Russell dominates as title decided





HUGO Eyewear available at Specsavers

Frames worn by Yuki Tsunoda





Two champions crowned at the pinnacle of motorsport

Congratulations to Max Verstappen on becoming a four-time Formula 1 world champion. It's been an up-and-down season for the Dutchman and Red Bull, but it's hard to argue that the crown has gone to the wrong driver. Even if Lando Norris wins the final two grands prix, he'll still have 'only' five victories to Verstappen's eight.

It seemed a little unfortunate that Verstappen decided to suggest he'd have won the championship in a Ferrari or McLaren, on the very weekend that he clinched the title. We'd argue that would require some changes of team strategy and for him to have had a weaker team-mate than either Norris or Charles Leclerc faced in 2024 to be true, but the interesting part is that the 27-year-old felt the need to respond to Zak Brown's comments at all...

In a topsy-turvy campaign, Mercedes was surprisingly dominant in Las Vegas last weekend (page 16). George Russell looked in command for much of the race, while Lewis Hamilton bounced back from his poor Interlagos showing and mistakes in qualifying to make it a 1-2. It all bodes well for a proper title contest in 2025.

Thierry Neuville has had to wait a long longer for his breakthrough. But the 36-year-old Belgian finally became World Rally champion at Rally Japan last weekend. Tom Howard explains how on p32.

• We have some big news on the future of Autosport magazine this week, as we head towards our 75th birthday in 2025. Please turn to p15 to hear some of our exciting plans for the new year.







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Mark Thompson/Getty Images/Red Bull Content Pool; McKlein/Motorsport Images

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PIT + PADDOCK

Lamborghini out of WEC as Mercedes returns to Le Mans

WEC

Lamborghini has quit the World Endurance Championship – for the time being at least. The Italian manufacturer will contest neither the Hypercar class with its SC63 LMDh nor LMGT3 with the Huracan GT3 EVO2 next season in what it is describing as a "pause" in its participation at the highest level of sportscar racing. At the same time, its Iron Lynx factory team is to bring Mercedes into the WEC – and back to the Le Mans 24 Hours for the first time since its catastrophic appearance in 1999.

A statement from Lamborghini followed the publication last week of the 2025 WEC entry list. It explained that for the SC63, co-developed by the Lamborghini Squadra Corse in-house motorsport department and Ligier Automotive, the focus next year will be the IMSA SportsCar Championship in North America.

The new rule for the coming season demanding manufacturer teams must field two entries in Hypercar was cited as the reason for the realignment. It stated that the revised sporting regulation "changes the terms on which Lamborghini entered the championship this year and is no longer aligned with the company's strategy".

"Lamborghini has therefore evaluated its options and elected to sit out the 2025 FIA WEC while remaining committed to the SC63 development by continuing in IMSA," read its statement, which pointed to a desire to return to the WEC at an undisclosed point in the future. "Competing at the highest level is an honour for Lamborghini Squadra Corse and remains an ambition for the years to come."

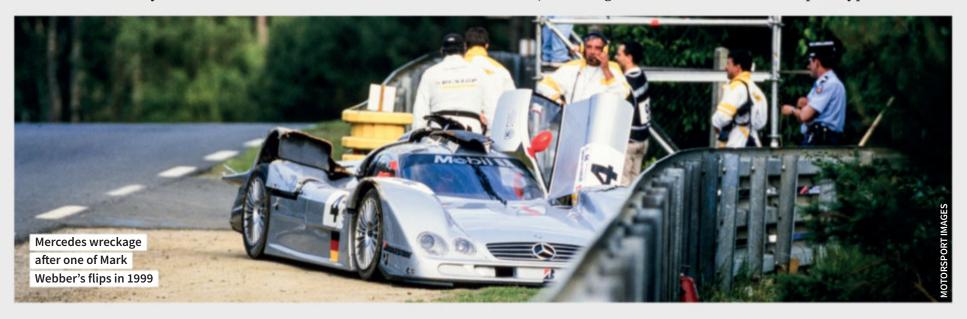


The decision will also allow it to focus on development of the GT3 race version of the Temerario road car unveiled in the summer. The new car, being developed in conjunction with Podium Advanced Technologies, is scheduled to start racing with customers in 2026.

Lamborghini's SC63 programme was under review after a difficult maiden season in which the high point was a reliable run to 10th place at the Le Mans 24 Hours in June. Rouven Mohr, the marque's chief technology officer, had revealed at the Bahrain WEC finale earlier this month that all options were on the table for the SC63, including its

termination. He hinted at a downscaling, claiming that Squadra Corsa had neither the financial nor technical resources to field two cars in WEC and one in IMSA.

Friday's announcements from the WEC and, just minutes later, Lamborghini were preceded by big news from the Italian Iron Lynx organisation, which masterminded both arms of the manufacturer's WEC attack as well as LMDh and the GT3 campaigns in IMSA. It confirmed a link-up with Mercedes to compete in LMGT3 next year with the AMG GT3, 26 years after the Three-Pointed Star's disastrous campaign with the CLR LM-GTP prototype.





The switch of manufacturer for Iron Lynx, which formerly competed in GTE Am in the WEC with Ferrari, supposes an irrevocable split with Lamborghini. Priority was given to Hypercar participants when the WEC was putting together the entry for the new LMGT3 class ahead of this season. That status has now been removed.

Lamborghini made no mention of Iron Lynx in its statement, and Iron Lynx no hint of Lamborghini in the announcement of its move to Mercedes. A switch of team for Lamborghini in North America appears likely, as does an upgrade of its programme from the one entry for the five long-distance rounds that make up the IMSA Endurance Cup. It has confirmed a desire to enter an SC63 in the full season and has hinted that it could have two at the Daytona 24 Hours season-opener in January.

Lamborghini's disappearance from the Hypercar entry list along with no return for Isotta Fraschini after it quit the WEC post-Interlagos in the summer, means that the car count has gone down from 19 to 18 even with Aston Martin's arrival (see right). With 18 entries once again in LMGT3 – Merc is a straight swap for Lambo – it means a 36-car entry at a time when the organisers had made room for 40 cars.

GARY WATKINS



Brit Tincknell gets the nod for Aston Martin Valkyrie debut

WEC

Two-time Le Mans 24 Hours class winner Harry Tincknell will race Aston Martin's new Valkyrie Le Mans Hypercar in the World Endurance Championship next year. The Briton has been confirmed by its The Heart of Racing factory squad along with team regular Alex Riberas.

Tincknell has joined the Hypercar class attack run by a team to be known at Aston Martin THOR after playing a key role in development of the Valkyrie AMR-LMH since its first run in July. He fulfilled testing duties in his role as a driver contracted to Multimatic Motorsports, which has co-developed the AMR-LMH and will also be a key component of the Brackley-based operation running the cars in the WEC.

The Briton, 33, described the chance to return to a manufacturer with which he took GTE Pro honours at the Le Mans 24 Hours in 2020 as "an absolute honour" and "a pinch yourself moment". He went on to say that he expects the V12-powered car to become a "firm fan favourite".

Tincknell has been with Multimatic



since joining the Ford GT programme in 2016, and this season raced for its GT Daytona Pro team running the Ford Mustang GT3 in the IMSA SportsCar Championship. He combined that programme with racing Proton Competition's customer Porsche 963 LMDh in the WEC.

Riberas moves over from THOR's GTD Pro campaign in IMSA. The Spaniard, 30, has been with the US entrant since it raced under the Team Seattle banner back in 2014.

Aston made the announcement of the first two drivers for the WEC programme last week at the same time as confirming that the Valkyrie's race debut will come in the WEC season-opener in Qatar in February. Its IMSA debut in the GTP class has been delayed from the Daytona 24 Hours in January to the Sebring 12 Hours in March, though it offered no explanation. It is thought to be linked to the requirement for manufacturers to run two cars in WEC.

Meanwhile, Ben Barnicoat has been nominated as the professional in one of the two Lexus RC F GT3s run by the French Auto Sport Promotion team in WEC. The Briton has been a Lexus works driver since 2022, and claimed the IMSA GTD Pro title the following season driving for Vasser Sullivan Racing.

Robert Kubica continuing in AF Corse's customer Ferrari 499P LMH has been confirmed, as expected, along with that of factory driver Yifei Ye. They will share with Brit Phil Hanson, who was announced late last month.

GARY WATKINS

Breakthrough for Cadillac F1 proposal

FORMULA 1

Formula 1 has agreed a deal in principle with General Motors and its Cadillac brand to enter the series in 2026 as an 11th team. The deal will mean Cadillac joining as a customer squad in 2026, while developing its own power units for 2028, using the existing Andretti Global project in Silverstone as its backbone.

GM officials were in attendance at last weekend's Las Vegas Grand Prix to discuss a deal with F1 and Liberty Media over an entry. The American manufacturer had long been working with Andretti Global on a prospective F1 bid, which was accepted by governing body the FIA, but was refused entry by F1 itself, which said the team would not add enough value to the series.

There was also tension between the organisation's figurehead Michael Andretti and F1 executives over Andretti's aggressive campaigning to force his way in, which



included involving US Congress and the Department of Justice. But in the wake of Andretti ceding control to majority owner Dan Towriss in September, Towriss and GM continued their efforts to present a more compelling bid with a bigger commitment from the American OEM as a bona fide constructor, and it has now been approved in principle.

"With Formula 1's continued growth

plans in the US, we have always believed that welcoming an impressive US brand like GM/Cadillac to the grid and GM as a future power unit supplier could bring additional value and interest to the sport," said outgoing Liberty Media CEO Greg Maffei. "We credit the leadership of GM and their partners with significant progress in their readiness to enter Formula 1."

FILIP CLEEREN

Red Bull summit on Perez to follow Abu Dhabi GP

FORMULA 1

Sergio Perez's future at the Red Bull Formula 1 team will be decided following a shareholder meeting after the season-ending Abu Dhabi Grand Prix.

The beleaguered Mexican has hung onto his seat this year despite enduring a dismal season that has left him 251 points adrift of his team-mate, newly crowned 2024 drivers' champion Max Verstappen. Despite a string of lacklustre performances, with Perez's lack of points all but ending Red Bull's hopes of the constructors' title, he has publicly enjoyed the backing of the team, albeit with clear calls that results need to improve.

Perez appears to have this weekend's Qatar GP and the final race of the year in Abu Dhabi to prove he deserves a drive in 2025, with a number



of options open to Red Bull and sister team RB.

"There will be a meeting after Abu Dhabi, and the result of this meeting will be presented to the shareholders and they will then decide what the driver situation for both teams will look like for next year," team

advisor Helmut Marko told Austrian broadcaster ORF. "I don't know the exact gap now, but I think Checo has over 200 points less than Max. And then it's clear that the constructors' title is no longer possible... So if Sergio was anywhere near [Lewis] Hamilton and [George] Russell or Ferrari or even McLaren, then we would be well ahead again."

Red Bull is in the unique position of having four contracted drivers on the grid at any one time, a situation that only intensifies the pressure on Perez. RB pairing Yuki Tsunoda and Liam Lawson will both fancy their chances of ousting Perez, with the Japanese testing the Red Bull after Abu Dhabi, and the New Zealander arguably much more likely to land the seat full-time.

There is also the intriguing possibility of Red Bull pulling off a move to land Franco Colapinto from Williams, who has caught the eye since being promoted to a drive earlier this year, although recent crashes have dented the Argentinian's reputation.

MARK MANN-BRYANS



IMSA Who's this promising Hypercar rookie, then? In the build-up to clinching his fourth successive Formula 1 title last weekend, Max Verstappen ventured to the Las Vegas Motor Speedway 'roval' last Tuesday for half an hour of running in an Acura ARX-06, as part of Honda's 'Hybrid Heroes' celebration. It was his first taste of GTP machinery from the IMSA SportsCar Championship, and Verstappen said that he would like to race in the Daytona 24 Hours: "I know that when I want to do it, I want to go there and try to win it, be really competitive. The only way to do so is by doing some proper testing and get really well prepared, which is not possible at the moment. But, who knows? Maybe in a few years' time. I'll still be young-ish and I'll be able to drive the cars." Photographs by HRC

Anger over plan to offset cost cap for Audi

FORMULA 1

Haas team principal Ayao Komatsu reckons that "everybody" is against the planned cost cap offset for Audi for its 2026 entry to account for Swiss salary levels, because it risks opening a can of worms.

The higher average pay in Switzerland means that the current Sauber team operates at a theoretical disadvantage regarding funds available for development compared to teams employing an equivalent-size workforce in the UK and Italy. This has prompted the FIA to table an amendment to the 2026 cost cap regulations to accommodate Swiss wage data and cost of living from the Organisation for Economic Co-Operation and Development.

Komatsu revealed that the cost cap offset had not been finalised, largely because the nine other teams are against the move, and suggested that the FIA had taken a one-dimensional view. "Why does a team



based in Switzerland have an exemption?" he said. "Everybody chooses where to set up the team. Between London and Oxford and north of England, prices are different. So where do you stop? Where do you draw the line? In F1 Commission meetings, apart from Sauber funnily enough, everybody's against it. So, I don't know why the FIA is just completely pushing for it."

Komatsu warned that the FIA may create further problems with tweaks to the financial regulations, and implored the governing body to keep it simple.

"In terms of Italy, there's a huge tax benefit for the first [four] years," Komatsu continued. "A senior engineer going from UK to Italy, there is certain financial big benefit in Italy. So are you compensating for that? Of course not. Unless you look at every single dimension, it's very, very difficult to make it completely fair."

JAKE BOXALL-LEGGE



Rovanpera to lead expanded five-car Toyota team

WRC

Toyota will expand its World Rally Championship entry to five cars at selected events next year following confirmation that Sami Pajari will join the team for a maiden full-time Rally1 campaign.

Pajari, who clinched the WRC2 title last weekend in a Toyota, will join the newly crowned 2024 WRC manufacturers' champion in a line-up headlined by the full-time return of two-time world champion Kalle Rovanpera following his decision to contest a partial season this year.

Elfyn Evans, winner of last weekend's Rally Japan season finale, will stay on for a sixth consecutive year at Toyota alongside Takamoto Katsuta and eight-time world champion Sebastien Ogier, who is set for another part-time campaign.

Pajari had been tipped to land a role in Toyota's Rally1 programme after impressing in three GR Yaris Rally1 outings with the team this year. The 22-year-old Finn finished fourth on his debut in Finland, where he scored a maiden stage win, sixth in Chile, and was running sixth in Central Europe before retiring. "This is a dream come true for me and I'm really grateful to Toyota Gazoo Racing for giving me this amazing opportunity," he said.

Team principal Jari-Matti Latvala added: "We are really happy to continue with the same drivers who have been performing strongly for us over recent seasons, and to have more drivers strengthening our efforts for the full championship. Sami has made great steps this year and we

are confident that he's ready to move up to the highest level."

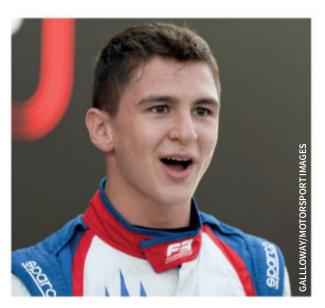
After taking four of Toyota's eight wins this year, Rovanpera said: "This year has been quite different for me, driving a few different cars and still winning some rallies at the same time. It's been a nice year, but it's also given me a lot of motivation to return for the full season."

It is anticipated that Ogier will contest a more traditional partial campaign after competing in 10 of 13 rallies in 2024.

Latvala will compete in the FIA European Historic Rally Championship, driving his own Toyota Celica ST185. As a result, ex-factory Toyota driver and four-time world champion Juha Kankkunen has been named as deputy team principal to Latvala.

TOM HOWARD

F3 champ Fornaroli steps up for early debut at Rodin



FORMULA 2

Recently crowned Formula 3 champion Leonardo
Fornaroli is to get an early
F2 debut when he steps
up for the final round of
the 2025 season at next
week's Abu Dhabi finale.

The Italian (left) will slot into the vacant seat at Rodin Motorsport in place of Zane Maloney. The Barbadian will have his swansong F2 event in Qatar this weekend before heading to Brazil for his Formula E debut with Lola-Yamaha Abt in Sao Paulo, which clashes with the Yas Marina F2 finale.

"It will be a big challenge for me because this is my first time in the F2 car without any practice so I have a lot to learn, but I can't wait for it," said Fornaroli, who already has a deal with Invicta Racing for the 2025 F2 season.

Rodin has also put a

driver in place for next year in F2 in recent days, with Australian F3 ace Christian Mansell returning to the team with which he raced in British F4 and GB3 in its former guise of Carlin. Mansell is contesting the final F2 rounds of this year as a taster with Trident.

British F3 regular Cian Shields makes his F2 debut this weekend in Qatar with AIX Racing, and will also be on board in Abu Dhabi.



Bell hangs up his helmet as a pro

SPORTSCARS

Rob Bell is drawing a line under his successful sportscar career at the age of 45. The winner of an overall Blancpain GT Series Endurance Cup crown and two Le Mans Series class titles is hanging up his helmet to take up a management role with McLaren.

The Briton will become sporting director of the motorsport arm of McLaren Automotive after 13 years on its books as a factory driver. Bell moves into the job as part of a management reshuffle in which Ian James will take overall control alongside his managing directorship of McLaren in Formula E.

"I'm stepping down as a McLaren factory driver and definitely retiring from professional racing, though I'm not ruling out the odd one-off," said Bell. "I'm really happy with my decision: I've had some good times, enjoyed it a lot and had some decent success, so I've ticked a lot of boxes.

"I always said that 45 would be a good age to stop, so long as I had something else to do. The stars have aligned at McLaren to allow it to happen the way I wanted."

Bell revealed that "the race track will primarily be my office", and that one of his key roles will be liaising with McLaren's customers in the GT3 and GT4 categories as well as the one-make Trophy series, which is expanding into North America next year.

Bell cited his 2016 Blancpain title, won in partnership with Shane van Gisbergen and Come Ledogar driving a McLaren 650S GT3 for the works Garage 59 squad, as the most significant achievement of his career. "That was my biggest success because the series was so competitive," he explained. "But in terms of memories the fondest ones are probably from my time driving for Jim McWhirter."

Bell described racing McWhirter's Ferrari 430 GTC for Virgo Motorsport and then the JMW team established by the car owner as a "real purple patch". He took back-to-back LMS GT2 titles in the car with Virgo in 2007 and 2008, and then missed out on a third with the same car run by JMW Motorsport by a single point in 2009. GARY WATKINS

WICKENS TO RACE CORVETTE WITH HAND CONTROLS

IMSA

Robert Wickens will race in the IMSA SportsCar Championship next year in a Chevrolet Corvette Z06 GT3.R equipped with hand controls. The Canadian will contest the five sprint rounds of the series with DXDT Racing.

Wickens, 35, is graduating to the GTD class of the premier IMSA series after three seasons racing Hyundai TCR machinery with Bryan Herta Autosport on the support bill in the Michelin Pilot Cup. Wickens has taken the class title in 2023 since returning to the cockpit in the wake of life-changing injuries sustained in an IndyCar accident at Pocono in 2018.

