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HÜLKENBERG REVEALED:

Why Audi hired

the driver with

the one record

nobody wants...

Statistics? Who

needs 'em?



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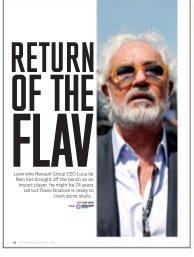
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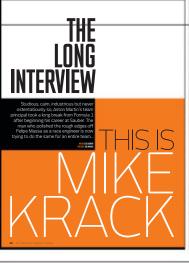
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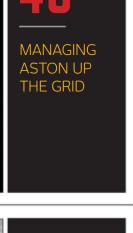
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WHEN SENNA

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IGNITION

AUGUST 2024



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OLEG KARPOV

Oleg's exclusive with the Audi-bound Nico Hülkenberg is our cover feature this month (p32) and he also quizzed Aston's Mike Krack (p46)



FILIP CLEEREN

Filip, Formula 1 reporter for both Autosport and Motorsport.com, grabbed McLaren's Oscar Piastri for a chat with us (p56)



MALCOLM GRIFFITHS

For the second time this year 'Malcy' has snapped our cover star. His stunning portraits of Nico Hülkenberg can also be found on p32



STEVE ETHERINGTON

Hanging up his cameras after nearly 600 F1 races, one of Steve final acts was shooting Monaco on a medium-format Hasselblad (p58)



Prepare for combat, Brad...

While Shania Twain would no doubt have been left nonplussed, the sight of Brad Pitt striding down the Silverstone pitlane in racing overalls moved many onlookers to great excitement during the British Grand Prix weekend. Inconvenienced by the disobliging intervention of a pandemic and a writers' and actors' strike, Brad is now close to 'wrapping' his passion project, a much-anticipated movie set in the milieu of Formula 1.

For over a year speculation has swirled around details of the production, despite the film-makers giving regular off-the-record briefings to the media while shooting at grand prix weekends (perhaps to make up for the passive-aggressive emails entreating paddock folk not to look at the cast or the cameras during the course of their work). Until recently it didn't even have a name. There's been reports of costs escalating beyond \$300million – although, while this sounds like a substantial expense, it doesn't even put *F1* in the all-time top 10 costliest productions. Still, it will likely have to gross half as much again as Pitt's most successful outing at the box office – 2013's *World War Z*, another troubled production – to turn a profit.

We've now had the opportunity to see a poster and a teaser trailer (see p20). Both pose questions. Not only is the film called *F1*, it also (currently) uses the official logo, which begs the question of how much commercial and intellectual sovereignty the commercial rights holder demanded in exchange for letting the cameras in. Quite apart from

anything else, it also induces a jarring typographical mismatch with the typeface used for Pitt's name.

It would be easy to punch below the beltline at some of the trailer's silliness, not least the choice of Queen's *We Will Rock You* as backing music. Frankly the Mii channel theme from the Nintendo Wii would have been a more appropriate choice, particularly when Brad and his technical director debate the need to "build our car for combat".

Balanced against all of this is the undoubted pedigree of the filmmakers. Producer Jerry Bruckheimer is a master of wrangling big, noisy action movies and the hits on his CV far exceed the occasional misses (although *Gemini Man*, on which Paramount lost over \$100m, is 117 minutes of your life you won't get back). Director Joseph Kosinski's acclaimed *Top Gun* sequel memorably eschewed computer-generated effects in favour of more visceral practical techniques.

Ultimately it's a big bet on Formula 1's new post-*Drive to Survive* market in America. What's perhaps most interesting is that Apple not only outbid Netflix for the production, it agreed an unusually long period between the theatrical and streaming releases. The eyes of the movie industry will be locked on what happens next summer.

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Holy SH**!



Or perhaps that should be "Unwholly SH21"? Because to mark the 10th anniversary of our five-day chronometer movement, Calibre SH21, we've subjected it to open-heart surgery. Between The Twelve X (Ti)'s front and rear sapphire crystals, we've re-forged and skeletonised components with custom-made, diamond cutters. Then sculpted them to a precise, polished finish using re-programmed state-of-the-art CNC machinery. This industrial evolution extends to the outside with a 41mm case made from Grade 2 and Grade 5 titanium. Its top ring is rhodium. And it premiers a new micro-adjustable bracelet. When you find out how much it costs, we swear you'll love it.

(And maybe utter the odd expletive yourself.)

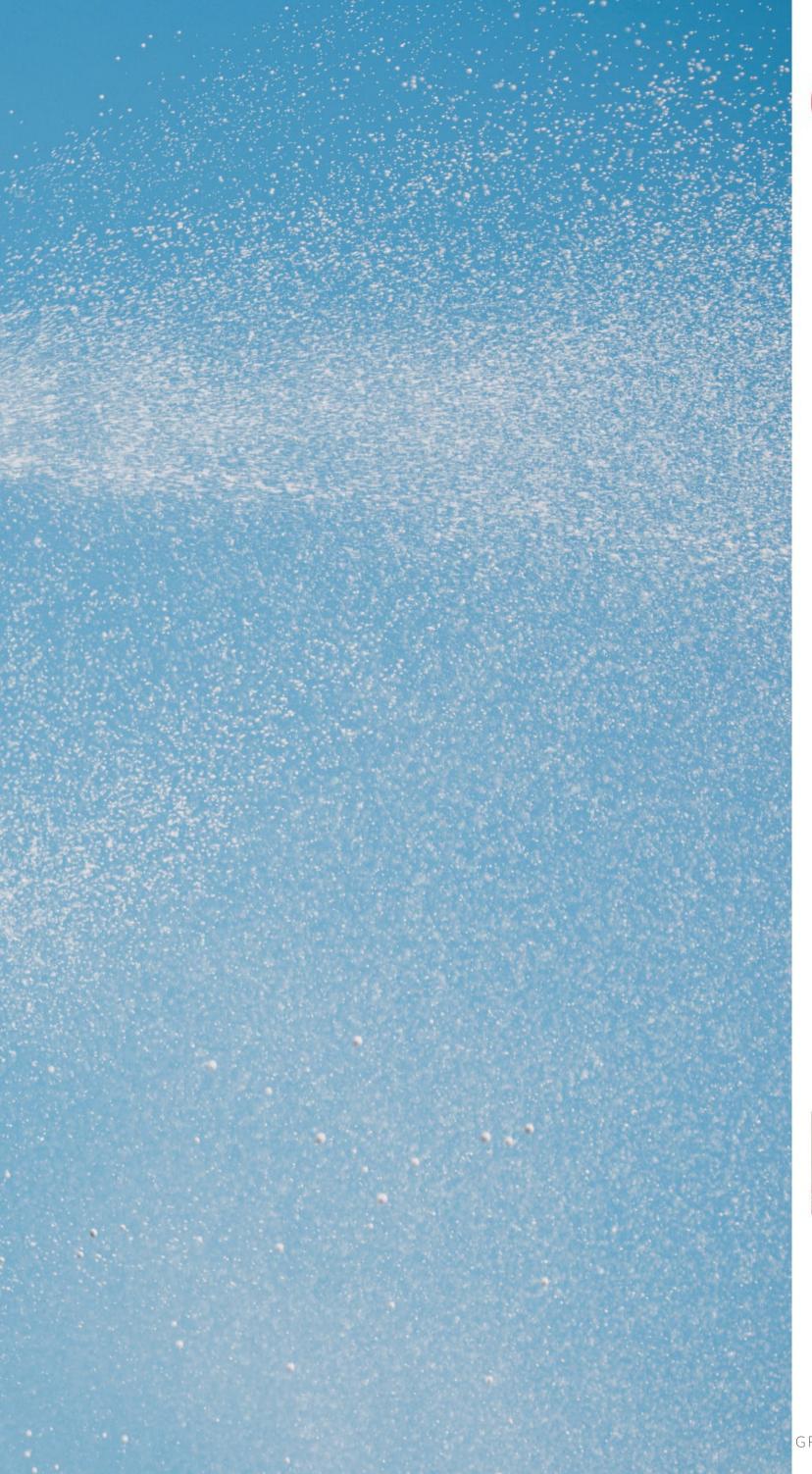
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Fizzing with enthusiasm

You can never be completely sure what a driver is going to do on the podium, which makes it tricky to plan a shot – but you can make educated guesses with a little experience.

I was under the podium at Silverstone and spotted Lewis's family, plus team boss Toto Wolff, standing nearby. So I positioned myself hoping that he would come forward and spray them with the sparkling wine (which, confusingly enough, is supplied by Ferrari Trento – a company unrelated to the car manufacturer). Lewis duly obliged, as did the weather. After grotty conditions early on, the clearing sky gave a nice contrast with the spray.



Photographer Zak Mauger

Where Silverstone, UK When 4:47pm, Sunday 7 July 2024

Details Canon EOS R3 100-500mm lens, 1/2000th @ F4.5



A break in the old routine

Silverstone is one of the fastest circuits Formula 1 visits thanks to its origins as an airfield perimeter road. The challenge for a photographer is in capturing a sense of that speed because there's a lot of empty real estate between us and the cars.

For this shot I went the other way and set a high shutter speed. Not as high as the Z9 can go (1/32,000th!) but enough to freeze the sparks as the Mercedes rides the kerb at full chat. The grandstand and kerb edge then frame the shot.

Usually teams wait until the end of FP2 to do quali sims but with rain predicted they bolted on the softs mid-session, and I was in the right place.



Photographer Simon Galloway

Where Silverstone, UK When 4:30pm, Friday 5 July 2024

Details Nikon Z9 400mm lens, 1/1250th @ F4.5







An elevated view to a thrill

Being an ex-airfield Silverstone is flat, so I seized the moment when I was offered a chance to gain a little bit of height.

McLaren's partner Cisco

Systems had a suite in the new Hilton hotel opposite the pits which enabled me to get a new angle on the usual start shot.

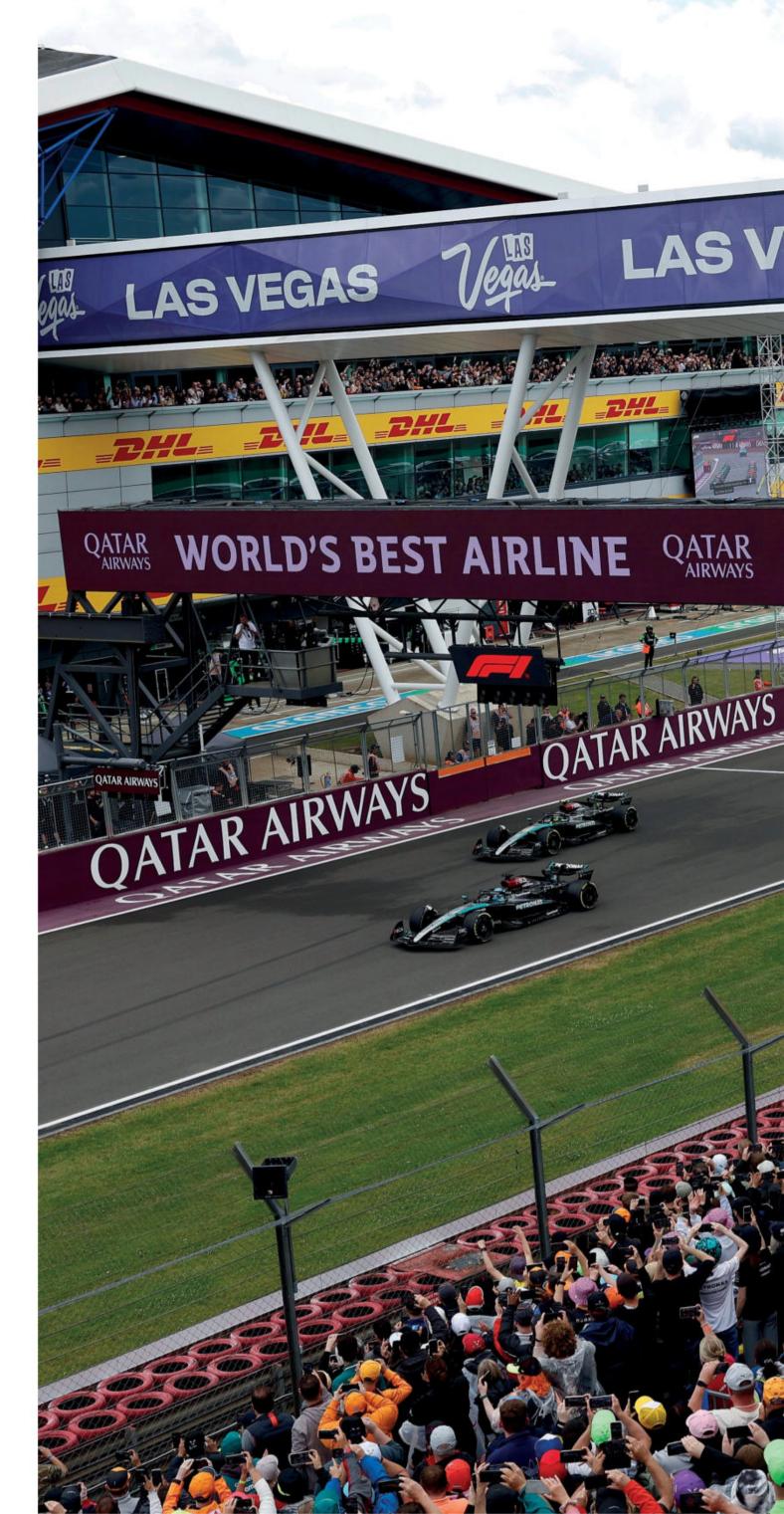
One of the other things I like about this shot is the presence of the crowd, who were absolutely loving it. The British GP audience is very eclectic in terms of who they support and there's a huge diversity in the merch. Naturally they were pleased to see three British drivers at the head of the grid. Earlier in the day I had a chat with Jackie Stewart, who started third the last time this happened...



Photographer Steven Tee

Where Silverstone, UK When 3:02pm, Sunday 7 July 2024

Details Canon EOS R3 24-70mm lens, 1/1000th @ F5.6







Put your hand up if you've won nine

Usually, towards the end of the race, most photographers head back to the pit area to squabble over the best positions to shoot the podium and parc fermé celebrations. Motorsport Images leaves a couple out there in case something random happens in the closing laps – don't rule it out!

It was my turn to do that at the end of what was an absolutely fantastic race at Silverstone. I knew Lewis would want to acknowledge the crowd after his ninth British Grand Prix win so I stood at the exit of Luffield with the crowd on my right – and, lo and behold, Lewis obliged by sticking his arm right out of the cockpit. As a bonus, the Red Bull alongside provides a nice visual reminder of the dramatic closing laps of the race.



PhotographerGlenn Dunbar

Where Silverstone, UK When 4:27pm, Sunday 7 July 2024

Details Canon EOS R3 100-500mm lens, 1/1600th @ F47.1





ify



You've got to Rolls with it

Legend has it that the British Grand Prix trophy – 'awarded' each year while still remaining the property of the Royal Automible Club – was originally donated by Rolls-Royce co-founder Sir Charles Rolls. Like his cars, it certainly has a stately bearing and appearance. And Lewis Hamilton loves getting his hands on it – remember his vocal dissatisfaction with the plastic Santander one a few years ago?

I'd done the team's official celebration photo but, as you can see here, it was still all going on an hour after the race. I ran down my stepladder and squirrelled my way through the other snappers to end up underneath Lewis as he was held aloft by other sparkling wine-soaked team members.



Photographer Sam Bloxham

Where Silverstone, UK When 5.59pm, Sunday 7 July 2024

Details Canon EOS R3 16mm lens, 1/50th @ F8







MAX-IMUM INTRIGUE Champ might yet go to Mercedes

MERC DOOR STILL OPEN FOR MAX

After the random detonation in the drivers' market earlier this year when Lewis Hamilton's unexpected Ferrari signing became public, it was expected that most of the other moves would follow quickly. But while many seats were indeed taken up over the following months, there's still room for major manoeuvring – and every reason to believe there could be a spark that ignites another 'silly season' sensation.

There are two main reasons the market has stalled: Carlos Sainz's indecisiveness in choosing a new team, and Mercedes' reluctance to finalise its own line-up until the possibility of signing Max Verstappen has been ruled out for good.

Sainz naturally became the key figure on the market in the immediate aftermath of the Hamilton announcement since he was the one to be displaced. But despite insiders suggesting at various times that Sainz was finally ready to commit to a 2025 move, the decision has repeatedly been delayed. First, his priority was understood to be Sauber, which is preparing to transition into the works Audi team. Then Williams entered the fray – yet just when Sainz was rumoured to be on the verge of accepting an offer from its boss James Vowles, Flavio Briatore stepped in, and the Alpine option forced Sainz to postpone his decision yet again.

Sainz's need to choose solely from the teams currently at the bottom of the standings arose from the fact that the doors at Red Bull and Mercedes, which had one vacancy each in the spring, appeared closed by early summer. Red Bull extended Sergio Pérez's contract, while at Mercedes Toto Wolff made it clear to Carlos that he did not see him as a candidate.

This led to a wave of reports in the German media claiming the deal was already done for 17-year-old Mercedes protégé Andrea Kimi Antonelli to step up to F1. In fact, this was by no means done – and neither was the Red Bull door fully closed.

Pérez's woeful performances after F1's return to Europe led to speculation that the Mexican could yet lose his seat despite having just signed a new contract, and Sainz was again mentioned as a possible replacement. Meanwhile, Wolff has changed his own rhetoric, admitting that the possibility of calling on Carlos has not been completely ruled out.

Wolff's hesitancy is partly a result of Antonelli's struggles in F2, where — apart from a reverse-grid win at Silverstone — he has been relatively anonymous. While it's clear his Prema team hasn't mastered the new F2 car yet, Antonelli's form hasn't made rapid promotion a must.

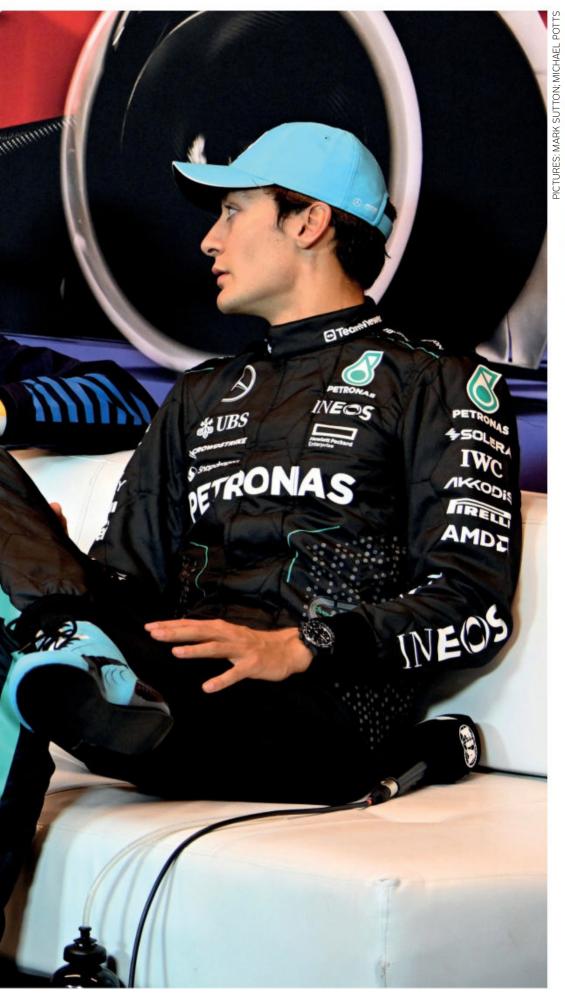
"The season has been a bit tricky [for Antonelli] because overall in F2, the two [Prema drivers] have not been on the level, and I think the team recognises that it wasn't great," Wolff said.

"The driver market at the moment is quite a dynamic, interesting thing. Some of the drivers have more options, and



The chance of seeing Verstappen join Russell at Mercedes is slim but not completely out of the question some of the teams have more options. It's interesting. And you know, it's like Bernie [Ecclestone] said: last week I had an opinion, this week I have a different one."

Another important factor is the remaining, albeit minimal, chance of Wolff getting Max Verstappen as early as 2025. During the Austrian GP, Verstappen for the first time gave a categorical answer to the question of whether he will remain with Red Bull, but his grudging "OK, yes" response came after sustained questioning at the official press conference. And it





The recent fallout between Red Bull team principal Horner and Max's father Jos (above) can't have helped team harmony

"How childish can you be?" a furious Verstappen said to *Formule1.nl*. "There was going to be filming, for example also with a drone, but Horner didn't want me to be filmed.

"I'm completely done with Horner. It's like a kindergarten here. I would have been allowed to ride in the end, but I backed out. I find this so childish of Horner, but I think it says something about him."

Horner responded with some scathing comments at an F1 press conference. Another clash between the team boss and the driver's father prompted further questions as to whether Wolff could take advantage of the situation.

"It is a question you would have to ask Toto," Horner said when asked if he knew why Wolff was continuing with his pursuit of Verstappen.

FIRST HE HAD TO MAKE SURE THAT THE TEAM COULD OFFER THE WORLD CHAMPION A COMPETITIVE CAR

"Max was pretty resolute in what he said, and he's always been absolutely consistent with the team. I think it is purely a distraction tactic from Toto – and if he does want a Verstappen for next year, I guess Jos is potentially available."

Wolff, meanwhile, continues to hint that he is not ruling out the possibility of Max joining Mercedes. However, if in the first half of the year Toto always added that he first had to make sure that the team could offer the world champion a competitive car, by the middle of the

season this issue seems to have been resolved. George Russell won in Austria, admittedly by default, but Lewis Hamilton's victory at Silverstone was on merit.

But will this help Wolff to poach Max?

"I don't know," Toto replied. "He had lots of opportunities to have a look at the car in the [Silverstone] race."

Hamilton's move to Ferrari has been described by many as one of the biggest in the championship's history – could this year yet have a second, equally seismic move in store?

did not put an end to the rumours of a possible move.

Such a scenario had been widely discussed in the spring, when Red Bull Racing was at the centre of a scandal involving allegations made by a female employee against its boss Christian Horner, but the intervention of the parent company's executives calmed the situation somewhat – at least outwardly. However, there was a fresh spat between Horner and Max's father Jos during the Austria weekend, ostensibly over Jos's participation in the Legends Parade of historic vehicles.



FOUR BRITS ON THE 2025 GRID

The 2025 F1 grid promises to be exciting for British fans. Not only will Lewis Hamilton, George Russell and Lando Norris all potentially have top cars, they'll be joined by a rising star – Ferrari's young protégé Oliver Bearman. He has been officially announced as a driver for the Haas team.

Bearman, who turned 19 in May, had been tipped for a place in Gene Haas's team ever since he successfully made his F1 debut at the Saudi Grand Prix, substituting for Carlos Sainz at Ferrari. His seventh-place finish on the highly challenging Jeddah street circuit, having been called up in the middle of the weekend and after only taking part in one practice session, further convinced Haas team boss Ayao Komatsu. The Japanese engineer had already been impressed with the British junior's performance when he jumped into the car during FP1 during last year's Mexican Grand Prix weekend, and was particularly complimentary of Bearman's attitude during his F1 practice outings.

Racing an F1 car in Saudi naturally meant Bearman missed the F2 race there, making for an inauspicious start to what has unfolded into a middling campaign for him. But this has not deterred Haas. The driver himself believes it was the stand-in drive in Jeddah which earned him a seat.

"I think Saudi showed what I was capable of, showed that rookies and people with lack of experience aren't really so far behind the normal cohort," Bearman said.

"I think I did put a good showing for myself in Saudi, and of course, with the F2 campaign going the way it is, it's hard to ignore that.

"I still felt that I could do a good job in the free practices, but let's say I'm happy that Saudi happened because I think it's a major contributor to why I'm here right now."





Bearman took part in another FP1 session for Haas at the recent British GP and will be the fourth British driver on the grid in 2025

Haas insists that the decision wasn't influenced by Ferrari, its long-time technical partner and power unit supplier, even though the relationship has just been extended to the end of 2028. However, insiders suggest that the Italian team's bosses have high hopes for Ollie – and that, in the long term, he may well replace Hamilton at the Scuderia when the latter retires.

