin Tester and Hugh Gurney steered a BMW M3 to victory over the Nissan 370Z of World's Fastest Gamer 2 winner James Baldwin and 2013 GT Academy victor Miguel Faisca. Then the Nissan duo won the Trackday Trophy by more than a lap on a crowded circuit.

BRIAN PHILLIPS



1987 Prowess
was an attention-
grabber at Earls
Court's London
Motorfair

SPOWERS' DESIGN PROWESS

Halos, fins, aeroscreens – cockpit protection devices are commonplace today. But back in the 1980s, Hugo Spowers was ahead of the game with his unique Formula Ford design, although its windscreen was created for a very different reason

MATT KEW

Few cars blur the aesthetic lines quite so much as the Formula Ford Prowess. A Perspex windscreen wraps around its scuttle and sweeps over the driver's head, but it doesn't form a complete roof, so the car is neither a true open or closed-cockpit racer.

It only adds to the Prowess's divisive charm and popularity, and some might say the bizarre creation has looks only a mother could love. Others would argue that particularly the second-generation example still looks futuristic some three decades on.

The car takes its name from its creator, only not in the conventional Ferrari or Lamborghini sense. Hugo Spowers – Prowess being an anagram of his surname – studied engineering at the University of Oxford and during that time co-founded the Dangerous Sports Club. Naturally, getting involved in motorsport was the next step when he graduated.

"I never really had enough money to do much racing," reflects Spowers. "But I did engineering at university because I wanted to design racing cars, I wanted to improve the efficiency of engines and I always wanted to drive them."

He started out as a race mechanic at ADA Engineering, working on a shoestring budget to build its Group C2 car, but left the team in 1983. That same season, Spowers received a commission from the owner of the remaining assets of Sark – with whom Donald Macleod won the 1979 Formula Ford Festival. James Howe had bought the Sark name and wanted to relaunch the once-victorious marque with an assault on Formula Ford 2000.

Howe turned to Spowers to design the challenger.

The "huge opportunity" remained largely untapped, however, when the funds didn't come together. As a result, Spowers went his own way, taking the work he'd done on the Sark and setting about constructing his own machine for 1986. This led to the first-generation Prowess FF1600, complete with its unusual windscreen.

Although Spowers often set out to improve an engine's efficiency, that was strictly limited within the constraints of the FF1600 regulations. If he didn't have much wiggle room within those parameters, then he could improve the way the car cut through the air, hence the slippery screen.

"I remember the first time I drove it at Donington and I'd broken my leg; I had to ask the doctors to take my plaster cast off so I could do it," Spowers says. "We used to look through the windscreen and it was a pretty cheap and cheerful attempt. There wasn't distortion, but it was less than perfect. This happened with the car I built the following year in 1987, which I spent more money on too!"

The distortion from the Prowess's screen, perversely, gave Spowers more and more confidence behind the wheel. That meant he could wildly adjust the car's set-up.

"[The screen] basically made the car feel as though it was too soft," he says. "That was extraordinary! You just wanted to put stiffer and stiffer springs on. It was weird. If you took the bodywork off and drove it without, suddenly it felt firm as can be."

The windscreen was, of course, the most striking aspect of the Prowess compared to its FF1600 contemporaries. But the



Spowers tests the
1986 Prowess
at Silverstone



ADA 01 Group C2
sportscar was built
on shoestring budget



Riversimple Rasa uses
hydrogen fuel cell
technology...

"I'D BROKEN MY LEG; I HAD TO ASK THE DOCTORS TO TAKE MY PLASTER CAST OFF SO I COULD DRIVE"

innovations didn't stop there, as the car also experimented with a hydraulic 'anti-dive' link that connected the front and rear suspension. Equivalent to an anti-roll bar, instead it ran down the length of the car to stop it from pitching under braking. Unfortunately, this was another innovation that a sparsity of funds would put paid to – a homemade master cylinder leaked persistently.

The expectation would be that the Prowess's additional bodywork plus the trick suspension hampered performance as a result of the weight penalty. But apparently not, with the Prowess comfortably under the 420kg weight limit of the time.