"This is the opportunity I have been seeking for quite a while now, and it wouldn't be possible without the support from David Askew at DXDT, Bosch [which has developed the hand controls] and General Motors," said Wickens (below). "To tick that box with a limited schedule in 2025 is a huge step towards achieving my goals."

No team-mate for Wickens has been announced. The entry from DXDT, which is expanding from GT World Challenge America, will be raced in the enduros by factory driver Charlie Eastwood, Salih Yoluc and Alec Udell.

GARY WATKINS





Mini star Hall makes BTCC move with Cupra

BTCC

The gripping 2024 title fight notwithstanding, the British Touring Car Championship has copped some flak of late for declining grids and a perceived barrier to entry to promising young talent. The latest liaison confirmed for 2025 hints at a reversal of fortune on both fronts.

Exciting Mini Challenge runner-up Max Hall is stepping up to race a Cupra Leon for Un-Limited Motorsport as that squad expands from its single-car BTCC bow in 2024 to field two entries. The West Country racer will be just 18 years old when he lines up for the first race, after a single season in the elite JCW series of the Mini 'pyramid'.

The deal has been put together following two test sessions, both at Brands Hatch. "I am so excited," said Hall. "The tests were really encouraging. The car is really nice to drive – it's a purpose-built race car. After finishing runner-up in Mini Challenge as a rookie, there was not a lot of point doing it again. You've got to move onto bigger things."

Un-Limited boss Bob Sharpless added: "He's done well in the testing with competitive lap times, and his family are really keen. They want to do a lot of testing for the winter and really push for the Jack Sears title."

The smart money is on Un-Limited's 2024 driver, Daryl DeLeon, potentially making a big-time move to the West Surrey Racing BMW squad. WSR chief Dick Bennetts confirmed that DeLeon, who became something of a cult hero with the crowds for his spirited performances, is one of "several drivers" the team has been in contact with.

In turn, speculation



suggests that Dexter
Patterson, who detoured
into GT4 in 2024, is in line
for a return to the Cupra
weaponry he drove with
Team Hard in 2023. The Scot
has tested with Un-Limited
at Donington Park, and
Sharpless described him
as "quite a strong contender
at the minute".

Dan Zelos, who beat Hall

to claim his third Mini title before starring on his BTCC entry in the final three rounds with an Excelr8 Motorsport Hyundai, said that "the budget jump for a full season is absolutely massive, but we've had positive discussions with current sponsors and potentially some new ones".

MARCUS SIMMONS

Four-time champion Quintarelli calls time on career

SUPER GT

Four-time Super GT champion Ronnie Quintarelli has announced that his glittering career in the series will come to an end after next month's finale at Suzuka.

The 45-year-old Italian is calling time on a 20-year stint in the Japanese series, the bulk of which he has spent as a factory Nissan driver. Quintarelli described his decision to step down as "very difficult" but added that he felt it was the "right moment to step back and let a new legacy begin with a new generation of drivers".

After taking the 2004 All-Japan Formula 3 title, Quintarelli made his Super GT debut in 2005 with the SARD Toyota team, which he initially twinned with Formula Nippon (now Super Formula) before being snapped up by Nissan in 2008. From 2009 he focused

exclusively on Super GT, and it was with the new MOLA team in 2011-12 that he won his first titles together with Masataka Yanagida.

A further two crowns followed in 2014 and 2015 after he had stepped up to the factory NISMO team, with Tsugio Matsuda as his team-mate. Quintarelli and Matsuda remained partners aboard the flagship #23 car until this season, when Katsumasa Chiyo stepped up to replace Matsuda.

But the enforced switch from Michelin to Bridgestone tyres following the French marque's GT500 exit last year has led to a difficult season: Quintarelli and Chiyo sit eighth in the standings with a pair of second-place finishes as their best results.

Quintarelli's retirement paves the way for Nissan to reform the combination that finished runner-up in both the 2022 and 2023 seasons, Chiyo and Mitsunori Takaboshi, aboard the #23 car in 2025.

Takaboshi has spent this year in the sister car with newcomer Atsushi Miyake, with the duo sitting fifth in the standings.

JAMIE KLEIN





TCR SPAIN British TCR battler Jenson Brickley was denied in his hopes for the Spanish title at Barcelona last weekend. Instead, it was highly rated Argentinian youngster Ignacio Montenegro (pictured) who added the crown to his recent Motorsport Games gold medal at the wheel of his ALM Motorsport Honda Civic Type R. Brickley took his Cupra to ninth in race one, with third place for Montenegro lifting him into the points lead. Montenegro clinched it with a fourth in race two, to Brickley's 10th. Mike Halder won both races in his Honda. Photo by TCR Spain/Carlos Casimiro

Malcolm Gartlan 1939-2024

OBITUARY

As head of the British Saloon Car Championship team that carried his name, Malcolm Gartlan, who has died at the age of 85, was a highly respected figure among aficionados of the hairy Group 5 and Group 2 tin-tops of the late 1960s and early 1970s.

Malcolm Gartlan Racing was synonymous with the late Australian Brian Muir, who drove the team's Chevrolet Camaro Z28 to the title in the big class of the BSCC in 1971 and was a mainstay of the squad until it pulled out at the end of 1973, at the dawn of the production-based Group 1 era.

Gartlan, a builder and property developer from Pershore, had competed in rallies and sprints before turning team owner, initially in sportscars with Lotus Elan and then Ford GT40 machinery. For 1968, he entered the BSCC with a Ford Falcon for David Hobbs. Two years later came a full attack on the series with Muir in the Camaro. Although they lost the class crown to Frank Gardner and the Ford Boss Mustang, they triumphed in the Tourist Trophy round of the European Touring Car Championship at Silverstone.



Until the end of 1973, Muir would claim a total of 22 race wins with Gartlan's cars, and not just in V8 Americana. In 1972, the driver who went by the nickname of 'Yogi' was victorious in the Paul Ricard 6 Hours ETC round, sharing a Ford Cologne Capri RS2600 with John Miles. Gartlan's team bowed out with Muir finishing class runner-up to Gardner (now in a Camaro) at the wheel of a BMW 3.0 CSL Alpina (above).

Gartlan was unable to acquire the backing necessary to operate at his usual standards for the start of the Group 1 era in 1974, but retained a close interest in the sport.

ROBB GETS JHR SEAT

IndyCar nomad Sting Ray Robb will line up with his third different team in three seasons next year.
The Idahoan, who raced with AJ Foyt Enterprises this season, has returned to Juncos Hollinger Racing, the team with which he won the Indy Pro 2000 title in 2020 and took his first steps in Indy Lights in 2021.

PALMOWSKI'S F1A CHANCE

GB4 Series runner-up Alisha
Palmowski will step up to currentspec F4 machinery for the first time
this weekend. The 18-year-old
Lancastrian has been selected as
the wild card for the Qatar Grand
Prix-supporting F1 Academy round,
where she will fill the cockpit of the
'extra' car run by Prema Racing.

BRITS IN MIDDLE EAST F4

Palmowski's predecessor in the F1 Academy wild card seat, Ella Lloyd, is one of the Brits on the entry list for the three-round Formula Trophy Middle East series for F4 cars, which kicks off this weekend at Dubai Autodrome and then supports the Abu Dhabi GP and Gulf 12 Hours. Lloyd lines up with Xcel Motorsport, while Ginetta Junior runner-up Chase Fernandez, who contested two late-season Spanish F4 rounds, is with the sister X-GP team. Other past and present British F4 racers entered include Gustav Jonsson, Jimmy Piszcyk, August Raber, Kai Daryanani and Fu Yuhao.

TITLE FOR BARRICHELLO

As well as racing in the Brazilian Stock Car series, ex-Ferrari F1 hero Rubens Barrichello has been a busy chap in 2024. He recently claimed victory in the Porsche Endurance Challenge series, after he and co-driver Werner Neugebauer finished 13th in the finale at Barrichello's home track of Interlagos in a dramatic race that included a pitstop penalty and a puncture. He then moved on to the Stock Car round at Goiania last weekend. Son Eduardo is one of nine title contenders with one round to go, as are Felipe Massa, Ricardo Zonta and Daniel Serra.



ROUND 23/24

Losail Length 3.367 miles Number of laps 57 DRS detection DRS zone 12 13 14 15 16 17 18 19 10 11 15

UK START TIMES

Friday 29 November FP 1330 Sprint Qualifying 1730

Saturday 30 November Sprint 1400 Qualifying 1800

Sunday 1 December RACE 1600

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TYRE ALLOCATION













PHOTOGRAPHY

motorsport IMAGES

CHAMPIONSHIP POSITIONS

Drivers					
1	Verstappen	403			
2	Norris	340			
3	Leclerc	319			
4	Piastri	268			
5	Sainz	259			

Constructors 1 McLaren 608 2 Ferrari 584 3 Red Bull 555 4 Mercedes 425 5 Aston Martin 86



LOSAIL STATS

Previous winners

2023 Max Verstappen Red Bull2021 Lewis Hamilton Mercedes



2023 POLE POSITION Max Verstappen 1m23.778s

POLE LAP RECORD

Max Verstappen

1m23.778s (2023)

RACE LAPRECORD Max Verstappen 1m24.319s (2023)



Podiums Max Verstappen 2

Max verstappen	2
Lewis Hamilton	1
Oscar Piastri	1
Fernando Alonso	1
Lando Norris	1



The job Norris still has to do

The McLaren driver needs to end the 2024 F1 season on a high, to enforce an intra-team pecking order and build winning momentum to carry into next year

ALEX KALINAUCKAS

omething important happened for McLaren and
Lando Norris at the end of last weekend's Las Vegas
Grand Prix. That's in addition to conceding the
world championship to Max Verstappen, which
had really gone in the wild Brazilian wetness
and the Dutchman's brilliance there.

This was Norris's lifting of his pace in his final stint. His delta tracks remarkably closely with the charge that Lewis Hamilton produced to such acclaim while behind George Russell as the end of the race approached. Finally, Norris had got the MCL38 working around its tendency to be "killing the fronts" on low-downforce tracks. He did this by pushing the tyres harder from earlier, and at times bullying in oversteer to try to reach the critical tyre temperature window he'd hitherto generally not attained.

His out-lap speed compared to his first was almost a second quicker, with the need to treat the rubber gently here even more urgent given the graining severity on the cool surface. He also ignored a McLaren differential settings adjustment around the wind picking up as the stint wore on. This was cut short by McLaren pitting Norris for soft tyres to successfully chase the fastest lap point. That could yet be critical in its constructors' fight against Ferrari come the Abu Dhabi finale next week.

"We spent two stints just graining front tyres, and at the third stint, Lando tried something extreme," explained McLaren

"McLaren's 'Papaya Rules' requirements to favour the Briton have been called off"

team boss Andrea Stella. "And it worked!"

Helping McLaren shed its occasionally severe graining issue when such circumstances arise – something Norris feels has plagued the team's packages since he joined the grid in 2019 – will be critical in the expected 2025 multi-team title battle.

Not spending the first quarter of that season as he did in 2024, with what he called the fourth best team, and instead having "a car we think we can win a championship with from round one", would avoid the uphill slog he faced once McLaren had upgraded its MCL38 into victory contention in May's Miami GP. But, as Verstappen has just brilliantly proved, off weekends such as Vegas cannot be included in a successful campaign.

This is why that last Vegas stint is so mentally important for Norris and McLaren. But he has a chance to make further

important personal gains for 2025 even as the current campaign wraps up. Because, for all his typically downbeat assessments post-race in Vegas, 2024 can only go down as a positive for Norris. He magnanimously said, about Verstappen, that "I'll probably look back on a lot in 20 years or 30 years – that I fought such a driver". But so too will Norris be able to regale of his Miami breakthrough win and his subsequent demolitions of the F1 pack at Zandvoort and in Singapore. He can also say he pushed Verstappen as aggressively as the Dutchman's uncompromising style requires and came out on top – as he did in Mexico.

Over the final two rounds to come in Qatar and Abu Dhabi, Verstappen will not give up on his quest to end the season on 10 victories – and Red Bull is still lacking a dry-weather win since Spain in June. Here, then, is the perfect chance for Norris to lay down important markers ahead of 2025.

Verstappen himself takes this approach, and it will be very interesting to see how he and Norris fare around the changes to F1's racing guidelines expected this weekend. Any further wheel-to-wheel battle will live pointedly in the memory of each over the coming winter break. But Norris also needs to leave 2024 with the intra-McLaren momentum, too. Its 'Papaya Rules' requirements to favour the Briton have been called off, which means Oscar Piastri is unleashed to attack his team-mate in the same vein as in the Hungarian and Italian GPs, if he can.

But there's one final reason why a golden end to a season is critical for Norris's 2025 hopes in the context of it avoiding such a start next time. It all centres on the momentum such a streak can provide. Verstappen launched off a brilliant 2020 Abu Dhabi win to take on Hamilton and Mercedes from the off in 2021. But a further five years back lies an even stronger example from Nico Rosberg.

Having been so cheesed off by his 2015 title defeat against what was actually pretty outrageous driving from Hamilton at the start of the United States GP, Rosberg channelled it remarkably well. Not only did he win the remaining three races, but he kept the fire it lit burning for the following year. In the opening Melbourne round of his title campaign, Rosberg made sure he got his elbows out against Hamilton at Turn 1. In doing so, he showed he'd made good on the lesson he'd had chucked at him in hat form before the podium following that 2015 Austin defeat.

McLaren is expected to be the Qatar and Abu Dhabi pacesetter, but it's already warning about Red Bull's prowess in high-speed turns with those events in mind. Even though the 2024 title has been lost in good grace for Norris, there's still much he can take from what is unquestionably his best F1 campaign to date. There are close battles still to be drawn.

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A 'broken' system flourishing

The ladder to F1 cops flak for not working as some think it should, yet still delivers drivers ready for the big time. Whether there are any vacancies is another matter...

SAM HALL

ormula 2 and Formula 3 exist to supply a constant feed of up-and-coming driving talent to motorsport's top tier, Formula 1. But with some of the most promising names fading into other categories after brief stints, or not making the grand prix scene at all, is the system broken?

The health of the ladder to F1 is a constant topic of debate, with those who pay close attention to the junior levels often up in arms when the F2 champion misses out on a seat or, like the rare case last winter, no drivers are promoted whatsoever. Twelve months later, what many would have described as a broken system could now be termed as flourishing, with Ollie Bearman, Andrea Kimi Antonelli, Gabriel Bortoleto and Franco Colapinto all making the direct step from F2 to F1, while Jack Doohan returns from a reserve role to take Esteban Ocon's vacant Alpine seat.

Explaining his metric of success, F2/3 CEO Bruno Michel tells Autosport: "The most important thing for us is to make sure that the drivers that will be in Formula 1 are ready for Formula 1. That's our job and that is where you can see that the pyramid is working because when drivers are getting to Formula 1, they are ready." To this end, F3 and F2 serve different purposes. The former is famed for its close-quarters racing with a busy grid of 30 cars, while the latter introduces strategy through pitstops and tyre management.

Addressing the frequent negativity surrounding the misfortune

"Maybe celebrate the rise in quality and how that could benefit motorsport as a whole"



of drivers who are unable to make the step to the top tier, Michel adds: "Formula 1 has got 20 seats and some years there are seats available, and some years there aren't. It's very simple. We have years in the past where there are three drivers going to Formula 1 in the same season – it was [George] Russell, [Lando] Norris and [Alex] Albon. The year before we had Charles Leclerc, two years after we had Oscar Piastri, so when there is a seat available..."

With so many changes ahead of the 2025 season as F1 teams look to get young drivers embedded for the significant regulations shift the following year, Prema Racing team boss Rene Rosin agrees that timing is the primary issue facing those looking to make the jump. "To be honest, to say that it is broken is a big, big word," he replies. "I think that in principle, the system works. There are some drivers not in Formula 1 that deserve to be there but of course, we always have the question of time as there is not always space in Formula 1. You have drivers that have multiple-year contracts, and if every year you need to continue replacing them, it is not possible. So it's just a question of timing."

The most important people to consider in this are the drivers. Despite spending 2024 on the sidelines as Alpine's reserve, Doohan speaks positively on the existing system. "You can spend – like me – seven years to get in from the moment you step into a single-seater," he points out. "Six years of racing to get into Formula 1 and if you're not performing, like we've seen with even Nyck [de Vries] and other drivers, you can be out in a matter of races. So it's not an easy feat but Formula 3 and Formula 2 definitely, without them, I wouldn't have hit reality, I wouldn't have had to hit rock bottom multiple times to bounce back and get me to where I am today."

So now, we must assess whether the ladder is broken. It's easy to state that there are tweaks and fixes that need to be made, but it's difficult to see exactly how this could happen for the better aside from introducing an enforced promotion for the champion – although the implementation of such a scheme would be so fraught with issues that it would be a complete non-starter.

What needs to be accepted is that the feeder championships exist for a very clear reason: to create F1-ready drivers. With one or two minor exceptions, this is largely what is achieved. So no, the system is not broken. And it should be said that although adding another team to the F1 grid would ease the short-term problem, it would not be a long-term fix – but that's another topic!

It's similar to Premier League football. If the talent level of each squad's starting 11 keeps increasing, then players who would previously have made the cut are going to eventually miss out. Instead, maybe we should be celebrating the rise in quality and how that could benefit motorsport as a whole, with World Endurance, IndyCar and a host of other championships standing to benefit from this surplus of high-level talent.





Dear reader,

Autosport will celebrate its 75th birthday in 2025 and will start an exciting new era as it does so. As well as marking the special occasion on autosport.com and the Autosport Podcast, the magazine will begin a significant new chapter of its life.

From January, Autosport magazine will become a monthly publication. News and reports from all the big motorsport events will appear on our website, while in-depth and premium articles – including interviews, track tests, historic features, analysis and opinion – will be in the magazine, which will also feature incredible photography on high-quality paper. "We shall feature personalities, their activities and their cars," wrote founding editor Gregor Grant in the first issue of Autosport, and we still hold the same aims and values today.

The media landscape has changed considerably since the first weekly issue appeared on Friday 25 August 1950. Live TV, streaming, websites and social media means coverage of major series can be consumed almost instantly. A print title is no longer the main place to find out what has happened, but we believe it can still surpass other types of media when it comes to the who, how and why.

Autosport has always tried to cover the full breadth of motorsport, and the magazine will continue to do so. Formula 1, sportscar racing, touring car competition, rallying, the junior single-seater ladder and UK club motorsport will all be covered in the premium monthly.

As well as creating a special magazine, we will expand our coverage across online, podcast and video platforms during 2025. We're also pleased to announce that we will launch a National motorsport newsletter so you can keep track of all the best stories from UK club competition. That means there will be many more ways to enjoy Autosport than ever before – or that could possibly have been imagined in 1950.