NEWS IN BRIEF... NEWS IN BRIEF...NEWS IN BRIEF...



ASTON MARTIN'S recruitement drive is continuing apace. Andy Cowell (left), the former MD of Mercedes High Performance Powertrains, joins the team in October as Group CEO. Enrico Cardile (right) will be the F1 team's chief technical officer in 2025, having left his post as Ferrari's chassis technical director.

SPRINT RACES

The sprint calendar for 2025 has been announced and the only change sees Belgium replacing Austria, which drops out for the first time since 2021. The six events to hold sprints will be China, Miami, Belgium, Austin, Brazil and Qatar.

AERO TESTING

Team allocations for aerodynamic testing have been reset, based on championship positions after the Austrian GP compared to 2023. Mercedes is the biggest gainer, with an extra 10% allocation. RB and Haas are the biggest losers.

HIRES

Williams has also announced a number of new technical hires, the stand-out one being Matt Harman. Harman was Alpine's techincal director until he resigned at the start of 2024 and he will become design director at Williams after the summer break.





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27 FEB - 2 MAR ARAGÓN /E

6 MAR - 9 MAR BARCELONA /E

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WINTER SERIES

Info and registration









Formula 1, in association with Apple, has announced the title of the Brad Pitt-led movie which has been in production since last year. The film, which tells a fictional story about an 11th team in the championship called APXGP, has been officially christened 'F1'.

While this might seem an unimaginative choice of nomenclature, Lewis Hamilton - who has advised the production team on technical matters and is credited as an executive producer of the film – played down such criticisms, saying, "What else would you call it?"

The title reveal was accompanied by a first trailer which did not reveal much in the way of story details, but gave a general idea of what to expect from the film. It's being put together by Top Gun: Maverick director Joseph Kosinski and high-concept action movie producer Jerry Bruckheimer. After delays caused by last year's Hollywood SAG-AFTRA strikes, it will be released in international markets on 25 July 2025 and in the United States on 27 July 2025 – initially in cinemas, including IMAX, before heading to Apple's streaming service over a month later.

It has been known since last year that the story would revolve around the fictional APXGP team and its two drivers, with Pitt and Damson Idris playing the roles of drivers Sonny Hayes and Joshua Pearce. Pitt's character, a veteran, returns to F1 to mentor a young racer played by Idris.

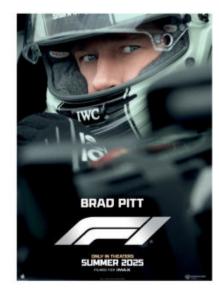
The footage in the trailer comprises mostly on-board action shots taken by the film's production team at various championship circuits – including footage from actual grands prix. However, at least one scene in the trailer suggests that the film's main target audience will not be hardcore F1 fans.

The dialogue between Pitt's character and the team's technical director, played by Kerry Condon, may raise eyebrows among racing enthusiasts. When Sonny Hayes requests a car design that would be suitable for "battling in turns", Condon's character responds in a surprised tone: "How am I supposed to make that safe?" – as if there were no strict safety requirements in the championship's sporting regulations.

There is hope, however, that the filmmakers will not stray too far from motorsport realities, given Lewis Hamilton's proximity to the project. Niki Lauda performed a similar advisory role on the 2013 film Rush, which dramatised his 1976 world championship battle with James Hunt. When reading an early script in which he was described entering the cockpit of his Ferrari F1 car and turning the key to start it, he threw the document across the room and yelled, "This is bullshit!"

"[As F1] we have to continue to grow," Hamilton said after the trailer was seen. "The movie particularly is going to help do that. We've got great footage with the demo drivers, who have done a great job, as all the [F1] drivers got to see in Austin [in 2023]. I'm really confident in what Jerry is going to produce."

There was further filming for the movie at the recent British GP (above), where it was also announced that it will be called... F1



THERE IS HOPE, HOWEVER, THAT THE FILMMAKERS WILL NOT STRAY TOO FAR FROM MOTORSPORT REALITIES

MASTERMIND

Your chosen specialised subject: the world's greatest motorsport

- Q1 Lance Stroll ,Sergio Pérez and which other driver started a race for Racing Point?
- Q2 Only three drivers have been officially classified in the first 12 races of the season. Who are they?
- Q3 Including the current line-up, how many drivers have started a GP for Red Bull: 12, 14 or 16?
- Q4 In which race did George Russell claim his first pole position for a world championship GP?
- Q5 True or false: Lewis Hamilton's British GP victory means he has been most successful in round 12 of the championship with seven wins?
- Q6 Who am I? I started 183 GPs from 2000 to 2011 for Prost, Sauber, Jordan, Williams, BMW-Sauber and Lotus, claiming 13 podiums and one pole position.
- Q7 At which race did Valtteri Bottas last stand on a Formula 1 podium?
- Q8 Fuji held four world championship races in 1976-1977 and 2007-2008 but who are the only two drivers to have claimed pole at the circuit?
- Q9 Mercedes, Ferrari, McLaren, Red Bull and which two other teams won races in 2012?
- Q10 Which three British drivers qualified in the top three in three consecutive races in 1963?



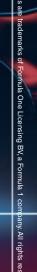
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RED BULL HOMES IN ON A MAJOR MILESTONE

Watching and listening to the noise and character of some of the most successful F1 cars of the past two decades at the Goodwood Festival of Speed was mesmerising. Celebrating 20 years since Red Bull Racing was created, the team assembled the largest gathering to date and it glowed.

The first car to bear the Red Bull name was a key part of the display. The RB1 was a development of the Ford-owned Jaguar that raced in 2004 before Dietrich Mateschitz, co-founder of the Red Bull drinks company, fixed the deal late in that season creating a new environment at the Milton Keynes factory under new boss Christian Horner. Red Bull's first car had no input from Adrian Newey and was powered by an engine with Ford involvement – a combination we will see again in 2026.

Christian Klien drove the RB1 at Goodwood, as he did in 2005; the car wasn't a winner but, at the first event in Australia, David Coulthard qualified fifth and ran third in the early stages before finishing fourth – a better result than Jaguar had obtained in the previous two years. The sound



The car that started it all, the Red Bull RB1, was driven at Goodwood by one of its original pilots, Christian Klien

of the Cosworth V10 engine was characteristic of F1 then, but feels so different now: its screaming whistle revived memories for fans old and new.

DC was a crucial part of the team from the start. His experience of working with title-winning teams at Williams and McLaren meant he had clear insight into what mattered and, as his future Red Bull team-mate Mark Webber reflected in his autobiography Aussie Grit: My Formula One Journey, "The biggest thing I learned from David was how strong and purposeful you have to be in your directions to the team... it was good for me to see how direct he was on the professional front."

It was DC who got in touch with Adrian Newey's wife and arranged a meeting between Adrian (disillusioned at McLaren) and Horner. That was the beginning of a whole new chapter in the world of F1 and, while it's ending soon, it was a crucial

part of the team's success. By the time Webber joined in 2007, Adrian had pushed for new research facilities and had established that some of the former Jaguar staff hadn't bought in to his methodologies; they were soon moved on, and the atmosphere blossomed.

Suitably Webber demonstrated the RB6 at Goodwood. This was the car with which the team stepped up from being a race winner to a championship contender. The RB5, created to new aerodynamic regulations for 2009, had evolved into the fastest car of that season despite initially lacking the double-diffuser floor which worked so effectively for the title winning Brawn team. For the RB6 this philosophy was integrated into the design from the earliest stages, along with many other clever ideas; Mark led the championship with three races to go and was still ahead of team-mate Sebastian Vettel going into the final race, only to drop to third as Vettel snatched the crown. It was a pattern which developed further with the machinery Red Bull created for successive years; the RB7 and RB8, which also shot up the Festival hill, were key to Vettel's four consecutive titles.

A change in technical regulations has often given Newey an opportunity to create special cars, yet the major shift for 2014 was the new hybrid power era and that was out of his speciality. The

> Renault power unit Red Bull used lacked power and reliability, and the team struggled to compete against Mercedes and Ferrari. A new arrangement with Honda in 2019 was a boost but a minor aerodynamic modification for 2021 was a game-changer; a restriction on floor design led to less downforce on cars that ran relatively level but totally suited Red Bull with its higher rear ride height.

The RB16B was the updated version which led Max Verstappen to his first title after an intense rivalry with Lewis Hamilton, and it was a special moment to see Max back in the machine at Goodwood. That 2021 season split opinions across the F1 world but it was also the beginning of a remarkable period for the team.

While that battle reached high levels of drama on track, the factory was working on the new ground-effect concept for 2022 and the way Red Bull executed it was truly impressive. Dominance of 2022 with the RB18 was celebrated on the hillclimb by Sergio Pérez, whose memorable Monaco victory was among Red Bull's 17 race wins that year. The following season he helped the team achieve its first 1-2 in the drivers' championship in the RB19, which was displayed in the Cathedral Paddock at Goodwood.

In five years cars not created by Newey, and with power units made in Milton Keynes, may contribute to a 25th anniversary celebration. But despite all those historic successes, these will be unpredictable steps into the future.

Red Bull's factory has undergone many changes since 2005 and numerous winners have emerged from the team's Milton Keynes base





DC was a big part of Red Bull's early days in F1, coming from the race-winning Williams and McLaren teams





The RB19 is the most successful car in F1 history. The car claimed 21 wins and took Verstappen to a third world title and the team a seventh constructors' crown







both cases sound will be muffled by anything in the inlet or exhaust such as an air filter or exhaust silencer. In the case of an F1 engine, the turbocharger and compressor both dampen the sound. Also, in the current engines, the MGU-H reduces the sound intensity since it recovers energy from the exhaust, some of which is sound energy.

The difference between noise and sound is subjective but probably a function of frequency. The slow thump of a single-cylinder diesel on a narrowboat is evocative but isn't exciting. The sound of a multicylinder engine approaching 20,000rpm is definitely exhilarating.

The human perception of sound is a complex subject. Bearing in mind sound is a waveform, the pressure of those waves, or more

precisely the energy in them, is what determines loudness and the spacing between the waves determines frequency. For loudness or intensity, engineers refer to the Sound Pressure Level, measured in decibels(dB). A decibel is a ratio of the observed amplitude, or intensity level, to the reference of odB which corresponds to a pressure of 20 micro-Pascals, this being the threshold of human hearing.

Unfortunately, it gets more complex as decibels are a logarithmic measure, so a doubling of the decibel number does not mean a doubling of the loudness. Normal conversation is around 6odB, a loud siren 100dB and about 16odB will burst your eardrums. Of course, the loudness also depends on distance and measurements are normally made at one metre with loudness halving as distance is doubled.

So the perception of the sound quality and intensity of a Formula 1 car depends on the engine speed and your distance from the car. Since the exhaust is a single outlet which points backwards there will also be some attenuation if you're to the side of the car. Spectators are generally at least 25 metres to the side and probably some metres above the exhaust as they watch a race, so the sound they hear may peak at around 115dB as the car is passing. Still pretty loud but far less than if one were closer.

The removal of the MGU-H in 2026 will influence the sound pressure levels. If we assume the combustion pressures will be similar, and I expect it will, we could see somewhere around a 6dB increase in sound.

WHO'S AFRAID OF THE ART OF NOISE?

The publication and pre-announcement of

the 2026 Formula 1 regulations was heralded as giving the fans what they asked for and to some extent this is true. The 'nimble' car may still be a dream in absolute terms but at least there was an arresting action of the relentless increase in both size and weight of the cars.

One major area that wasn't fan-driven, though, was the new power unit. This was an amalgam of the requests of the corporate boards of the manufacturers involved, together with measures designed to ease the path for newcomers that was ultimately finessed by the technical directors of the manufacturers' racing departments.

The outcome of this convoluted process can be debated forever and a day but it landed in a place far from the original intentions — and led to regulations that made energy recovery and deployment critical. This in turn forced the need for chassis and aerodynamic regulations to be very exact if the performance objectives were to be met.

One aspect that's always on the fans' wish list



A Honda V10 in a McLaren MP4/5 in 1989. The shriek of a V10 was probably peak engine noise for the F1 afficionado

and wasn't specifically addressed was the subject of sound. While Bernie Ecclestone's comments in Australia in 2014 about sound weren't helpful and detracted from the real message of power unit efficiency, there's no doubt a substantial number of fans would like a more exciting and emotional aural output from the engines.

Ignoring some unwanted mechanical noises, the loudness from an engine comes from both the intake and exhaust. On the intake side this arises from pulsing in the inlet tract. On the exhaust it's a function of the cylinder pressure at ignition. In



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At the last race of the V8s in Brazil in 2013, Red Bull free-revved its Renault RS27 engine, producing a cacophony of noise

But the frequency will not change since the fuel-flow limitation, which governs the engine speed, is unchanged in that the maximum flow occurs at 10,500rpm.

Now, through the wonders of log scales, one might expect 6dB to be a huge increase in sound and in true physics it is, but the human ear has complex responses. The perceived increase in noise will depend on the

frequency as the engine accelerates through the gears. At a given frequency it will, at best, represent a 50% increase in sound. This is significant but will still be directed rearward rather than towards the fans.

One novel suggestion made during the development of the regulations was to split the exhaust and aim it sideways so it reached the trackside spectators more directly. Some

aero simulations of this were done and it looked feasible if somewhat unusual. However, it appears the idea has gone no further, probably since the teams were concerned about the plume of hot gases impinging on structural carbon fibre components.

The fact is that a turbocharged engine, providing it's running efficiently and not burning fuel in the exhaust, will always have a quieter exhaust than a normally aspirated engine since energy in

ONE NOVEL SUGGESTION MADE DURING THE DEVELOPMENT OF THE REGULATIONS WAS TO SPLIT THE EXHAUST AND AIM IT SIDEWAYS

a turbo engine is recovered from the exhaust. The quality of sound will also differ and, although it's subjective, most fans probably prefer the distinct beat of cylinders firing rather than the smooth and sinusoidal sound emanating from a turbo.

Perhaps, as has been mooted recently, the only solution is to return to high-revving, normally aspirated engines. If they're running on sustainable fuels, why not?



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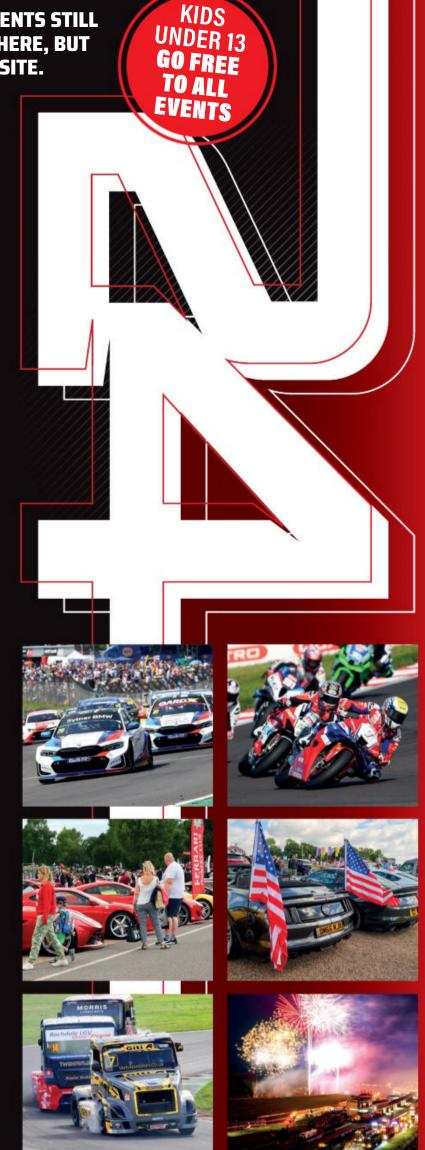
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Essential guide to the business of F1



STRAIGHT TALK

MARK GALLAGHER

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in motorsport, including some taken from us far too early for other reasons. I often wonder how Derek Warwick finds the vast 1 May commemoration while his talented brother Paul lost his life during an F3000 race at Oulton Park in 1991 and is seldom mentioned.

I interviewed young Canadian Bertrand Fabi two days before he was killed in a Formula 3 testing accident with West Surrey Racing at Goodwood in 1986 and I recall the shock when Formula Ford ace Pete Rogers was killed at Donington Park the following year. Most of us can start a list, and have watched it grow.

IndyCar racers Justin Wilson and Dan Wheldon, sportscar star Allan Simonsen, rallying's Craig Breen, each of them with a family, friends, colleagues and fans. So many anniversaries, some observed more publicly than others.

What of the Formula 1 marshals who have also paid the ultimate price? Paolo Ghislimberti and Graham Beveridge, killed by debris at the 2000 Italian and 2001 Australian Grands Prix respectively, or Mark Robinson, who died when struck by a recovery vehicle which was returning a Sauber to the paddock after the 2013 Canadian GP.

Looking ahead, I'd like to see 1 May become the date when the global motorsport

A BETTER WAY TO REFLECT ON LOSS

I know I'm not alone in finding that this year's 30th anniversary of the fatal accidents involving Ayrton Senna and Roland Ratzenberger during the San Marino Grand Prix at times drifted into a quasi-celebration, a mawkish jamboree hijacked by both the well intentioned and attention seeking.

It's entirely relevant for the drivers' families, teams for whom they drove, and institutions such as the Ayrton Senna Foundation to commemorate their passing. So too for fans who followed their careers, and anyone affected by a double tragedy which shocked the motorsport community

When I started working in Formula 1, people in the paddock and media centre would often mention the late Jim Clark. At the time I wondered why they were still talking about a guy who had raced so long ago. I now look back and realise it was only 15 years since Clark's death in a Formula 2 race. Today it would be like reflecting on an event in 2009.

Twice that period of time has passed since Imola '94, yet the commemorations have escalated.

With the 1 May anniversary becoming such a



Formula 1 remembers Roland Ratzenberger and Ayrton Senna during this year's Emilia Romagna GP at Imola

major affair, Ayrton and Roland's stories are told and retold, rewinding every 12 months to replay the final moments of two men I had the good fortune to meet. Videos of their accidents are invariably posted online, as though the moment of death is worth resharing in a tawdry quest for likes and followers. What must Senna and Ratzenberger's families and friends think when they come across that footage?

Personally I use the 1 May anniversary to reflect on all those I've known to have lost their lives community reflects on all of those who have lost their lives, whether on four wheels or two, on race tracks, special stages, at marshals' posts, in the pitlane or in the grandstands. An FIA World Motorsport Safety Day of Remembrance which enables us to remember all the competitors, friends and colleagues who are no longer with us.

A moment also to renew our collective commitment to safety, celebrating the technical innovations and improved systems which enable so many to walk away from accidents today, avoiding more dates to commemorate.

Heineken -00- He

The exhibition laps at the British GP showed that a 53-year-old car could run the fuel without any modification

FUEL HOUSE THINK IT'S OVER

Formula 1 has been heading – at times grudgingly – towards electrification for over a decade. But recent advances in sustainable fuel means it's not over yet for internal combustion...

WORDS STUART CODLING, OLEG KARPOV
PICTURES MOTORSPORT
IMAGES
AND ZERO PETROLEUM

Visitors to the recent British Grand Prix at Silverstone will have been delighted not only by Lewis Hamilton's remarkable victory in occasionally grotty weather, but also by the eclectic parade of historic cars on the support package. McLaren M19/1 has had an eventful life, including podium finishes for Denny Hulme in the one-off non-championship 1971 Questor Grand Prix and Mark Donohue in the '71 Canadian Grand Prix, the first world championship race to be red-flagged.

It was also the car in which Jody Scheckter made his grand prix debut at Watkins Glen in 1972 and, until early this year, it was part of the 1979 world champion's personal collection after he bought it in an auction of the late John Foulston's chattels. This July, over 53 years after it first turned a wheel in anger, the car added an intriguing new page to its history. Spectators might not have guessed, as they savoured the rorty mix of induction rasp and straight-through exhaust roar of its 3.5-litre Ford-Cosworth DFV V8, that the car was running on a 100% sustainable fuel produced from just air and water.

"We haven't reinvented the wheel, just the fuel," says former McLaren and Williams technical director Paddy Lowe, CEO of synthetic fuel manufacturer Zero Petroleum. The choice of show car was deliberate: to show that a 'fuel of the future' could power a classic machine with no modifications at all.

"I believe this solution of synthetic fuels is fundamental to a large part of the energy transition, particularly around liquid fuels, which are essential for many, many transport sectors, the best example being aviation. So it's about that passion to deliver it, we bring a Formula 1 mindset and approach, which is allowing us to be very innovative and very fast in execution.

"And we have some unique chemistry actually, to bring to the space, which is especially evident today when we're running old cars, new cars, directly on our drop-in fuel. We haven't had to take this fuel to refinery. What we make in our plant [located at nearby Bicester Heritage] is already refinery grade fuel. And it's going straight into these cars without any modification. That's actually a very unique achievement in this space today."

A requirement that the fuel is 100% sustainable is enshrined in the 2026 Formula 1 engine regulations and the current generation of F1 cars runs on so-called 'E10', which contains 10% renewable ethanol. In the UK this has been the standard unleaded petrol fuel mix on offer at the forecourt since late 2021, though its adoption proved controversial owing to concerns that it would damage the engines of older cars. Several teams, along with F1 logistics partner DHL, have moved to 100% biofuels to power their trucks, but here lies an important division.

"Biofuels are an interesting solution," says Lowe,
"but not one that will take us through in full to
the energy transition, because there is a huge problem
of scale-up, because effectively they are agricultural
products, they need farming to deliver the feedstocks.
There are lots of issues going into it. But it's not
the solution of scale, which is why we focus
entirely on synthetics."

F1 itself has been working with its sponsor Aramco on a sustainable synthetic fuel. Like Lowe's solution,

The McLaren M19/1, previously owned by Jody Scheckter, was a deliberate choice to demonstrate the Zero sustainable fuel







Former Williams, McLaren and Mercedes man Lowe (left) is CEO of the company producing the fuel, Zero Petroleum

the chemistry is based on creating hydrogen-carbon by splitting off the hydrogen molecules found in water and doing likewise with the carbon molecules present in CO₂. Provided the process can be performed sustainably, the resulting fuel can be considered carbon neutral.

The latter is perhaps the most challenging element since it requires energy. Splitting the hydrogen and oxygen in water can be done via electrolysis but that electricity would have to come from renewable sources. Provided you haven't paved it over, your garden contains abundant examples of organisms which grow by capturing the carbon in CO2 – but not in the quantities required to create synthetic fuels.

That's why the 2026 fuel regulations have been framed in a way which F1 hopes will promote competition and innovation among fuel suppliers, and encourage nonmainstream fuel companies such as Lowe's.

"We sponsor the Stake F1 Team Kick Sauber," says Lowe. "We're not the technical partner. It's a way, again, of bringing this story to the F1 space, to the F1 audience. In terms of the 2026 [F1] programme, we're very interested in playing a part in that.

"We're having some interesting discussions with potential providers in that space and seeing how we might contribute technically."

Should synthetic fuels prove an effective solution, it opens up the possibility of subsequent rulesets allowing a greater role for internal combustion than the 50% enshrined in the 2026 regulations. Electrification has played a major role in the weight gain that's now seen as a hindrance to competition and spectacle. There are a lot of people who would like to see the back of it, particularly the fans...





HE BLACK AND WHITE FURBALL

named Zeus isn't exactly shy in the presence of people with cameras, repeatedly interrupting his owner's photo shoot by getting into the frame. "In case you didn't know, he's the real Prince of Monaco," Nico Hülkenberg informs *GP Racing* as he relocates the self-satisfied pooch to a window-shaped opening in the wall next to a two-and-a-half-year-old blonde girl — who a few minutes earlier had been entertaining herself and the strangers taking pictures of her father by blowing dandelions. Now those strangers are blowing raspberries in an effort to make her laugh for the family photo.

It works. Not only with her but also with her parents, who are posing together just a couple of metres away.

After all, if you're an F1 driver and you've already agreed to a photo shoot with an F1 magazine, why not take the opportunity to get some nice family photos into the bargain?