"I had a huge amount of lead in that car to meet the minimum weight," adds Spowers. "Howard Drake [maker of Lasers] looked at my chassis when I first had it down at Brands Hatch because it was very rigid... he said it was built like a brick shithouse and was surely going to be overweight. I said no, and I had 12kg of ballast in there.

"Because of the very low seating position I had the rollcage inside the bodywork and the chassis itself was very deep. That meant the roll hoop was very short. I didn't have any aerodynamic problems and it was just a one-inch tube whereas most other chassis were two inches."

The complexities hadn't impacted weight, but nor had the thinner tubing adversely affected the Prowess's strength should it have crashed.

"I did a torsion test of my car, we spent a long time setting it up and we had 2600lb ft per degree," Spowers recalls. "According to John Crossle, that was about four times better than your average >>



...which earned Spowers
Royal Automobile Club
medal for innovation

THE EARLY PIONEERS

Getting blown off course on a windy day and distorted vision through the cheap Perspex screen – as Hugo Spowers, Wil Arif and Rob Wilson attest, the Formula Ford Prowess was not a polished product.

But given the relentless push for safety in motorsport, which has resulted in the adoption of the halo in an increasing number of single-seater series and an IndyCar-style fin for BRDC British Formula 3 in 2020, could the Prowess be considered an early pioneer of enhanced

cockpit protection?

Certainly, it was a far more complete design than the Formula 2 Protos driven by Brian Hart in 1967. Similarly, its cockpit screen was used to enhance the aerodynamics but, despite employing wood in the construction, the Protos was overweight and rode too high.

“Well it was Perspex,” says Spowers of the Prowess, “so it’s bloody strong. You’re not allowed a Perspex windscreen in a road car because it doesn’t break and the emergency services struggle

to get you out if you’re trapped.”

Given just how different the Prowess looked to any of its FF1600 contemporaries, it’s not surprising to learn that it drew much attention from the scrutineers – even though, between the two cars, they only ever entered one race.

“To the letter of the law the car was absolutely correct, but the stewards were going to black flag me at Brands Hatch [in 1986] if it rained,” Spowers adds. “But in the rain it was absolutely fine, we regularly ran it in the wet

and there really wasn’t a problem because the water didn’t sit still. It was flowing straight over the canopy.”

Although that’s two marks in the design’s favour, the narrow cockpit opening did raise some questions over safety.

“It wasn’t terribly easy to get in and out of, I have to say,” says Spowers. “The one weak area, unavoidably, in terms of triangulating the chassis was the cockpit. You actually had a chassis tube going over your shoulders on either side.”

Protos-Cosworth 16 (Kurt Ahrens leads Brian Hart at the Nurburgring in 1967) was a handful in corners

Formula Ford at the time. By having it fully triangulated and with very light tubes, although it was very strong it was very lightweight."

Of course, with the Prowess the defining feature is its appearance and why it remains so divisive. As veteran FF1600 racer Wil Arif says: "It looks like a helicopter with no rotors on it, that's the only way I can describe it!" Unfortunately for Arif, however, the first-generation Prowess more than just visually resembled a helicopter.

"I got bruised each side quite badly when I drove the car down the straight towards the chicane [at Donington] because the wind blew it from one side to another," he says. "It literally would leap from this way and that. The thing was, the rear was made too flat and upright. It was predictable though, it steered in nicely but it was definitely a prototype. The Prowess was unusual. It was the most outrageous car I've ever driven!"

For the following year, Spowers developed the package. This time around the bodywork received much more attention. He worked in conjunction with an American university, which built bicycles for speed record attempts. The resultant bodywork proved extremely efficient.