Thank you to you, the reader, for helping us to reach this landmark and embark on a new-yet-familiar Autosport era. We hope you'll enjoy it as much as we will.



Kevin Turner Chief Editor kevin.turner@autosport.com



RACE CENTRE

FORMULA 1

RUSSELL PROVES A POINT AS VERSTAPPEN MAKES IT FOUR

Mercedes was unexpectedly dominant on the streets of Las Vegas but Max Verstappen did enough for his fourth consecutive F1 title





as Vegas: a city defined by the intangible element of luck. Those who enjoy Lady Luck's kiss of fortune bask in the sodium lights of the strip's myriad casinos, while those unlucky souls are doomed to walk the cold, windy streets as the desert heat joins the sun in falling behind the horizon. And, as the competitive order of the 2024 Formula 1 season has become increasingly comparable to a slot machine, only luck seems to have any influence over the entropy.

Sure, you make your own luck. Max Verstappen did that earlier in the year; he'd pounced on a once-competitive Red Bull RB20 in the early season and

reeled off a string of victories. Seven wins from the opening 10 grands prix suggested that 2024 was set to be another Verstappen benefit gig, but it was how he handled the sudden turnaround in fortunes when Red Bull's development curve ran aground that clinched it. When you can't win, racking up the points and (generally speaking) avoiding the pitfalls of overdriving mitigates the efforts of the other drivers.

As Red Bull had to contend with the consequences of its development falling the wrong way, Verstappen made sure he got the best from himself. Now, he's a four-time champion, and he's done it in a car that's no longer the best on the grid.

For George Russell and Mercedes? If you're feeling uncharitable, you could suggest that the slot machine sometimes pays out. But you



wouldn't wish to denigrate the efforts of Mercedes at all, even if the weekend came to the team unexpectedly. It's more akin to poker; the others might have had worse hands, but Russell was not drawn into the bluff-and-double-bluff nature of the game.

Mercedes probably knew far more than it was letting on. It's well known that the W15 struggles in hot conditions; the car seems to get more energy into its tyres, perhaps through running its car on the deck more than its immediate rivals, but this is susceptible to inducing thermal degradation when track temperatures start to swing beyond the 30C mark. In a low-grip environment, however, such as the streets of Las Vegas, this is a desirable quality.

When it rocked up in the first free practice session and demonstrated a clear edge over its competitors, there was perhaps a little expectation within the team that the order would normalise and Mercedes would slip back. It's been a frequent theme for the Brackley squad throughout the season; flatter to deceive on Fridays, disappoint on Saturdays and Sundays. When it followed up its practice heroics on Thursday night with strong performances in FP3, it actually looked like Mercedes might be able to make a decent fist of the weekend.

Russell made the most of that. In truth, Lewis Hamilton was probably the quicker of the two over the weekend. The seven-time champion was so upset by a dismal round in Brazil that he briefly considered walking away before the end of the year, but he instead came out swinging. But he'd overstretched himself in qualifying and made a grand hash of his two attempts at a flying lap in Q3, while Russell kept it clean. "I knew if I did a clean lap it would be enough to secure a front row," Russell mused, and so his pragmatic flourish yielded pole.

There were two obstacles for Russell to overcome in the opening stint: acing the start and preserving the lead beyond the opening handful of laps. The short run to Turn 1 largely took care of the first obstacle, particularly when the duo of Carlos Sainz and Pierre Gasly

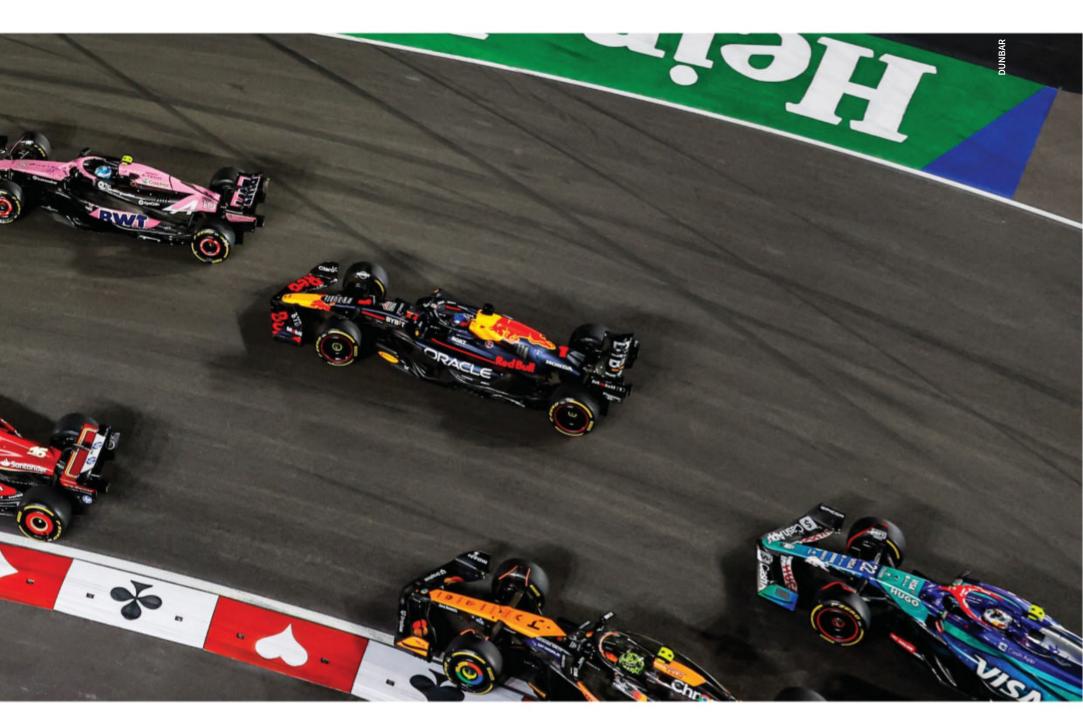
were gazumped into the first corner by a neat-starting Charles Leclerc. This upped the challenge of the second hurdle, since the early indications were that Leclerc had the whip hand. The long runs in FP2 appeared to have Ferrari ahead of Mercedes. The SF-24 generally has a much more delicate touch with the suite of Pirelli tyres, a tacit effort from the team to dispel the tyre-related woes that sapped at its performance during the previous two seasons.

But that only works if the Ferrari has its tyres brought in gently. Leclerc's one-stop victory at Monza worked because he had to conserve from the off, and he let his rubber get up to temperature properly to stave off the threat of degradation over the lengthy stint on hards. This time, Leclerc didn't do that – sensing an opportunity

"HAMILTON WAS SO UPSET THAT HE BRIEFLY CONSIDERED WALKING AWAY BEFORE THE END OF THE YEAR"

to take the lead in the early stages, he put Russell under heavy scrutiny at the end of lap four.

Leclerc employed DRS along the Strip with a view to making the move work into Turn 14, but Russell sagely held the inside line knowing that the outside would have perilously low grip. For the Briton, it was about holding those key checkpoints during the brief siege. Leclerc tried to hold the outside through the Turn 17 kink, but Russell covered that. The silver-and-black machine then rolled across the start/finish straight and once more kept the inside for the tight left-hander, which ultimately ran Leclerc out of useable road.





Holding the outside line would have been like attempting to navigate an ice rink, and the Ferrari couldn't dig its skates in to keep in touch.

This came back to bite Leclerc, whose tyres were battered and bruised by the added exertion. They couldn't sanction another attempt to push Russell any further, and instead Leclerc started to fall backwards into the clutches of team-mate Sainz. Two laps later, Sainz had taken second and Leclerc was now easy prey for Verstappen, who looked lively in the opening stint of the race on the medium tyre.

Without an expected assault from the Ferraris, whose promises of a greater race pace versus their qualifying efforts never materialised, Russell had the licence in the opening laps to take a more delicate approach to his medium tyres. "To be honest, stint one was exceptional," he reckoned. "I knew from there on in the only way we would probably lose the victory is if I grained the tyres and opened them up. So it was just a case of managing my pace, managing in the right corners and bringing it home."

At this juncture, Hamilton was still among the lower reaches of



"IT WAS JUST A CASE OF MANAGING MY PACE, MANAGING IN THE RIGHT CORNERS AND BRINGING IT HOME"

the points. Irked by his own profligacy in qualifying, he was seeking to make amends. Once clear of Nico Hulkenberg's Haas, Hamilton eventually reeled off passes on Oscar Piastri, Yuki Tsunoda and Gasly before the opening round of stops – the medium tyres lasted scarcely anything more than 10 laps for the cars ahead.

In warmer temperatures, Mercedes might have suffered a similar fate, but the cool track surface remained at around 17C and therefore negated the overheating issues that Mercedes tends to face. The Sainz-Leclerc-Lando Norris pack ahead were all struggling with graining; Verstappen had rounded both Ferraris by the end of the 10th lap, but soon dipped in to pit at the end of his next tour before he encountered the tyres opening up.

Both Mercedes could hang it out for a little longer, and Russell and Hamilton used up the tyre life they'd saved before making their own stops on laps 12 and 13 respectively. This ensured that Russell preserved a nine-second lead over Verstappen when everyone had cycled out in the stops, and that Hamilton could sit on the tail of Norris – although the presence of the yet-to-stop Kevin Magnussen, Valtteri Bottas and Franco Colapinto had initially flummoxed him. He assumed that he'd lost position to the midfielders, but quickly muscled his way through and got onto the gearbox of Norris's McLaren.

Norris, who had spent the entire weekend beset by front-tyre graining, was no real threat to the pace of the Mercedes. But the Ferraris ahead were harder to break down, not least because Leclerc was being pulled along with DRS from Sainz. To his credit, Sainz was also keeping a consistent vigil on Verstappen from two seconds





behind the champion-to-be; the RB20 was not as dynamic on the hard tyres as it had been on the softer compound.

The red cars and Hamilton remained in lock-step through the rest of the middle stint, when it became apparent that the expectation of a one-stop strategy was little more than mere fantasy. This was the transition point; Hamilton was in a conservative fifth place at the time he called into the pits, but Ferrari's dawdling over pit strategy allowed Mercedes to gather the upper hand.

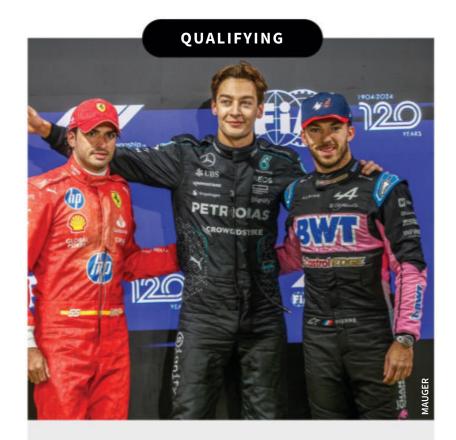
Sainz's bargaining for a pitstop was influenced by the graining problem emerging once more, but Ferrari was not wholly convinced that the Spaniard had a big enough window to clear Tsunoda and Hulkenberg, who were just over 20s further down the road. He crossed the track to follow Verstappen in at the end of lap 27, also accosted by Hamilton, but bailed out at the last moment and did another lap – giving up a place to the later-stopping Leclerc – because Ferrari was not ready for him.

That this wasn't investigated by the stewards was of some confusion, but Sainz got out of jail by not having technically entered the pitlane. Regardless, he did Hamilton a favour. The extra lap ensured that the #44 Mercedes claimed the undercut without needing to spend any longer looking at the car he'll drive next year.

"We just didn't execute a very good race," Sainz said. "I think we stayed out one lap too late on mediums, two laps too late on hards. And by the time I was going to pit, we had this messy radio communication in the pit entry, which probably made me lose that lap – I was completely grained.

"That means a lot of race time that maybe would have meant we could have ended up fighting Lewis. But yeah, it just shows that in this sport, you need to do things perfectly week in, week out. We've been doing things really well in strategy and on race management all year round. But today wasn't our day."

This gave Hamilton free rein to attack Verstappen, who sensibly did not put up much of a fight. Owing to Norris's struggles, Verstappen already had the title in the bag and felt it was folly to compromise >>



A fourth career pole position came as a surprise to George Russell, who admitted that Mercedes had been caught off guard by its surprisingly strong one-lap performance at Las Vegas. Although it had been theorised that a cold track would give Mercedes' W15 a leg-up, given its frequent problems with tyre overheating in warmer climes, the Brackley squad did not anticipate leading all three practice sessions before Russell's run to pole.

Q3 had been delayed by Franco Colapinto's heavy shunt at Turn 16, which required repairs to the barrier, but this scarcely put Russell off his stride. The Briton took the advantage in the opening laps of the top 10 shootout, setting a 1m32.811s to sit clear of Carlos Sainz and Max Verstappen. This, however, fell nearly three tenths short of Lewis Hamilton's Q2-topping effort – although the seven-time world champion had aborted his first Q3 run by going too deep into Turn 14.

Charles Leclerc then beat Russell's time with his second effort, finding 0.03s in hand, but this was then overshadowed by Carlos Sainz's next attempt. The Spaniard was almost 0.4s

up on his team-mate and looked good value for pole.

In the meantime, Russell had clipped the wall after his opening run, and therefore had a prolonged stay in the

"Gasly secured the best qualifying result of his F1 career with his lap to split the Ferraris"

garage as his team checked for damage and replaced his front wing. Even without the opportunity for a build lap, Russell nonetheless got his tyres switched on for a session-best first sector and found a tenth over Sainz's benchmark to secure pole.

Sainz, whose front-row start last year was denied for a power unit change after clipping a drain cover in practice, atoned for that misfortune to start alongside Russell, although a Ferrari 2-3 was interrupted by Pierre Gasly's brilliant run to third on the grid. The Alpine man secured the best qualifying result of his F1 career with his lap to split the Ferraris, starting alongside fellow Francophone Leclerc.

Max Verstappen crucially qualified fifth ahead of Lando Norris. McLaren had struggled to keep its softer tyres from graining, while the Red Bull driver had to overcome a too-draggy rear wing. Yuki Tsunoda split the McLarens for RB, taking seventh ahead of Oscar Piastri, while Hulkenberg and Hamilton completed the top 10. Hamilton had his final lap deleted for track limits, although it was already ruined by a Turn 4 snap of oversteer. Sergio Perez, meanwhile, was consigned to another Q1 elimination...

RACE CENTRE LAS VEGAS GP



on completing his task, and with DRS his vulnerabilities were well known. In attempting to save on development costs, Red Bull had never built a Monza-spec low-drag rear wing, so attempted to trim out its lowest-downforce variant as best it could. The two dips in the trailing edge helped mitigate its straightline weaknesses, but Verstappen crucially had little to defend with from Hamilton.

Hamilton was enjoying himself, a volte-face from his Interlagos travails where he lumbered to 10th in the wet. "When you're progressing and moving forward, it's always a great feeling," he mused wistfully, delighted at the turnaround. "It felt very much like my old days at Rye House [karting], starting at the back and coming through, so it was great."

Since Leclerc had pitted just ahead, Hamilton and Verstappen had done their second stops at the right time to gather an easy undercut on the Monegasque, who was further incensed when Sainz defied a team order not to pass by... well, passing his team-mate. Leclerc chose not to defend, but later vented over the radio that "I did my job but being nice f**** me over all the f***** time".

The path clear, Hamilton had an 11.2s deficit to Russell with 17 laps to go. He tore into it with great gusto, sensing that victory could be on the cards. Over the next five laps, he knocked that down to 7.8s, a rate that would put any attempts to overtake - if he could get to within a second of Russell - into the final couple of laps.

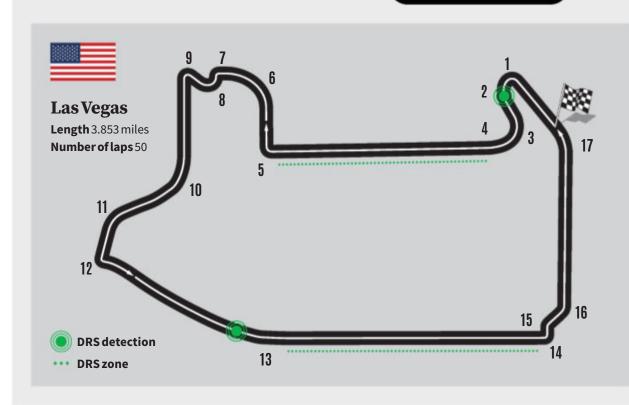
But progress started to stall. Russell was in race management mode, doing the laps he needed to ensure he had enough buffer to ward off any assaults in the final tours. He also admitted to "waiting for something to happen" behind him, and wanted to ensure that he had the tyres to deal with any late surprises lest someone smear their



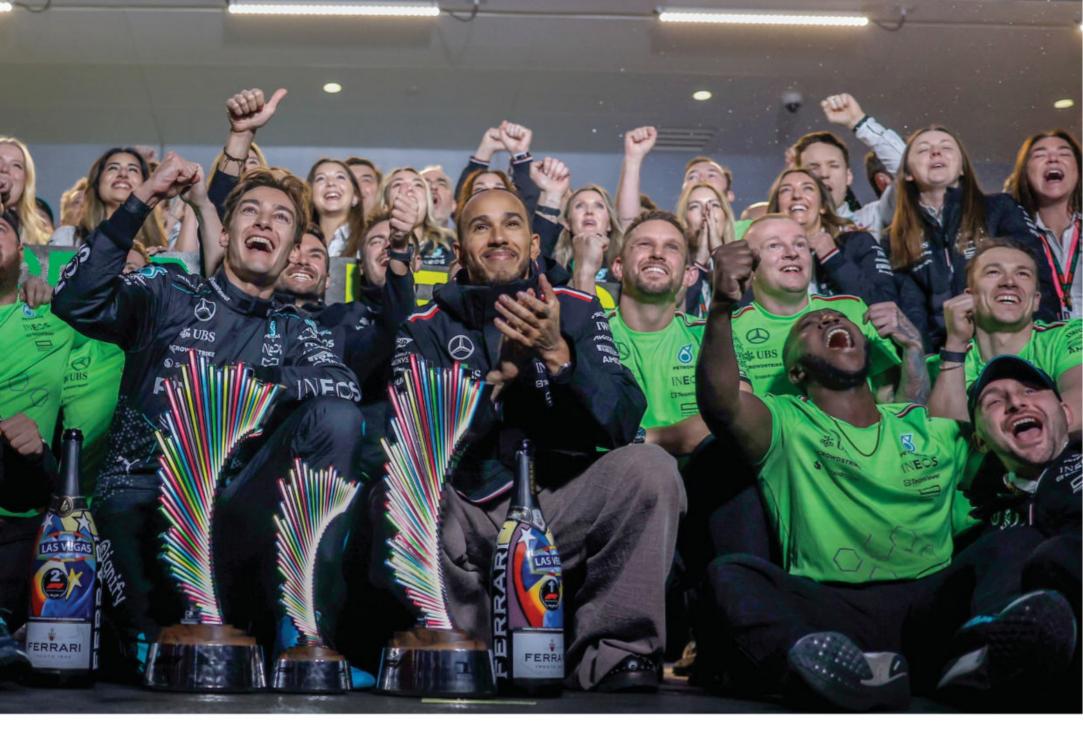
machinery into a wall. Hamilton got the gap down to 5s over the next few laps, and Russell was told to pick up the pace over the radio to ensure his team-mate's progress flatlined. It proved thus; with three laps to go, Hamilton's charge was over. His tyres were also starting to grain, culminating in a lock-up at Turn 7 that cost a couple of seconds to his younger team-mate ahead. If the die was not already cast, it had been thanks to that minor error; Russell chalked up the third win of his career with a 7.3s margin over Hamilton.