We're at the Tête de Chien, at the summit of the mountain just above Monaco, where Nico, his wife, daughter and Zeus live. The occasion is a nice evening stroll in the short break between F1 races.

Talking to journalists and posing in front of cameras are trappings of an F1 driver's life Hülkenberg can usually do without. You can tell by his occasionally mischievous responses – he likes to challenge you. But the life is one he enjoys. A 10-year career at the top of motorsport, capped at one point by three financially fruitful seasons with the Renault works team, could

have served as the ideal glide path to what almost anyone would consider the perfect semi-retirement from racing. In the years following his departure from Renault he married his long-term partner Egle Ruskyte, became a father and, in addition to a handful of 'supersub' F1 appearances in the Covid years, became involved in a number of business ventures and worked as a TV pundit.

"I've always had an interest in business and doing deals," he says of his post-Renault F1 break. "Real estate is always fun. Doing a renovation project you have to be creative, you have to have a vision, understand the process — and usually it's quite positive as well on the commercial side! I did the TV stuff for two years — that was super fun. I learned a lot also about the other side in my industry."

A part-time TV job, an apartment on the Côte d'Azur, a beautiful family and the pleasure of looking after the four-legged Prince of Monaco... What more do you need?

And yet Hülkenberg pushed and pushed for an F1 comeback – even when his only option was Haas, a team that couldn't offer him more than a few dozen further starts in F1's midfield, where he had already spent a decade.

"It's my love," he smiles when we ask him to explain himself. "I think at the end of 2019, it was a difficult relationship — and I wanted that time away and break from it.

"The first two years, I was pretty happy with where I was. I wasn't missing it too much, but by the third year, that feeling started to creep back in. I kind of felt like I'm probably not done yet.









"I think I enjoy it more [now], embrace the time more, probably live it more consciously. Because having had the time off, kind of, I understood that there's a time limit on this – for me and my career. It's put things back in a good perspective."

OLDER, WISER, SMARTER

It was an impressive comeback. More importantly, it impressed the right people. Nico would undoubtedly have finished higher in the standings if Haas's 2023 car didn't routinely kill its tyres on Sundays — but Saturdays alone were enough for him to demonstrate that he hadn't lost a whiff of the speed that made legendary Sauber sporting director Beat Zehnder declare Nico "the best qualifier" he'd ever worked with. Their only season together in 2013 was enough for the Swiss engineer to draw that conclusion.

"Yeah, but Beat hasn't worked with that many drivers," says Hülk with that signature twinkle in his eye – before laughing as he made us reel off a list of names including Kimi Räikkönen, Robert Kubica, Sebastian Vettel, Charles Leclerc...

Eight Q3 appearances (plus a further two top-10 efforts in sprint shootouts) in arguably the worst car on the grid were probably the main reason Andreas Seidl was so keen to lure the Hülk back to Hinwil, pitching first at the end of the 2023 season. And with this year's Haas being more tyre-friendly, Hülkenberg has had even more opportunities to impress. Allied to more frequent points scoring has been a consistently large qualifying gap to Kevin Magnussen. No wonder his new boss Ayao Komatsu, as Nico puts it, "fought hard" to keep him in the team.

"If you're in a very good headspace," he says, "if you're balanced in life, happy, of course, that translates into better confidence at work. Now, compared with back then, my life is probably a bit more settled. I'm older, I got married, have the

little one. My life is very focused around family and racing. These are the two main things that take up all my attention and where I put all my energy. And I think that's very positive for me."

Most of his racing career is behind him.

No more rumours linking him to Ferrari (it's understood the Scuderia considered him for 2014, before deciding his height was an issue given the packaging issues facing the new hybrid cars), no more pressure to deliver on a promising junior career. And, almost certainly, minimal fear of ending up on the sidelines – given his F1 career has already ended twice before.

"I mean, the pressure is always there in F1, for everyone" he says, "I feel it. It's a very simple law in Formula 1: if you don't perform, you're going to be replaced. But to be honest, I've never had big issues with that pressure. I think I'm quite resistant to it.



Hülkenberg, with team-mates Earl Bamber and Nick Tandy, worked under then Porsche boss Andreas Seidl to win at Le Mans in 2015

"Obviously now, I've had a decent long career already. But it was never... I think 'fear' is the wrong word. Maybe the feeling at the beginning

JOKING APART

Gary Gannon, Hülkenberg's race engineer, reveals the grafter behind the colourful persona

"Behind Nico's image and persona – with funny interviews and colourful outfits – people sometimes underestimate how much effort he puts in. In our meetings he's always prepared, he's done his work, he's studied the laps – and even though he plays it cool, he's very committed to the job, and it pays off.

"I love working with him. He is fun, and there is a lot of joking around. At the same time he can switch to being very serious and technical. And he's demanding. It's never like, 'Ah, I wish you'd do this thing.' It's more like, 'Say this to me', 'Don't talk then', 'Do this after the session', 'I need these papers here' – he's direct and demanding. But it's also clear for us and forces us to improve.

"He's very responsible for his own areas too. If he wants to do something the strategy, he goes and talks directly to the strategy engineer. If he's not happy with how we've got the car out of the

garage, he talks to his number one mechanic. He takes things into his own hands and takes responsibility. Every time he makes a mistake, he apologises immediately. It's never like, 'I don't know what happened to that car' or whatever – he takes full responsibility, which means we have to do the same. It's never wishy-washy with Nico. He's very demanding and straightforward, but he's also responsible and very hard on himself."

Switch to being very serious and how we've got the car out of the Very hard on miniseli.

of your career is different. You still want to make a name for yourself, achieve things. And now, more than 10 years later, I'm obviously a bit older, a bit wiser, a bit smarter, more experienced – of course it feels a bit different."

The environment probably contributes to that feeling. Haas is very different to the intensely corporate Renault. A team focused purely on racing, built by someone like Guenther Steiner, is probably just a much better fit for a straight-talker like Hülkenberg.

So the decision to leave it was far from easy.

"It wasn't a no-brainer simply because I really enjoy my time at Haas," he says. "I enjoy working with the team, with the engineers, with the mechanics, with Ayao, with Guenther last year. It feels good. Part of me is also still grateful they made the comeback possible and gave me this opportunity to go for this next contract now – without them, it wouldn't be on the table. I've had situations where I didn't feel so well inside a team – and that's not great. So now, having that, it's worth quite a lot and goes a long way."

THE FRENCH CORRECTION

Nico makes no bones about exactly what he was missing at the end of his three-year stint with Renault. The fun.

The first two seasons at the French manufacturer didn't yield the results he expected, nor the results Enstone team boss Cyril Abiteboul promised in that infamous five-year plan to return to the front. Nico himself, though, was living up to his end of the deal. After condemning Jolyon Palmer's career in 2017, he then had the better of Carlos Sainz. In their only season together, Hülkenberg comfortably outscored the future Ferrari driver, and outqualified him, too





message to Nico in his Netflix interview, in which he forgot to mention that Ricciardo hadn't finished in the top three that season either.

Hülkenberg would end the season well behind Ricciardo, but most of that margin opened in the second half of the year. After the Hockenheim race, Hülk was five points behind his team-mate – a tiny gap but one also flattered by the fact Nico was ordered not to pass Daniel in Montréal, even though he was on much fresher tyres.

"Probably Nico would have had the pace to overtake him, but frankly we said 'we need that result," explained Cyril back then.

Ahead of Renault team-mate Ricciardo in 2019. The signing of the Australian altered the team's dynamics against him according to Hülkenburg





Chatting to Beat Zehnder (centre) and Andreas Seidl after it was announced he would be joining them at Stake F1 (soon to become Audi) in 2025

but while such a comparison would have done
 Hülk's image a world of good now, Sainz's stock
 wasn't quite as big then.

But Daniel Ricciardo's arrival at the team changed something.

It wasn't the Daniel of now, trying to save his career within what everyone knows is a 'junior' team. In 2019 it was a different Ricciardo, his arrival a spectacular coup for Abiteboul and Renault. But it was also an investment that needed to be seen to be paying off.

"It wasn't difficult to be his team-mate, per se," Nico says of Ricciardo. "But I think just in that time, a few things happened within the team, especially with the management that somehow... yeah, weren't very positive for me.

"When you sign a big driver, you convince your boards, you pay the big bucks. But then the car performance isn't quite where it should be, or where you promised the board, the pressure comes in. Then a few strategy calls against you – and yeah, it shifted in the wrong way for me."

The persistent image of Hülkenberg's season became that Hockenheim crash, or rather the moments after – him in the marshal's chair, still wearing his helmet, shaking his head at another podium shot lost when he slid off into the barriers on a wet track.

It was this race that Abiteboul would later cite as one of the reasons for not renewing Hülkenberg's contract. "The fact that podium was not available to him again, I started to think that maybe there's a curse," was Cyril's parting

"I didn't understand it," recalls Hülk. "And that was one of those turning points. Okay, we had a tough season up until that point. But the call to hold position... I could have easily breezed past him. I had much fresher tyres, it would have been a zero-risk overtake. For me, that was a nonsense explanation."

He pauses for a second.

"I should not have obeyed it, in hindsight.
Of course, they wouldn't have liked it. It would have caused some friction. But... so what?
I mean, it happens all the time, that there's friction in the team – and then the season goes on, the next race. These days things get forgotten pretty quickly, too!

"And then I think the second part of that season is when I didn't feel that support anymore and that we weren't a team so much with the management. What we had built in the two previous years then kind of dissolved. So, that wasn't great. And then obviously that impacted my performance as well."

You may get the feeling that Nico doesn't miss working with Cyril.



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"THAT A COMPANY LIKE AUDI WOULD SIGN ME AHEAD OF A LOT OF GUYS WITH GRAND PRIX WINS, WITH BETTER STATS, IS A VERY POWERFUL STATEMENT. I THINK THAT SAYS IT ALL"



"It's funny that five years on, he's gone," Hülkenberg smiles. "I was gone too, but I came back, and I'm still here. That says something.

"Also, one detail I think maybe isn't so known, is that actually it was Fréd [Vasseur, now Ferrari team boss] who signed me... He got me there. But then, he also had some problems internally and left very soon. So that was also a change."

PICK ME A WINNER

But wait, you might say. In leaving Haas for Audi – a works team for a giant manufacturer whose board wants progression from the bottom to the top of the field – isn't Hülkenberg potentially entering the same situation?

Perhaps, accepting that risk reflects an

ambition to finally escape that midfield he's spent his whole F1 life in. Audi has the resources to do so – even if its Sauber team needs a miracle to really close the gap on the likes of Red Bull and McLaren in the years Nico still has in grand prix racing.

"You can't predict the future," he says. "But I've seen and heard a little bit about what Audi is doing and how they're pushing behind the scenes. I think there's one factor, [which] is obviously the 2026 regulation change. It's a very good opportunity for a manufacturer to come in because it's kind of a reset button.

"I think they have all the ingredients that you need to be successful in Formula 1. And that makes me as optimistic as I can be."

But there's also a key difference to the Renault

situation: the Andreas Seidl factor.
The former McLaren F1 and Porsche
WEC team boss – with whom
Nico won Le Mans – was the main
driving force behind Hülk's signing.

"I think he recognised my efforts since the comeback," Nico says of Seidl. "He saw that this is good-quality work. And that's what is appealing to team bosses: they're looking for performance and for the best possible driver. And that makes me proud and happy – because they're in a very luxurious situation, they could have chosen grand prix winners, other guys that have better statistics and records than me. And they committed to me.

"But, having someone in a team that you value, that you've worked with, is reassuring. It's not a guarantee of success. And I think we all know that. But again, it goes back to my point that I think Audi has a very good opportunity with the regulation changes and all the ingredients at their disposal."

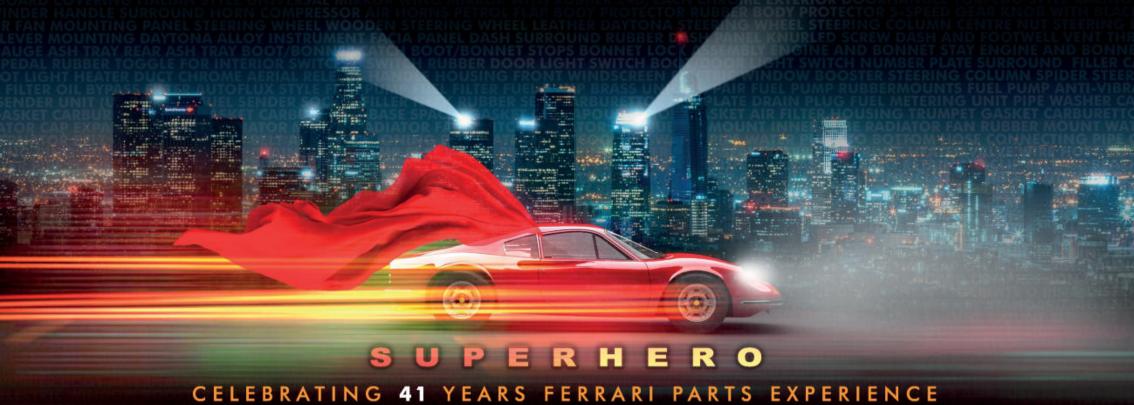
When we stop after a long chat on the way from the top of the hill to the parking area, there's only one question left to ask. The one about the statistics.

Does the fact that guys like Seidl and Komatsu, who know a thing

or two about racing, pushed so hard to sign him mean more than the record he's always being reminded of – that of having the most starts without registering a podium?

"If you want to know how I feel about stats... I couldn't care less," he laughs. "Of course, I would like to stand here and have grand prix victories under my belt and a world championship. Of course. Otherwise I'm talking lies. But my career went how it went. There were a few opportunities missed for different reasons. I have accepted that. I digested that. I feel very happy about my career, and I'm very comfortable in my skin.

"And I think, again... that a company like Audi, with such a project, would sign me ahead of a lot of guys with grand prix wins, with better stats, is a very powerful statement. I think that says it all."



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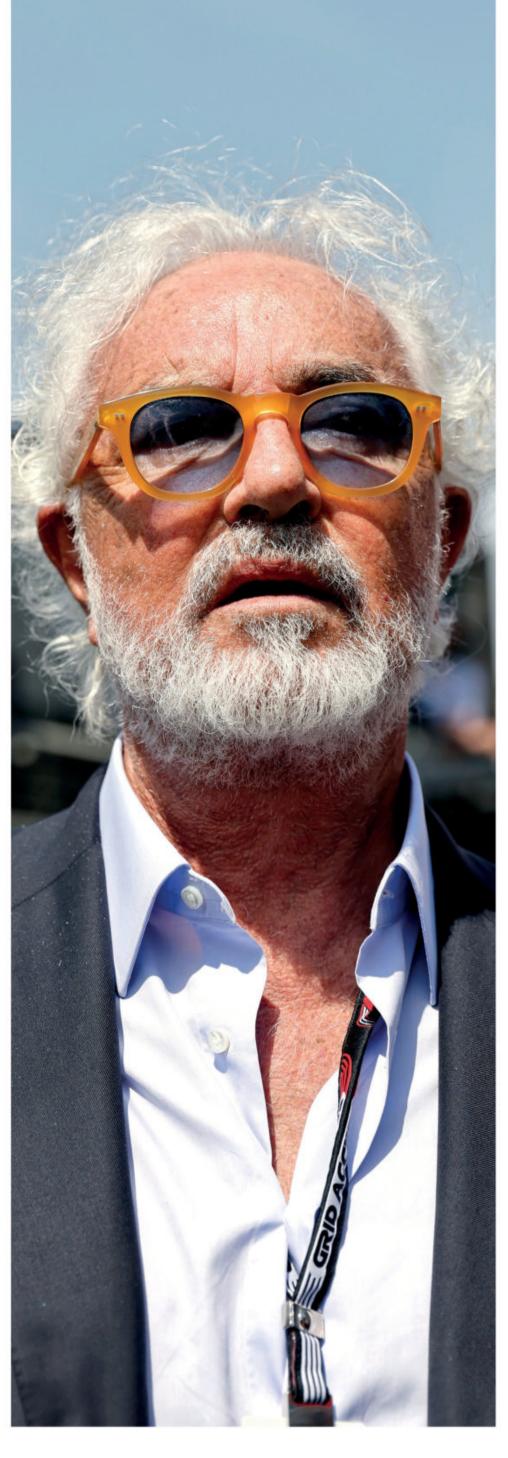




RETURN

Look who Renault Group CEO Luca de Meo has brought off the bench as an impact player. He might be 74 years old but Flavio Briatore is ready to crack some skulls...







a senior Formula 1 figure remarked to *GP Racing* at the British Grand Prix weekend, "has made a huge change to the culture at

Alpine, almost overnight."

You can't have missed Flavio Briatore's re-installation for a third stint in charge of 'Team Enstone', at the behest of Renault Group CEO Luca de Meo. Flav's job title is 'Executive Adviser' but nobody is fooled, least of all team principal Bruno Famin, now a minister without much portfolio.

The evidence was there for all to see in Barcelona, Briatore's first weekend in the hot seat, when Alpine-supported Abi Pulling won the first of the F1 Academy races and Flavio led the veritable conga line of dignitaries to congratulate her at the head of the pitlane. Lost in the morass, virtually invisible and looking rather forlorn, lurked Famin.

Based on the faltering performances of septuagenarian Presidential candidates Stateside, you might ask what a 74-year old can offer a supposedly dynamic and fast-moving Formula 1 organisation. Flav has already provided an

HAVE TO PROVE OR JUSTIFY HIMSELF

HE IS THE ALPHA MALE WHO DOESN'T

answer. He brings purpose, leadership – and, yes, energy.

"Coming to the races when you have nothing to do is boring like hell... walking around from one garage to another saying hello to people – after two hours it's enough."

These were Briatore's words to *GP Racing's* sister title *Autosport* when he returned to the F1 paddock in April 2000 after three years 'away' to head up the Benetton team he'd led to two world championships and a whole heap of controversy in the 1990s. They ring as true today as they did then.

Fact is, he can't keep away. So long as there are strings to pull, he'll make a grab for them.

If you were to pinpoint a time when Briatore inked himself indelibly as one of motor racing's key movers and shakers it was in the early autumn of 1991, when Michael Schumacher's glorious grand prix debut with Jordan provided a thrilling side narrative to the championship run-in between Ayrton Senna and Nigel Mansell. Within days, Briatore and F1 'ringmaster' Bernie Ecclestone had schemed and colluded to extract Michael from a contract which wasn't as binding as Eddie Jordan believed it to be... and place him at Benetton.

Viewed through the prism of cold commercial logic it made perfect sense, Jordan being on the verge of extinction and Benetton being in the ascendant, backed by an ambitious and wealthy clothing empire. But in PR terms it was a resounding dud, playing out to boo-hoos among those who had failed to get the memo that F1 was a business, and immediately tarnishing Michael's clean-cut image.

There's a fascinating photo of Michael and his entourage hustling towards

That Monza 1991 picture where Briatore watches Willi Weber and Michael Schumacher hurry away after Michael's first race for Benetton a helicopter at the back of the Monza paddock, getting the hell out of Dodge after a fraught first weekend in Benetton colours. It might not be the most artful shot Rainer Schlegelmilch ever composed but he's captured a moment rich in body language.

Willi Weber, Michael's Mr 20%, leads the way, left hand gripping a Louis Vuitton briefcase. Further up the wrist, to complete the *nouveau riche* ensemble, rides a gold Rolex Datejust with a leather strap. Right hand rubbing at a stubbled cheek (it might be clutching a mobile phone had such things not been the size of house bricks in '91), he casts a weary and wary glance towards the assembled paparazzi.

Clearly anxious to depart after a weekend at the centre of a protracted legal wrangle which proved uglier than a kebab shop fist fight, Michael has his head down, shoulders hunched, face set in a rictus of disgruntlement. He's pointedly ignoring the photographers and glaring at the man carefully

stowing luggage in the back of the chopper. If they were entering a London Underground station he'd be close enough to tailgate his manager through the ticket barriers.

Third in line, clearly in no hurry at all – perhaps musing that

Michael, with his (almost) matching fawn jacket, plain briefcase and cheaper watch, resembles a younger version of Willi – is Briatore. In contrast to Weber and Schumacher, he doesn't look as if he has a care in the world – rather like the way a tiger will maul its keeper to death and then, half an hour later, casually wonder where he is with dinner.

He is the alpha male who doesn't have to prove or justify himself. And he'd carry that same air of insouciant disinterest through all the scandals to come, from Benetton's illegal traction control (case dropped since the FIA was unable to prove the system had been used, even though the software existed in a hidden menu), to tampering with the refuelling rigs (little more than a slap on the wrist), to ordering a driver to crash to affect the outcome of the 2008 Singapore Grand Prix (lifetime ban from motorsport overturned on appeal).

Briatore is a bona fide Teflon Don, always able to escape the





This is not the first time Flav has returned to 'Team Enstone', as he came back to take charge in 2000



Banned from F1 after 'Crashgate' in 2008, when that was lifted Flav kept a low profile for a number of years



Briatore is believed to have discussed with Wolff a deal to run Antonelli in exchange for discounted Merc engines



Team principal Bruno Famin's actual role at Alpine has to be called into question following Flav's return

consequences of his actions. His backstory is in parts vague and shrouded by his own self-mythology, in other parts freighted with proveable roguery: mafia connections and a fraud conviction for which he never served a day in jail. He is a man who gets things done without wringing his hands over moral qualms.

Flavio has kept a relatively low-key presence over the past several years, watching from the sidelines as F1's new owners bundled Ecclestone, his old compadre, out of the door... and then swiftly inveigled his way into the inner circle of current CEO Stefano Domenicali, acting as 'fixer' in the sponsorship deal with MSC Cruises.

Six months ago Alpine was no self-respecting driver's idea of a worthwhile gig; within days of slipping his loafers under the desk, Briatore had several talents nibbling at the hook. Carlos Sainz went from being all but nailed on at Sauber/Audi to more than entertaining an approach from Alpine — indeed, it's understood Briatore played hardball, saying the only deal on the table was a two-year contract rather than the one-plus-one Sainz wanted.

While one hand spun this plate, another was working on a more ambitious proposal: acting as a finishing school for Mercedes protégé Andrea Kimi Antonelli in exchange for a discounted Merc engine supply. Unthinkable until recently but no longer, now the Renault group is no longer wedded to the idea of being an engine manufacturer. Sneer if you will but Bruno Famin – in his new function as executive adviser's messenger – was spotted ascending to the management floor of the Merc motorhome at Silverstone.

Renault Sport's facility at Viry-Châtillon, where the company pioneered turbocharged F1 engines in the 1970s and, later, pneumatic valve actuation while creating world-beating V10s in the early 1990s, is expected to be shut down. It's believed Briatore is responsible for executively advising Luca deo Meo to send this sacred cow to the abbatoir despite a costly infrastructure upgrade and recruitment push four years ago. The sunk cost fallacy is one he has the ability to deftly and unsentimentally avoid.

What you get from Flavio is leadership, and what marks him out from the likes of previous Alpine executive Laurent Rossi is that he understands the limits of his abilities rather than massively overestimating them. He has an almost unerring nose for competence and uses this to recruit the right people to plug those gaps in his knowledge, particularly in engineering matters.

At the end of last year Alpine's former chief technical officer, Pat Fry, revealed he left the team because he "didn't feel there was the enthusiasm or drive to move forward beyond fourth place". Flavio hasn't come back to shake hands with the denizens of neighbouring garages and pocket a healthy paycheque while prancing around in team kit – he's here to bang heads together and get results.

Take some executive advice from F1 history: he doesn't care what gets broken in the process.







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THE LONG INTERVIEW

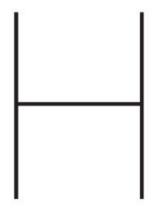
Studious, calm, industrious but never ostentatiously so, Aston Martin's team principal took a long break from Formula 1 after beginning his career at Sauber. The man who polished the rough edges off Felipe Massa as a race engineer is now trying to do the same for an entire team...