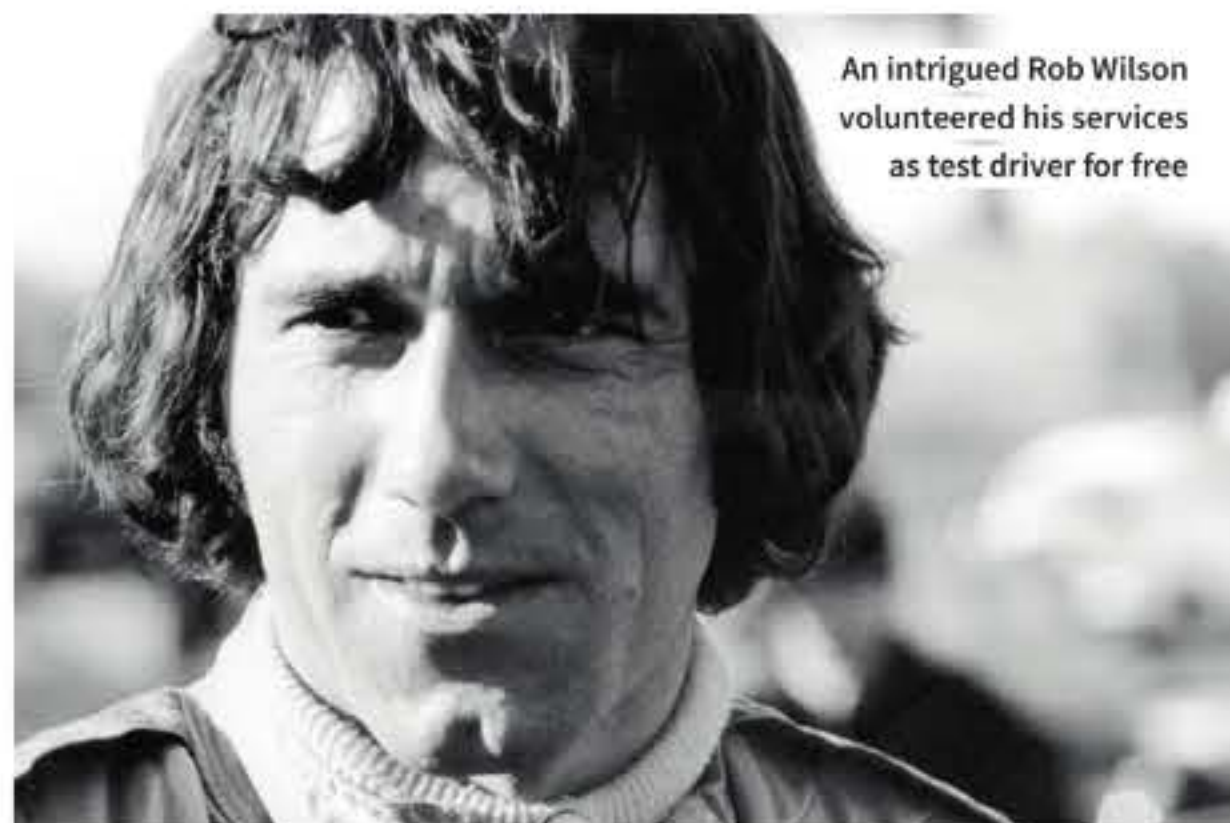
"It was very slippery indeed," Spowers says. "The radiators were tiny, only about a quarter of the size of most contemporary Formula Fords. They could stay cool but they didn't like sitting still for very long.

"I put a lot of effort into the duct design and the intake and exhaust. I managed to get out of the Government a report done in the 1950s, which was protected by the Official Secrets Act for 20 years, about the Royal Aircraft Establishment's post-war analysis of cooling system design for aircraft. It was just so good in its analysis about how you can reduce the [drag] losses of your cooling system by 90% if you're careful about it."