While Russell's mind was on the post-race party, Hamilton had a fleeting thought of where he'd have ended up if qualifying had been a more felicitous pursuit. "If I'd done my job yesterday, it would have been a breeze today," he contended in the post-race interviews, but later took a more conciliatory stance. "It doesn't really matter,

TRACK MAP







does it?" he countered. "At the end of the day, George did a great job, did everything he was supposed to do, and I'm happy for him and I'm just grateful I could get back up there to support the team with a 1-2."

The Ferraris had long fallen out of the victory chase, but at least had the performance for a podium challenge. In that final stint, Sainz and Leclerc began to press Verstappen, who asked whether he should offer some degree of defence from the rapidly approaching red blurs in his rear-view mirrors. Race engineer Gianpiero Lambiase responded in the affirmative, giving the illusion that Red Bull was still interested in contesting the constructors' championship.

Verstappen did not force the issue with either Sainz or Leclerc throughout the final 10 laps, so Sainz collected third from the Dutchman with little opposition. Leclerc took fourth a few laps later. Finishing ahead of Norris was the sole aim, and Verstappen had that covered by some margin.

He admitted his relief that he'd secured a fourth championship on the spin, given the growing threat of McLaren and Norris through the middle period of the season. But, as Verstappen explained, Red Bull took the upper hand in that battleground by making the most of a less-performant car, while McLaren struggled to grasp every



"IN THOSE TOUGH RACES WHERE WE WERE DEFINITELY NOT THE FASTEST CAR, WE KEPT IT TOGETHER AS A TEAM"

opportunity with the enormity of challenging for a drivers' title.

"We hit the ground running well, but then we had a lot of tough races," said the 27-year-old. "And that is something I'm very proud of, in those tough races where we were definitely not the fastest car, we kept it together as a team. We worked very hard back at the factory as well, remained calm, most of the time. And we barely made any mistakes. We really maximised or even overperformed in some places. Plus, our opposition in a few places definitely didn't grab the points that they should have. And all those things, of course, matter at the end of the day when you fight for a championship."

See, you make your own luck. Verstappen made his, which is why he now joins Sebastian Vettel and Alain Prost on four world titles; only Lewis Hamilton, Michael Schumacher and Juan Manuel Fangio sit ahead of him in the pantheon of champions past.

But Russell also made his own luck in Las Vegas. Mercedes surprised itself with its performance in Sin City, but Russell knew this presented an exercise in taking the opportunities that presented themselves. He managed those opportunities perfectly, showing Hamilton the value of those Q3 missteps and demonstrating that, in such conditions, Russell can manage a victory

from the front perfectly rather than simply becoming a master of others' misfortune.

And, if Mercedes finds itself in a title battle once again, Russell has all the attributes needed to spearhead that charge. Hamilton's departure to Ferrari for 2025 might be a loss, but Russell has proven with his Vegas victory that he can fill that void.



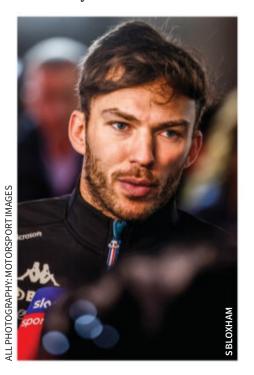
ALPINE EMPTY HANDED DESPITE GASLY STARRING

Alpine left last weekend's Las Vegas Grand Prix with no points to show for its efforts after Pierre Gasly qualified third. It was a result the Frenchman said was a "tough one to swallow".

Gasly had nailed the tricky tyre warm-up challenge in qualifying and ran in the top six in the race before pitting on lap 10 of 50. He had expected to fall back from his high grid position as the quicker cars of Max Verstappen, Lando Norris and Lewis Hamilton arrived, with seventh the best he could realistically target in a race with no safety cars.

Gasly entered the pits just ahead of his main rival, Yuki Tsunoda, but got jumped by the RB driver, who clattered the pit exit speed limiter board as he ran ahead of the Alpine on the edge of the fast lane of the pitlane after he was released just in front. This left Gasly fuming about an "unsafe release" on his team radio, but it didn't matter - he was soon experiencing a power loss that eventually resulted in a smoky engine failure and his retirement on lap 15.

In the other A524, Esteban
Ocon ran solidly in 11th, but the
non-appearance of the Alpine
mechanics in the pits when he
was called in on lap 11 while
chasing Nico Hulkenberg
meant an extra pitstop after
what he called "a drivethrough for nothing". He
eventually finished 17th.





McLaren suffers in Las Vegas's cool, low-grip conditions

McLaren suffered its worst race result in the dry since it upgraded the MCL38 for May's Miami Grand Prix. Lando Norris finished sixth in Las Vegas, with Oscar Piastri claiming seventh.

"When the track grip is low, our car suffers a little bit; it's not generating much grip from the tyres in these conditions," said team principal Andrea Stella.

McLaren feels this is down to not spending much of its development time overall in this rules era on optimising a low-drag configuration, with the team also having to adapt its 'mini-DRS' skinny rear wing after it won in Baku in September – the last track dominated by long straights before Vegas.

Stella also claimed that "Lando is a driver that is quite demanding on the front tyres", and so this "tends to aggravate the limitation on the front tyres" in the cool conditions such as the F1 field encountered last weekend.

From his sixth-place starting position,
Norris ran close with former title rival
Max Verstappen at the first corner, then
got dropped by the leading pack by 10
seconds through the first stint on the
medium tyres. He then fell to nearly 30s
behind the lead when on the hards –
where he was passed by Lewis Hamilton's
Mercedes in the second stint – before a
breakthrough in his tyre treatment meant
his pace improved significantly to the end
and he began to close the gap to the front.

This can't be seen in the final times – he was brought in for a late third pitstop for soft tyres and grabbed the fastest lap point.

Piastri lined up too far forward in his eighth-place starting grid box and had to serve a five-second penalty at his first pitstop, after battling with Nico Hulkenberg and Hamilton over that position early on. The Australian fought back up the order but was 22s behind Norris before his team-mate's extra late pitstop.



Misfortune for Williams following Colapinto crash

Williams was another team leaving Las Vegas wondering what might have been after Franco Colapinto crashed in Q2 and Alex Albon retired with an engine issue while running in points contention.

Colapinto's 14th-place Q2 result after he whacked the Turn 16 inside wall and crashed hard on the exit – triggering additional medical checks before he was cleared to race – was lost when he started from the pitlane after Williams changed his brake cooling duct specification, as well as fitting a new gearbox.

He scrapped with the Saubers, particularly Zhou Guanyu, who got ahead for 13th on the final lap when Colapinto slid luridly in Turn 3 and was left with little defence. "I was really struggling with the balance," he said afterwards.

Albon had risen from starting 17th when a problem he suspected was similar to his FP2 fuel system issue put him out.



Q&A

FERNANDO ALONSO ASTON MARTIN DRIVER

You were the only car starting on the soft tyres – how much of a difference did that make to your race and what was the plan?

We were different but I don't think it made really a big difference – we just stopped very early, which we could have done also with the medium if we started with those. It was not a big benefit on lap one or the start and then we committed to stop very early, but the pace was much better in the race. We were in the points until three [actually five] laps to the end so to finish so close to Red

Bull [Sergio Perez],
the Haas cars,
[Yuki] Tsunoda
was a little bit
of a surprise.
The taste is
not great now
because there's no

reward for P11 and I think we deserve it because we did a very good race to put the car in P11. Hopefully in Qatar we have another chance.

Was the early lap-four stop because there was so much graining?
Yeah, fronts and rears on the soft.

Was the car happier on the hard tyres for the final two stints?

No, it was very similar. The car just seemed a little bit happier [in the race versus

qualifying], maybe with the fuel or something. Already on the laps to the grid the car felt a bit better. It was a difficult weekend to understand the balance, the super-low grip level as well.

Does it say a lot about this season that you're frustrated about losing out on a single point?

Yeah, definitely – every point is gold for us at the moment. Even if we're not fighting for many important things, it's good to give something back to the mechanics and to everyone in the team after all the struggles. There are only two races left this year but there's a lot of trust in the team and new people and new ideas that will come in the future. So, we're looking forward.



HAAS TAKES THE INITIATIVE IN MIDFIELD CONSTRUCTORS' SCRAP

Haas left Las Vegas back ahead in its tight scrap with Alpine and RB for sixth place in the 2024 constructors' championship, thanks to Nico Hulkenberg overhauling Yuki Tsunoda late on.

With Alpine's promise disappearing, Haas's main challenge was to catch Tsunoda, who had started two places ahead of Hulkenberg in seventh on the grid. After initially battling Oscar Piastri and Lewis Hamilton behind the RB driver, as well as Lando Norris and Pierre Gasly, Hulkenberg had a two-second deficit to make up on the hard tyres for the final two stints.

A later first stop meant he climbed through the order initially with Alex Albon, before he got ahead of the Williams driver on lap 22. In the third stint, Hulkenberg cleared Liam Lawson and Esteban Ocon on their failed one-stop strategies, then closed the gap to Tsunoda and passed him for the eighth place he held to the finish with a DRS run into Turn 14 on lap 44.

"I think that's the best P8 we've ever achieved," said Haas team principal Ayao Komatsu.

In the other VF-24, Kevin
Magnussen was enraged with
Lawson's defence over his ambitious
outside line attack at Turn 14 on lap
one – the same spot where Sergio
Perez passed them both in one move
on lap 37. Magnussen was the only
driver to successfully one-stop, using
this approach to recover his 12th
place starting spot by the end.

Just four points cover Haas, Alpine and RB in the constructors' table.



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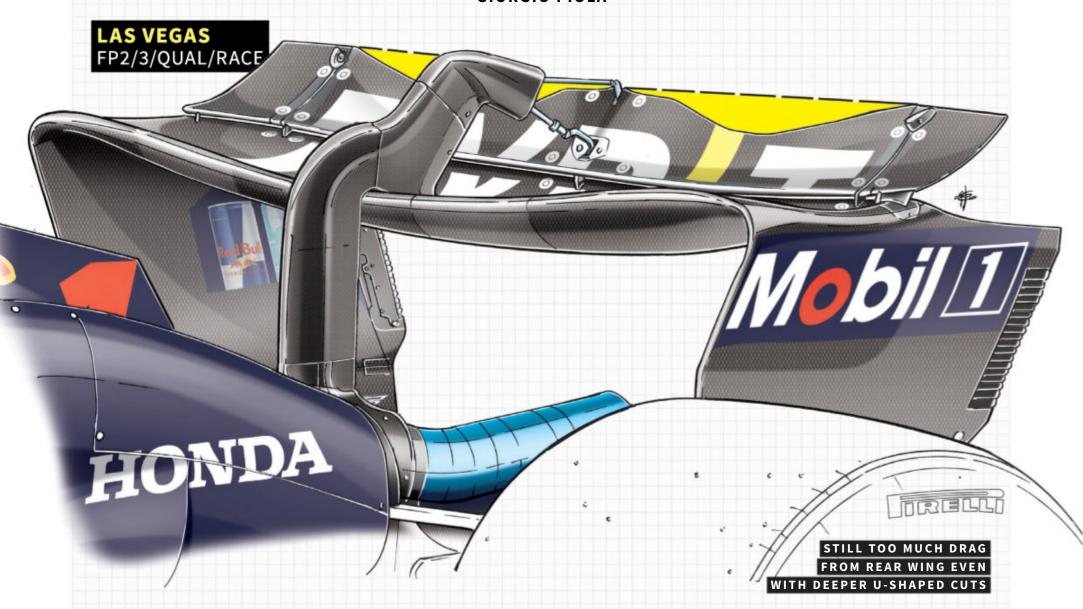
WISHING YOU A MERRY CHRISTMAS AND A VERY HAPPY NEW YEAR!



LAS VEGAS GP TECH

DRAWING BOARD

GIORGIO PIOLA



RED BULL'S REAR-WING CONUNDRUM

Without a rear wing designed purely for lowdrag situations, Red Bull's Las Vegas variant featured deeper U-shaped cuts in the trailing edge of the upper element – but the wing was still too draggy to deliver any meaningful performance on the Strip section of the course.

A medium-downforce mainplane ultimately hurt the team with DRS applied, which Max Verstappen reckoned cost him "two to three tenths" over a single qualifying lap. Initially, adviser Helmut Marko suggested that Red Bull had brought the wrong wing, but it emerged that the team had not developed something of that scope – even its Monza wing was larger than its competitors' versions.

Technical director Pierre Wache explained that this was down to not wishing to expend budget and time on something with limited use. "We didn't do one for multiple reasons because of budget and time – because when you do the rear wing, you don't do something else. It's clear that maybe it was a mistake, that's something we have to assess. We have to find a rear wing that is better than what we have. It's also not an easy task, but I think it's clear that's something we will study, that we dismissed this year and last year."

JAKE BOXALL-LEGGE

FLOOR DEVELOPMENTS CONTINUE

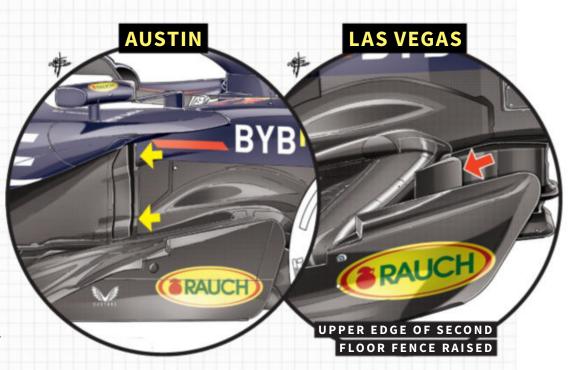
Red Bull also added a small revision to its floor for Las Vegas, and did not seem content to wrap up its development for the season.

Each floor may include four fences either side of the car's centreline, one on the outside and three enclosed between that and the floor bib. There are dimensional restrictions, although Red Bull had raised the upper edge of its second fence to link up with the top of the floor.

The team's pre-event technical notes stated that "by elevating the upper edge of the second (inside

to out) forward floor fence, a small vortex can be shed to benefit the floor edge downstream". It is apparent by the angle of incidence that this vortex wraps around the lower part of the sidepod, which is used to energise the flow in this area and minimise a) the frictional loss of energy in the airflow's transit, and b) work the floor edge wings harder to ensure the underbody is working harder.

JAKE BOXALL-LEGGE





FREE	PRACTICE :	1
POS	DRIVER	TIME
1	Hamilton	1m35.001s
2	Russell	1m35.397s
3	Norris	1m35.954s
4	Leclerc	1m36.007s
5	Verstappen	1m36.038s
6	Sainz	1m36.218s
7	Alonso	1m36.262s
8	Piastri	1m36.451s
9	Gasly	1m36.478s
10	Perez	1m36.536s
11	Magnussen	1m36.811s
12	Stroll	1m36.817s
13	Albon	1m36.948s
14	Ocon	1m37.152s
15	Hulkenberg	1m37.200s
16	Bottas	1m37.765s
17	Colapinto	1m38.025s
18	Zhou	1m38.350s
19	Tsunoda	1m38.574s
20	Lawson	1m38.730s

WEATHER Clear, air 14-15C track 16-17C

FREE	PRACTICE 2	
POS	DRIVER	TIME
1	Hamilton	1m33.825s
2	Norris	1m33.836s
3	Russell	1m34.015s
4	Sainz	1m34.105s
5	Leclerc	1m34.313s
6	Gasly	1m34.651s
7	Magnussen	1m34.686s
8	Piastri	1m34.798s
9	Hulkenberg	1m34.818s
10	Tsunoda	1m34.997s
11	Bottas	1m35.020s
12	Ocon	1m35.221s
13	Stroll	1m35.251s
14	Alonso	1m35.440s
15	Lawson	1m35.671s
16	Zhou	1m35.765s
17	Verstappen	1m35.834s
18	Colapinto	1m35.868s
19	Perez	1m36.055s
20	Albon	1m39.629s
WEATHI	ER Clear, air 12-13C	track 14C

FREE	PRACTICE	3
POS	DRIVER	TIME
1	Russell	1m33.570s
2	Piastri	1m33.785s
3	Sainz	1m33.918s
4	Norris	1m34.008s
5	Verstappen	1m34.137s
6	Hamilton	1m34.341s
7	Albon	1m34.407s
8	Colapinto	1m34.723s
9	Magnussen	1m34.883s
10	Gasly	1m34.905s
11	Hulkenberg	1m34.908s
12	Leclerc	1m34.941s
13	Perez	1m35.061s
14	Ocon	1m35.460s
15	Alonso	1m35.938s
16	Tsunoda	1m36.215s
17	Bottas	1m36.412s
18	Lawson	1m36.544s
19	Stroll	1m36.950s
20	Zhou	1m36.988s
WEATH	ER Clear, air 15-16	C track 17-18C

Williams			221.5mph
Alpine Alpine		219.3mph	7/8/
RB (217.3mph		
Ferrari (9 217.2mph		
Aston Martin	216.7mph		
Red Bull	216.7mph		
Mercedes Mercedes	216.7mph		
McLaren Care	215.7mph		
Haas 214.2 r	nph		
Sauber 213.4mph			

OULA	LIEVING		O I I A I	IEVING 2		OHA	IEVING 2	
	LIFYING 1			IFYING 2			LIFYING 3	
POS		TIME	POS	DRIVER	TIME	POS	DRIVER	TIME
1	Russell	1m33.186s	1	Hamilton	1m32.567s	1	Russell	1m32.312s
2	Hamilton	1m33.225s	2	Sainz	1m32.711s	2	Sainz	1m32.410s
3	Verstappen	1m33.299s	3	Russell	1m32.779s	3	Gasly	1m32.664s
4	Leclerc	1m33.446s	4	Gasly	1m32.879s	4	Leclerc	1m32.783s
5	Piastri	1m33.450s	5	Leclerc	1m33.016s	5	Verstappen	1m32.797s
6	Sainz	1m33.484s	6	Piastri	1m33.024s	6	Norris	1m33.008s
7	Norris	1m33.592s	7	Verstappen	1m33.085s	7	Tsunoda	1m33.029s
8	Gasly	1m33.691s	8	Tsunoda	1m33.089s	8	Piastri	1m33.033s
9	Colapinto	1m33.746s	9	Norris	1m33.099s	9	Hulkenberg	1m33.062s
10	Tsunoda	1m33.789s	10	Hulkenberg	1m33.114s	10	Hamilton	1m48.106s
11	Hulkenberg	1m33.920s	11	Ocon	1m33.221s	WEATH	ER Clear, air 12-130	C track 14-15C
12	Ocon	1m33.968s	12	Magnussen	1m33.297s			
13	Magnussen	1m33.991s	13	Zhou	1m33.566s			
14	Zhou	1m34.079s	14	Colapinto	1m33.749s			
15	Lawson	1m34.087s	15	Lawson	1m34.257s		MEVE	10-
16	Perez	1m34.155s					NEXT R	ACF
17	Alonso	1m34.258s						
18	Albon	1m34.425s					1 Decem	ber
19	Bottas	1m34.430s					Qatar (GP /
20	Stroll	1m34.484s					Losail	