WORDS OLES KARPOV POTRICIS ZM MAUGER





MIKE KRACK



e's always there. "I don't know how, no matter whatever day, whatever time I come to the factory. Maybe ask him how he does it." Aston Martin ambassador Pedro de la Rosa gives GP Racing his final piece of advice just as Mike Krack appears on the roof terrace of the sumptuous Aston 'motorhome' parked in Monaco harbour.

He might be one of a new breed of team bosses – those with an engineering background – but

he describes himself as one of the "dinosaurs" on account of having been in and around F1 for over two decades. It's Friday morning and he's arrived in Monte Carlo the night before, having spent a couple of days at the factory between two back-to-back races. Lawrence Stroll's plan to conquer the world isn't going to execute itself – and Krack is one of those who never counts the hours at work.

As an engineer, he's more comfortable in the garage than facing the media, but he seems to have a clear strategy for communicating with the outside world. With colourful personalities such as Stroll Sr and Fernando Alonso around, it's probably a must for Aston to have someone who can be counted upon to remain calm and level-headed, and Krack fits the bill perfectly. He'll remind you there's still a long way to go after the podiums and, when you draw his attention to drops in his team's performance, he'll point out that progress in F1 is never linear. And he'll defend his drivers no matter what – even if the cynics will say it's only because one of them is a two-time world champion and the other is his boss's son.

You'll never see him too excited or too angry and, although he's the third-longest-serving team principal in F1, little is known about the man and what makes him tick.

Mike paved his way to the pinnacle of motorsport by phoning Sauber's technical director Willy Rampf every week

for several months until he gave him a job, and then stayed on at Hinwil for almost a decade in the early 2000s, including the years when the Swiss team was taken over by BMW. He left F1 almost at the same time as the German manufacturer to build a successful career in other categories before accepting an offer from Aston to return almost 14 years later, now as a manager rather than an engineer, and in a very different F1.

GP Racing: Mike, do you know exactly how long you were away from Formula 1?

Mike Krack: From December 2008 until March 2022. So 13 years and three months.

GPR: We thought about doing something like "F1 now and then: the Mike Krack edition", talking about how it's changed while you've been busy doing something else.

MK: It's actually an interesting subject. Nobody asks about it.

GPR: What if we start with cars?

MK: The regulations have changed a lot in between, so it's hard to compare. But one of the biggest things is how aerodynamic surfaces have changed. Back then they were either round or square. Now every area is refined and there's a radius to everything. That comes from the advancement of windtunnel technology, visualisation techniques and also CFD [Computational Fluid Dynamics], because you can do a lot of geometry work which gives you the detail that maybe 15 years ago you couldn't even do in terms of measurement, accuracy.

The level of parts today is just unbelievably high in terms of tolerances, weight – and in terms of cost, unfortunately. It's often underestimated, but you can't just take a floor, for example, and bolt it on. The amount of quality control you have to do to make sure it does exactly what it is supposed to do is huge. When we did the upgrade in the field at Suzuka, 90% of the work was just checking.

And the parts arrive in a completely different state now. In the old days, when the parts came in, there was no curfew and you could hear the grinders all night long – trying to fit everything! Now there are no grinders because everything that comes to the track is pre-checked. That's a direct consequence of the curfew – you only have so much time to work, so you have to be more prepared. And the repairs... at Imola we basically built a new car in two hours. Without all the preparation we would never have made it in time.

GPR: Technologies.

MK: I think the main driver is computing power. Everything is much more refined and studied. To give you an example, simple deflection tests. You couldn't really predict what your composite layups were doing dynamically at the time and that's standard practice now. You know what happens







when you apply a certain load, you know what it's doing under different temperatures. It's just deeper. And even things like race strategy.

I used to run an Excel spreadsheet during qualifying with fuel loads, time left and all that, to make sure we followed our run plan. And it did the job. But you had a lot of human intervention. Now it's all automatic. If there's a red flag at any point during the session your new run plan is immediately calculated with the software tools we have.

WHEN WE WERE TESTING OR RACING, YOU WOULD GET AN AVERAGE OF TWO HOURS SLEEP A NIGHT OVER A WEEKEND

For an engineer it also requires a different skill set. We were

more generalists: we had no idea about tyres, honestly – we knew they were round and black, and that you had to get the temperatures and pressures right. That was about it. When you see the modelling and the expertise in the teams now in terms of tyre engineering, it's just incredible what's being done.

Now you have specialists in every area. The travelling team, we were about 25 people. Now we're a hundred.

Although he only took over the reins at Aston Martin in early 2022, Krack is already the thirdlongest-serving team principal **GPR:** That goes straight to the teams!

MK: When I stopped we were about 400. And we [BMW Sauber] were a big team back then. I think the smallest team now is over 400. The size of the teams has exploded. Also the commercial side. We often talk about the technical side and manufacturing and all that but also, commercially, I think F1 has exploded. We used to have one communications guy, two or three commercial guys touring the guests around. Now there's a huge experience around the whole thing.

GPR: The last one. The people. Are they the same?

MK: No. This is a completely different generation of people. Don't get me wrong, I'm not saying everything was better in the past. Not at all. But it was different. When we were testing or racing, you would get an average of two hours sleep a night over a weekend.

We do 24 races. And people no longer want to do 24 races. One of the first questions during an interview is "How much can I work from home?" It's a different generation, the whole working environment has changed. For us it wasn't even a question of am I going to do 24 races or not? It's 24 races. And even if it were 30... Yes, we're the dinosaurs.

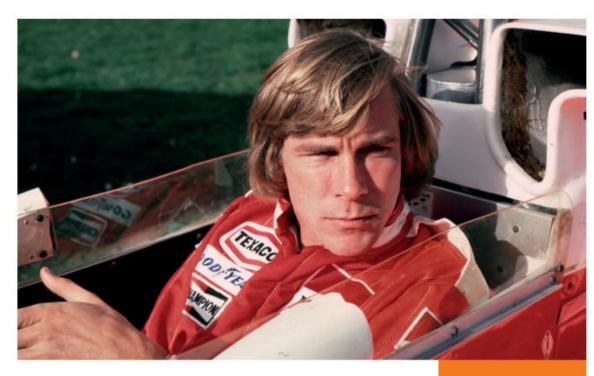
GPR: But there are still a lot of people here – one fewer now with Franz Tost's retirement – who don't understand why there's a curfew, because they want to spend all their time at the track. And you're one of them, aren't you?

MK: Franz was an extreme example! But yes, I am. On the other hand, you have to accept times are changing. You can see it in everyday life. We're in a bubble. And you have a completely different view of that bubble when you've been





MIKE KRACK



out of it for 15 years. You can't be stuck in the past. It was a good time, but it moves on. I'm sure that if we had talked about it then, people would have said that it was a lot more fun when James Hunt was around. But that was a different time too.

We were talking about this at our team principals' dinner in Imola. Who is the James Hunt of this generation of drivers? And we quickly realised you can't be one anymore because of social media. Everything you do is captured, there's a camera everywhere you go.

GPR: So no James Hunt now?

MK: We've identified one that has the potential. Although I'll keep the name to myself.

GPR: There's this new trend of engineers becoming team principals. You're one of them. There's also Andrea Stella, James Vowles and Ayao Komatsu. What do you think is the reason for that?

MK: If you go back, it was more about commercial survival for all the teams. The owners had to take care of their own companies and spend their own money. Obviously that's different from spending someone else's money. And I think the whole takeover by Liberty, the cost cap and the high revenues, from TV and sponsorship and the prize money — it's not so worrying anymore. It's "how do I get more out of this?" rather than "do I exist?" now.

I think that's led to the point where you say, "OK, I don't need to worry about that. I need a commercial department, but not because I have to fight to survive." The most important thing is to be competitive because that's how you get more money. And how do you do that? By being fast and getting more of the prize money. And the only way to do that is to perform. And performance is created by engineers. I think that might be one of the reasons.

GPR: But looking at it from the outside, there seems to be something you all have in common: engineers have this

Krack admits it is impossible for a driver to be like James Hunt (above) in today's social media world









MIKE KRACK



amazing ability to stay calm no matter what happens, and even emotions are seen as one of the performance factors.

MK: Well, that wasn't part of my interview, to be honest! When I started the job, nobody asked me, "Are you calm and collected?" Engineers can be very emotional.

GPR: When Fernando got on the podium in Brazil last year, passing Sergio Pérez on the last lap, during your post-race media session you didn't appear particularly excited.

MK: What were you expecting then?

GPR: Well, some kind of excitement!

MK: It's not really a strategy. It's more about who you are as a person. For myself I see it that way: I have to be there when it's difficult. When it's going well, when we're successful — you're not needed. Let them celebrate. I'm emotional too, but I don't have to tell everyone to celebrate. But if we have a bad result, you have to be there. And that's more like the human side, where you really have to leave the engineer aside and just ask someone how they feel. At the end of the day, I have a job to do. I don't have to expose myself to the public or to the media.

GPR: That's one of the things that's changed, right? The exposure is different.

MK: Absolutely. And also a very different approach than in the past. Knowledgeable journalism – I feel like it's also dying, like the dinosaurs. People today are mainly interested in the negative. I was struck in Imola when the first question was: "So your upgrades don't work?" In those situations you have to stay calm. The media landscape has changed a lot.

And you have to manage it because it's very influential. Look

Krack, Fernando
Alonso and Aston
ambassador Pedro
de la Rosa. Krack
has found working
with Alonso very
straightforward

at the Christian Horner story. Just in general, when you have accusations, when they're in the air, the accused has a stamp — he has to prove himself innocent. Even if he does... nobody's going to write that they were wrong or that they're sorry. It will just be forgotten, we'll move on and look for the next negative. Because everything happens so fast these days. Look at the kids — it's all about 15-second videos. Stories have to be shorter and shorter. Nobody wants to read a three-page article.

GPR: Let's talk about Fernando Alonso. Surely you were familiar with his image. People say he's difficult, he's political and so on. Now that you've been working with him for a year and a half, do you understand why?

MK: No.

GPR: Genuinely?

MK: Yes. I don't understand. For me it's quite simple. He's a straightforward and honest person. And he expects others to be the same. That's it, really.

GPR: As Pedro says, if you're straightforward and honest with him, he'll be straightforward and honest with you. Is that why it took so little time on both occasions to agree a contract?



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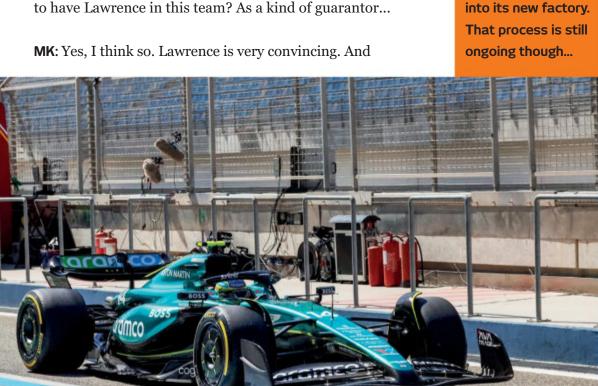
MIKE KRACK

MK: I think so. It's not just me, it's the whole team. Because then [in 2022] I was in Budapest, racing, but there was Martin [Whitmarsh] at home, and Lawrence and Flavio [Briatore, Alonso's manager] — there was a bigger group involved. Because Fernando's not the type of guy where these things are easy — with the career he's had, contracts are usually very complicated. This was pragmatic and straightforward. It's not a made-up story. The renewal was very simple: he set out what he expected, we set out what we expected — and it was done.

GPR: What about Lance? He's hard to read from the outside.

MK: I think you don't know him at all. He's very nice, approachable, good sense of humour, a hard worker. Bahrain, where he fought his way to get back into the car, showed what a fighter he really is – to get back in after being injured.

GPR: You mentioned Flavio. Fernando flourished when he was in the team where Flavio was the big boss. Not that we want to compare the two, but do you think it's important for Fernando to have Lawrence in this team? As a kind of guarantor...



WE JUST WENT IN AND WHAT WASN'T READY HAD TO BE READY AS SOON AS POSSIBLE. AND THAT SHOWS THE WAY WE DO THINGS __



Krack and Martin Whitmarsh. The former McLaren man aided the smooth renewal of Alonso's contract

The AMR24 was created as the team was transitioning into its new factory.
That process is still ongoing though

Lawrence has not only made words, but facts. He's a strong man standing there. He says "I'll do it" and he does it. The campus, the windtunnel. All of this is only possible if you have someone as determined and ambitious as he is. In the corporate world, people aren't that brave or entrepreneurial, they're more worried about their careers than taking risks. Lawrence is just very different.

GPR: You moved into a new factory about a year ago. Have you ever heard the story of the new Berlin airport?

MK: Yes. I know the Berlin airport story very well!

GPR: It took almost 10 years from completion of the building to the official opening. That's telling, isn't it? It's not easy to move a large organisation from one building to another.

MK: What comes into play here [at Aston Martin] is the entrepreneurial determination of Martin and Lawrence. They say: "We're going in by this date" — and that is non-negotiable. When the leaders set these targets, everyone just works towards them. There's no talk of "risk management" like in the corporate world. You could spend more time on the question "What can go wrong?" instead of spending your energy just going in. I learned a lot from that, to be honest, because I was in the corporate world before, where you really spent so much time thinking about risk management, doing risk analysis. Here you just go in and then you fix the faults on the way.

That's the difference between us and Berlin – there it was, "Ah, we cannot go in because this isn't ready or that isn't ready." We just went in and what wasn't ready had to be ready as soon as possible. That shows the way we do things. When something doesn't work, we fix it.

GPR: What are the next steps?

MK: Well, the windtunnel is at the end of the year. The building is finished. We have to move in...

GPR: ...which is important for the 2026 project.

MK: Absolutely. That's also one of the driving factors. You have to be in to do the 2026 car. We have the shutdown [in August], and after the shutdown we have the middle building, which is more of a social building, with a restaurant, a gym, and the simulator will be in there – that should come online after the shutdown. And then there's the windtunnel building at the end of the year. And then full steam ahead into the future.





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OSCAR PIASTRI

You can tell he's made it – he's moved to Monaco. But as McLaren's new star is eager to point out, in all other respects success hasn't changed him one bit...

You moved from Australia to the UK at a very young age. Did that help you be more self-reliant?

Definitely. For me moving from the UK to Monaco is not... of course, it's packing up my things and moving to a different country. But when you compare it with moving from Australia to Europe, it's a much smaller step. Even when I was in the UK, I was at school, and I moved to Oxford to be near Alpine, and then to Richmond to be near McLaren. So I've moved around a bit before anyway. But moving from Oz at a young age taught me how to grow up pretty quickly.

With being focused on racing so early on, do you feel you missed out on normal teenage things?

A little bit. I think student life, yes. I didn't go to university, I guess I missed out on quite a few things. But I knew what I was missing out on. I knew what I was giving up and I wouldn't have it any other way. I managed to have my dream job and the chances of having that job are incredibly slim. For me, having made those decisions, and given up other things in life, it was worth it in the end. I wouldn't change that. You do miss some things, but if you want to go do those things, then go and do them. And don't be an F1 driver!

You seem remarkably calm whatever the outcome of a race. Is that quality something you've always had or something you've worked on?

I would say a bit of both. I think it's somewhat natural for me, but it's also been a conscious effort. I know I come across as very calm but I'm not a robot. I do have peaks and troughs.

So it's important to manage it. But yes, I would say it's maybe taking less effort than maybe it does for some others – I think everyone is also a bit different as well. Some people perform at their best when they're in a bit of the red mist, others perform when they're as relaxed as they can be. And I think I'm probably more on the relaxed side of things, but there is definitely being too relaxed too. Just finding that right balance and finding out what works for you is important.

You've found it easier than Yuki [Tsunoda] not to press the radio button...

Correct [laughs]. Yes. I think that's the other thing as well. There's a radio button there but you can say things without pushing the radio button...

If you compare yourself with where you were before being an F1 driver 18 months ago, have you changed or grown much?

I don't think I've changed that much. My approach to weekends is still very much the same. And a lot of things have changed – I've got a lot more experience, the position of where we

I KNOW I COME ACROSS
AS VERY CALM BUT I'M NOT
A ROBOT. I DO HAVE PEAKS
AND TROUGHS

are as a team has changed. There's been a lot of other variables that have changed, but I think the approach has still been consistent, which is a good thing. We started my F1 career with a really good approach and something similar to what worked for me in my junior career. So I don't think it really needed much change at all. Of course you adapt a bit to how the team works, the team adapts a bit to how you work. But I think we've gelled really well from the start. So there's not really been a reason to change.

Everybody's been raving about Andrea Stella's impact since becoming team principal. What are the kind of things you've learned from him? And are there any other people in the team who have really helped you?

Obviously on track, I've learnt a lot from Lando [Norris]. I think off the track, I've learnt a lot from a lot of the people in the team, particularly my engineers that I'm working with, learning through their past experiences. Andrea has definitely been a pivotal person in the team, Zak as well. Quite different styles and personalities to each other but in a lot of ways they complement each other very well. But yeah, I think Andrea has certainly been in the technical side of things, and the way he's been able to lead the team has been incredibly impressive. And, you know, also for Zak, keeping the motivation there when it was tough, bringing in all the partners that we need and helping to bring in some extra talent and personnel. The two of them together been a really good combination leading.





THE SWAN'S SWAN'S SWANSONG

As he prepares to hang up his lenses after covering nearly 600 grands prix, award-winning sports photographer **Steve Etherington** – aka 'The Swan' – set himself a major challenge: to shoot the Monaco Grand Prix on a Hasselblad medium-format portrait camera...

WORDS STUART CODLING

nybody can take a picture nowadays. You probably spend more time 'capturing' (to use contemporary parlance) with your phone than speaking on it. The time is long past when you'd send film to be processed and hope that the prints would arrive without unsolicited advice notes ("Try using flash") stuck to the results.

Digital technology has changed professional photography too. The Canon EOS R5 MkII can shoot up to 30 frames per second, enabling pro snappers to be more experimental – shooting that much film would have been expensive. Now the chief constraint is editing time.

This is a world long-time Mercedes F1 photographer Steve Etherington is preparing to step back from as he tapers his travelling commitments. Nicknamed 'The Swan' on account of his permanently unruffled demeanour, Steve began in local newspapers in 1978, getting into sport during a four-year stint on the Leicester Mercury. He's been in F1 since 1992 and believes he's done nearly 600 races — though unlike many F1 veterans he doesn't have an obsession with unbroken attendance streaks or a precise audit of races covered. Since 2010 he's been embedded within Mercedes, capturing iconic images of the likes of Michael Schumacher and Lewis Hamilton.

"I wanted to challenge myself to do something completely different in Monaco," he says. "I borrowed a load of equipment from Hasselblad and came with the aim of just using that for the whole weekend – and it was quite a challenge..."

Hasselblads are the Rolls-Royce of cameras, used by NASA in the early years of the space programme. Indeed, there are still 12 Hasselblads on the moon, theoretically still functional. Although the company is now digital its products still ape the quality and aspect ratio of the larger '120' film, which gave more detail and depth than 35mm because the negatives were larger.

"The X2D 100C is a top-of-the-range medium-format camera, designed for landscape photography, portraits and working in the studio. It's not a sports camera – you get two frames per second [on what used to be called 'the motor drive'] rather than 30, and one chance to take the picture because very quickly the car is gone.

"It's about going back to where I started as a trainee. We'd be given Rolleiflex 120s which shot on 2.25-inch square film, with manual everything. That's what I've gone back to for this race. There is autofocus on the X2D but it's not quick enough for an F1 car so I set it manually. And you don't need a light meter to set the aperture because it's digital, so you can see the results straight away and adjust to get the effect you want."

Anybody can take a picture – but not everybody can take a *great* picture...



"Lewis has a very creative

personality and he understands the power of imagery, so he's very open to me experimenting. There were a couple of red lights on a piece of equipment in the garage – I don't even know what it was, but I used it to make a more interesting portrait.

"I put the camera right next to it and then shifted position until I got the 'flare' from the lights in the right place. You can adjust flare a little bit with aperture settings but it's more a case of position and angle – you have to get very close. This type of image is easier to pull off with a digital camera because you can have multiple goes. With film you'd have needed a fixed position and used polaroids to check the results."

"This is pitstop practice rather than actual racing. The idea was to show movement, so to do that I had the shutter speed at about a second and a half — my plan was to time it so the car was moving for a second and then 'parked' for half a second during the time the shutter was open. You get it partly sharp, partly with speed blur. The mechanics also have that sense of rapid movement. Normally you wouldn't be able to hand-hold a camera for that long an exposure but the X2D has a very effective image stabiliser which gives you about two seconds."





"This almost looks like a studio shot but it's not. George just came in from one of his runs and I stepped in front of the car once it was back in the garage. It's a wide-angle lens so you have to get in quite close, and then the trick is to use the exposure settings to leave the background dark. I've been in and around the team for long enough that they know I'm not going to get in the way – for a shot like this I check with the number-one mechanic to make sure the driver isn't going to go straight out again. They're a great bunch – they'll hold cables out of the way to make sure I get a good picture."

THE SWAN'S SWANSONG



"For FP1 I went up to the third floor of the Mercedes garage with an eye on using the reflection of the glass to create an interesting shot composition.

"And then it was just a case of waiting for the shot. With this camera you can't just point and shoot if you see something, it all has to be thought through and planned. I was a bit lucky because there was an unusual flurry of simultaneous activity after Zhou Guanyu tapped the wall and brought out a red flag. I'd expected the Mercedes to be closer but both Red Bulls coming in at once, and the mechanic running around the front, added to the interest."

"These guys had been working in the tunnel and obviously decided to take a break on the sea wall between sessions. It's an interesting spot because, what with the yacht club at one end of the tunnel and the new development on reclaimed land at the other, you might think there's no sea view here. But there is – you just have to know where to look."





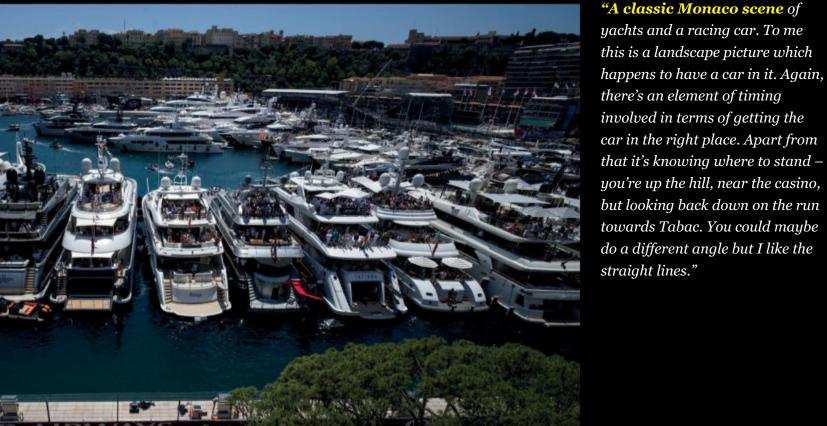
"A classic tunnel picture. You can do it on any camera — I see journalists pressing their iPhones against the gaps in the barrier. But I thought it would work particularly well on this camera because it picks up a lot of detail, not just on the car but on the tunnel wall and around the lights. Black is something digital cameras struggled with for a long time — film gave a better contrast and more richness and depth to the blacks."



"The temptation is to position yourself right up against the barrier but I made a conscious decision to step back, climb on a small retaining wall, and use the foliage to add interest to the foreground while drawing the eye to the car. With street circuits it's easy to end up with background clutter spoiling your picture. You don't want the car to look like a lamppost or a crane is sprouting from it. Here there's also an ugly scaffolding grandstand on the far side of the hairpin. Although this is a slow corner, timing the shot is still a challenge because you only have a couple of frames per second."

"In Monaco you soon learn it's not just a case of where you go, but when you go. This is a set of steps round the back of the Fairmont Hotel, where you get a view of the tunnel entry. Then you get a certain pattern of shadow depending on the time of day — where the sun happens to be. You have to be aware of the light throughout the day. What I like about this composition isn't just the shape of the shadow and the angle of the pillar, but also the almost monochromatic quality of the picture itself — apart from the red car, it's very richly rendered shades of grey."