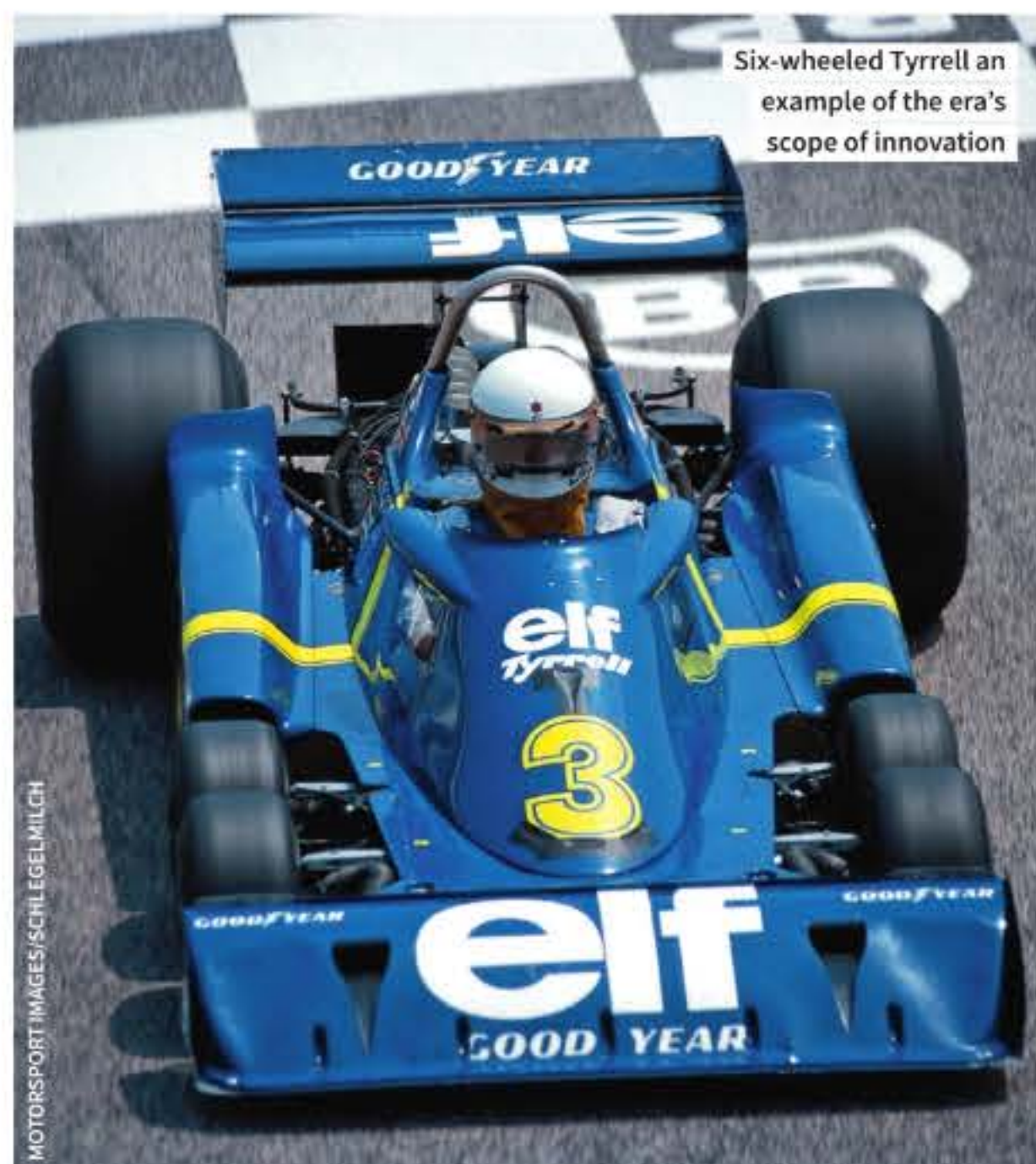
The 1986 Prowess only raced once at Brands Hatch, while the 1987 car never made a competitive outing and so didn't get to prove its worth. It did, however, get tested when finances allowed. One such outing at Silverstone proved the dynamic capabilities of the revised bodywork as test driver Derek Higgins clocked 127mph – the same figure as the works Van Diemen he'd driven the same day. After the test the Prowess, which was running "certainly not a special engine", was found to have a bent exhaust valve meaning in all likelihood it could have bettered the Van Diemen.

Later in 1987, the Prowess was displayed at the Motorfair exhibition at Earls Court where it drew the interest of then racer Rob Wilson. Now more famed for his work coaching most of the Formula 1 field, Wilson offered his services for free and became the main test driver.