A C (N CTAT	•			
ASU	ON STAT	•			
DRIV CHAN	ERS' IPIONSHIP		PTS	BEST FINISH	BEST QUAL
1	Verstappe	en	403	1	1
2	Norris		340	1	1
3	Leclerc		319	1	1
4	Piastri Sainz		268	1	2
5 6	Russell		259 217	1	1
7	Hamilton	,	208	1	2
8	Perez	•	152	2	2
9	Alonso		62	5	3
10	Hulkenbe	erg	35	6	6
11	Tsunoda		30	7	3
12	Gasly		26	3	3
13	Stroll		24	6	8
14	Ocon		23	2	4
15	Magnuss	en	14	7	7
16	Albon		12	7	7
17			12	8	5
18 19	Bearman Colapinto		7 5	7 8	11 9
20	Lawson	J	4	9	5
21	Zhou		0	11	13
22	Sargeant		0	11	12
23	Bottas		0	13	10
	TRUCTORS	;•			PTS
1	McLaren				608
2	Ferrari				584
3	Red Bull				555
4	Mercedes	S			425
5	Aston Ma	rtin			86
6	Haas				50
7	Alpine				49
8	RB				46
9	Williams				17
10 DUAL	Sauber .ifying bat	TLE			0
•	stappen	21	1	Perez	
	nilton	5	17	Russell	
Lec	lerc	13	8	Sainz	
Lec		1	0	Bearma	n
Nor		18	4		
Alo		17	5	Stroll	
Gas	_	10	10		-0
	on geant	5	1 13	Colapint Albon	lO
	geant noda	3	0	Lawson	
	iardo	5	12	Tsunoda	a
Zho		2	19	Bottas	
	nussen	4	14	Hulkenl	oerg
	kenberg	0	2	Bearma	
emov repres	alifying sessived when one sentative lap	driver in	n a team reasons	could not outside the	record a eir contro
WINS Vers	stappen	8		E POSITIO rstappen	NS 8
Lec		3		rris	7
Nor		3		lerc	3
	nilton	2	Ru	ssell	3
Pias		2	Sai	inz	1
Rus		2			
Sair					

Sainz



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	10				
RES	ULTS ROUND 22/2	24 (50 LAPS - 192.60	MILES)		
POS	DRIVER	TEAM	FINISHTIME	LED	TYRES
1	George Russell (GBR)	Mercedes	1h22m05.969s	49	M u, H u, H u
2	Lewis Hamilton (GBR)	Mercedes	+7.313s	1	M n, H u, H u
3	Carlos Sainz (ESP)	Ferrari	+11.906s		Mn, Hn, Hn
4	Charles Leclerc (MCO)	Ferrari	+14.283s		Mn, Hn, Hn
5	Max Verstappen (NLD)	Red Bull-Honda RBPT	+16.582s		Mn, Hn, Hn
6	Lando Norris (GBR)	McLaren-Mercedes	+43.385s		\mathbf{M} n, \mathbf{H} n, \mathbf{H} n, \mathbf{S} u
7	Oscar Piastri (AUS)	McLaren-Mercedes	+51.365s		Mn, Hn, Hn
8	Nico Hulkenberg (DEU)	Haas-Ferrari	+59.808s		Mn, Hn, Hn
9	Yuki Tsunoda (JPN)	RB-Honda RBPT	+1m02.808s		Mn, Hu, Hu
10	Sergio Perez (MEX)	Red Bull-Honda RBPT	+1m03.114s		Hn, Mn, Hn
11	Fernando Alonso (ESP)	Aston Martin-Mercedes	+1m09.195s		Sn, Hu, Hu
12	Kevin Magnussen (DNK	Haas-Ferrari	+1m09.803s		Mn, Hn
13	Zhou Guanyu (CHN)	Sauber-Ferrari	+1m14.085s		M u, H u, H n
14	Franco Colapinto (ARG)	Williams-Mercedes	+1m15.172s		Hn, Mn, Hn
15	Lance Stroll (CAN)	Aston Martin-Mercedes	+1m24.102s		Mu, Hu, Hu
16	Liam Lawson (NZL)	RB-Honda RBPT	+1m31.005s		Mn, Hu, Hu
17	Esteban Ocon (FRA)	Alpine-Renault	-1 lap/+2.060s		Mn, Hn, Sn
18	Valtteri Bottas (FIN)	Sauber-Ferrari	-1 lap/+11.285s		Hn, Mn, Hn
R	Alexander Albon (THA)	Williams-Mercedes	25 laps-power unit		M n, H n
R	Pierre Gasly (FRA)	Alpine-Renault	15 laps-power unit		M n, H n

WEATHER Clear, air 17-18C track 17-18C

WINNER'S AVERAGE SPEED~140.755 mph~FASTEST LAP AVERAGE SPEED~146.204 mph.

FAST	TEST LAPS			
POS	DRIVER	TIME	GAP	LAP
1	Norris	1m34.876s	-	50
2	Hamilton	1m35.480s	+0.604s	41
3	Leclerc	1m35.674s	+0.798s	40
4	Russell	1m35.717s	+0.841s	46
5	Sainz	1m35.875s	+0.999s	44
6	Verstappen	1m36.248s	+1.372s	43
7	Zhou	1m36.324s	+1.448s	46
8	Perez	1m36.326s	+1.450s	42
9	Ocon	1m36.511s	+1.635s	47
10	Alonso	1m36.553s	+1.677s	39
11	Magnussen	1m36.557s	+1.681s	49
12	Hulkenberg	1m36.585s	+1.709s	48
13	Piastri	1m36.598s	+1.722s	44
14	Bottas	1m36.601s	+1.725s	46
15	Colapinto	1m36.867s	+1.991s	37
16	Tsunoda	1m36.957s	+2.081s	48
17	Lawson	1m36.980s	+2.104s	45
18	Stroll	1m37.179s	+2.303s	43
19	Albon	1m38.008s	+3.132s	21
20	Gasly	1m38.314s	+3.438s	13

RACE BRIEFING

GRID PENALTIES ROTTAS five-place pe

BOTTAS five-place penalty – additional power unit elements used

COLAPINTO required to start from the back – car modified under parc ferme conditions and restrictednumber components used

RACE PENALTIES

PIASTRI five-second penalty for incorrect starting position

3

Verstappen is the third driver to clinch the F1 title by finishing fifth in Las Vegas, following Nelson Piquet (1981) and Keke Rosberg (1982)

YRES						
KEY: H-Ha	nrd M-Med	ium S-Soft	I - Intermedi	ate W - We	e t n - New set ເ	ı - Used set
0	0			0		
C1	C2	C3	C4	C5	INTERMEDIATE	WET



27 Overtook

14 Pit entry

10 Retirement

77 Lapped

81 Overtaken

LAS VEGAS GP DRIVER RATINGS

It's a perfect 10 for Russell after a commanding pole to flag performance on the Las Vegas streets, while Sainz and Hulkenberg get closest

ALEX KALINAUCKAS

RED BULL



Started 5th — Result 5th

Score lowering comes from qualifying where he was fifth when better was possible. Survived start scares in pack, then had to do a lot of fine overtaking around managing medium tyres. Less happy on hards and slipped back to fifth, but judgement in prioritising sealing of title very positive.

SERGIO PEREZ

Started 15th - Result 10th

Another shocking qualifying performance, dumped out in Q1. In the race, climbed from 15th to rescue final point, but rued starting on hard tyres after he couldn't keep them alive before track rubbered in. Made a thrilling double pass on Lawson and Magnussen.

MERCEDES



Started 10th - Result 2nd

Brilliant race drive. Initially bottled up behind Piastri but eventually got past with DRS run to Turn 14, then also got somewhat stuck behind Leclerc. But pace unleashed in final stint undercut him ahead of Ferraris, and then his DRS-blast pass on Verstappen was calm.



Started 1st — Result 1st

Keeps the maximum because Q3 wallstrike got repaired and didn't stop his run to superb pole. Aced start, saw off Leclerc feistily, and then lifted pace after bedding medium tyres in well – this made the difference given Hamilton's later charge. Never looked ruffled.

FERRARI



Started 4th — Result 4th

Struggled in qualifying to get front tyres to work. Brilliant race start and pushed to attack Russell, but hurt medium tyres. Let Sainz through, with Verstappen breezing past too, but Leclerc had better pace on hards. Waved past Sainz but was attacked after second pitstop, to his fury.



Started 2nd — Result 3rd

Just 0.098s shy of pole. Misses maximum for being slightly too ambitious at start and sliding, which allowed Leclerc's stunning rise. Also, pace and degradation on hards wasn't as good as Leclerc's. It was his prerogative to ignore Ferrari's team orders farrago in the third stint and it paid off.

MCLAREN



Started 6th-Result **6th**

Underwhelming weekend overall, blamed on car performance. Understeer was the problem throughout. Held position at start, then passed Gasly and later Magnussen, but was dropped by the lead fight. Pace transformed with more aggressive driving on rubbered-in track. Came too late.



Started8th —Result 7th

Behind Norris in Q3 with same tyre and frontend struggles, but was critically also behind Tsunoda's slower RB. Lined up too far forward in his grid box and so earned a penalty. Passed Alonso and Bottas in second stint, then rose ahead of Lawson, Ocon and Zhou to recover seventh in final stint.

ASTON MARTIN



Started **16th** – Result **11th**

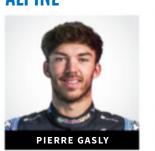
Struggled to warm soft tyres in qualifying. In the race, was surprise starter on softs and used them to get past Perez and Magnussen, which was part of Aston's strategy to deploy the hards. This undercut lifted him up the order, but the long stints meant Perez swooped ahead late on.



Started 18th - Result 15th

Missed most of Q1 for hurried ERS repair. Lost radio link to team on lap one, which meant it didn't know he was stopping to shed medium tyres and he sat for 20 extra seconds. Pitboard communication meant second-stop normality, while his pace was enough to beat Lawson.

ALPINE



Result **R** Started 3rd

High score preserved because it was such a good lap to net third in Q3. Equally impressive was how his lack of additional new softs meant no sighter. Overcome by faster rivals in first stint, plus Tsunoda beat him out of pits in his real contest, which was ended by engine issue.



Started 11th - Result 17th

Preserved 11th through first stint, but efforts undone by turning up to first pitstop and finding no mechanics ready, despite being called in. Emerged 19th on hard tyres, and passed Lawson on one-stop attempt. But this failed and he slid backwards. Lapped after late pitstop for softs.



WILLIAMS



Started 17th ——Result R

Felt being backed up meant he was much slower on last Q1 prep lap than targeted, and so was 0.7s down on previous PB by Turn 3. In the race, made positive progress at the start and was gaining with aggressive undercut strategy before engine issue forced his retirement.

FRANCO COLAPINTO

Started 20th - Result 14th

Q2 crash was so costly – it undid a weekend where he'd progressed from Q1 when Albon hadn't – and had to start from pitlane.
Chased Bottas in first stint, then undercut him and Magnussen, before doing the same to Stroll at second stop. Passed Ocon in third stint before Zhou got him late on.

RB



Started 7th — Result 9th

Excellent qualifying. In the race, barely avoided wiping out Verstappen at start but was ahead of Piastri through first stint. His pass on Bottas at Turn 14 following his first pitstop was bold. Piastri undercut him at stop two and Hulkenberg got him by the end.

LIAM LAWSON
Started 18th - Result 16th

Struggled with low-grip requirements more than
Tsunoda, while Turn
14 slide on final Q2 run meant aborting and finishing 15th when progression possible.
Very close to illegal defences with Zhou and Magnussen on lap one. Adrift off Zhou in first stint; later failed bid at one-stopper.

SAUBER



Started 13th - Result 13th

Strongest
weekend since
Bahrain, helped
by Sauber's new
floor. In race, shot past
Magnussen, then ran
in front of Perez. In
second stint, chased
Albon past Alonso,
before Perez and
Piastri came by. Got
Ocon late on, and
Colapinto's Williams
when that was nearly
dropped in Turn 3.



Started 19th-Result 18th

Felt traffic harmed final Q1 lap, but made point that the session overall was messy. Started behind Stroll due to energy store replacement penalty. Couldn't keep hard tyres alive to make one-stop work. Tried to hold back Colapinto to help Zhou, but pace was so poor he got lapped.

HAAS



Started 12th - Result 12th

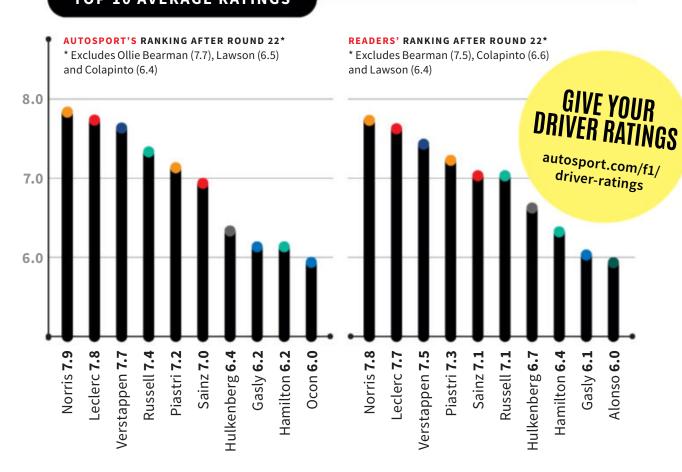
Final qualifying laps weren't good enough for Q3 when that was possible. Fell back at start with poor exit grip at Turn 1, then outmuscled by Lawson and was on receiving end of Perez double pass later. Pace on sole one-stopper was strong enough to recover to his starting position by the end.



 ${\sf Started}\, \textbf{9th} \, \text{---} \, {\sf Result}\, \textbf{8th}$

Misses maximum because he felt he could have got close to
Tsunoda in Q3. Best sectors bear this out.
Brilliant race drive.
Strong pace on long middle stint combined with successive DRS zone passes on Lawson and Ocon, and successful hunt of Tsunoda later netted him eighth.

TOP 10 AVERAGE RATINGS





WRC

Neuville crowned at the last gasp

An early turbo failure jeopardised the WRC title favourite's hopes on Rally Japan. Then a final-day roll from team-mate Tanak secured Neuville the drivers' crown, but meant Hyundai lost to Toyota

TOM HOWARD

PHOTOGRAPHY McKLEIN



o be a world champion in motorsport requires skill, resilience and mental fortitude. All of those attributes were in abundance at Rally Japan, where Thierry Neuville finally realised his childhood dream of being crowned as king after one of the most dramatic season finales in World Rally Championship history.

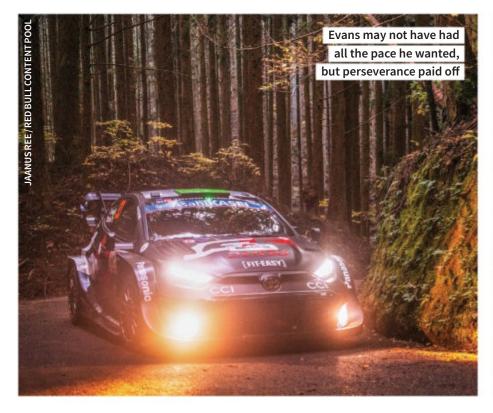
The 2024 WRC season has been turbulent and somewhat complex, thanks to its controversial new points system. But in terms of drama and unpredictability, rallying's top tier has been off the charts, and Japan provided the perfect illustration. Neuville and co-driver Martijn Wydaeghe were tested to the limit and forced to again dig deep to lift rallying's most coveted prize. "We made it," proclaimed the Hyundai star, who finally laid to rest his 'bridesmaid' tag earned through five times finishing as WRC runner-up. "I'm very proud and I'm very happy. It is just a reward for years of fighting and never giving up."

On paper, the culmination of the WRC drivers' and manufacturers' titles seemed a foregone conclusion. Neuville needed a mere six points to deny Hyundai team-mate Ott Tanak and claim a career-defining crown, 17 years since he drove an Opel Corsa at Rally Luxembourg in 2007. But in rallying there is always a fine risk-versus-reward balancing act. The smallest issue can often lead to larger consequences. "I'm excited, but excited to finish this rally on a good note," he reckoned prior to the start. "There is nothing more we can do. Everything has been checked and done and the unpredictability will be road condition."

Likewise, in the manufacturers' title fight, Hyundai appeared in control with a 15-point buffer. It meant Toyota required an "almost perfect" rally, in the words of team principal Jari-Matti Latvala, to salvage silverware. But it seems that nothing has been straightforward this season. And so it proved as Japan's asphalt roads offered one more drama-filled twist in the tale, and a pressure-filled final-stage thriller that will be forever etched in WRC folklore.

In its third year since its return to the WRC, Japan has become renowned as arguably the toughest asphalt event on the calendar courtesy of its demanding, twisty, leaf-covered ribbons of Tarmac lashed with a myriad of grip changes. It's also fast becoming a blue-riband event in the nation, with popularity boosted by local star Takamoto Katsuta, and hordes of spectators packing into Toyota City to queue patiently for a glimpse of their heroes.

These folk packed into the Toyota Stadium for a head-to-head superspecial stage to kick off proceedings that was won by the M-Sport Ford of Adrien Fourmaux. It was another box tick for his breakthrough season to lead a WRC rally for the first time in >>>





what is tipped as possibly his last event for the team.

That overnight 0.5s margin over title contender Tanak was short-lived. The 2019 champion maintained that his main focus in Japan was securing the manufacturers' title for Hyundai, but there was still a slim mathematical chance lurking in the back of his mind that he could steal the drivers' honours away from team-mate Neuville. The Estonian and Neuville, making the most of their road positions, quickly emerged as the pacesetters, with the pair sitting first and second after the event's first traditional stage: Isegami's Tunnel – one of Japan's most 'haunted' locations.

It appeared that the Isegami spirits had cast a spell on Toyota, because the team's manufacturers' title aspirations were dealt a severe blow with two of its three cars effectively taken out of the victory fight. Sebastien Ogier's run of bad luck continued when he picked up a left-front puncture, costing him two minutes, while Katsuta was able to nurse his GR Yaris to the finish with a tyre off the rim. "I don't know what to do at the moment – I'm speechless honestly," sighed Ogier. "We had a puncture two years ago in the same area. It's not easy to find motivation. It doesn't look so good at the moment."