THE SWAN'S SWANSONG



"At the chicane, on the driver's left when they turn in, there's some emergency vehicles and a rack of fire extinguishers. I put the camera up close — a little bit like the lens-flare shot with Lewis — and then tried to get a car in the gap. This was supertough to execute because the cars are going quickly, even though you might think of this as a slow corner, and there's a slight delay on the shutter. So basically you get one chance per car — and this shot worked best with the Ferraris because of the colour. I knew what I wanted, it just took a few attempts to get it right."

"A classic Monaco shot at the chicane.

During any given session you'll find a dozen or more snappers in the same place, many lying on the ground to get that low angle. With a typical 35mm camera and a longer lens you're tighter in on the car. But I liked this composition, where you take a broader canvas and include the marshal who's standing just in front of the end of the barrier. It looks like he's standing on the *circuit – he's not, but the eye is fooled. Even so,* this is one circuit where, if you wanted to, you could reach out and touch the cars at various places. Again, there was an element of planning because I wanted the sun in a certain place and I stopped the lens right down to create the 'starry' effect. To improve the overall effect I put a slight vignette effect [darkening of the edges] on in post-production. In the old days vignetting was considered a sign of a shoddy lens but it's now almost de rigueur, especially on social media. My philosophy is that it's fine to use an effect if you could do it in a darkroom - I wouldn't ever change anything else."

"I wanted to try another long-exposure shot, exploiting the image stabilisation, so I planned for a trip to the hairpin on race day where there was most likely to be a bunch of cars coming through. At this time of day a shaft of light goes over this part of the track. The only element of chance was the combination of car colours because that depended on the on-track order. I tried several iterations of this shot with other cars but this one worked best because of those flashes of bright green on the Stakes."







"I did this on my way back

down the hill. It looks like the marshals are guarding those bits of Pérez's car – which they probably are!"

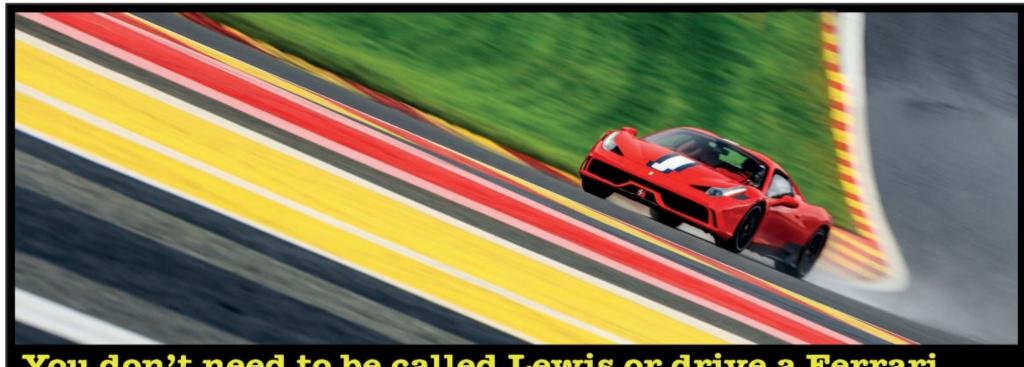
"With high-contrast shots like these you're looking to strike a balance with the exposure, because you need that bright shaft of light on the car not to be overexposed – but you also want a level of detail in the shaded part of the foreground. So I underexposed it slightly, working at a high shutter speed to keep the car sharp. You're looking through the camera and judging what's right; an ordinary camera with automatic exposure would probably overcompensate for the darker area and 'burn' the light playing over the car."



"Celebration shots are by

definition a bit chaotic and messy. There's an element of serendipity when they come out well. What <u>lifts</u> this shot is the added dimension of light – I don't know if it's the sun or other photographers using flash, most probably the latter.

It's caught the sparkling wine in full flow. Usually there are flashes going off everywhere so there's a chance you'll benefit from somebody else's to get an effect like this. On the Hasselblads they have leaf shutters which are built into the lenses, rather than the more typical focal-plane shutter built into the camera body, so when you're using flash you can sync it at pretty much any speed rather than the usual 1/250th."



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ESTEBAN



THINGS I LOVE



Alpine's departing driver on superheroes and his fascination with the odour of go-juice



Marvel Cinematic Universe

I'm a big fan of superheroes and all the Marvel films. I've watched them many times, recently with my girlfriend. We caught up on 20 years of Marvel movies in one month, which was pretty good! I've also used them as inspiration for some of my special helmet designs. Like the one with Spiderman in Austin a few years ago or Deadpool in Vegas last year. And there's more to come, for sure.



Diabolo Fraise

This is my favourite drink. It's very French. You may not have heard of it, but in France you can go into any bar and order it. They'll know what it is. It's a strawberry syrup with lemonade: very sugary, but very, very nice.

Table football

I like table tennis a lot and table football – *foosball* – as well, which is very French. I got a table football set for Christmas and I'm always very competitive.



The smell of fuel

It's hard to explain, but I just love the smell of fuel. Not diesel, not kerosene, not ethanol. But unleaded, 98, no ethanol in it – I have a weird addiction to it. I grew up in a garage because my dad was a mechanic and I just loved that smell, always. And I remember once he saw me trying to take a sip of it – when I was five or six years old – but fortunately he managed to stop me because I was really about to drink it! It hasn't changed to this day. It just smells so good...



Five Guys burgers

Burgers are my cheat meal. And when I want a proper one, I go to Five Guys because it's awesome. Double bacon cheeseburger with mushrooms and medium fries - nothing beats it! And if it's Saturday night, the Five Guys on the Champs-Élysées in Paris, with friends, it's just perfect.

Bowling

I'm good at it. In the town where I grew up there weren't many things to do in your spare time. And on weekends it was a simple choice: either go to the cinema or go bowling. More often than not we went bowling. Of course it got competitive. I'm not a pro, not even close, but my personal best is 190, which isn't too bad. That's where I am at the moment, but hopefully I'll get to 200 one day - it won't be easy, but we'll see.



Sim Racing

Of course it helps. A lot of drivers use it as a training tool, but I like it a lot too. And even if I wasn't a professional driver, I think I'd still do a lot of sim racing. I like to compete – and Gran Turismo is always fun.





Drifting

We sometimes organise something with Mick Schumacher and my friend Thomas Neubauer, who drives for Ferrari in GT - and have a bit of competition. It's all about who can reach the maximum speed at the maximum angle, so it's always fun. I also like off-road buggies. That's what we do a lot with friends - take a day off and go through a track in the woods, stop and have a snack, enjoy the scenery. I like motocross – but I can't really do it, because it's a bit dangerous. My dad broke his leg when he was younger so I know it's not a joke. But I'm sure I'll get on a bike one day.

Tuning cars with my dad

I really like cars. It may sound like an obvious statement from a racing driver, but there aren't too many petrolheads among us drivers. But it's one of my passions. I didn't like it so much before, but now I love putting my hands in cars. It gives you a better understanding of things if you're really into it. With my dad we

love to tune cars every now and then, experimenting to make them go faster. It's great because we have no restrictions, or rules. So we can make something that wouldn't necessarily be allowed on public roads, but could be a great track car.



Radio-controlled cars

This is something I do a lot, also with dad. It reminds me a lot of the times we did karting together. It's very similar, only the cars are smaller. I like the 1/8 scale TT category, nitro version, not electric, and find it interesting because you can do it on all terrains. I love the setup side and the competition. I'm not a pro, although if I'm honest I'm not too far away – and one day I'm sure I'll be competing at a more serious level. In F1, there are a few drivers out who are



very good. Lewis Hamilton, for example, you could see he did it as a kid and he hasn't lost it. And Oscar Piastri is also good. Of the three of us, he's probably the best because I think he's competed at a national level in Australia. I've had the chance to race against pros, but only during test sessions. But in the future I'm going to compete for real.

THE SENA VETO

For Ayrton Senna's third season in Formula 1, at Lotus, he was due to get a new team-mate – and that man was to be Renault refugee **Derek Warwick**, one of Britain's top prospects at the time.

But as this exclusive extract from Derek's autobiography *Never Look Back* reveals, the Brazilian superstar didn't want another super-competitive driver in the garage next door...

WORDS DEREK WARWICK AND DAVID TREMAYNE
PICTURES DEREK WARWICK COLLECTION AND MOTORSPORT IMAGES







I HEADED TOWARDS 1986

firmly believing that I would be driving for Lotus as teammate to Ayrton Senna. When I'd seen how badly my Renault prospects were sliding off the rails early in 1985, I'd worked very hard to pull off a move there. I'd tested a Lotus-Renault 97T at Brands Hatch that season and it had gone very well. They wanted me and Renault were happy for our association to continue in this way, with Lotus now Renault's spear-carrier for 1986 after the works team's withdrawal. And with Elio de Angelis heading to Brabham, there was a seat available for me.

I didn't know that I wasn't going to get the Lotus drive until a week or so before Christmas. Everything had been agreed and I'd signed the contract. As for Lotus signing it, they wanted me to go all the way up to their base at Hethel in Norfolk for that. I did wonder why they needed me to do that but I thought it was a good idea anyway because I could spend some time with the engineers and mechanics.

Peter Warr, the team boss, wasn't there that day. I read something recently in which he claimed that he informed me on the phone some time in January 1986 that I was out of the drive, but that certainly isn't the way I remember it. As for the book he wrote about his time in F1 with Lotus, he never even referred to the episode. He was a former public schoolboy who'd served in the Royal Horse Artillery. He tended to act like he thought he was still on the parade ground, with great

self-regard. When he had something to say to you, he'd push his glasses back with one finger, stare at you, and say, 'Now look here, chap...'

That day in December he left it to accountant Fred Bushell to give me the bad news. When I arrived, Bushell, who later went to jail over Colin Chapman's involvement in the DeLorean affair, called me into his office. He wouldn't allow me to go into the workshop, so I was beginning to suspect that something was up. But I never expected the bombshell that he dropped right there and then. He told me that Senna, their existing driver, didn't want me as team-mate and was putting them under a lot of pressure, so I was out. Simple as that. We'd agreed terms and I'd signed the contract – but they were reneging on it.

I tore up my signed contract in front of him, since it was now as worthless as he and Warr.

It had granted me joint-number-one status, with alternate use of the spare car and first pick of mechanics. We all know now that Ayrton was a true legend, but at this point he'd only been with Lotus for a year and hadn't long started winning, having triumphed in Portugal and Belgium. But as I discovered, Lotus and its sponsor, John Player, wanted him to be happy, and both just buckled under the pressure from him. He was still relatively inexperienced, so joint-number-one status was a reasonable demand from me. But he demanded exclusivity: the best car, permanent access to the spare,

Warwick did get to race in F1 in 1986, from round six onwards, after Bernie Ecclestone offered him a drive at Brabham following the death of Elio de Angelis



Roland Dane Warwick's friend and co-founder of Triple Eight Engineering

"Derek was angry about that situation for five minutes but, even way before Senna was killed, he was completely accepting of the fact that Ayrton did what he did for the benefit of Ayrton, totally accepting of it. And he said, 'If I'd been powerful enough, I would have done the same thing.' Rhonda [Derek's wife] was the one who just couldn't bring herself to say the name Senna, still today she won't

acknowledge his name or anything he's done. But Derek was realistic enough to understand that the guy had done what any smart person in that position would have done.

"Derek's last Grand Prix was Adelaide in '93 and I was there with my then wife Jackie and Rhonda was there with Derek as well, and we were all going on holiday afterwards, up to Port Douglas. We were in the Hilton in the middle of town where everyone used to stay and were in the lift when Ayrton got in with a girlfriend. It was just after he'd punched Eddie Irvine at Suzuka, and

Ayrton said to Derek, 'You want to give evidence for me against Eddie Irvine?' So they were going on about the Irvine incident, and Derek was just letting Senna talk. He was still quite heated up about Irvine because he'd effectively pushed him out of sixth place at Suzuka. I don't think Derek saw any of it, but it wouldn't have occurred to him to hold a grudge against Ayrton."



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Warwick's eldest daughter

"Unfortunately, all that wasn't public knowledge enough for the man in the street to understand what happened. You're never really going to know unless you're involved. So hopefully, if people read this book, they will get what happened.

"Had Senna not done what he did, we don't know what would have happened to Dad's career. Yet Dad did a public tribute when Senna died and was invited to carry the coffin. I was like, how do you do that? I'm not as good a person as that."

the best mechanics, the best engineer, the chief designer dedicated to his car. He wanted everything. And he didn't want a quick Brit in the other car.

NOTHING PERSONAL

It made me realise just how extraordinarily selfish some people are and how weak others can be. I was selfish all my career, I admit it, you couldn't stop me. But I think Ayrton took it to another level. I'm not sure I could have screwed somebody over to that extent but, with the benefit of hindsight, and having later talked to Ayrton about it, he never even thought he was screwing me over. He just did what was best for him. It was never personal.

I think he just thought he'd stop me driving for Lotus because having another quick driver in the team might compromise his efforts. I heard suggestions that he felt that Lotus couldn't operate two cars to the same level, but that was bollocks because they'd done it with Nigel Mansell and Elio de Angelis, and again with Elio and Ayrton himself.

Ayrton wouldn't even have considered that by that stage there was no other drive available for me because everybody had signed their contracts. He actually sent me a New Year's card, wishing me all the best for '86. When I first looked at it, I wanted to tear it up, because I thought he was taking the mickey, but I don't think he was. It never occurred to him that I wouldn't find another F1 seat. But I didn't.

Maybe this is what makes certain exceptional people, particularly in sport and business, that little bit better than most mere mortals. They only see what they're doing and never remotely consider whether it's at the expense of everyone else. That ultimate selfishness is what makes them different, and maybe the best. In some respects.

At the time, of course, I was furious. I'd put all my eggs into



Senna and Warwick at the French GP in 1984, when the former was in Warwick's old seat at Toleman the Lotus basket and now Ayrton had smashed them all. In his own way, Ayrton was just as devious as Nelson Piquet had been in F3 back in 1978.

Warr was supposedly embarrassed and unhappy about the whole thing, as was sponsor Geoffrey Kent of John Player, but that was how Ayrton played the game. He'd walked out of Toleman in 1984, breaking his contract to go to Lotus for 1985. As soon as Alex Hawkridge had found out, he got something back on Ayrton by suspending him from the team to teach him a lesson. It said everything about Ayrton that, having broken his contract, he was outraged to be penalised like that.

Now, Warr might not have had the balls or decency to face me with bad news, but he did at least slightly stand up to Ayrton when he vetoed the suggestion that his friend Maurício Gugelmin, the reigning British F3 champion, should be his number two, and instead chose the previous year's British F3 champion, Johnny Dumfries. I didn't know Johnny that well, but well enough to spend some time with him. He was the Marquess of Bute and part of our 'Rat Pack' lunch every year. He was such a gentle, lovely man who sadly died suddenly at the age of just 62 on 22 March 2021; we all miss him very much.

W RENAULD











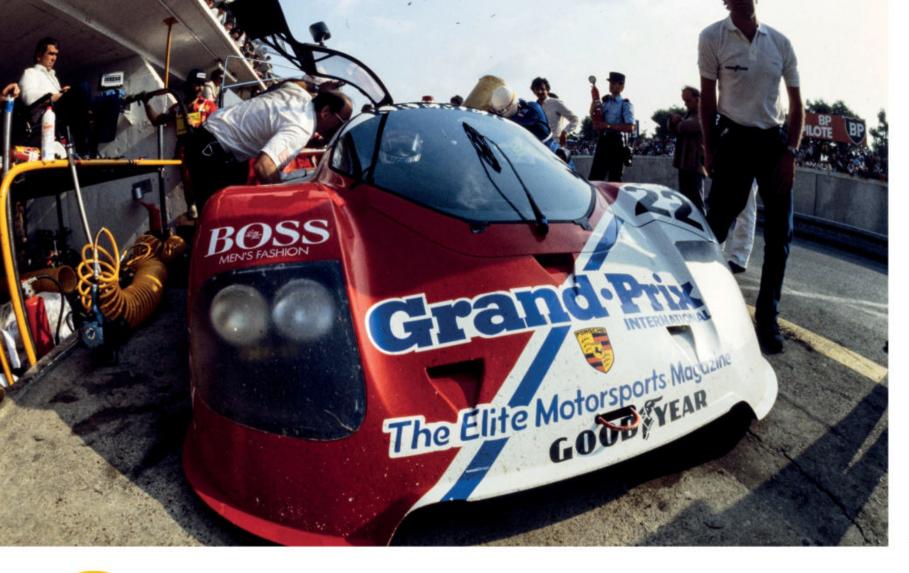
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Warwick's first taste of Le Mans came in 1983 when he a raced a Kremer CK5, a oneoff drive when driving for Toleman in F1

OPPORTUNITIES LOST

Gugelmin told David Tremayne, who collaborated with me on this book, that Ayrton was very angry when David deliberately ran a provocative main headline in the 29 January 1986 issue of Motoring News: 'Warwick just too fast for Senna.' David told Maurício to let Ayrton know that annoying him had been the whole point of the headline. Headlines in other publications were also harsh and all of them gave Ayrton a real slagging in support of me. The media were very outspoken about the way he'd been able to dictate things and how weak and unprofessional Lotus had been in the feeble way they'd handled the whole sorry affair.

Lotus offered me zero compensation. And when you look back, they and Ayrton effectively stopped my F1 career in its tracks. I think I was arguably the best British driver in F1 at that time, although Nigel Mansell had just won two races with Williams and was definitely beginning to establish himself. He went on to win five more in 1986 and narrowly missed out on the world championship, while I was sidelined.

I'd proved in my first year with Renault that I was quick and had what it took to win races. I wanted to put myself up against the best at Lotus with Ayrton there. I've never been frightened of doing that. Lotus had been the golden opportunity to show that.

I also thought the new Lotus-Renault 98T looked good. I loved the way technical chief Gérard Ducarouge went about his racing and I thought I fitted in well with the team, the sponsor and everything else. Renault, as Lotus's engine supplier, was pushing me, too. And now suddenly l lost momentum as the golden boy.

Some other good opportunities had been around when I started talking with Lotus, but they'd gone now because I'd put everything into the Lotus deal. With the new season not far off, I had nothing on the horizon just when I should have been taking another important step forward in my F1 career.

I've always taken the view that when things get tough, you just have to get tougher and find the next solution. I certainly



Sportscar racing provided a lifeline in 1986. After taking a Porsche 962 to the podium at Daytona, Warwick drove for TWR Jaguar

wasn't ready to stop. F1 was all I wanted to do. I'm not a quitter and I always look forward to the next chapter. That's what champions do — and I was still determined to be one.

Very quickly I received an offer from BF Goodrich, the American tyre company, to do the Daytona 24 Hours in one of its Porsche 962s, sharing with Jochen Mass, Jim Busby and Darin Brassfield. I grabbed the opportunity with both hands because I wanted to race something.

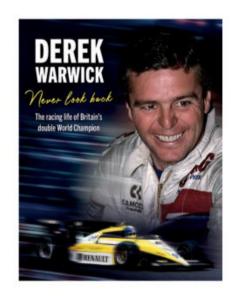
I'd driven sportscars before, starting at Le Mans in 1983. The Kremer brothers, Erwin and Manfred, were running their own Porsche-based car, the CK5, with backing from *Grand*

Prix International magazine. Erwin called me at the last minute, with just a week to go while I was in Canada racing with Toleman. I think Alan Jones had been down to drive the car but had changed his mind.

The CK5 was an odd-looking car with a spaceframe chassis. In my head I said that never in a million years was I going to run at Le Mans in that thing. But I asked what the deal was, and Erwin said £25,000. So I just said, 'Great! I'll be there tomorrow!'

I suppose that was when I created the saying, 'Absolutely no way. How much? OK!'

*Never Look Back is out now, published by
Evro (www.evropublishing.com)





F1 UNCOVERED

Alex Albon's physio **Patrick Harding** describes what goes where in the driver's motorhome room

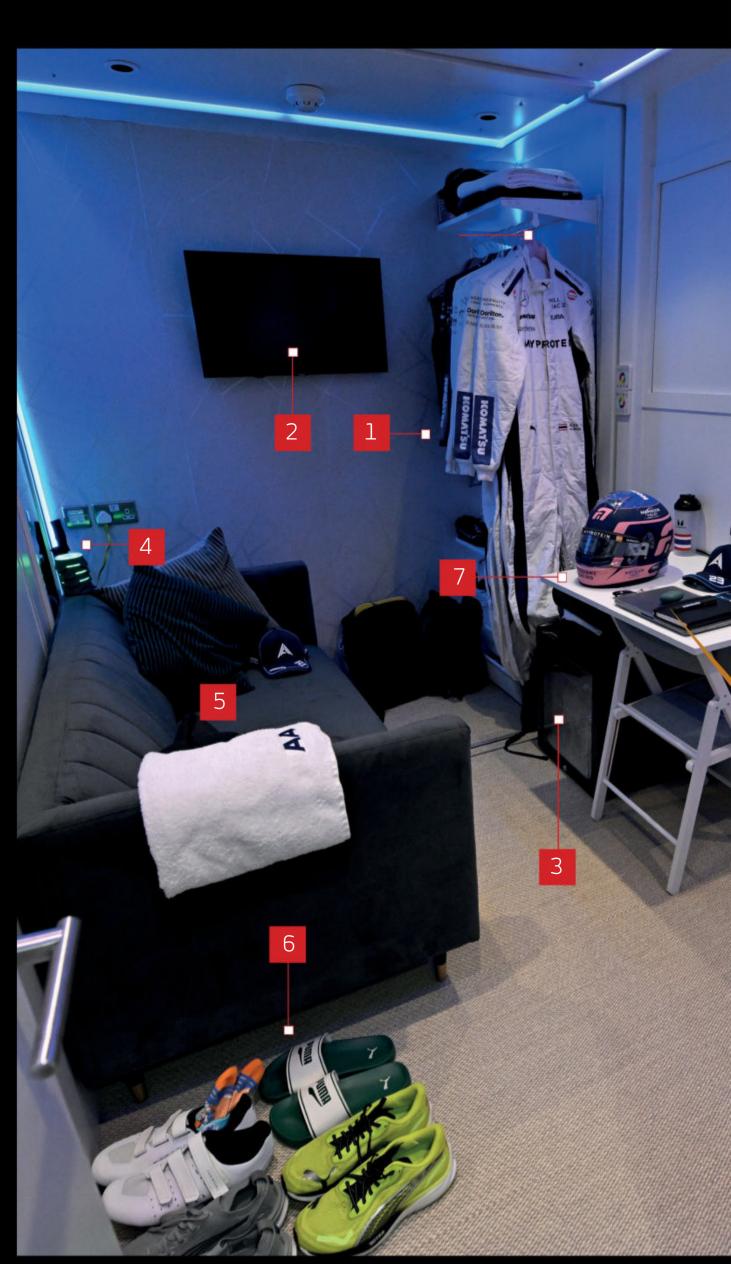
WORDS OLEG KARPOV PICTURES MARK SUTTON

"This is Alex's room in the Williams motorhome. It's where he would spend a lot of his time between sessions, debriefs, media and marketing activities.

"It's an important space for him to have, to be able to close the door and lock it - and just be away from the intensity of the environment. He spends so much of his time in interviews and meetings, talking to people and expending energy. So even though it might seem like just a driver's room, it's a really important space for him to be able to have that time to himself. Especially as he's an introvert, he gets his energy from being alone or being with a close group of people that he trusts."

"Here in the corner we have our race kits. There are five sessions over the weekend and we need a fresh set for each - but we also like to have a spare. So we'll have six sets of everything: suits, underpants, tops. And we'll have three pairs of race boots and three pairs of race gloves. We'll never use anything new for qualifying or the race because they need a session or two to break in. The boots can be quite stiff when you first get them. And it's the same with the gloves, they'll just mould to his hand a little bit once he's worn them a couple of times.

"In these drawers underneath, we've got his knee pads, balaclavas, race socks. And then on top, of course, we've got our physio kit and some towels."