"It really was a testbed for Hugo's brain that car, and to his credit it was just so good to have something different," says Wilson. "The Perspex was a bit wallowy, so visibility wasn't always high on the list! It wasn't quite as clear as it might have been, but we were used to that. You focus straight through that. When you've been doing the Daytona 24 Hours enough times and the windscreen is misted up, you're using a rubber broom to clear it on the banking



An intrigued Rob Wilson volunteered his services as test driver for free



Six-wheeled Tyrrell an example of the era's scope of innovation

so those sorts of things were more normal back in the day. Slightly distorted Perspex didn't affect you at all."

Having run the car in open test days across the UK, it would be natural to expect that the Prowess garnered plenty of attention up and down the pitlane for its distinctive shape. But not so, as Wilson recalls: "It was an unusual design, it did look a bit strange but don't forget people had seen six-wheeled Tyrrells. It was a slightly more inventive time so people would just wait and see what was going to happen. There were always odd things that were going on. It would look stranger now because these days everything is so standardised, more to the pity.

"I think you need these characters to do something different. Hugo, I still believe he can add to contemporary racing, he has one of the most inventive minds."

But Spowers decided to step away from motorsport as he found racing increasingly difficult to justify alongside his environmental concerns. Subsequently, Spowers established Riversimple, makers of the Rasa hydrogen-powered car, which has run up the hill at the Goodwood Festival of Speed and its design earned Spowers the Royal Automobile Club's prestigious Simms Medal in 2016 for outstanding contribution to motoring innovation.

While the Prowess might not have starred on the race track and is fondly remembered as an oddball of its time, Spowers still has an avenue for his creativity and can attempt to emulate his motorsport idols.

"I put a lot of effort, and always do, into simplicity and that's the goal," he says. "The focus is on keeping the parts-count down and on simple and elegant solutions. Colin Chapman is near unto God as far as I'm concerned, from that point of view."

No one is suggesting that the Prowess was a game-changer like many of Lotus's road and race cars. Nevertheless, for their quirks of design the two examples remain rightly celebrated for adding to the pioneering spirit that motorsport encourages.

Spowers, now 60, still owns both cars but says they're in a "pretty sorry state" – the 1986 car is without an engine and the 1987 car is missing bodywork and hasn't been started in a quarter of a century.

When Formula Ford celebrated its 50th anniversary in 2017, the phone rang for Spowers to bring the cars out, but the commitments of Riversimple meant time didn't allow for their restoration. But if nothing else, it shows there's certainly an appetite for both cars to be seen on track once more. ❧



L-r: Taylor, Miles and Walker
were no match for Lotus team-
mates Clark, Rindt and Fittipaldi



WHAT YOU NEVER KNEW YOU NEEDED TO KNOW



BOOK REVIEW
FORMULA 1 -
THE KNOWLEDGE
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If you thought the Dirk vs Jorg vs Yvan Muller World Touring Car Championship bouts of the mid-2000s were confusing, then feel for the poor Aintree

circuit commentator. He had to differentiate between Henry, Mike, Dennis and Trevor Taylor – all unrelated – at the 1959 British Grand Prix, the occasion when most drivers with the same surname attempted to enter a Formula 1 world championship event.

That's the quirky essence of David Hayhoe's *Formula 1 – The Knowledge: Records and Trivia since 1950*, an updated and extended version of his self-published 2016 original, which boasts input from several prominent motorsport historians and statisticians, including Forix founder Joao Paulo Cunha.

Hayhoe, the statistician for the well-loved *Autocourse* annuals since 1991, has compiled an enviable base of information in a weighty tome of over 500 pages that covers every conceivable subject you can think of up

to the conclusion of the 2018 season. From times when the wrong national anthem was played for the winning driver (Alan Jones had *Happy Birthday* on the podium at the Österreichring in 1977), to the number of consecutive races in which a constructor has qualified on the front row (Williams' streak of 35 between Kyalami 1992 and Imola 1994 still leads the way) and every instance when the number 1 has not been used by the champion (the latest being John Watson subbing for Niki Lauda at Brands Hatch in 1985), Autosport has spent many satisfied hours poring over its pages.