Everything was looking set for a relatively stress-free run to the

"He kept his calm, and brought the car back without losing his temper, which is admirable"

title for Neuville, who won stage two and surpassed the team's pace expectations given the enormity of what was at stake. But in typical WRC 2024 fashion, there was an unexpected curveball. Hyundai's reliability this season has been much improved, with the only issue hitherto to affect Neuville's i20 N a fuel pressure problem during the brutal Safari Rally. Then, at the worst possible moment, his car suddenly lost power in stage four (Shinshiro, 10.8 miles). A turbo failure, the like of which the team had never seen before, offered a glimmer of hope to Tanak, who realistically needed an issue for his team-mate *and* to win the rally to stand any chance of snatching the title. The problem also opened the door slightly for Toyota in the manufacturers' battle.

With only a tyre-fitting zone punctuating Friday's stage loops, Hyundai would be unable to fix the turbo. Neuville haemorrhaged





more than seven minutes, ending the day outside the points paying positions in 15th, the best part of eight minutes adrift, after nursing a wounded car through five stages. Not for the first time in his career, he had to fight to keep his dream alive. "It is the worst thing that could happen to us this weekend," he reflected. I would have preferred to have a puncture than losing seven minutes with a technical issue, but that shows that advantage we built up over the year, those 25 points are really crucial."

The turbo on Neuville's car was brand new at the start of the rally, which only added to the misfortune. Hyundai apologised to Neuville, who somehow managed to keep his cool despite admitting it was a "big hit" to this title hopes. "This is really a blow and very frustrating as it puts us under pressure and in a difficult situation, and for that we want to really apologise to Thierry," said Hyundai WRC programme manager Christian Loriaux. "Despite the problem he still reacted in a very professional way and kept his calm, and he brought the car back without losing his temper, which is admirable."

To add to Hyundai's woes, Andreas Mikkelsen became the latest victim of Isegami's Tunnel. The Norwegian, competing in what might be his last event for the team, misjudged a right-hander through the second pass of the stage, and that had significant consequences. Mikkelsen lost the rear, clipping the bank, which then fired the car into the trees. While Mikkelsen and co-driver Torstein Eriksen were unscathed, the stage was red-flagged with the Hyundai blocking the road.

The one shining light for Hyundai was Tanak, who delivered an inspired run through Friday's stages to hold a 20.9s lead over Elfyn Evans, who'd been left to lead Toyota's charge. While Tanak was doing all he needed to keep his faint title hopes alive, he professed: "There is nothing to think about. Everything was looking under control [for the team] and then sometimes you are amazed at how quickly things can change around and you are on the back foot."

After battling a brake issue through the morning, Fourmaux benefited from an inspired decision from M-Sport to fit light pods to his Ford Puma – and that of team-mate Gregoire Munster. Delays caused by Mikkelsen's crash meant the sunlight was fading rapidly, and that, coupled with roads travelling through dense Japanese forest, made visibility challenging. While the Toyota and Hyundai drivers struggled, Fourmaux was able to climb to third, 0.1s ahead

of Katsuta, who was under strict team instructions not to take any unnecessary risk. The top six was completed by the recovering Ogier and Munster.

At risk of ending Saturday without any points, which would heap the pressure on scoring the vital six championship points on Sunday, Neuville was now a man on a mission, with a repaired and fully functioning Hyundai. The Belgian felt that ninth position, which earns two points, was possible, but what eventuated far exceeded his 'never give up' expectations. An inspired drive amid huge pressure resulted in the championship leader setting a pace close to that of leader Tanak. Seventh, behind an impressive Munster, and a vital four provisional points was the result, meaning only two points would be required from Super Sunday. "I'm not sure we can cruise," he warned. "I still need to drive fast on Sunday."

The drivers' and manufacturers' title fights both looked precarious as Tanak managed to fend off a charge from Evans, who had cut his rally lead to 15.3s. The pair received nominal times for stage 12 (Ena), which was cancelled before they could tackle it. The reason for its cancellation was deeply concerning – an unauthorised vehicle had managed to break through a marshalled security checkpoint, venture onto the live stage, and drive 520 metres in the opposite direction. Luckily, rally control was alerted, despite a series of communication failings, and red-flagged the stage before Evans could start. It was the second time in three years that a civilian car has managed to enter a live stage at the event. >>>

...and enjoys the moment

on the podium by ending

the season with a win

Following an investigation into what was labelled as a "very serious" safety breach by the FIA, the event organisers were instructed to enact a contingency plan or risk the event being cancelled entirely. A €50,000 fine and an additional €100,000 suspended fine were levied on the organisers after the rally.

Cutting Tanak's lead to 15.3s was as close as Evans would get to overhauling the rally leader on the road. Set-up struggles that limited the rotation of his GR Yaris left the Welshman unable to challenge an inspired Tanak, who was a comfortable 38s clear after stage 16. It proved a lifeline for Hyundai's manufacturers' title bid as Toyota managed to take four points out of the South Korean marque's lead, the gap standing at 11 points heading into the

"My feeling all the time was every corner I saw, I felt our drivers were going to go off the road"

final five stages. "It's not impossible but it will need a maximum performance from everybody and maybe a little bit of support from Ford," reckoned Latvala, who instructed his Toyota drivers to go for maximum attack on Sunday.

The Sunday showdown started in spectacular style. Tanak's Hyundai understeered at a fast right on stage 17 (Nukata) and rolled. Given how he'd dominated the rally, it stunned everybody. "To be honest, it's a complete f***-up and it shouldn't have happened," fumed a dejected Tanak, whose retirement meant his hard-earned Saturday points now went directly to new rally leader Evans and Toyota.

It also meant that one title battle was over in an instant – and Neuville's realisation of his dream came when he received perhaps the most memorable phone call of his career. "We were preparing the car ahead of the next stage, and I got a call from my assistant, and he never calls, so I thought something must be wrong and we need to be careful," smiled Neuville. "But I heard a lot of people screaming behind so I understood it was good news. It took a while to realise."

The other consequence of Tanak's crash was that Hyundai's manufacturers' title hopes were hanging in the balance, to the extent that it was level on points with Toyota heading into the final stage of the year. "At least this most stupid points system ever has delivered something!" quipped Ogier.

Without Tanak, Hyundai's hopes rested on new champion



Neuville – now in comfort zone to attack – and the returning Mikkelsen, to go up against Evans, Ogier and Katsuta on the final stage. Mikkelsen laid down a mark despite a brush with a tree, before this effort was bettered by the unleashed Neuville. But it was his perennial title rival Ogier who would steal the show with a mesmerising run through Lake Mikawako (8.7 miles) to pip the Walloon by 1.9s. It was enough for Toyota to snatch the manufacturers' crown from under Hyundai's nose by three points.

"It has been an amazing story," grinned Latvala, whose squad has won every manufacturers' crown since 2021. "It has probably been the most difficult day of my career as a team principal because it was so nervewracking to follow. My feeling all the time was every corner I saw, I felt like our drivers were going to go off the road. I was scared all the time, but they did a really nice job."

To add to Toyota's joy, Evans clinched his first win of the season by 1m27.3s from Ogier, while Fourmaux held off Katsuta to claim his fifth podium of a breakout season, with Munster equalling his career best with fifth. "We maybe didn't always have the performance we wanted during the whole weekend, but we kept trying until the end," summed up Evans.

But the last word from Rally Japan belongs to Neuville, who can now finally call himself a World Rally champion. "I think I will enjoy it more," he predicted. "There will be a little bit less pressure now as the last box has been ticked, and now everything will be a bonus."





PAJARI CROWNED WRC2 CHAMPION



Sami Pajari rounded off a breakthrough season by securing the WRC2 crown before graduating to Toyota's factory World Rally line-up for next year.

To seal the title, Pajari and co-driver Enni Malkonen needed to finish either first or second in Japan to deny Oliver Solberg, who headed the standings but was absent from the entry list having already completed the required seven points-scoring rounds.

A puncture on stage two threatened to drop the duo out of second spot behind early leader Nikolay Gryazin. The pressure was eased when Gus Greensmith found a rock face in stage three, which halted the Brit's hopes of leapfrogging Pajari.

From there, Pajari delivered a calculated and error-free drive to finish second, 1m46.5s behind winner Gryazin's Citroen, which was enough to seal the WRC2 crown to add to his 2021 Junior WRC title. It also ensured that the new Toyota GR Yaris Rally2 clinched a world title in its debut season.

"It is a really nice feeling and a big relief after basically a few days driving quite on the safe side," said Pajari, who will end his partnership with co-driver Malkonen when he joins Toyota's Rally1 squad for 2025. "After Friday midday it was looking OK and comfortable, and then it was all about being clever and not being too slow or do anything stupid.

"If you were writing a script at the beginning of the year this is something you would write as the grand finale. It was a really nice season from us and our team and from Toyota's side as they have brought a new car into the championship and in the first year it was able to win it."

While Pajari took the title with three victories, two seconds and a third, Gryazin's third win of the season was among his most impressive. "It was really dominant so I'm happy with it," said Gryazin, who finished the rally seventh overall. "I feel Tarmac quite well and I knew the Citroen would be fast on this kind of road. After the puncture for Pajari it was easy for us to manage the rally."

RESULTS WRC ROUND 13/13, RALLY JAPAN, 21-24 NOVEMBER					
POS DRIVER/CO-DRIVER		TEAM/CAR	TIME		
1	Elfyn Evans (GBR) Scott Martin (GBR)	Toyota Gazoo Racing WRT / Toyota GR Yaris Rally1	3h23m41.0s		
2	Sebastien Ogier (FRA) Vincent Landais (FRA)	Toyota Gazoo Racing WRT / Toyota GR Yaris Rally1	+1m27.3s		
3	Adrien Fourmaux (FRA) Alexandre Coria (FRA)	$\hbox{M-Sport Ford World Rally Team/Ford Puma Rally 1}$	+1m55.5s		
4	Takamoto Katsuta (JPN) Aaron Johnston (GBR)	Toyota Gazoo Racing WRT / Toyota GR Yaris Rally1	+2m02.6s		
5	Gregoire Munster (LUX) Louis Louka (BEL)	$\hbox{M-Sport Ford World Rally Team/Ford Puma Rally 1}$	+3m11.5s		
6	Thierry Neuville (BEL) Martijn Wydaeghe (BEL)	Hyundai Shell Mobis WRT / Hyundai i20 N Rally1	+6m54.1s		
7	Nikolay Gryazin (RUS) Konstantin Aleksandrov (RUS)	DG Sport Competition / Citroen C3 Rally2	+10m04.3s		
8	Sami Pajari (FIN) Enni Malkonen (FIN)	Printsport/Toyota GR Yaris	+11m50.8s		
9	Hiroki Arai (JPN) Shunsuke Matsuo (JPN)	Ahead Japan Racing Team / Skoda Fabia R5	+13m24.3s		
10	Gus Greensmith (GBR) Jonas Andersson (SWE)	Toksport WRT 2 / Skoda Fabia RS Rally2	+14m15.8s		
OTHERS					
31	Andreas Mikkelsen (NOR) Torstein Eriksen (NOR)	Hyundai Shell Mobis WRT / Hyundai i20 N Rally1	+1h32m01.7s		
R	Ott Tanak (EST) Martin Jarveoja (EST)	Hyundai Shell Mobis WRT / Hyundai i 20 N Rally 1	SS17-accident		

STAGE TIMES			
STAGE	FASTEST	LEADER	SECOND
SS1 Toyota Stadium SSS 1 (1.34 miles)	Fourmaux 1m44.4s	Fourmaux	Tanak+0.5s
SS2 Isegami's Tunnel 1 (14.71 miles)	Neuville 18m27.4s	Tanak	Neuville+0.5s
SS3 Inabu / Shitara 1 (12.04 miles)	Ogier 12m14.8s	Tanak	Neuville +1.9s
SS4 Shinshiro 1 (10.82 miles)	Evans 9m49.7s	Evans	Tanak+0.7s
SS5 Isegami's Tunnel 2 (14.71 miles)	Tanak 18m03.2s	Tanak	Evans+13.7s
SS6 Inabu / Shitara 2 (12.04 miles)	Tanak 12m00.1s	Tanak	Evans+20.4s
SS7 Shinshiro 2 (10.82 miles)	Evans 9m45.5s	Tanak	Evans+20.0s
SS8 Okazaki SSS 1 (1.58 miles)	Katsuta 2m01.1s	Tanak	Evans+21.0s
SS9 Okazaki SSS 2 (1.58 miles)	Fourmaux, Katsuta and Evans 2m01.9s	Tanak	Evans+20.9s
SS10 Mt Kasagi 1 (10.23 miles)	Evans 12m04.3s	Tanak	Evans+17.9s
SS11 Nenoue Kougen 1 (7.21 miles)	Neuville 7m40.2s	Tanak	Evans+16.3s
SS12 Ena 1 (14.16 miles)	Evans 16m38.3s	Tanak	Evans+15.3s
SS13 Mt Kasagi 2 (10.23 miles)	Tanak 11 m 30.1s	Tanak	Evans+21.4s
SS14 Nenoue Kougen 2 (7.21 miles)	Neuville and Ogier 7m32.6s	Tanak	Evans+23.8s
SS15 Ena 2 (14.16 miles)	Ogier16m06.4s	Tanak	Evans+36.0s
SS16 Toyota Stadium SSS 2 (1.34 miles)	Tanak 1m42.6s	Tanak	Evans+38.0s
SS17 Nukata 1 (12.57 miles)	Mikkelsen 11m57.5s	Evans	Ogier+1m36.9s
SS18 Lake Mikawako 1 (8.69 miles)	Neuville 8m42.4s	Evans	Ogier+1m37.5s
SS19 Nukata 2 (12.57 miles)	Neuville and Ogier 11m51.9s	Evans	Ogier+1m31.2s
SS20 Toyota Stadium SSS 3 (1.34 miles)	Katsuta 1m44.1s	Evans	Ogier+1m31.2s
SS21 Lake Mikawako 2 (Power Stage) (8.69 miles)	Ogier8m38.5s	Evans	Ogier+1m27.3s

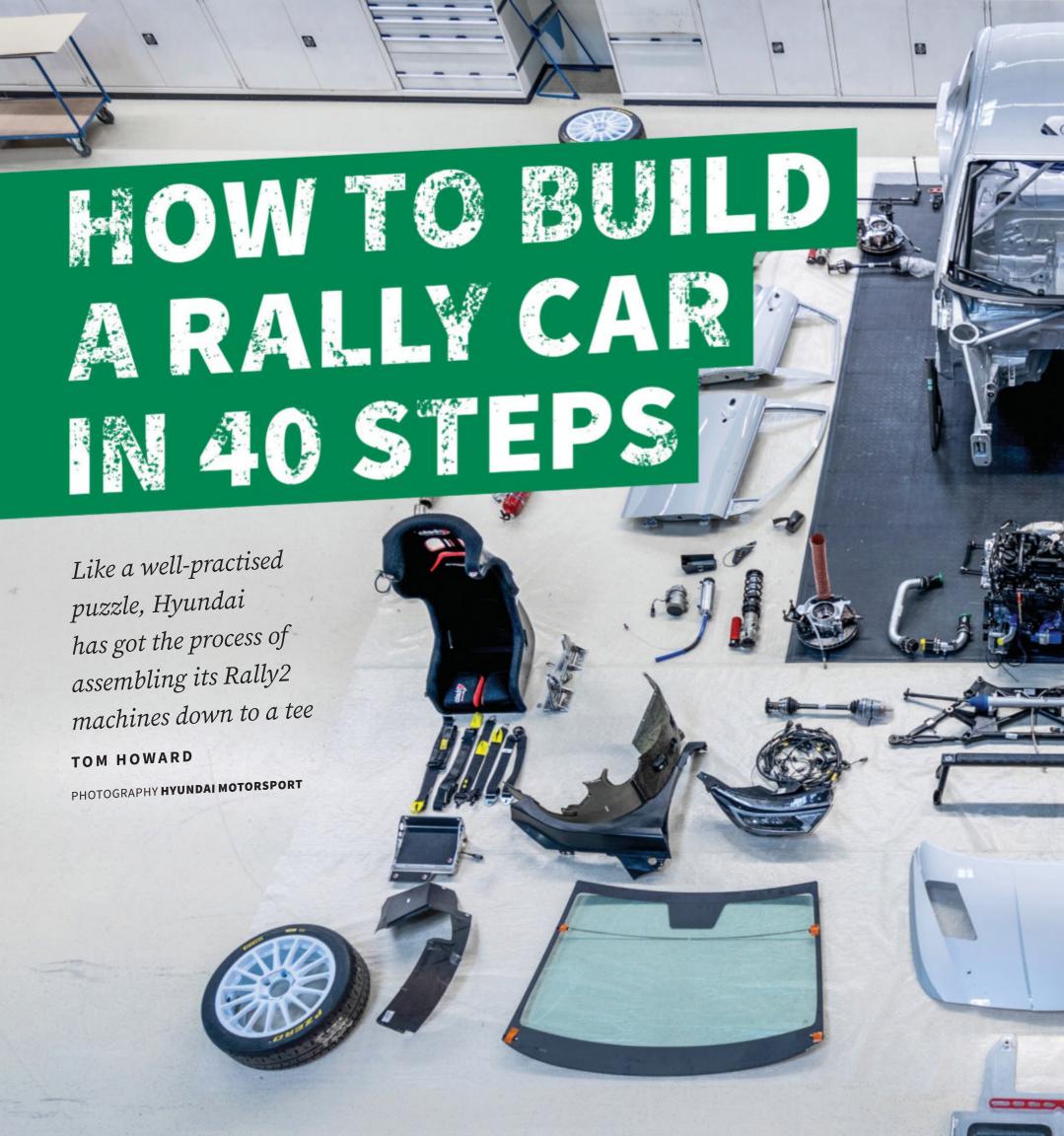


DRIVERS' CHAMPIONSHIP

1 Neuville 242; 2 Evans 210; 3 Tanak 200; 4 Ogier 191; 5 Fourmaux 162; 6 Katsuta 116; 7 Kalle Rovanpera (Toyota) 114; 8 Munster 46; 9 Dani Sordo (Hyundai) 44; 10 Pajari 44. WRC2 1 Pajari 126; 2 Oliver Solberg (Skoda) 123; 3 Gryazin 116.

MANUFACTURERS' CHAMPIONSHIP

1 Toyota Gazoo Racing WRT 561; 2 Hyundai Shell Mobis WRT 558; 3 M-Sport Ford World Rally Team 295.



t's quite easy to marvel at the sight of a World Rally Championship car darting through narrow asphalt lanes, sliding between snow banks and surviving some of the world's toughest rocky terrains.

But exactly how are these machines built?

Hyundai Motorsport has lifted the lid on the process with a behind-the-scenes look at how it constructs its €200,000 i20 N Rally2 car that competes in WRC2, and has won back-to-back European Rally Championship titles in the hands of Hayden Paddon.