"On the TV on the wall, he'll sometimes watch the F3, F2 and F1 Academy sessions – so he can always get a bit of a feel for how the track is evolving."

"There's always some snacks in the fridge, some protein yoghurts, protein drinks and electrolyte water. Hydration is important throughout a race weekend. Alex can lose up to two and a half kilos in a race, so managing hydration is a key factor in being able to withstand conditions in the car, especially in hot races."

"You'll see some flashing lights in the corner. They're called BlazePods, reaction lights we use in his warm-up before a session to fire up his visual system. We don't do it here because there's not the space - we do it in the garage. We bring them in our warm-up kit - you can see it near the fridge – and we warm them up there."

"A small couch. You can't sleep on it but, like I said, the space has to be as comfortable as possible for him to recover some energy."

"We have shoes for all our needs. We usually run the track on Thursdays, so you can see our running shoes there and then some cycling shoes as well. We've got a pro trainer bike in the little gym we have next door that we can use depending on how his body is feeling."

"The table. You'd think we'd cleaned it up beforehand, but no, it usually looks like this - and it's more to do with my OCD than anything else. So, unfortunately, that's probably how it's going to look most of the time, because I like everything to be tidy and in order."

This is an air diffuser in the top right-hand corner - the only piece of kit that's survived all six years of Alex's F1 career. We had it at Toro Rosso from day one! So it's a legendary piece, from Muji - I'd just like to give them a little bit of a shout-out. Alex is very sensitive to smells. It's an important piece of equipment to help us make this space really his environment. We've got lavender, eucalyptus, citrus – different aromas, in these bottles next to it."

"Then there's his pass, which he forgets on a daily basis, and a team cap. Then, behind the helmet, we've got our protein shaker. There's a big energy demand over the weekend in terms of the amount of calories he's going to burn. We have to make sure he's got the right energy levels throughout the weekend. There are times when he's distracted with engineering or his mind is on other things, so food can sometimes take a back seat - but we know how important it is. So we'll be supplementing with different shakes over the course of the event: fruit-based shakes, more calorific shakes, or protein shakes for recovery."

"We have four base helmets, with different visors from clear to light-medium to medium. Medium when it's particularly bright, light-medium when it's overcast and then clear when it's raining. And we'll alternate those, just depending on the weather conditions."

"Then the laptop, so he can check his emails – the little notepad is actually mine. It's my little bible: everything I think is important goes in there. Over the course of a race weekend, we monitor Alex's body weight and hydration. We test his urine every morning and we measure his body weight in the morning, before and after each session and then at the end of the day, so we have a really good picture of how well he's fuelled and how well he's hydrated. Then the nanny notes or observations that we make that we either want to implement or things we want to change will all go into that as well."

"Finally, his AirPods. Alex likes his music. Again, it's part of that disconnect from the environment. He's not someone who needs music to prepare for a session, it's quite the opposite – he needs music to disengage. It's important to be able to close the door and put on some music, connect with something outside of F1 and give himself a bit of a break."







Celebrated at Goodwood this summer, the Shadow team and its mysterious owner captured the imagination of Formula 1 fans even when the cars were so scary that drivers feigned illness to avoid racing them...



o suggest the Shadow DN11 was a great
Formula 1 car would be something of a stretch.
After all, it started only one grand prix. In five attempts during the first half of the 1980 season, perennially underrated Geoff Lees made the grid just once, at Kyalami; Irishman David Kennedy tried seven times but always came up short; and promising young Swede Stefan Johansson failed to make his grand prix debut on two occasions.

So why are we bothering with this footnote of the first ground-effect era? Largely because it's a Shadow, first and foremost. The American-owned team created by the enigmatic Don Nichols remains a cult favourite of the 1970s, as celebrations of the constructor at both Goodwood's Members' Meeting and the Festival of Speed this year have reminded us. Shadow was always a crowd-pleaser. Those sharp and moody good looks, usually in black (but not always), and the string of cool drivers who raced them created an unmistakable aura. There was something exotic about Shadow – even if the cars were actually designed and built in prosaic Northampton.

Jackie Oliver, George Follmer, Jean-Pierre 'Jumper' Jarier. Welsh wizard Tom Pryce, surely the archetypal Shadowman. Riccardo Patrese, Brian Redman, Clay Regazzoni. Alan Jones — who took the team's only grand prix win, a taster before his defining years at Williams — Elio de Angelis, Jan Lammers and more. It was a rolling cast of gifted, grizzled character actors, all of whom played their part — for a few short scenes or over many key acts — in the rowdy theatre of F1 in its most way-out decade.

Then there was Nichols himself, a shady figure cloaked in cape and flat-brimmed sombrero cordobés. Motor racing was full of colourful characters, and still is. But F1 folk had never seen anyone quite like the bearded American. The shadows of his heavily active combat record in WWII, including as a pathfinder paratrooper on D-Day, and subsequent life in military intelligence that he'd never talk about only added to the air of mystery, and from the start his approach to motorsport was novel. Founded as Advanced Vehicle Systems in 1968, Nichols' company first cast its shadow in Can-Am with the low-line, 'cotton reel'-wheeled Mk1. There's often a good reason why original thinking in motorsport is best described as radical... and it was only when Shadow became more conventional in its design approach that it became successful. In 1974, in a declining post-McLaren and Porsche Can-Am, Jackie Oliver secured what would prove to be Shadow's only championship title.

It was the ex-Team Lotus, BRM and McLaren racer who convinced Nichols to migrate his team, with its stylish support from UOP (United Oil Products), to F1 in 1973. From the pen of Tony Southgate, with whom Oliver had worked at BRM, Shadow F1 cars looked right from the start – although the DN1 needed work to combat the near-ubiquitous Cosworth DFV's notorious vibrations. Still, Oliver might have won the chaotic wet-weather Canadian GP at Mosport for what would have been the only grand prix victory of his career – and some lap charts claimed he did. In a race that featured the first use of a safety car in F1, confusion rained (sorry). After a long delay, McLaren's



IT WAS ONLY WHEN SHADOW BECAME MORE CONVENTIONAL IN ITS DESIGN APPROACH THAT IT BECAME MORE SUCCESSFUL

Peter Revson was declared the winner. Oliver was third.

The following year Revson switched sides and joined
Shadow – only to die in a practice crash at Kyalami when
a component failed. Southgate was devastated. It would
not be the last time tragedy darkened the Shadow tale.

Tom Pryce landed his big break with Shadow later that year, after Revson replacement Brian Redman chose to





SHADOW D

walk away from F1. The following season, in Southgate's refined DN5, Pryce achieved what Nichols would say years later was his team's apogee: a dominant victory in the non-championship Race of Champions at Brands Hatch, beating a field that included reigning world champion Emerson Fittipaldi, Ronnie Peterson, Jacky Ickx and Jody Scheckter. Two months earlier, in January 1975, team-mate Jarier had scored pole positions at the two season-opening grands prix in Argentina and Brazil. But Shadow reliability remained a bugbear: Jarier retired from 10 races that season, Pryce from six. UOP dropped its support at the end of the year.

Money was tight from here on, but Southgate's DN8 revived hopes for 1977 — until horror struck at the third round at Kyalami. A fuel fire lit up Renzo Zorzi's Shadow after he pulled off on the main straight during the South African GP, triggering two marshals to cross the track from the pitwall. The second, 19-year-old Frederik Jansen van Vuuren, was carrying a fire extinguisher. Cresting the brow of a rise, Hans Stuck's Brabham narrowly missed the marshal, but Pryce wasn't so lucky. Both the marshal and the 27-year-old driver were killed instantly, Pryce by the impact with the extinguisher. For those who witnessed it, the sight of the Shadow careering along the straight all the way down to crash at Crowthorne remains a grisly memory of unspeakable trauma.

It was later that season that Alan Jones came from 14th to

win a wet Austrian GP, inheriting the lead when James Hunt's engine let go and beating world champion elect Niki Lauda. But it's probably true that Pryce's loss was the moment the heart and soul went out of Shadow. Nothing could ever be quite the same after that. Jones's win was very much an anomaly, before the team's most infamous episode played out in 1978. Enter the 'Sharrows'.

Having started the F1 love affair, Jackie Oliver remained at Shadow after his last full season as an F1 driver in 1973. Dovetailing a colourful life behind the wheel in the US – including a stint in NASCAR – he was the gears that kept Nichols' wheels turning in grands prix. After a final one-off return to the F1 cockpit – ninth in the 1977 Swedish GP – Oliver's thoughts took an all too obvious turn.

"The UOP sponsorship had stopped and I was spending more time raising money for the F1 team than I was driving cars – and at the South African GP I saw the death of Tom Pryce," says Oliver. "I thought, I've got to give this up.

"Franco Ambrosio" — an Italian businessman trading in pasta, and a (less than reliable) Shadow sponsor — "said to me, 'Who is this Don Nichols? You seem to do all the work. Why don't you do it for yourself?' I said to Don, 'Are you going to take the team back to the US now you've run out of money?' He said he didn't know. I asked him, 'Do you want to sell it to me?' He said, 'I'll think about it.' That was in the August

of 1977. By the September I went to him again. I said to him, 'You haven't paid me for the last 18 months, so I'm sorry but here's a writ. Either sell me the team or pay me.' He didn't, so I decided with Franco to go my own way."

Naturally, Bernie Ecclestone was quickly on to Oliver's plan. Still primarily the boss of Brabham, The Bolt was already taking a bigger-picture interest in F1 affairs, particularly in the British-based 'garagiste' teams. He tried to arbitrate between Nichols and Oliver, setting up a meeting at the Brabham factory. But Nichols didn't show.

"I bought the debt to Shadows' suppliers," says Oliver. "I thought that would be leverage for Don to decide what to do. Either he could pay me the debt or sell me the team. It didn't work out that way, it turned into a bloody fight in the end. So I ended up with my own F1 team, Cosworth engines, an aluminium monocoque and 18 people in a factory in Milton Keynes – in six months. And I took one car to the 1978 Brazilian GP. You couldn't do that now. I spent a million quid

How the nascent Arrows hastily built a car in the shape of

the FA1 (named in deference to sponsor Ambrosio) which looked suspiciously like the Shadow DN9 has gone down in infamy as F1's prime 'copy-cat' case. "The most important



person in a team is not me or the drivers, it's the bloody designer," says Oliver. "I had to get Tony Southgate to join me. I said to him, 'Are you going to come?' He said, 'If you start your own F1 team you're out of your fucking mind, I've got better things to do.' Sorry to hear that but if you change your mind let me know.

"All the people I hired in the first place in 1973, I asked them if they wanted to come and most of them said yes – everyone except the cleaner and the truck driver. One Monday when Tony turned up at the Shadow factory in Northampton, he got on the phone and said, 'Fuck me, there's only two

people here. Is that job offer still open?' It

certainly is, Tony. But he took a few Shadow drawings with him. I didn't know. That blew the whole thing. I said to him, 'What did you do that for? You didn't need to do that, all the ideas are in your head.' He said 'I had some legal advice and they said I owned the intellectual property rights.' But the lawyer I hired said, 'No you don't!'"

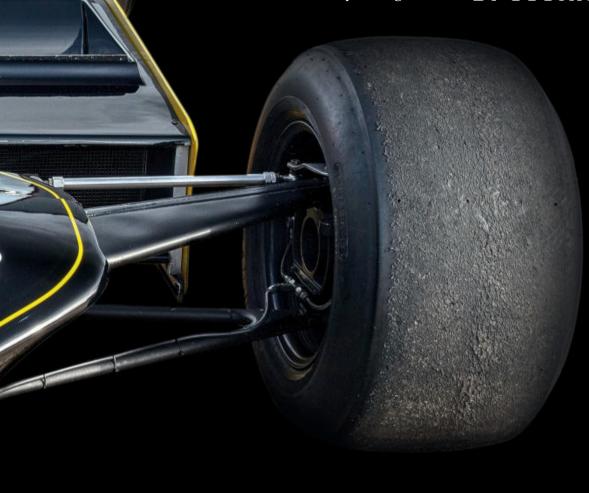
As the new-old team led by Southgate and

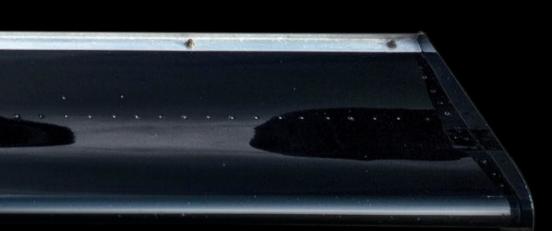
ace draughtsman Dave Wass rapidly created the entirely legit Arrows A1, ready in time for the Austrian GP as the copy-cat court case wrapped up in Nichols' favour, Shadow limped on. The death of Pryce, now this mass defection of personnel... it was only a matter of time. Which brings us back to where we came in: the DN11.

Well, almost. The DN9 that preceded it gives context. The first ground-effect Shadow was started by Southgate for the 1978 season before he defected to Arrows, and was finished after his departure by the equally prolific John Baldwin, as the team chased the crowd in following the revolution in aerodynamics led by Colin Chapman's Team Lotus. It didn't work very well, Clay Regazzoni and Hans Stuck managing a total of six points between them, while

THE DN9 THAT PRECEDED IT GIVES CONTEXT. THE FIRST GROUND-EFFECT SHADOW WAS STARTED BY SOUTHGATE FOR THE 1978 SEASON

SHADOW DNT







Hawaiian IndyCar racer Danny Ongais twice failed to qualify a DN9 entered by the Interscope team.

The decline continued in '79 with the DN9B in which wealthy Roman Elio de Angelis cut his F1 teeth, scoring a fourth place at the season-ending US GP at Watkins Glen – and attracting enough attention to land a Lotus drive for '80, a move Nichols attempted to thwart with a court injunction. The Shadow he'd raced had been updated by Richard Owen and F1 nomad draughtsman John Gentry, in his second spell with the team. Gentry had been an early recruit to the F1 cause in 1973, joining from March, then after Shadow moved on to Fittipaldi, Wolf's Can-Am effort which starred a young Gilles Villeneuve, and Tyrrell where he worked on the 1978 Monaco GP-winning 008 with Maurice Phillippe. His return to Shadow was squeezed in around another turn at March engineering Formula 2 drivers and working on its BMW M1 Le Mans project.

It was Gentry who started the DN11, but then left to hook up with Rory Byrne at Toleman, an alliance that created the

TG280 in which Brian Henton and Derek Warwick streaked to a landmark one-two in the European F2 Championship. Good move from Gentry, who broke his 1970s pattern by staying put at Toleman through its F1 campaigns up to 1984 – by which time Shadow and Don Nichols had long since departed.

Vic Morris completed what Gentry started on the DN11, but the team by now was nearly spent of oxygen. Not that David Kennedy cared. The Irishman came to grand prix racing via the British Aurora-backed national F1 series in which he'd finished second to Rupert Keegan in 1979 – and described shooting for the pinnacle, from where he came from, as like wanting to land on the moon. The DN11, with its yellow sidepods in deference to on-off cigarette brand sponsor Villigers, looked a beauty in his eyes. At least at first.

At his first taste of the car at Silverstone, Kennedy has said the team tried two different configurations of sidepod and the ground effect was so strong they were pulled out from the chassis. But instead of beefing them up, the team used the pods that remained attached – and were therefore presumably less effective. A sign, right there, of a team running without a budget. No wonder Kennedy failed to make the cut in Buenos Aires and at Interlagos. Past the pits he reported the chassis twisted to such a degree the steering locked and he was forced to arch his elbow into the monocoque just to hold the steering wheel straight.

Beside him, the team strived to sell the second seat to either Beppe Gabbiani or Renzo Zorzi but, when the money never materialised from either driver, an on-standby Stefan Johansson found himself thrown in. Like Kennedy, he was dumbfounded by the chassis flexing and the somewhat disconcerting locked steering: set a radius for a corner and commit. There'd be no changing your line.

Talented Geoff Lees had shown glimpses of his true self in a fragmented climb to the fringes of F1. A year earlier his F1 debut had landed late via Tyrrell when Jean-Pierre Jarier contracted hepatitis. An impressive seventh at Hockenheim, passing team-mate Didier Pironi along the way, was rewarded by Derek Daly taking the drive for the next race. Now he pitched up at Shadow in place of Johansson at Kyalami. The Shadows were "hopelessly outclassed," reported Denis Jenkinson in *Motor Sport*, "and on some corners, especially fast ones, they changed direction in an alarming manner, looking very twitchy and unstable. The two young drivers were heroes without results."

Still, Lees made the cut, by default. Marc Surer's crash in his ATS had left him with two broken ankles, while promising rookie Alain Prost had a busted wrist after an off in his McLaren. In the race, broken suspension pitched Lees into the catch fencing, smashing into the abandoned Arrows A3 of Riccardo Patrese. He was classified 13th, eight laps down. The last 'finish' in a GP for a car bearing the Shadow name alone.

Next time out at Long Beach Lees experienced the chassis flex/steering lock phenomena – which must have been terrifying on the tight street circuit. It's said he feigned illness after the first day of practice. No one rushed to replace him.

Something had to give, and it did. By the next race, the



NUW THAT WAS A CAR

No129







Belgian GP at Zolder, Shadow had a new face, in the form of Hong Kong racing enthusiast Teddy Yip, whose Theodore Racing team was now a major partner. Nichols' last throw was the Shadow DN12, another Cosworth DFV/Hewland gearbox 'wing car' built around a new monocoque that was narrower at the front and wider at the rear. Painted plain white with red Theodore Shadow logos, Lees attempted to qualify for the Belgian and Monaco GPs, to no avail, while Kennedy persevered with the DN11. He had a DN12 for the Spanish GP at Jarama and made the race, but only after Ferrari, Alfa Romeo and Renault boycotted as the FISA-FOCA war for control of the sport began to rage. Kennedy crashed on the second lap, bounced off the track by the car's severe porpoising, while Lees ran ninth before his suspension failed.



The race was subsequently ruled as non-championship – much to the annoyance of Williams's winner Alan Jones.

Both drivers failed to qualify in France, whereupon Theodore withdrew – and Shadow was finally no more. Yip reorganised, hired Southgate and launched Theodore under its own steam for 1981, the TY01 initially sporting a novel high-mounted front wing. But that's another story. Nichols had made his contribution to F1 and was done.

"It pleases me," he related to Pete Lyons for his book *Shadow: The Magnificent Machines of a Man of Mystery*, "that we were able to make attractive equipment, [cars] that were extremely well received, and we were able to find sponsors and support.



"It's satisfying to recall we had an opportunity to do things that we didn't always do well, but we tried to do them in an innovative, creative and, I suppose, exciting and appealing [way]. We tried to make attractive, well-decorated cars and we tried to do programmes that appealed to us, or to me. It was something I had ability to control — our participation and our expression. We thought it was an artistic expression."

That's why Shadow remains so loved. Sometimes results aren't the point, even in F1.

RACE RECORI

Starts 1
Poles 0
Wins 0
Fastest laps 0
Championship
points 0

SPECIFICATION

Chassis Aluminium monocoque **Suspension** Double wishbones with pushrod-actuated inboard coil springs and dampers

Engine Naturally aspirated Ford Cosworth DFV V8

Engine capacity 2993c

Power 500bhp @ 11,000

Gearbox Hewland FGA 400

five-speed manual

Brakes Steel discs

Tyres Goodyear

Weight 605kg

Notable drivers Geoff Lees, David Kennedy, Stefan Johansson

HAMILTON'S ALTERNATIVE VIEW



The fickle Ardennes weather often plays a decisive role in Belgian Grands Prix at Spa. Perhaps that's why, in days of yore, officials refused to start the race without enjoying a long lunch first...



motorsport

LANDO NORRIS HAS EVERY reason to curse the precision of lap time recording in F1. You'll recall that qualifying in Montréal could not have been closer. George Russell and Max Verstappen both got round Circuit Gilles Villeneuve in 1m12.000s. But Russell claimed pole because he did it first. Norris's lap of 1m12.021s was within the blink of an eye. Had this been in 1964, Lando would have started from the front row.

Sixty years ago, lap time measurement only went as far as a tenth of a second thanks to the use of hand-held stop watches. During the 1960 Belgian Grand Prix, three drivers were awarded fastest lap. Jack Brabham (Cooper), Phil Hill (Ferrari) and Innes Ireland (Lotus) covered the original Spa-Francorchamps in 3m51.9s but, because he did it first, only Brabham was credited with the new lap record.

Fast-forward to Canada 2024. Rounding down qualifying times, we have three drivers on 1m12.0s. Russell finished his lap at 16:53:17 in the afternoon and Verstappen at 17:00:25. Norris got the job done at 16:57:23, which would have put him second in the pre-electronic timing lottery. Exactly the same thing would have happened to the McLaren driver at Imola.

With the time of day being the final arbiter in 1960, it did not consider Hill's Ferrari and Ireland's Lotus probably being fractionally faster than Brabham's Cooper due to lighter fuel loads and track evolution. Then again, this was when cars spat out as much oil as they consumed and, if anything, the track would have been become more slippery as the race wore on.

Neither was there mention of the timekeeper's finger flexing being dulled by the effect of a long



started after the officials had finished lunch

lunch. Devouring a Sunday roast at Spa was apparently more important than demolishing the lap record – judging by what happened in 1970 (which we'll come to in a minute).

Even back then, racing at Spa had become contentious (we're talking of the original Spa-Francorchamps in all its nine-mile majesty, including the awesome downhill sweep through Burnenville and on to Masta Straight with a kink marked by stout buildings on either side). During that grand prix in 1960, two drivers had been killed and another two were fortunate to escape with serious injury.

Miraculously, the death toll did not increase six years later when a first-lap downpour on the far side of the circuit caused cars to spin off in all directions. Phil Hill, having retired at the end of 1964, accepted the role of driving a camera car for the blockbuster movie *Grand Prix*. The deal was that Hill would start from the back and follow the field as best he could for one lap.

Phil didn't expect much at the wheel of a 'Whoosh-Bonk' McLaren M3A. Powered by a hefty V8 from Detroit, the M3A had been a cheap and reliable single-seater intended for sprints and hillclimbs. It was known as the 'Whoosh-Bonk' car because Bruce McLaren, when describing how easily the M3A would be adapted from his CanAm car, simply said: "You take the suspension off the sports car — whoosh — knock up a chassis and — bonk — there's the car." Hill and the *Grand Prix* production team were responsible for the M3A making its debut at Spa in 1966.

As the drivers ahead either crashed or backed off when confronted by a wall of rain as they reached the Masta Straight, Hill found that the Brabham leading in 1960, when three drivers set a lap record but only Jack was credited with it



time as an emotional over-reaction.

Stewart's tenacity would move driver protection up the agenda. One suggestion in 1970 was to have the race scheduled for 11.30am, the idea being to move the start time back if rain threatened a repeat of 1966. According to Ray Hutton, sports editor of *Autocar*, the Belgian organisers would have none of it. "The officials insisted on sticking to the 3.30pm start rather than upset their lunchtime," wrote Hutton. They



weight of the V8, coupled with what he described as 'a ton of camera equipment', provided loads of grip in the unexpectedly treacherous conditions. When he pulled into the pits at the end of the lap, Hill was in fifth place! He was also the centre of attention as anxious crews enquired if the 1961 world champion had any news on the whereabouts of drivers who had gone missing.

One such was Jackie Stewart, soaked in fuel and trapped in the cockpit as his BRM lay in a ditch. This terrifying episode would have an ultimately profound effect on improved safety for drivers. Appalled by the absence of suitably equipped marshals (it took two drivers to stop and come to his aid) and zero medical back up, Stewart was to begin a crusade that seems manifestly obvious now, but was scorned at the

would get their lunch – but no more grands prix.

That would be the last F1 race on the original circuit – and probably not before time. Chris Amon, while chasing the leading BRM V12 of Pedro Rodriguez on the final lap, described taking the Masta Kink without lifting. The gearing graph for the Hewland 'box showed he had been doing 199 mph. In a March 701! Even the briefest glance at that rudimentary red car today, and a look at the Masta Kink (which remains more or less as it was 54 years ago), will put Amon's commitment beyond sane comprehension.