A particular highlight is the coincidences chapter, in which Hayhoe notes the instances where one driver won on the swansong appearance of another driver who won their first race. For example, Jenson Button won Michael Schumacher's final race at Interlagos in 2012, while Schumacher won Button's first at Melbourne in 2000. This previously happened with Schumacher/Ayrton Senna, Senna/Alain Prost and Prost/Alan Jones. Hayhoe also points out that in both instances of father-and-son world champions (Graham/Damon Hill, Keke/Nico Rosberg) the son prevailed 34 years after their father's first title – which gives Mick Schumacher until 2028 to get one in the bag – while each of Sir Jackie Stewart's three title reigns lasted for 392 days.

One of the common limiting factors with such works is their parochial focus on F1 at the expense of the wider world of motorsport, but that criticism can't be applied here. Hayhoe also outlines the major successes of drivers that have participated in grands prix weekends (including Friday-only drivers) in categories as disparate as GP2 Asia, Formula Vauxhall and Can-Am. Such is the attention to detail that Hayhoe even points out that Luigi Villoresi won the 1958 Acropolis Rally.

Although there is a 33-page section devoted to photographs, including glorious colour images of 1950s Vanwall, Maserati and Cooper machinery, and a summary of major changes to technical



Alliot made his sole 1994
McLaren F1 start in Hungary



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Button won Schumacher's last race, while Schumacher won on Button's F1 debut

regulations throughout time, this is very much a book for the hardcore fan to build a greater understanding of champion drivers and those who weren't able to make the grade.

For instance, Keke Rosberg (7.55%) led the lowest percentage of laps in his 1982 championship-winning season – just 'beating' Emerson Fittipaldi's 7.87% in 1974 – and also has comfortably the lowest ratio of wins (6.25%) in his title year, trailed by the 10% managed by Mike Hawthorn in 1958. Hawthorn is level with Phil Hill as the champions with the fewest career wins (three), while Denny Hulme (1967) and Niki Lauda (1984) are the only champion drivers without a pole position in their title year.

Hayhoe's analysis of the worst-performing teammates to championship-winning drivers perhaps unsurprisingly reveals a clutch of Team Lotus number twos who weren't the main focus of team boss Colin Chapman's attention – Dave Walker scored no points alongside Fittipaldi in 1972, John Miles finished 19th alongside Jochen Rindt in 1970, while Trevor Taylor was 15th against Jim Clark in 1963 – but he does unearth some easily forgotten drivers for various accolades.

Autosport's favourite is Philippe Alliot (who started one race for McLaren in 1994) for the most starts without ever finishing on the lead lap: 109, 26 ahead of Jonathan Palmer. That's surely worth the list price on its own.

JAMES NEWBOLD



youtube.com/AUTOSPORTdotcom



RARE F1 LIVERIES



Formula 1's strict rules governing car liveries means we don't get to see much variety from teams during a season. But over the course of F1 history there have been a few examples of special circumstances leading to paintjobs that only appear for a short time. Here we take a look at the 10 designs we remember most fondly. Go to bit.ly/F1liveries

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Jaguar I-PACE

eTROPHY

Round 1/8

Diriyah, Saudi Arabia

22-23 November

DTM/Super GT

Dream Race

Fuji, Japan

23-24 November

Livestream

[Motorsport.tv](https://motorsport.tv), Sat 0020, 0515, 2355, Sun 0515

MRF Challenge

Round 1/3

Dubai, United Arab Emirates

22-23 November

Brazilian Stock Cars

Round 11/12

Goiania, Brazil

24 November

Australian Supercars

Round 15/15

Newcastle, New South Wales, Australia

23-24 November

TV Live BT Sport 1, Sat 0415, BT Sport 3, Sun 0415

Asian Le Mans Series

Round 1/4

Shanghai, China

24 November





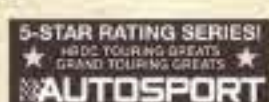
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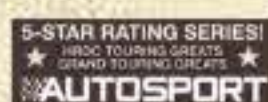


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6th - 7th June	THRUXTON	THRUXTON HISTORIC	COYS 100 TROPHY / DUNLOP ALLSTARS / CLASSIC ALFA CHALLENGE
4th July	LYDDEN HILL	HRDC HISTORICS ON THE HILL	ALL HRDC
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ALL PICS: SUTTON

MARK SKAIFE

The Aussie saloon star recalls a forgettable European F3000 cameo

JAMES NEWBOLD

When five-time Australian Supercars champion Mark Skaife looks back on his career, there isn't much that he regrets. As well as his title success, his stats include six Bathurst 1000 victories and a further three crowns in Australia's premier single-seater series, Formula Brabham. In 1992 he won all three – a feat unlikely ever to be repeated.