Regardless of discipline, race and rally cars are built meticulously – it's a fine art to assemble a life-size Meccano or Lego set, featuring approximately 3000 parts. It's a process that Hyundai has honed to enable it to produce 30-50 cars per year from its Alzenau workshop in Germany.

"To build a Rally2 car we need around 200 hours and basically two or three mechanics work on each car, so it means we can produce a car in two weeks," explains Hyundai customer racing manager Benoit Nogier. "In Rally1 there are many parts that have to be adjusted to its tubular chassis and they have a lot more specific parts – they don't use any standard parts. We don't have too many standard parts on the car, but still for them everything is designed and with the hybrid that takes a lot of time. When the hybrid is involved they cannot have as many people working on the car, so it takes a minimum of 100 hours more than a Rally2 car to build."



STEPS 1-10

- Fuel tank
- Steering column
- Handbrake
- Centre console
- Battery and relay
- Centre blower and co-driver display
- Washer tank
- Differential disconnect
- Dashboard
- Spare wheel 1

Constructing a Rally2 car begins with a bare road car chassis, which is fitted with a safety rollcage that's then painted. This is completed before items such as the fuel tank (80 litres) and all the electrics and interior items including the dashboard, steering column, centre console and washer tank are fitted. A key part of the process involves pre-assembling components in bulk to improve efficiency. These items can then be simply fitted, which can take 15-30 minutes depending on the part.

"When we receive this bodyshell, usually we will anticipate some items from sub-assembly so the hubs for example are ready to fit onto the car, the subframes are ready, the gearbox is ready and the engine," states Nogier.

"The first two steps is to fit the tubes for the brakes and then we put the wiring loom in. After that everything that's required for the drivers and co-drivers inside of the car and the spare wheels are added. Then we have everything that we have pre-assembled, with the front and rear axles, the subframe and gearbox, and we finish with the front and rear bumpers.

"For example, one week we will decide to work on front axles and assemble 10-15 front axles, and the week after we would do

the same with the rear axle. We try to anticipate a bit and try to have in stock several pre-assembled parts of the car to make it easier. This is a way where we can keep the same level of quality."

Interestingly, the component Nogier says takes the most amount of time to fit to the car is the dashboard: "It's quite a big part and you have to adjust it to the cars. The dashboards we receive from the supplier are not all exactly the same, so you have to adjust to the bodyshell and it takes a bit of time."



STEPS 11-20

- Spare wheel 2
- Seat belts
- Seats
- Fire extinguisher
- Tailgate and rear wing
- Steering wheel
- Water pump

The next 10 steps include continued work on the interior of the car as seats, seatbelts, steering wheel and the fire extinguisher - an FIA safety requirement – are bolted into place. Once this is completed, work moves to the exterior of the car, with the rear lights, tailgate and rear wing and front doors fitted. These body panels, minus the rear wing, are standard. Only the front and rear bumpers and wheel arches are designed





specifically and are constructed from either lightweight composite fibreglass or carbon fibre.

It's at this point where the 1.6-litre turbocharged, four-cylinder engine, which produces 285bhp, is mounted into the car, along with the five-speed sequential gearbox.

"The engines arrive from the factory completely standard and we make the modifications, so new pistons etc," Nogier tells us. "The engine block and the cylinder is very close to the standard one. The rest is modified. The engine will then go onto the dyno to make sure the level of performance is as we want. After they deliver the engines to us we preassemble all the connected parts, so the starter motor, alternator, engine looms. Then we fit the clutch and the gearbox and then it is ready to go on the car."

STEPS 21-30

- Rear doors
- Power steering pump and alternator
- Cooling systems (radiator)
- Front wheel arch
- Windscreen wiper motor
- Intercooler
- Front subframe and steering rack
- Exhaust downpipe
- Propshaft
- Rear subframe and rear differential

Once the engine has been fitted it's time to attach the rear doors and fit the power steering pump and alternator – the latter is one of only two parts alongside the starter motor that is taken complete from the road car. The all-important pre-assembled radiator and cooling package required to tackle the intense conditions the car will face on the stages is then mounted, before front and rear subframes (another pre-assembled component), exhaust and propshaft are fitted.

"The first challenge is to organise ourselves and to find the best process to be the most efficient, but with experience it is becoming quite logical," Nogier reckons. "I would say the biggest challenge is to keep the same level of quality because >>









PUMARALLY HOT LAPS

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the mechanics are not always the same and because the parts are not always exactly the same, but the quality has to be the same."

At this point the Hyundai i20 N Rally2 is really starting to take shape ahead of the final set of 10 steps.

STEPS 31-40

- Front dampers
- Rear dampers
- Front and rear uprights and brakes
- Rear anti-roll bar
- Front lights
- Front bumper
- Front grille
- Add coolant
- Systems check
- Wheel mounting

The last pieces of this elaborate mechanical jigsaw puzzle focus largely on the exterior, beginning with the McPherson three-way adjustable front and rear dampers – one of the most worked and crucial components of any rally car. For the purposes of this exercise, the car in question is an asphalt model, but customers have the option to configure components such as suspension and brakes for competing in gravel conditions.

Uprights and then the ventilated brake discs (355mm diameter for asphalt

on this model) with four-piston calipers are next on the to-do list. Leading up to a systems check, the rear anti-roll bar, front grille and bumpers, and 18-inch wheels are mounted before the vital maiden fire-up.

No matter how many cars roll off the production line, the first time a completed car fires up still brings a unique sense of satisfaction to those who construct these advanced machines, capable of tackling the harshest of conditions.

"We love this job and to see a car for the first time doing a fire-up is always a nice moment for all of us," smiles Nogier. "We have been working in this activity – some of us for 20 years – and each time they start the car for the first time there's always some excitement. It's like seeing a newborn baby!"

Transforming a shell to a rally car in two weeks is no mean feat, but could this already slick process become even more efficient in the future? "We are much more organised on the re-assembling than we were in the past," Nogier adds. "I think in the past it was very much 'we build a car then do another and another one'. Now we try a bit more to anticipate the production for the next





six months. We have a bigger vision.

"I think now we've reached a certain point and I cannot see the process changing in the future. The only thing that could change is if we change technology, so if we went full EV or hybrid then you have to introduce a bit more people and process into the production of the car, but I cannot see this coming."









THE RACING SUN SETS FOR 'WESTY'

Richard Westbrook had no designs on becoming a pro when he returned to racing after five years away. But he was so good that, as he hangs up his helmet, he can look back on two decades of sportscar success

GARY WATKINS

ou've got to be honest with yourself and say, 'You know what, I've had a good run and it's time to pass the baton'." Richard Westbrook isn't just being honest with himself with those words, but also the wider world. The Briton isn't pulling any punches as he draws a line under a successful sportscar career that took him onto the podiums at Le Mans, Daytona, Sebring and beyond. Westbrook reveals that he wasn't enjoying his racing as much as in the past, that his passion for the sport was ebbing away, and that there are a few regrets as he hangs his helmet on the peg.

"My heart just wasn't in it anymore," admits Westbrook, who contested his swansong race in last month's Petit Le Mans IMSA SportsCar Championship finale at Road Atlanta. "I wouldn't say that the motivation had gone and I still believe I was performing, but I'd got to the point where I wasn't excited about getting in the car. This year was the first time I'd felt that, though perhaps a little bit in 2023, too."

It's why he took the decision not to continue for a second season at the wheel of the customer Porsche 963 LMDh fielded in the GTP class by JDC-Miller MotorSports. 'Westy', as he is known in racing circles, points out that he had a two-year contract with the team to which he

returned this year after a season competing with Chip Ganassi Racing Cadillac in the World Endurance Championship. It turned out to be an apt way to finish his career: IMSA, he says, is his "true love", and he makes no bones about his preference for racing in North America. "I've always felt more at home in IMSA: I love the circuits, I love the style of racing and I love the people," he enthuses. "I never really got on with the WEC.

"I never really got on with the WEC. It seemed to me to be rule after rule after rule"

It seemed to me to be rule after rule after rule."

Westbrook can't explain why he started to feel the way he did when he was back racing on his favoured patch, and in the top class to boot. But he knew that it had consequences for his career. "At this level you have to give it 120%: anything less than that, and you shouldn't be out there," he reckons. "If you're not revving to climb in the cockpit, it's time to do something else."







The Briton says he's "happy with the decision" and that he has made it "on his own terms", but he concedes that "he wasn't going to win a lot more" as he entered the final stretch of his time as a racing driver.

And he achieved a lot over a sportscar career stretching back more than 20 years. There were those back-to-back outright Le Mans 24 Hours podiums in Hypercar with Glickenhaus and Cadillac in 2022 and 2023 respectively, and a further trio of top-threes in class – on his debut with the Scuderia Italia Porsche team in 2010, with Ganassi and Ford in 2016, and then Aston Martin in 2020. Class wins at the Daytona 24 Hours came with Ganassi and Ford in 2018 and at Sebring 12 Hours with Corvette Racing in 2013.

And then there were the championships, two in the Porsche Supercup on the Formula 1 support bill in 2006 and 2007, and one before that in Porsche Carrera Cup GB in 2004. They were his launchpad for the successful career in sportscar racing proper that was the result. Another championship success quickly followed with a class title in the 2009 FIA GT Championship.

But it is the 'titles won' column where Westbrook has regrets: "Not winning enough championships, that will always be a bit of a regret. Too many seconds and thirds." What rankles the most, more than missing out on a Le Mans victory, is his failure to a claim an end-of-season crown in his beloved IMSA series.

That's probably not surprising given that in the first five years of the series as we know it today, which kicked off in 2014 after Grand-Am's takeover of the American Le Mans Series, Westbrook was second or third in the points four years out of five. And he was fourth in the missing year, and then fourth again the year after that run. Missing out on the overall title in the Prototype class while racing for the Spirit of Daytona Chevrolet squad in 2015 remains a big disappointment, as does failing to win the GT Le Mans class with Ganassi and Ford after ending up

a close second in both 2016 and 2018.

The overall crown went west in the ultra-wet Petit Le Mans finale won by a GTLM Porsche when the race was cut short on eight hours as a result of the conditions. Westbrook had put his Coyote-Chevrolet DP on pole by more than a second in the wet and led the early going. Two spins within the space of 30 minutes at restarts by his team-mates, full-season partner Michael Valiante plus Mike Rockenfeller for the enduros, dropped the car off the lead lap. Action Express Racing duo Christian Fittipaldi and Joao Barbosa pipped Westbrook and Valiante to the crown by just three points.

"That really hurt because we should have won," rues

"I reckon most sportscar drivers hit their peak somewhere around 36, but mine came much later"

Westbrook, who ended up fifth in class and 12th overall with Valiante and Rockenfeller in Atlanta. "I was absolutely gutted about that because Spirit of Daytona was a small team up against the big guns like Action Express and Wayne Taylor Racing. It was tough to beat them, but we were up there all season. The chance to come back was taken away from us by the red flag. That was just the circumstances as they unfolded, because it was too wet to continue."

A failure to win the title over the four years of the Ford GT programme add up to a greater cumulative hurt for Westbrook. "We had so many wins over those years with the Ford GT," he says.



"Not coming away with the championship after having gone into the final round at Petit a couple of times with a strong chance and both times losing out to Corvette was a bit galling. A victory in the IMSA championship is something that I felt my performances and those of the team deserved."

Westbrook looks back fondly on his years with Ganassi and Ford, when he was paired with Ryan Briscoe throughout. "We had such a good group of people," he recalls. "Me, Ryan, our engineer Brad Goldberg, and Mike Hull [managing director of the Ganassi team] on the pitwall calling strategy. It's a favourite time of my career."

Not just for the results notched up – eight wins and a further 10 podiums – but for the way he was driving, 'Westy' adds. He

believes he peaked as a driver in the final years of his time with Ford. Perhaps the remarkable thing about that is that he had already passed the big 4-0 when he called time on his five-year relationship with Chevrolet, first racing GT cars for the Corvette Racing squad and then its prototypes, to start his Ford adventure in 2016. "I reckon most sportscar drivers hit their peak somewhere around 36, but mine came much later," he explains. "I always say that 2019 was my best year - I was driving better than ever."

Westbrook has a theory about that. He suspects it's not so much age that slows you down, but miles on the clock. There was a five-year period when there were no racing miles at all for him. He was firmly on the sidelines after his single-seater career >>>



RICHARD WESTBROOK FAREWELL

fizzled out after a part season of Formula 3 in Germany and Austria in 1996 until his comeback in the Porsche one-make ranks in 2002. (Completists might like to know that his only miles, testing and not racing, came at the wheel of Formula 3000 Lolas with Gabriele Rafanelli's World Racing Team and Redman Bright early in what was a financially induced hiatus.)

"I still felt fresh deep into my forties," explains Westbrook.
"Maybe it was because I had those years off. I was already in my early thirties when I got the big break when I became a Porsche factory driver in 2008. And I still had a lot to learn at that time. Maybe that combined to allow me to keep on going longer than a lot of other drivers."

Westbrook never liked talking about his age during his sportscar career, as though he didn't want to draw attention to the fact that he was generally older than his team-mates. He'd bat away questions about it and describe it as just a number. "There are a lot of other more important things that make you fast in a racing car than how old or young you are," he once sagely told this author. Today, he just points you to Wikipedia when the age question comes up. It lists him as 49 in case you were wondering.

That five-year break is perhaps the most amazing thing about Westbrook's career – or rather what he went on to achieve in the 22 seasons that followed is. No one could have predicted, when he made his comeback in the Supercup with the Kadach Tuning team, that he would go on to become a factory driver. And not just with Porsche. Over the course of what he calls his second career, he has also had full or quasi-factory contracts with Chevrolet, Nissan, BMW, Ford, Aston Martin, Glickenhaus and Cadillac.

"I didn't really know what I was doing except that I wanted to get my bum in a racing car again"

"I pinch myself sometimes when I look back over those 20 or whatever years and think what I have achieved," he states. "Sometimes I couldn't believe what was happening to me: I went from doing nothing in London to driving for all these manufacturers. But I think those five years off made me stronger because I never took anything for granted."

But he did take a risk to end his layoff. Westbrook eventually decided that enough was enough and he was going to try to get back on track. He knew about the Supercup because the Opel Lotus Euroseries in which he won races in 1994 and 1995 also appeared irregularly on the F1 bill, so he sold his flat in Stockwell, South London to buy a drive with Kadach.



The equity only stretched to a part season, but it was enough to get his foot in the door. Westbrook pulled together some bits and pieces of sponsorship to enable him to carry on racing the following year in the British Porsche series. The Carrera Cup GB title in 2004 took him back to the Supercup as a paid professional and onto the factory drive with the German manufacturer.

It's a fairytale really. Especially when Westbrook admits that he didn't set out on his comeback with a clear plan to become a professional racing driver. "I didn't really know what I was doing except that I wanted to get my bum in a racing car again," he laughs. "All I knew was that not racing made me miserable: in my mind I was never an ex-racing driver. I can't say that there was





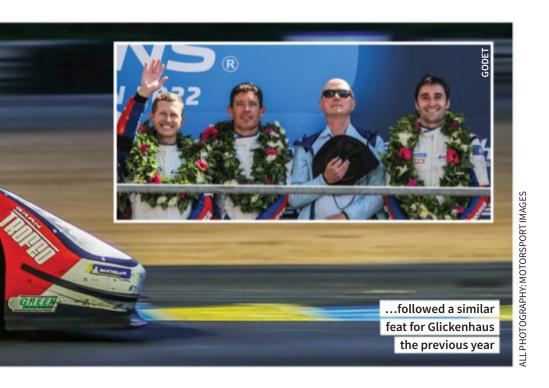




a grand plan and that I set out to start getting paid. But I was able to turn racing into a career, and that's something I'm proud of. "

There are all sorts of rumours about what Westbrook did in his seasons out of racing. He could have been anything from a debt collector to beach bum if you believe them. The reality is that he tried all manner of jobs and none of them floated his boat. And the one that did spark interest in the young Westbrook brings us on to what the future holds for him.

When he took the plunge and sold his home, Westbrook was in the middle of training to be a chef at college in London. "That was the only thing that I thought could replace racing in my life," he recalls. "I started a year-long course, but I didn't finish it



because racing took over. But I always say that if I hadn't ended up being a racing driver, I would have been a chef."

More than 20 years on, the same "love of flavours and recipes" has led him to start brewing beer. The catalyst for Westbrooks Brewery, established in 2022, was his inability to find low-carbohydrate beers in the UK. "I'd been big into nutrition to try to extend my career and always looking for ways to cut down on the carbs," he explains. "I've always liked a beer, I don't shy away from admitting that, and after a race in the United States I would have a couple of low-carbs. Whenever I came back to the UK I would find it frustrating that there was nothing out there in terms of those kind of beers.

"I wanted to do a low-carb beer that reflected on the craft brewing scene, not the fizzy dog wee you get in the States. We're trying to do something different, hop-forward beers, as is the trend, but without the sugar and the carbohydrates for those of us who are trying to look after our waistlines."

The result of that desire is a range of beers that Westbrook started to work on in 2020 in conjunction with an independent brewer in his native Suffolk. The first, released in 2022, is known as Laguna and is a west coast pale ale, then there are a couple of lagers, Karussell and Peraltada, and two more ales, Lime Rock and Dingle Dell. The names, says Westbrook, are a "subtle nod" to his racing exploits rather than a marketing ploy. "Some people think we are trying to sell to the racing market, but we aren't," he explains. "I'd say 99% of our customers don't know a now ex-racing driver is behind these beers."

Brewing – which Westbrook currently outsources, though he has ambitions to start his own brewery – drives him in the same way that racing did when he was a whippersnapper dreaming of F1 and then for another 20-odd years in his second career. One passion appears to have replaced another.

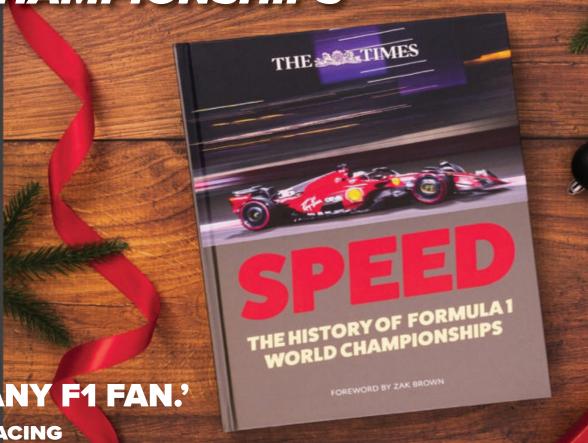
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6

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About you

- Significant experience of motorsport event garage operational experience (both factory and trackside).
- Familiar with race event tyre management, including in session pressure adjust, engineer and supplier liaison.
- Experience with truck maintenance and stock keeping.
- Familiar with road and air freight operations
- A confident self-starting team player, familiar with the fast paced and ever-changing requirements of a race and test team environment.