Here we are in 2024, with safety at Spa – specifically the flat-out blind brow after Eau Rouge – under discussion for very good reason. Competitiveness has reached such a ferocious peak that one-thousandth of a second no longer provides an adequate performance demarcation. Blame the relentless pursuit of downforce ever since tiny wings appeared on a F1 car for the first time. Ironically, that was at Spa-Francorchamps in 1968. Which is typical of the mixed emotions generated by this stunning race track.

ONE-THOUSANDTH OF A SECOND NO LONGER PROVIDES AN ADEQUATE PERFORMANCE DEMARCATION



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RACE DEBRIEF THE SPANISH GP

F1 WORLD CHAMPIONSHIP ROUND 10

IN 5 KEY MOMENTS REPORT BY JAMES ROBERTS

Small details have big impact in Norris's loss to Verstappen

Heading to the high-speed sweeps of Barcelona, you would expect Red Bull to have the edge over the competition as the circuit typically rewards the most aerodynamically efficient cars. But the events of the Spanish GP suggested that convergence in development has brought McLaren's MCL38 close to a Red Bull RB20 which seems to have hit a ceiling of sorts; indeed, there was evidence to suggest McLaren had marginally the quickest car overall.

Qualifying was ultra tight. And if it wasn't for a slight faltering off the line, Lando Norris might have taken the spoils. Norris did score his second career pole (the first was Sochi 2021) by just 0.020s from Max Verstappen. But he needed to stay ahead of the Red Bull on the 549-metre dash to Turn 1.

The threat from McLaren has been building. Imola was close and Canada might have been successful but for the failure to pit behind the Safety Car. That was a marginal call. But to win week-in, week-out,

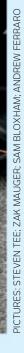
as Red Bull has done over the past few seasons, there is no room for even the tiniest of mistakes.

In Spain, it was the first few hundred metres off the line that proved most costly - at least in Norris's view. Too much wheelspin for Lando during the change up from first to second gear enabled Verstappen to get alongside – even if that meant dipping his right-hand side wheels on the grass as Norris executed a ruthless chop ("I know his birthday present already - it's either like a big mirror or some glasses and it will be fine," joked Max later). As they braked for Turn 1, the Red Bull was ahead.

Then, like a Shakespearean spectre at the feast, George Russell swept past both of them. Having started fourth, the Mercedes man had channelled his inner Fernando Alonso, exploiting the doubletow from Norris and Verstappen to rocket into the lead. Much as Lando would beat himself up about his imperfect launch, this was out of his hands and, as team principal Andrea Stella would say later, Norris was prudent at this point to cede ground to the two cars ahead and not get tangled up.

Verstappen knew he had to dispatch Russell as soon as possible. The Red Bull is mightily strong on its tyres at the beginning of a stint and, with the





JACK DANIELS



Preparation pays off for Russell

George Russell often conveys the demeanour of someone who enjoyed doing their homework at school. On the night before the Spanish Grand Prix, he revealed he was working on a plan of how he'd emerge in the lead from fourth on the grid. It worked. If you watch the onboard of Fernando Alonso's 2011 start, he proves what's possible from ducking in and out of the slipstream from the cars ahead of him. Russell did the same and, entering Turn 1, took the natural racing line which afforded more grip. He also benefited by being shielded from the strong headwind until he made his move.

Credit is also due to Norris. In the middle lane, with Verstappen to his inside and Russell on the outside, Lando was the first to back out. If he'd attempted to brake late and run the Mercedes wide, contact would have been inevitable. It was sensible race craft.

After a long time in the doldrums, it appears as if Mercedes has made some useful gains, thanks in part to the new front wing that was added to the W15 in Montréal. Merc was ahead of Ferrari in Barcelona, but little more than a gust of air separated the two teams on the grid. Lewis Hamilton's third-place Q3 qualifying time was just 0.035s ahead of Carlos Sainz in sixth.

Russell's strong start kept him ahead of Norris in the opening stint in Spain. Just before the

grip available to him, Verstappen stormed around the fast final corner to launch a DRS-assisted pass on the Mercedes as soon as lap three.

In contrast, the McLaren is able to extract more pace from its Pirellis towards the end of a stint provided the driver looks after them. Therefore, having lost the lead to Max, and with the Mercedes providing an obstacle, Norris's best option was to try to build an offset in tyre performance and life for the latter stages of the race.

Norris remained behind Russell until the Mercedes pitted. The McLaren then stayed out longer, six laps more than Verstappen, who built up a 4.8s gap before stopping. When the top two made their second pitstop – where McLaren was nearly a second slower than Red Bull – Norris was nine seconds behind Verstappen. Over the final 18 laps he reduced the deficit to two seconds at the flag. Close, but no cigar for Zak Brown this time.

Norris left Spain second in the points standings for the first time in his career. Pole and the podium was a fillip for a team which had otherwise endured a troubled weekend after a fire destroyed the kitchen of its hospitality unit.

"We should have won today, we had the quickest car but I just lost it at the start," said Norris. "I just didn't do a good enough job off the line and that cost me everything. From Turn 2 onwards, 10 out of



10, I don't think I could have done much more. But that one per cent wasn't good enough."

"It was just the couple of positions lost at corner one and the time lost behind Russell, they were the decisive factors," said Stella. "And the [slow] pit-stop, probably another second. But in fairness, even with the one second, if we had been behind Verstappen at the start [and in front of Russell], we could have played our cards with good chances.

"If we hadn't lost a little bit too long behind Russell at the start, the race would have come to us at the end of the 66 laps."

McLaren now has the speed – but to beat Max it needs to work on these tiny margins.

Mercedes pitted for a second time, the pair enjoyed a terrific wheel-to-wheel duel which lasted from Turn 1 to Turn 7, each driver defending then looking for the cut back to emerge in front once more.

Two laps after this duel Russell pitted (on lap 37) and chose the hard-compound tyre to run to the flag. His team-mate Hamilton stopped seven laps later and opted for the softs. Ultimately that was the faster strategy and Hamilton overtook Russell for P3 on lap 52.

This was the seven-time champion's first podium since Mexico last year and it extends his record of scoring a top-three finish in 18 consecutive seasons of F1.



3 A Ferrari farrago

George Russell crossed the finish line in fourth, 0.389 seconds ahead of Charles Leclerc. The Ferrari strategy mirrored Mercedes' in that Leclerc, like Lewis Hamilton, switched to softs for the final phase of the race, while team-mate Sainz pitted the same lap as Russell's last stop and took hards.

But Charles felt the margin he lost out to Russell could have been overturned if his Maranello teammate had been more helpful earlier in the race. On lap three, Leclerc defended the inside line going into Turn 1 and Sainz went for the outside. The scarlet cars touched. Sainz briefly ran wide but took fifth place from the Monaco GP winner.

"We had a clear strategy to save tyres to attack later on," said Leclerc. "He saw an opportunity to overtake me, which is a bit of a shame because we lost time between us. I damaged my front wing because of Carlos not seeing I was inside. It's a bit unnecessary, but I understand it's his home race and an important moment of his career, so I guess he wanted to do something spectacular."

Since Sainz is yet to achieve a top-three finish at his home race – and future career options potentially limit his short-term podium chances – frustration was clearly building in the #55 cockpit.

"It's too many times he complains after the race



about something," said Sainz in reply. Carlos also felt hard done by when the man who will take his seat next year, Lewis Hamilton, dived down the inside of Turn 1 when thy were scrapping on lap 19.

"He ran me off the track," said Sainz. "I was half a car length ahead and normally the rule says that if you're ahead around the outside, they need to give you space if you have half a car. That's normally what stewards have ruled."

The stewards decided that in both Turn 1 incidents involving Sainz, no action was necessary.

When is road rage not road rage?

The stewards were also surprisingly lenient when it came to another matter involving Charles Leclerc's Ferrari in Saturday morning practice. Having felt he

was impeded by Norris into Turn 5, Leclerc slowed down and turned in to the side of the McLaren, momentarily knocking the car off course.

While Leclerc admitted to the stewards he was "upset", he argued that he was merely trying to get off the racing line and "misjudged the position of his car" when he made contact with Norris.

Other observers might have felt it was intentional and, immediately after qualifying, Norris and Verstappen gossiped about the incident – Norris expressed surprise only a reprimand was issued. "Irrespective of any possible intent and whilst not dangerous, it was erratic," said the stewards.

A minute earlier, Lance Stroll had been impeded by Lewis Hamilton at Turn 5 and veered his Aston Martin into the Mercedes. Hamilton apologised on the radio but in the stewards' room Stroll admitted that he "wanted to express his displeasure by pulling over on him [Hamilton] at the exit."

In both occasions one car has hit another. In





Stroll (left) and Leclerc (above) were both reprimanded by the stewards for 'road rage'-type incidents during qualifying

Stroll's case he admitted intent; Leclerc didn't.
But the stewards issued a reprimand for both.
This might set a dangerous precedent. Any action whereby a driver forces his car towards another requires serious sanction.

5 Alpine targets new heights

After a frustrating start to the year, a double points finish – for the second consecutive race – was a welcome result for Alpine. Pierre Gasly described the Spanish GP as "the best race of the season so far for the team." He was pipped by a three-stopping Sergio Perez (who started 11th thanks to a grid penalty carried over from Canada) on the final lap, so finished ninth, with Esteban Ocon 10th. The second Alpine just managed to

hold off Nico Hülkenberg's Haas. That turned out to be critical, since the result elevated the Enstone/ Viry team to seventh in the constructors' race, one place – and one point – ahead of Haas.

At a track which typically exemplifies the competitive order of the cars, it was an encouraging performance with both drivers extolling a good balance front to rear.

It was also a weekend in which Alpine caused a stir when former Benetton and Renault team boss Flavio Briatore was introduced in the paddock as an executive advisor to Renault Group CEO Luca de Meo. 'Flav' was in charge during the 2008 Singapore 'Crashgate' scandal although a subsequent lifetime ban from the sport was overturned in 2010. Aside from his new appointment, he has been close to a number of commercial deals – and driver moves – for many years. Makes you wonder if his good friend Bernie Ecclestone is angling for a comeback anytime soon?



RESULTS ROUND 10

CIRCUIT DE BARCELONA-CATALUNYA 23.06.24 / 66 LAPS



1.0+	May Vasatagage Rad Rull	1h28m20.227s	
1st			
2nd	Lando Norris McLaren	+2.219s	
3rd	Lewis Hamilton Mercedes	+17.790s	
4th	George Russell Mercedes	+22.320s	
5th	Charles Leclerc Ferrari	+31.028s	
6th	Carlos Sainz Ferrari	+31.028s	
7th	Oscar Piastri McLaren	+33.760s	
8th	Sergio Pérez Red Bull	+59.524s	
9th	Pierre Gasly Alpine	+62.025s	
10th	Esteban Ocon Alpine	+71.889s	
11th	Nico Hülkenberg Haas	+79.215s*	
12th	Fernando Alonso Aston Marti	in +1 lap	e
13th	Zhou Guanyu Stake	+1 lap	pitlar
14th	Lance Stroll Aston Martin	+1 lap	in the
15th	Daniel Ricciardo RB	+1 lap	eding
16th	Valtteri Bottas Stake	+1 lap	or spe
17th	Kevin Magnussen Haas	+1 lap	'includes 5s penalty for speeding in the pitlane
18th	Alex Albon Williams	+1 lap	is pen
19th	Yuki Tsunoda RB	+1 lap*	3 sapr
20th	Logan Sargeant Williams	+2 laps	*inclu

Retirements

Fastest lap

Lando Norris 1m17.115s on lap 51

TYRE COMPOUNDS USED









CLIMATE

Sunny

AIR TEMP

Inter

39°C

DRIVERS' STANDINGS

DIVIVEIOS STAINDINGS			
1 Verstappen	219pts	11 Stroll	17pts
2 Norris	150pts	12 Ricciardo	9pts
3 Leclerc	148pts	13 Bearman	6pts
4 Sainz	116pts	14 Hülkenberg	6pts
5 Pérez	lllpts	15 Gasly	5pts
6 Piastri	87pts	16 Ocon	3pts
7 Russell	81pts	17 Albon	2pts
8 Hamilton	70pts	18 Magnussen	lpt
9 Alonso	41pts	19 Guanyu	0pts
10 Tsunoda	19pts	20 Bottas	0pts
<u> </u>		21 Sargeant	0pts



F1 WORLD CHAMPIONSHIP ROUND 11

RAGE DEBRIEF THE AUSTRIAN GP IN 5 KEY MOMENTS REPORT BY JAMES ROBERTS



Tammy Wynette picks up the mic again

"It was going to happen at some point between those two..." said a prescient Carlos Sainz when he saw the replay of the coming-together for the first time. For several grands prix now, the battles for overall victory between Lando Norris and Max Verstappen haven't involved them disputing the same piece of on-track real estate late on. But in Austria, on lap 64 of the GP, that moment came – and it resulted in Lando retiring with chassis damage while Max had to pit to replace a punctured tyre, eventually finishing fifth.

Sainz was right: this collision has been coming for a number of races now. With Verstappen's dominance under threat and Norris eager to claim top spot, there was a degree of inevitability about their confrontation.

Even more predictable was the response of stakeholders and fans. Famously, the late Tammy Wynette sang Stand By Your Man. Vanishingly few present at the Red Bull Ring - or voicing unsolicited opinions online - did anything other than cleave blindly to this tenet.

The incident reignited tensions within the fanbase which have largely remained dormant since 2021, perhaps because Red Bull's technical



Norris and Verstappen battled for honours again but this time neither came out on top

superiority has been such that Verstappen hasn't had to engage in much wheel-to-wheel combat, a scenario in which he has often demonstrated a tendency to cross the line of what is considered acceptable. And while GP Racing has expressed that in a nuanced fashion, such niceties aren't reflected elsewhere - particularly online, where rational debate is ignored in favour of reiterating entrenched views at ever louder volumes. Then again, those within the paddock were also disposed to stand by their men...

"The entire population in the world [knows] who is responsible - except for a group of people," said McLaren boss Andrea Stella. "These problems have come back because they were not addressed properly in the past, when there were some fights with Lewis [Hamilton] that needed to be punished in a harsher way. With this [punishment], you learn how to race fair and square.

"We have so much respect for Red Bull and Max. They don't need to do this. In a way it compromises your reputation. Why would you do that?"

Christian Horner, Stella's Red Bull counterpart, naturally took an opposing view – and couldn't resist following it up with a punch in the direction of the belt line. "I think it's wrong and unfair to label a driver like that," he said, "and I'm sure in the heat of the moment it was frustrating for Andrea, but that's just tough racing. He worked with Michael Schumacher [at Ferrari] for so many years – he of all people should know that."

Arguably the direction of travel towards the incident was set a day earlier, when Verstappen won the sprint race from pole, but not before briefly conceding the lead to Norris on lap 5 of 23. Max was pushed wide at Turn 3 – a move



subsequently taken in evidence against Norris but retook the lead with a late lunge up the inside at Turn 4. Lando later rued that he had "left the door open like an amateur".

So Norris had received a stinging reminder that if he wanted to prevail over Verstappen in a wheelto-wheel battle, he couldn't leave an inch of space. On top of that, Red Bull's long-run pace in practice suggested that there would be no repeat of the late-race performance offset that had brought Lando back into play in Spain and Italy.

Verstappen led away from pole and built up a six-second lead to second-placed Norris. But at their final pitstops the Red Bull was stationary for 6.5s, owing to a 'sticky' left-rear. In contrast Lando stopped for 2.9s and, on fresh mediums against a scrubbed set for Max in the final stint, he closed to DRS range and attacked.

Between lap 55 and their contact on 64, Norris made several attempts at the Turn 3 hairpin, diving to the inside or trying to gain a better exit for a run into Turn 4. Crucially, during this phase, he picked up a black-and-white warning flag for track limits. When he attempted a move on lap 58 and ran wide, it resulted in a five-second time penalty which provided a greater urgency to overtake the Red Bull. Time was running out to get ahead and build a five-second cushion out front.

On lap 64, Norris went to the outside at Turn 3 and under braking Verstappen drifted tov There was contact: left-rear to right-rear. and under braking Verstappen drifted towards him.

"I was looking forward to a strong, fair battle but I wouldn't say that's what it was in the end," said a despondent Norris. "I got taken out of the race. There's a rule that you're not allowed to move and react to another driver. And that's what he did three times out of three. Twice I managed to avoid him and the third time he ran into me.

"If he says he did nothing wrong, then I'll lose a lot of respect for that. If he admits to being a bit stupid and a bit reckless then I'd have a small amount of respect for him."

Verstappen was equally unhappy about the "dive bombs" and for receiving a 10-second penalty from the stewards: "For me it was not moving under braking. Because every time I moved, I wasn't braking already."

Toto needs to kerb his enthusiasm

Another onlooker to lose their head over the Norris-Verstappen shunt was the Mercedes team principal. As the hobbled McLaren and Red Bull limped back to the pits, Toto Wolff stabbed the radio button to exclaim: "George, you can win this! You can win this George!"

The primary conduit of radio communication between driver and pitwall is usually the race engineer, who chooses the moment to speak wisely. Looking at the GPS, they prefer to

communicate when a driver is on the straight and not attempting to negotiate a corner. Toto's excited exhortation arrived in George Russell's ear just as he was downshifting for Turn 6. Heard out of context, Russell's response - "Just let me fucking drive!" might have seemed ungracious.

"I think I know the drivers pretty well and what they need to be encouraged," said Wolff after the race. "But this is the single dumbest thing I've done in 12 years at Mercedes. I will forever be ashamed because you look at where you message the driver and don't do it under braking or high-speed corners. I could have taken him out with that message."

Russell had run the medium tyre in his middle stint, so at the end was on the hard and only four seconds ahead of a hard-charging, medium-shod Oscar Piastri in the second McLaren. He held on out front despite Piastri halving the gap in the last five laps. A Virtual Safety Car (enabling debris to be cleared), helped the Mercedes driver to cool his tyres and respond to Piastri's attack.

"It's no secret Red Bull with Max and McLaren with Lando are still a little bit out in front, but we're always putting ourselves in that third place in the last couple of races and obviously, if anything happens up front, we're there to pick it up," said Russell, for whom this is a second career grand prix win. "I felt that Montréal was probably a victory that we missed out on and we ended up finishing P3. This was a deserving P3 and we got the victory, so it's funny how this sport turns out."





Two seconds not enough for Piastri

One of the most frustrated figures in Spielberg was Oscar Piastri. He felt victory had slipped through his fingers thanks to a track-limits issue in qualifying. After 1,200 violations last year, the FIA and the Red Bull Ring devised a sensible solution to deter drivers from running wide. At key corners, two metres from the white line (which denotes the edge of the track) was a new strip of gravel. Dipping a tyre into the stones would naturally affect lap time.

Piastri was on the limit on his best lap and put a wheel into the gravel at Turn 6, but footage led the stewards to believe he had put his wheels outside the white line. The time was good enough for third but its deletion demoted a frustrated Piastri to seventh on the grid. McLaren tried to appeal the decision but it was rejected on procedural grounds.

Starting mid-grid meant Piastri was caught up in the opening-lap contact so typical of this venue. At

Turn 1 he clipped the front wing of Charles Leclerc, which forced the Ferrari to pit. Then, at Turn 5, Piastri ran wide after contact with Sergio Pérez which put a hole in the Red Bull's sidepod.

In the sprint, Piastri had benefited from the poorly defended move by his team-mate Norris on Verstappen. As the leading pair ran side-by-side after Verstappen reasserted himself, Piastri seized the moment to snatched second from Norris.

In the main event, Piastri made progress through

the field with a couple of brave passes around the outside of Turn 6 – including one on Sainz to take another second place, just six laps from the finish.

"I was upset yesterday," said Piastri post-race.
"We've made changes to the track to get rid of the track limits issue, but this corner, for some reason, we moved the white line but not enough. I had a bit of fire in me going into the race and some of my overtakes probably came from a bit further back than they would have otherwise."





Haas at the double

Prior to Austria, Haas had only scored seven points all season. But a remarkable sixth and eighth place leapfrogged the team ahead of Alpine in the constructors' standings thanks to its 12-point haul.

Nico Hülkenberg even managed to keep the damaged Red Bull of Sergio Pérez behind him in the final laps. But earlier in the race it looked as if the Haas pair might have got into trouble.

Ahead of their first stops, Hülkenberg was eighth and team-mate Kevin Magnussen 10th. When the Hülk pitted on lap 12 he emerged just behind K-Mag, who had stopped a lap earlier. The pair jostled for position, swapping places twice in two laps, forcing K-Mag's engineer Mark Slade to warn his charge to "save the tyres." When the reply to "Me or Nico" was "both", Kevin came back with: "F**k that." In the end, Nico saved further friction by pulling away.

"It was one hell of a race, especially at the end when it got so intense," said Nico. "It was touchand-go to keep Pérez behind in the last two laps. He came by into Turn 3. I let him edge in front, so I got DRS, which obviously put me back in front. I'm very happy, that's double points for us. I didn't expect that – an amazing team performance."



5 Alonso's fallow period continues

At the first of the demanding triple-header of races in Spain, Fernando Alonso said publicly that it was "time to work harder and talk less". While the season started well for Aston Martin, tracks with long, fast corners have highlighted the AMR24's lack of downforce. In Austria the whole weekend was a struggle for the two-time world champion.

Between the sprint and qualifying, the team completely changed the setup of Alonso's car, but this didn't bring about a great improvement in performance. After starting 13th on the grid for the sprint (and finishing 15th), Fernando was 15th for the main event and came home 18th - with only Logan Sargeant on the road behind him.

During the race Alonso braked late at Turn 3 and tapped the back of Zhou Guanyu, forcing him off track, resulting in a 10s penalty. An unusual threestop strategy didn't help dig him out of the hole.

"When you don't have the pace you have to try different strategies," said Alonso. "The penalty probably didn't change the result as we were out of the points but it was a very long race, 71 laps, when you're not fast enough."

The upgrade package scheduled for Hungary can't come soon enough...



RESULTS ROUND 11

RED BULL RING / 30.06.24 / 71 LAPS



lst	George Russell Mercedes	1h24m22.798s	
2th	Oscar Piastri McLaren	+1.906s	
3rd	Carlos Sainz Ferrari	+4.533s	
4th	Lewis Hamilton Mercedes	+23.142s	
5th	Max Verstappen Red Bull	+37.253s*	
6th	Nico Hülkenberg Haas	+54.088s	
7th	Sergio Pérez Red Bull	+54.672s	
8th	Kevin Magnussen Haas	+60.355s	
9th	Daniel Ricciardo RB	+61.169s	alty.
10th	Pierre Gasly Alpine	+61.766s	**includes 5s penalty
11th	Charles Leclerc Ferrari	+67.056s	des 5
12th	Esteban Ocon Alpine	+68.235s	*inclu
13th	Lance Stroll Aston Martin	+1 lap	sion *
14th	Yuki Tsunoda RB	+1 lap	a colli
15th	Alex Albon Williams	+1 lap**	using
16th	Valtteri Bottas Stake	+1 lap	for ca
17th	Zhou Guanyu Stake	+1 lap	nalty
18th	Fernando Alonso Aston Marti	n +1 lap	10s penalty for causing a collision
19th	Logan Sargeant Williams	+2 laps	*includes 1
20th	Lando Norris McLaren	dnf/+7 laps***	*inclu

Retirements

Fastest lap

Fernando Alonso 1m07.694s on lap 70

F1 Sprint - 23 laps

1st Verstappen 2nd Piastri 3rd Norris 4th Russell 5th Sainz 6th Hamilton 7th Leclerc 8th Pérez

TYRE COMPOUNDS USED









CLIMATE

AIR TEMP TRACK TEMP

DRIVERS' STANDINGS

DINIVEINS SI	AIIDIIIOS		
1 Verstappen	237pts	11 Stroll	17pts
2 Norris	156pts	12 Hülkenberg	14pts
3 Leclerc	150pts	13 Ricciardo	11pts
4 Sainz	135pts	14 Bearman	6pts
5 Pérez	118pts	15 Gasly	6pts
6 Piastri	112pts	16 Magnussen	5pts
7 Russell	lllpts	17 Ocon	3pts
8 Hamilton	85pts	18 Albon	2pts
9 Alonso	41pts	19 Guanyu	0pts
10 Tsunoda	19pts	20 Bottas	0pts
motorsport STATS		21 Sargeant	0pts



RACE DEBRIEF THE BRITISH GP

F1 WORLD CHAMPIONSHIP ROUND 12

IN 5 KEY MOMENTS REPORT BY JAMES ROBERTS



The return of the King

As rucksack-laden fans slowly exited muddy fields, their spirits were high. A few hours earlier they had witnessed one of the great Silverstone drives. Hounded by his arch-rival Max Verstappen, Lewis Hamilton held on to claim a record-breaking ninth British Grand Prix victory. After 945 days without a win he was back on the top step. Draped in a Union Flag, he blew a kiss to the crowd and wiped away the tears. This was an emotional release unlike any he had known before.