But 1992 wasn't entirely rosy for Skaife, as a failed foray into European F3000 left him licking his wounds.

Then 25, he was riding high when, with support from the Winfield cigarette brand, he joined Mike Earle's 3001 International squad for the final two rounds at Nogaro and Magny-Cours in place of Allan McNish, who was struggling for budget.

"It was a little toe-in-the-water exercise to hopefully do the full year in 1993," recalls Skaife. "It was roughly A\$1.5 million in those days, which was pretty much the same as it was to race a car in Australia for the whole year."

"I'M SURE WE WERE JUST TOPPING THE BUDGET UP EFFECTIVELY. WE WERE ABSOLUTELY NOWHERE"

Reynard very much had the upper hand over Lola that year and McNish had managed a best result of third in his Mugen Honda-powered Reynard 92D at Hockenheim, but it was soon apparent to Skaife that the package was lacking.

"It was really bad in all the slow corners," he says. "As it turned out, we were running a twin-shock, all the best Reynards at the time were running a mono-shock at the front end, which David Coulthard, Rubens Barrichello, Olivier Panis all had.

"I really got on well with Mike, he was fantastic with me but he was probably struggling to make ends meet. I'm sure we were just topping the budget up effectively. Hideki Noda was the team-mate and we were both absolutely nowhere."

Skaife suffered with crippling understeer at Nogaro – "it was shocking" – and finished a lapped 16th, the last of the classified runners.

Magny-Cours one week later was not much better – "a disaster" is how he recalls a race that ended on lap one.

Skaife never looked back and returned home for 1993, but says the experience was a useful one despite the hardships.

"I knew I could be more competitive than that, so I was disappointed with how it rolled out," Skaife reflects. "It wasn't the best experience I've ever had, but it was worthwhile in terms of my understanding of it and giving me some perspective."





FROM THE ARCHIVE

Juan Manuel Fangio drops the starting flag – and, even taking into account the compressed perspective of a long-lens shot, appears to place himself in mortal

peril – at the commencement of the 1969 Zeltweg 1000km. Heading his way is the #29 Porsche 917 of Jo Siffert/Kurt Ahrens Jr, which went on to win the race, completing 170 laps of the Österreichring

in 5h23m36.98s, just over a minute ahead of the #33 Lola-Chevrolet T70 Mk3B of Jo Bonnier/Herbert Muller. The #9 Mirage-Ford M3/300 of Jacky Ickx/Jackie Oliver retired after 99 laps with a steering issue.



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3) On this day...

A It's Jacques Laffite's birthday. Which race did he lead during his second stint with Williams (1983-84)?

B Felice Bonetto died on this day in 1953. He scored two F1 world championship podiums. Who were his co-drivers?

C Happy birthday Patrick Watts. Where and when did he claim a sole BTCC pole?

D Which British driver claimed his last World Rally Championship podium on this day in 1979 on his home event?

E Which Roush Racing driver started from his only NASCAR Cup pole at Atlanta on this day in 1999?

4) Name the helmet



LAST WEEK'S ANSWERS Who, what, where, when Maurice Trintignant, Bugatti T251, marque's sole world championship Formula 1 start, Reims, French Grand Prix, 1956. **Who is this?** Alain Prost. **On this day** A) 1982 San Marino Grand Prix. B) James Hunt. C) Sixth. D) Cody Crocker. E) Brands Hatch, 1981. **Name the helmet** Olivier Panis.

IN NEXT WEEK'S ISSUE

F1 2021: will the new rules improve the racing?



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