When musician, astrophysicist and badgerdefender Sir Brian May waved the chequered flag at the end of lap 52, the outpouring began. You could hear the emotion in Lewis's voice when he told his race engineer he loved him. Then he sobbed when he embraced his father, Anthony, in parc fermé. Hamilton's last triumph was Jeddah 2021 - just before you-know-what. The subsequent months of doubt, anger and frustration were finally exorcised when he crossed the line to claim his 104th win. And what a place to do it.

"It was the most emotional end [to a race] that I've ever experienced," said the 39-year old. "It hit me hard. After such a difficult 2021, we tried

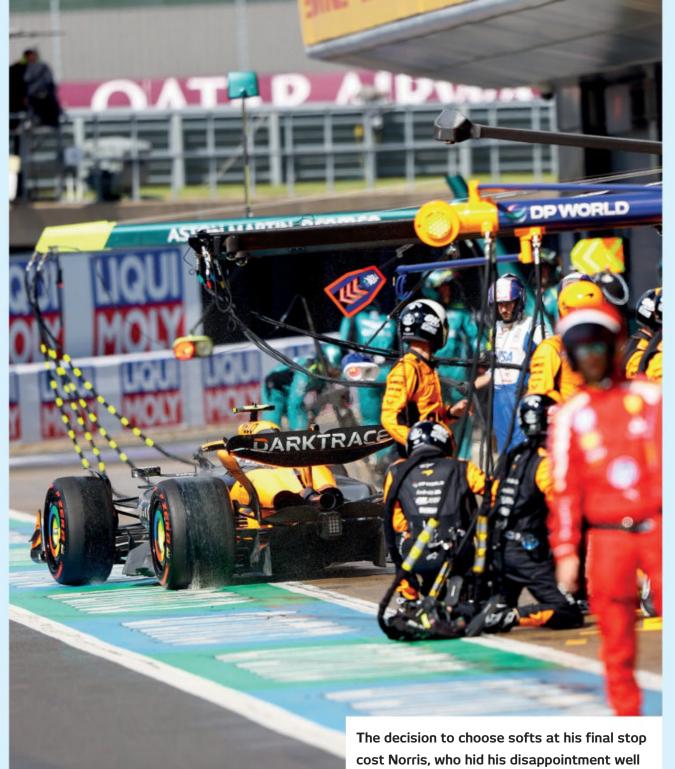
After so long without a win, what better place for Lewis to claim his 104th victory than in front of his adoring home crowd at Silverstone?

to come back as a team, but there were so many doubts in my mind along the way - to the point of times not wanting to continue [racing]. But to get up, to keep trying and finally succeed is honestly the greatest feeling I can remember having."

In the hours after the finish, the Mercedes team danced and sang while Lewis celebrated with his fans. They had seen many inspired performances at Silverstone, but none quite as brilliant as this. The wet/dry conditions in which the grip was changing from corner to corner, lap by lap, played

into Hamilton's natural talents. His natural feel enabled him to overtake and pass his team-mate George Russell for the lead in the opening stint and perfectly judge the cross-over point to switch tyres - from medium slicks to intermediates in the first instance, then on to soft slicks.

The timing of both stops proved crucial. The rain fell in two distinct cells, a brief prologue giving way to dry conditions before a more prolonged period of precipitation. This required drivers to survive the initial shower on slicks rather than



Mercedes prompts McLaren strategy fumble

Given McLaren's recent ascendancy, many headed to Silverstone expecting to see Lando Norris take his first home win. But once again his charge was undone by small failures of execution.

Starting third, Norris got boxed in behind Hamilton and lost a place to Max at Village on the opening lap. But the McLaren's superiority in the conditions at the end of the first stint, as the rain blew in, enabled him to retake third on lap 15.

In a dramatic series of laps, between 18 and 20, pole man George Russell lost the lead to his team-mate Hamilton, then Norris stormed to the front with Oscar Piastri in tow. Both Hamilton and Norris survived squirrelly off-track moments after slithering wide at Abbey in the slippery conditions.

Norris maintained P1 after pitting for inters on lap 28 and led more laps than any other driver (19). But two decisions cost him the win as the track rapidly dried. Firstly, on the radio, Norris was presented with a choice of soft or medium slicks and the permutations. He seemed uncertain. The team waited to see what happened when Hamilton pitted, so Lewis's emergence on softs informed the decision to put Lando on those a lap later.

Given Hamilton's pace it was likely he would undercut Norris for the lead, and this outcome was cemented when Lando overshot his box, costing another couple of seconds. Mediums would have

pitting for intermediates which would not have survived the dry period (a pitfall experienced by Charles Leclerc, among others). The McLarens were set up for more downforce so on the wet track Lando Norris and Oscar Piastri were faster, passing both Mercedes. But McLaren's strategic blunders would drop first Piastri and then Norris out of contention for the win.

With Russell no longer in the running after halting with a water leak, Hamilton pitted a lap earlier than Norris for the transition back to slicks and undercut him back into the lead. Lewis had a new set of hard-compound tyres available but, lacking data on those given the tricky conditions all weekend, he took on used softs instead. Pitting at the same time, Max – who had struggled in the wet phase, falling from third to fifth – enjoyed knowledge gleaned from his hapless team-mate Sergio Pérez, who had started from the pitlane on hards.

In the final 13 laps, on a drying track, Lewis had to nurse his rapidly degrading softs while Verstappen could push on his hards. The nation held its breath as the Red Bull first despatched Norris with five laps to go and then homed in on the Mercedes up front. Hamilton clung on by just 1.4s at the flag.

"When he has a sniff of winning a grand prix, that's when he's so strong," said his race engineer



Peter Bonnington, who celebrated with Lewis on the podium. "And as soon as I got told to 'shut up' I knew that it was game on."

when congratulating Hamilton after the race

Norris might be establishing himself as a new darling of the home crowd but when Hamilton took the lead, the cheers rang out from Club to Copse. The 164,000 Sunday crowd had come hoping for a home win and they were treated to one – but the ending of the drought gave it added poignancy.

"It's incredible to have that support because it really does lift you up when you see people and they're so generous when they're gifting you something or always just pumping out positive energy to you," said Hamilton. "So that's one thing that keeps me going."

been a better choice (as demonstrated by teammate Piastri) since the softs couldn't take the punishment. Verstappen pounced to claim second.

"I blame myself for not making some of the right decisions," said Norris. "I hate ending in this position and having excuses for not doing a good enough job. We threw it away in the final stop. Our decision to go onto the soft was the wrong one. Two calls from our side cost us everything, It's disappointing."

"We were too influenced by the fact Lewis went on soft," said team principal Andrea Stella. "We should have been more like, 'medium is the right tyre'. Pitting one lap later gives you the possibility to observe what your competitors do. But going on soft wasn't right for us..."



RACE DEBRIEF

F1 WORLD CHAMPIONSHIP ROUND 12

Russell led the race from pole until teammate Hamilton passed him on lap 18. Then, on lap 34 a water leak forced him to retire



Piastri and Russell undone by outside influences

After inheriting the win last time out in Austria, George Russell was in command at Silverstone and a genuine contender on pace, taking pole ahead of Lewis Hamilton and Lando Norris (the first British 1-2-3 in quali since Jim Clark, Graham Hill and Jackie Stewart in South Africa 1968) and leading away from the start. He started to edge out a gap to his Mercedes team-mate but Lewis closed the margin when the rain started and, on lap 18, passed his compatriot into Stowe.

Russell's charge came undone just a few laps later. An alarm displayed on his steering wheel dash warned of rising engine temperatures. A water leak meant he had no choice but to retire his car on lap 34.



"Everything was under control for me at the beginning in the dry, then in the very challenging conditions in the damp," said Russell. "Then I started losing power..."

Oscar Piastri qualified fifth and followed his team-mate through the cars ahead to run second in the latter part of the first stint. He was also one of the fastest on track in the final, dry phase of the race. But he was stymied by McLaren's decision not to double-stack its drivers at the first stop for intermediates.

In fairness the weather was Spa-like in that Stowe and Abbey were fully wet while Luffield and Copse were but damp, but Mercedes lost less ground by having Russell ease off behind Hamilton at the pit entry (even though George's later retirement rendered this academic). The extra lap cost Piastri around 18 seconds.

"We were a little greedy," reflected team boss Andrea Stella, "in that we didn't want to accept we would have lost time with the double stack. But effectively, sometimes you just have to be patient and accept you're going to lose time, but just do the right thing, rather than hoping one lap more isn't going to cost that much. Especially when the rain was pretty steady."

Pérez's form declared "unsustainable"

When contract renewal time approaches, a driver often gets nervous as self-doubt and the pressure to perform impacts their driving. When the deal is done, the confidence lift is just as evident. Red Bull must have hoped that committing with Sergio Pérez into next year would have helped his form.

Instead, Silverstone became the latest in a long line of poor performances and he left with criticism from team management ringing in his ears. In the six races since Miami, Pérez has scored 15 points while Verstappen has accrued 119. The stark contrast has opened up the real possibility of McLaren challenging Red Bull for the financially lucrative constructors' championship.

In Q1 qualifying, Pérez ran wide at a drizzly Copse and became beached in the gravel trap. While Verstappen ran wide at the same corner, damaging his RB20's floor, he was able to continue.

Last place on the grid became a pitlane start owing to power unit changes in parc fermé and Pérez achieved little in the race beyond acting



as the canary in the coal mine for his team mate, running an opening stint on hard tyres which informed Verstappen's tyre choice later on. Gambling on inters on lap 20 (like Ferrari's Charles Leclerc) proved a bust when the tyres wore out during the brief drying phase between the two wet periods. Pérez was classified two laps down in 17th.

"He knows it's unsustainable to not be scoring points," said Red Bull boss Christian Horner. "He knows his role and his target, so nobody is more eager than Checo to find his form again. We're acutely aware that to win the constructors' championship you need both cars scoring."

The incredible Hülk

It's not often the fastest Ferrari-powered car on the grid is a Haas. Nico Hülkenberg delivered a superb lap in Q3 – and was similarly strong in the

race - to start and finish in sixth place. It gave the team another decent haul of points and was the result of seven major updates for the VF-24 at Silverstone.

The upgrade package included a new floor with visible changes to the leading edge and fences (along with 'invisible' changes below), plus revised sidepod inlets and engine cover. P6 was Hülkenberg's highest starting position all year and the team's best-ever grid position at Silverstone.

It almost didn't happen: to save a set of intermediate tyres for each driver the team waited until the track dried in Q1, but the red flag caused by Sergio Pérez meant Hülkenberg and team-mate Kevin Magnussen only had one lap to get the job done. While Nico got through, Kevin fell short.

In the race Hülkenberg initially lost three places at the start after going off the track at Abbey, but had made his way back past Lance Stroll and Leclerc by lap 20. Hulk then moved back into his starting position of sixth following the retirement of Russell on lap 34.



RESULTS ROUND 12 SILVERSTONE / 07.07.24 / 52 LAPS



lst	Lewis Hamilton Mercedes	1h22m27.059s	
2nd	Max Verstappen Red Bull	+1.465s	
3rd	Lando Norris McLaren	+7.547s	
4th	Oscar Piastri McLaren	+12.429s	
5th	Carlos Sainz Ferrari	+47.318s	
6th	Nico Hülkenberg Haas	+55.752s	
7th	Lance Stroll Aston Martin	+56.569s	
8th	Fernando Alonso Aston Marti	n +63.577s	
9th	Alex Albon Williams	+68.387s	
10th	Yuki Tsunoda RB	+79.303s	
11th	Logan Sargeant Williams	+88.960s	
12th	Kevin Magnussen Haas	+90.153s	
13th	Daniel Ricciardo RB	+1 lap	
14th	Charles Leclerc Ferrari	+1 lap	
15th	Valtteri Bottas Stake	+1 lap	
16th	Esteban Ocon Alpine	+2 laps	
17th	Sergio Pérez Red Bull	+2 laps	
18th	Zhou Guanyu Stake	+2 laps	
Retirements			

George Russell Mer	cedes 33	3 laps/water	leak
Pierre Gasly Alpine		dns/gea	rbox

Fastest lap

Carlos Sainz 1m28.293s on lap 52

TYRE COMPOUNDS USED









CLIMATE

AIR TEMP

TRACK TEMP





DRIVERS' STANDINGS

1 Verstappen	255pts	11 Hülkenberg	22pts
2 Norris	171pts	12 Tsunoda	20pts
3 Leclerc	150pts	13 Ricciardo	11pts
4 Sainz	146pts	14 Bearman	6pts
5 Piastri	124pts	15 Gasly	6pts
6 Pérez	118pts	16 Magnussen	5pts
7 Russell	lllpts	17 Albon	4pts
8 Hamilton	110pts	18 Ocon	3pts
9 Alonso	45pts	19 Guanyu	0pts
10 Stroll	23pts	20 Sargeant	0pts
		21 Bottas	0pts



RACE PREVIEW BELGIAN GP

F1 WORLD CHAMPIONSHIP ROUND 14

26-28 July 2024 Spa-Francorchamps





THE MAIN EVENT

Few venues remain as evocative and challenging as sensational Spa-Francorchamps, that sweeping ribbon of former public roads in the picturesque Ardennes forest. This is a true drivers' circuit, demanding both commitment and finesse. A certain famous corner may now be "easy flat" but that doesn't diminish the input from the cockpit.

For engineers it's also a head-scratcher since two thirds of the lap reward a slippery low-downforce setup while the remaining third will chip away at lap time unless the car is planted. Weather can have an effect as well since glorious sunshine can give way to drizzle and downpour in the space of a few minutes. And, as ever, there's the question of the Eau Rouge/Raidillon section; widening the run-off on both sides has made losses of control here less costly but has it also made some drivers too cavalier?

2023 RACE RECAP

Max Verstappen won the sprint from pole, with McLaren's Oscar Piastri second for the first time in F1. It was a similar story on Sunday, albeit with a few plot twists: Charles Leclerc started from pole (Max having incurred a five-place grid penalty for taking on new gearbox components) and Piastri didn't make it past the first corner after a shunt with Leclerc's Ferrari team-mate, Carlos Sainz.

Sergio Pérez snatched the lead in the other Red Bull but Max was making his way up the field, picking off Leclerc to run second as the laps reached double figures. A slow pitstop for Pérez brought Max into range and on lap 18 Verstappen moved into a lead he would retain until the flag.

KEY CORNER: TURN 3/4

Eau Rouge, the left-hander at the very bottom of the hill, carries the most daunting reputation. But it's Raidillion - the right-left over the crest of the upward ramp – which is now arguably the most dangerous part of this complex since the cars are briefly unloaded here.



RACE DATA

Venue Circuit de Spa-Francorchamps

First GP 1950

Number of laps 44

Circuit length 4.352 miles

Race distance 191.414 miles

Lap record 1m46.286s Valtteri

Bottas (2018) F1 races held 56

Winners from pole 21

Pirelli compounds C2, C3, C4

CAR PERFORMANCE

Downforce level Medium **Cooling requirement** Low Full throttle 60%

Top speed 214mph

Average speed 137mph

TIMETABLE (UK TIME)

Friday 26 July

Practice 1 12:30-13:30

Practice 2 16:00-17:00

Saturday 27 July

Practice 3 11:30-12:30

Qualifying 15:00-16:00

Sunday 28 July

Race 14:00

Live coverage Sky Sports F1

Highlights Channel 4

THE PAST FIVE WINNERS HERE











2019

2023

Max Verstappen Red Bull

Max Verstappen Red Bull

2022

Max Verstappen Red Bull

2021

2020 Lewis Hamilton

Mercedes

Charles Leclerc Ferrari



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Although the gap between wins 182 and 183 stretched to nine years, McLaren remains one of F1's most successful teams. From humble beginnings in a workshop with a dirt floor it set new benchmarks for engineering and innovation through many eras, surviving and thriving despite the death of founder Bruce McLaren in a testing accident in 1970.

While the company has also contested - or supplied cars for - various sportscar categories and single-seater disciplines, this book focuses on F1 machinery. Starting with the 1966 M2B, the book covers them all – including the short-lived M9A and abortive MP4-18 – in glossy 224-page hardback format. As well as evocative period photography, there's plenty of studio imagery from regular GP Racing contributor James Mann. The author should know what he's talking about as well...









ORIENT STAR MODERN SKELETON

Price £794.99-£899.99 orientwatch.co.uk

A favourite among mechanical watch — the latter of which is offered in a aficionados since its launch 10 years ago, Orient Star's Modern Skeleton continues to evolve with the launch of four new models. Changing tack from what it describes as the "stately" colour scheme of old, the watch brand now offers dials in metallic shades which co-ordinate rather than contrast with the bezel and case. The 10th anniversary models arrive in silver, ivory, champagne and black

limited edition of 600 pieces.

Based on a mechanical, handwound in-house calibre F6F44 movement which is partially visible through cutaway sections in the dial and through the transparent caseback, the new models are waterresistant to 100m. The champagne and ivory models feature pink gold and yellow gold bezels to co-ordinate with the metallic effect of their faces.

PORSCHE 917K

Price £789.99 uk.pocher.com

Yes, this is a Formula 1 magazine but we'll make an exception for the Porsche 917K, one of the most audacious, incredible and hairy racing cars of all time. Pocher, pioneering crafter of high-quality models, has unveiled a sumptuously detailed 1:8 scale replica of the 917K in the Gulf livery with which the car is almost

indelibly associated.

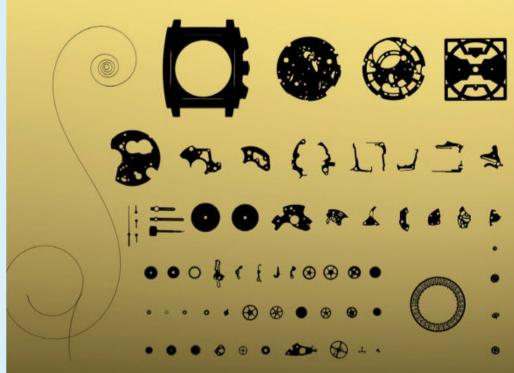
Metal, rubber and textiles are deployed along with high-quality plastics to render the car in exquisite detail. Under the external surfaces the chassis and interior are also meticulously rendered. It's half a metre long and weighs 6kg so you will require a sturdy shelf.











TAG HEUER MONACO

Price £9,850 tagheuer.com

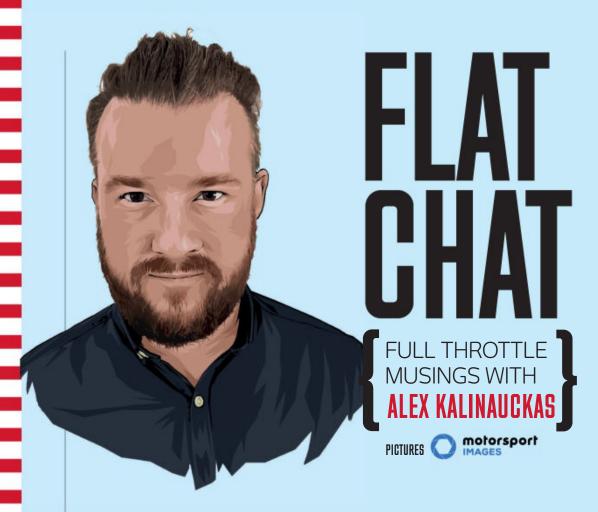
enough to be paid to wear one. The rest of us mere mortals must find the thick end of £10,000 down the back of the sofa. Originally introduced in 1969, the TAG Heuer Monaco has had an almost lifelong association with motor racing thanks to Steve McQueen sporting one during the film Le Mans. The square shape and blue dial were daringly outré at the time and successive generations have built on this tradition of distinctiveness.

The latest model features a titanium case with a skeleton dial showcasing the workings of the



Calibre Heuer 02 movement. "Not just a tool for measuring time but a companion for those who live on the edge," say its makers. A complimentary travel pouch is included with orders from TAG Heuer's own website.





Afterwards Sainz was moved to say: "We have lost two or three months of performance gain. Clearly, we haven't taken the right calls recently". He described the later floor in particular as "undrivable" on high-speed tracks, putting Ferrari back to the Imola square one.

Silverstone could also be

SILVERSTONE COULD ALSO BE VIEWED AS ALARMING ON ANOTHER KEY AREA OF FERRARI'S STORY IN RECENT YEARS

viewed as alarming on another key area of Ferrari's story in recent years: how its strategy calls have often been shambolic, particularly in the 2022 campaign where it challenged for the title. Much work has gone into improving on this under new team boss Frédéric Vasseur, which has largely paid off. Team insiders place a premium on having a better, predictable car that doesn't destroy its tyres – as the SF-24 is – as a vital factor in making in-race tactical calls easier.

To end up on that first, ultimately devastated set of inters at Silverstone, Leclerc was led to believe the race's first rainstorm was going to last longer than it did. He therefore made the call to pit based

on incorrect information.

But it cannot simply be said that Ferrari has cracked and reverted to its previously panicked operation. Because Sainz and his crew were able to understand that "survive" was the key in staying out longer on slicks initially and then pitting for inters when the second rainstorm struck. Sainz's pace was so good he loomed behind Verstappen at one stage.

That Verstappen drily surmised "even Carlos rocked up at the party, so I was like, 'geez, this is a really bad afternoon'" is quietly devastating for Ferrari. It's just slow through this middle phase of the campaign.

The good news is this is fixable. Again, how McLaren and Mercedes have progressed is key. As is the feeling that Red Bull has hit something of a development ceiling in this era with the RB20.

But 2026 is fast approaching, with all teams soon set to abandon development on their current cars and eke their life out through 2025 evolutions. Then, Hamilton will be in Ferrari red and is already fielding questions about his choice that enrage him on bad days and leave magnanimity as his only option for replies on good ones.

To avoid the beginning of the seventime world champion's new era being an embarrassment, Ferrari just must act fast and fix its current car.

TIME FOR FERRARI TO ACT FAST

"We need to survive this."

Ferrari's message to Charles Leclerc as he disastrously ran intermediate tyres in still largely dry conditions during the recent British Grand Prix. It sums up the Italian team's mid-season perfectly.

Having begun the campaign as Red Bull's closest challenger and with fine wins when Max Verstappen's squad fizzled off-boil in Australia and Monaco, Ferrari is now enduring a spell as Formula 1's fourth fastest team. McLaren has leapt so far ahead it can now trade bodywork with Verstappen mid-race, should anyone be so aggressively inclined. And leaving Silverstone, Mercedes had matched Ferrari's win total having looked hopelessly lost in the season's early rounds.

Ferrari only has itself to blame. Its Imola upgrade worked well enough, but the subsequent sidepod, floor, diffuser and rear wing update



Leclerc's first run on inters at Silverstone was symptomatic of Ferrari's current struggles

package brought to Barcelona was another catastrophe. There, the SF-24s were bouncing through the track's high-speed turns — robbing Leclerc and Carlos Sainz of confidence and precious time as they fought to find a way through regardless. The sensation repeated in Austria and then again at Silverstone's properly high-speed stuff. By then, Ferrari had realised it had to compare data directly with the Imola specification via fitting that to Sainz's car for Friday practice. The Scuderia concluded those parts were faster and so ran with them for the British race.









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