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- Contribute to automated robustness assessment of production simulations, applying knowledge of viable and physically achievable component fitments
- Assessment and comparison of differing modelling approaches and simulation strategies for performance and robustness impact.

Education and Work Experience:

• GCSE, High School diploma or equivalent, and further education including a bachelor's degree in physics, or in some branch of mechanical engineering will be required. Masters/PhD preferred. At least five years' experience, in either motor racing, or in a Vehicle Dynamics or Performance aspect of mainstream automotive engineering is strongly preferred. Prior experience in Formula One would be beneficial.

Specialized Knowledge and Skills:

- Strong technical background in vehicle dynamics or racing car
- High level of mathematical fluency, with experience in system mathematical modelling and analysis
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- Analyse automation and reporting requirements expressed by diverse business users.
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- Develop PowerBl reports and dashboards embedding effective visualisations.
- Ensure attention to deployment, performance, and maintainability.
- Embrace the continuous integration process and platform, and the observability principles.
- Report on progress to project managers and/or business requestors.

Candidate Profile

Essential:

- Experience in software development and coding in various object-oriented languages (C#, Java, etc.).
- Experience in UI/UX design.
- Experience in developing Microsoft Power Platform solutions (PowerAutomate, PowerApps, PowerBl).
- Knowledge of Camunda, Automation Anywhere RPA, Python, Kafka.
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- Translate physical systems into mathematical models, ensuring accuracy and reliability.
- Collaborate across teams to deliver projects to agreed deadlines, contributing to the team's overall success.
- Continuously seek opportunities for process and technology improvements

Who you are:

- To thrive in this role, you'll need a strong academic background in mathematics, engineering, or computer science. Your expertise should include numerical analysis, calculus, nonlinear constrained optimization, and translating physical systems into mathematical models.
- You'll be proficient in developing numerical algorithms in C/C++ (with experience in BLAS/Lapack) and have working knowledge of Python or MATLAB. Familiarity with Modelica is advantageous but not essential.
- A collaborative mindset is vital, as you'll be working closely with teammates to solve challenges and innovate. Above all, you should be motivated by new challenges and committed to continuous improvement, bringing fresh ideas and enthusiasm to the role.

What we're looking for:

- A degree in Mathematics, Engineering, or Computer Science.
- Expertise in: numerical analysis & linear algebra, nonlinear constrained optimization, optimal control, calculus, mathematical modeling of physical systems
- Proven experience developing numerical algorithms and simulations in C/C++ (including BLAS/Lapack).

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Argenti partners with Prema for GB3 bid

GB₃

British Formula 4 squad Argenti Motorsport has entered into a partnership with Italian single-seater powerhouse Prema Racing for an expansion into GB3 next year.

The Argenti team's roots lie in karting but it moved into car racing for 2020 in British F4. It has been a mainstay of the series since then, alongside continuing in karting, and guided Matias Zagazeta to second in the 2021 points.

Now it has formed a "full technical partnership" with Prema, which has enjoyed success across a swathe of European and international categories, and this involves Prema engineers working with the team and the sharing of data. The new arrangement has enabled Argenti to join GB3 for 2025,

when a new car – featuring DRS and improved aerodynamics – is introduced.

"We've worked with each other for a while and had some overlap – for example, we had a karting team in Europe which Prema took over and various drivers have been across both, so there's been a bit of a relationship there," said Argenti boss, two-time Porsche Carrera Cup GB champion Michael Meadows. "Our interests were aligned and it's beneficial to everyone. It's great for us and great for the championship to have teams like Prema wanting to be involved."

Prema boss Rene Rosin added: "The launch of a new car is always exciting, and it falls in line nicely with our current programmes. Through our technical partnership, I am sure we can enjoy

considerable success in GB3."

Meadows revealed that discussions about the GB3 plans had been ongoing since April and that the team had looked into joining the series in the past. "We wanted to do it for a few years but it never made sense until there was the introduction of a new car and the investment was worth it," he said. "The car looks really good and I think there's going to be a lot of interest in the championship, so we wanted to make sure we were a part of it."

Argenti has become the second British F4 squad to reveal an expansion into GB3, with Xcel Motorsport doing likewise. Meadows believes the new car and extended European leg of the GB3 schedule means the series could replicate the "glory days of British F3". STEPHEN LICKORISH

More teams commit to refreshed GB4 for 2025

GB4

More teams have also pledged to enter GB4 for next season's introduction of a new car based around the current GB3 machine, and sporting a halo.

GB3 operation Hillspeed is set to return to the category for the first time since 2022, while ADM will make its series debut – that squad's previous focus was historic single-seaters and Formula Ford, and it is headed up by former British F3 racer and ex-Arden GB3 team manager Gary Ward.

"It's a fantastic new challenge for us at ADM to join GB4 for 2025," said Ward. "The arrival of the new car means this is going to be a very competitive series and I'm pleased to say we've already finalised a contract with our



first driver, who we will reveal in the coming weeks."

Hillspeed boss Richard Ollerenshaw added: "The introduction of the new car is a significant step forward from the current GB4 car, which has served the championship well for the last three years. GB4 is embarking on an exciting new era and we're proud to be part of it."

MA7DA CHAMPION PLANS MORE FF1600 OUTINGS

FORMULA FORD

Ma7da champion Ben Powney says he will only contest selected rounds next year and instead focus on a campaign in Formula Ford machinery.

Powney has raced in Ma7da since its inception in 2020 and, after finishing runner-up on two occasions, finally clinched the title with Team Sellars Racing this season. He also entered the Formula Ford Festival in a 1992 Jamun M92, and intends to race the car in the British Racing & Sports Car Club's Super Classic Pre-'99 series.

"I've raced in Locost and Ma7da for what feels like ages, it's probably nearing 10 years – now I've done it and won the championship," said Powney, who also intends to race a 1971 Jamun T3 in Historic FF1600.

"I've built a good relationship with Peter Alexander of PA Motorsport – he's based five minutes up the road and he's a real Formula Ford enthusiast. It's a bloody exciting challenge, just such good fun. I had an adrenalin rush for about five minutes after the first Festival race – that got me hooked." STEFAN MACKLEY





Ultimate Racing Championship is launched for touring cars

CLUB TIME ATTACK

Club Time Attack is planning to increase its circuit racing offering next year by launching a new championship for under two-litre turbocharged touring cars built since 2011.

The organisation is celebrating its 20th birthday next season and has spent much of that time focused upon its Time Attack sprint-style competition and drifting, but has started to organise conventional circuit racing in recent years. Its Racing Hondas series enjoyed a surge in popularity for its second campaign this year after sponsor Tegiwa heavily subsidised entry fees.

Now Time Attack chief Andy Barnes, who previously ran the JRM Nissan GT-R FIA GT1 squad, believes there is an opportunity to move into multi-marque touring car racing with the new Ultimate Racing Championship. He wants to create a low-cost category that enables drivers with suitable cars that are currently mothballed to get involved. NGTC British

Touring Car machinery as well as TCR cars are among those that would be eligible.

"Now we've got room to expand the club and start running more meetings and start putting our take on racing," Barnes explained. "The concept is really simple – there's an abundance of cars that are out there and it's very simple for us to get rid of some of the costs for teams. We're trying to make it more accessible, take away the red tape, take away some of the costs and put the drivers in front of 10,000 people at an event. We're not looking to tread on anyone else's toes – there's enough cars out there."

Barnes said entry fees will be just £450 because of sponsor subsidies, and Hankook tyres will also be available at a discounted price. A simplified Balance of Performance system will be introduced and Barnes added that "we're not interested in control parts". Instead, drivers will be able to fit like-for-like parts to their cars, and anything substantially different to the original will need special dispensation from organisers. STEPHEN LICKORISH





Group C race at the Silverstone Festival

SILVERSTONE FESTIVAL

A race for Group C cars will feature as part of the Silverstone Festival for the first time in nearly a decade next year when Masters Historic Racing's new Le Mans 80+ series joins the time table.

The mighty prototypes were a popular fixture of the Silverstone event up until 2017 when dwindling grid numbers led to just a few demonstration appearances. But the cars will now be back with a 40-minute contest on the Saturday evening of the 22-24 August meeting.

"Group C has always been a massive crowdpleaser at the Festival and, as soon as Masters announced this super-exciting new grid, we knew we had to squeeze it onto the bill," said event director Nick Wigley. "Aside from possibly Le Mans, there can be no better place to watch Group C cars in flat-out action than on the full Silverstone Grand Prix circuit where they excelled in period."

The new Masters category is open to Group C and IMSA GTP cars constructed from 1982 to 1993, and Masters CEO Frederic Fatien is optimistic of a large grid. The Silverstone Festival will be the only UK visit for the series, which will also head to Paul Ricard and the Nurburgring for its other European rounds.

Popular Roadsports category to become a championship for 2025

ROADSPORTS

The 750 Motor Club's popular Roadsports series will become a championship next year following requests from drivers.

The category caters for a wide variety of cars and features a mini-enduro format. It has been one of the 750MC's best-supported series in recent seasons, with its grids



averaging 38 entries for the past two years.

"It's something we've thought about for the last few years and it's very much a case of listening to feedback from drivers," said the 750MC's James Winstanley. "Some people in it have got Club Enduro to focus on but, for people with Roadsports as their main thing, especially for those in the lower classes, it's something they really wanted.

"Roadsports is a really good paddock with lots of family teams and people are friends within their own class. It [championship status] won't affect anything for people who don't want to chase a championship – it won't change the dynamic."

Several tweaks are also being made to Class C of both Roadsports and the similar Club Enduro category in a bid to reduce costs. Restrictions will be placed upon tyre width, as well as limits on suspension, brake and bodywork modifications.

STEPHEN LICKORISH

MIGHTY MINIS TO HAVE ONE CLASS AFTER 750MC MOVE

MIGHTY MINIS

The Mighty Minis Championship will adopt a single-class structure for next season when it joins the 750 Motor Club's ranks.

The series has been administered by a variety of different clubs in the past, most recently the Castle Combe Racing Club, but will now join the 750MC for its 30th season in 2025 after appearing at several of the club's meetings over the past few years.

"All of the [750MC] events we've been at have been very well subscribed and had quite a variety of cars that were entertaining when we're not watching Mighty Mini racing," said coordinator Rodger Tello. "It seemed like an obvious choice."

At the same time, the poorly supported and more expensive Super Mighty division will be dropped. Instead, all drivers will use a tweaked engine specification that offers a power output roughly halfway between the current Mighty and Super Mighty classes. Tello is optimistic that the changes will boost grid numbers for next season and provide a better spectacle.

"We've got six or seven Super Mighty Minis drivers all fired up because it's a new challenge for them," he said, adding that the modifications have been tested to ensure the differential could cope. "We had 30 drivers coming through the championship last year and I think we'll be seeing very close to that 40-car limit next year. Everyone's really excited about the future."

The 750MC's James Winstanley added: "They feel at home with 750MC – they seem to fit in perfectly. We're delighted to have them officially under our wing."
STEPHEN LICKORISH



Perez masters

the storm for title

HISTORIC RALLYING

Seb Perez and Dale Bowen mastered a truly challenging Rally Anglo Caledonian over the weekend, as Perez secured the British Historic Rally Championship.

The arrival of Storm Bert made the new two-day event in the Scottish Borders a huge challenge, as heavy snow fell on Saturday morning across the stages in the Kielder forest.

Perez and Bowen in their Porsche 911 mastered the conditions and took a resounding victory despite running first on the road in the two-wheel-drive pack. They ended the rally a massive seven minutes up on the Ford Escort Mk2 of Paul Thompson and Josh Davison, as Perez claimed two maximum scores in the BHRC division.

However, the planned showdown between Perez and Mark Higgins for the title failed to materialise when Higgins injured his shoulder in the build up to the rally and was forced to withdraw his Triumph TR7 V8.

It also allowed Perez's usual co-driver, Gary McElhinney, to be crowned co-driver champion even though he was away competing in New Zealand at the time.

With snow, ice and then later thick fog on the Saturday stages, it was a trial of survival for many and, when Perez changed to a more suitable tyre for the two stages with the deepest snow in the central block of Kielder, he took a massive margin over his rivals.

The conditions caused chaos and claimed a number of leading contenders, including Nick Elliott (Fiat 131) and Ben Friend (Escort Mk2). Instead, it was Thompson/Davison and David Henderson/Will Atkins (Escort Mk2) who led the chase of Perez.

Sunday was a totally different day, with clear gravel stages and bright sunshine in southern Scotland, as Perez completed his winning run, despite a late scare with a gear lever problem. "It's been a great two days, but today was like a different rally," said Perez at the end of Sunday.

PAUL LAWRENCE

Bradley targets Pikes Peak run

HILLCLIMB

Leading British hillclimber Damien Bradley is planning to take his 800bhp Subaru Legacy to Pikes Peak next June to tackle the world's most famous hillclimb.

Bradley has been a leading contender in the Legacy over several seasons in UK hillclimbing, but now plans to take on the ultimate event in the car that started out as a £500, 87bhp, two-wheel-drive shopping car.

Bradley said: "It's the ultimate dream

and what I've set my sights on to achieve with the Legacy. I'm hopeful that we will get selected for the event and an opportunity to go to Pikes Peak is something I need to grab with both hands."

Bradley is currently having the Legacy reworked to cope with the altitude, as the 12.4-mile Pikes Peak climb in North America rises to 14,000 feet above sea level.

"It's going to be quite a challenge," said Bradley, who is having work done on the cooling system, turbo



intercooler and engine mapping to deal with the new challenge. "It's quite different at the top of Pikes Peak to the top of Shelsley Walsh in terms of what the car is going to have to do!" PAUL LAWRENCE



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TOCA JUNIOR AT KARTMANIA
The TOCA Junior Championship will
attend karting show, Kartmania, this

weekend at Silverstone to entice young drivers into the fledgling

category. Championship director

director Vickie MacClinton will both be on hand to answer questions

teenagers aged 14-17 and race on the

British Touring Car Championship

support package. MacClinton said: "It promises to be a busy event and

we're excited to welcome everyone

Dave Beecroft and operations

about the series, which will use

all-new Chevron B1417 cars for

Andrew Schryver 1939-2024

OBITUARY

The passing of historics racer Andrew Schryver on 15 November, aged 84, has taken both a quiet genius whose competitive spirit spanned two eras, and a pioneering electronics engineer.

Schryver raced Minis at Goodwood in 1962 and 1963, before family and work commitments reset his focus. His interest was rekindled in 1981 when younger brother Michael started racing Lotuses – a trajectory that peaked with the 1996 FIA Thoroughbred GP crown in a 72.

Andrew subsequently returned to the tracks with a Lotus 11 and, enthused by Michael's Chevron B6, bought a B8 in 1997.

With business partner Hector Brown, Schryver built and ultimately sold electronics companies including Sigma Car Alarms and Lynwood Scientific Developments, as well as Farringdon Instruments, which started in 1995 and where Schryver worked, supplying motorsport gauges, data logging equipment and specialist steering wheels.

Having supported the driving career of son James in Formulae First and Renault 1700, Schryver shared the B8 and later open Chevrons (B21/23 and B26) with him,



achieving International Supersports Cup and domestic Historic Sports Car Club success.

"While Andrew enjoyed driving, he loved preparing the Chevrons at home, with painstaking attention to detail, but devising electronic solutions was his forte," said brother Michael. "He was incredibly clever and a bloody good bloke."

Schryver is survived by wife Gilly, James, daughters Amy and Louise, to whom Autosport extends sincere condolences.

MARCUS PYE

to come and find out more about the car and the package as a whole." PEMBREY FOR SCHOLARSHIP

Pembrey will host the Junior Saloon Car Championship's 2025 scholarship on 22 February. The winner will receive a fully-funded season in the series, worth more than £30,000, with entrants on the day put through assessments including media, fitness tests and showcasing their attributes behind the wheel on-track. Previous winners include last year's victor, Will Crewdson, and British Formula 4 champion Deagen Fairclough.

KARTERS JOIN XCEL IN F4

Xcel Motorsport will run karters
Theo Palmer and Cole Hewetson
in next year's British Formula 4
Championship. Palmer will miss
the opening round as the Briton
will only turn 15-years-old after
Donington Park. He will then join
South African Hewetson, who will
race with Xcel in F4 UAE over the
winter ahead of the UK campaign.

FULL ENTRY AT DONINGTON

A capacity entry will line up for the Donington Stage Rally, round three of the Circuit Rally Championship, this weekend. Reigning champions Michael Igoe and Will Atkins' Citroen C3 Rally2 (below) will again go head-to-head with fellow champions John Griffiths and Emma Morrison, who took the spoils in their Skoda Fabia R5 on the last round at Cadwell Park after Igoe crashed.



Ramair BMW Championship gets standalone grids for 2025 season

CSCC

The Classic Sports Car Club's Ramair BMW Championship will get standalone grids next season, having shared with the Open Series for much of this year.

The category, formerly known as Kumho BMW, joined the CSCC's ranks from the British Automobile Racing Club for this season and had struggled with small entries in recent years. These numbers rose following the switch and, with several Mini drivers expected to swell its ranks for 2025, the CSCC has opted to give the championship its own track time.

"The number of people registered showed there's a good interest in it," explained CSCC director David Smitheram. "Secondly, a whole lot of Mini drivers have approached us – some we've talked to used to race in Turbo Tin Tops and some raced in Kumho BMW in 2022 and now want to come back. So we thought, 'Let's go all in and give them standalone grids'."

Smitheram added there had also been a focus on driving standards this year and is optimistic that some competitors, who opted to sit on the sidelines and see how the CSCC switch played out, will now enter the fray.

STEPHEN LICKORISH







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Challenges of switching codes

The BRDC SuperStar talks about his transition year from GB3 to Porsche Carrera Cup GB race winner

MATT REES

oming out of GB3 at the end of last season, I
wanted to have a chance to prove myself against
some of the best drivers in closed-wheel racing,
something I hadn't driven before. The Porsche
Carrera Cup GB appealed to me because it's a hard
car to drive and a lot of people said to me, 'If you can drive that,
you can drive anything.' That was the main thing, because it
allows me to pick up experience in one of the hardest cars out
there, and in the long run it's great experience to take with me.

It was difficult to learn how to drive the car, so the technique when I first got in was hard to apply. Throughout the year things got better, and that was proven by us having pace towards the end. The main difference from single-seaters is in those categories you don't touch the brake through the corner at all, because the car is so sensitive to the balance, whereas in the 911 it needs brake application otherwise it won't turn into the corners. You just have to change your mindset and then it clicks.

Taking pole position at Donington Park on the first weekend was a nice confidence booster and showed us that what we were doing was right. Throughout the year we moved forwards with our pace. At every round from then onwards we didn't struggle too much with overall pace, and we scored a first podium on the second weekend at Brands Hatch, which was nice.

At Knockhill I was having problems with the brakes at the first turn, so I moved the seat backwards, which helped, but then I didn't put it back where it should be. Because of that, my brake pressure wasn't where it should be, so it caused issues for a few rounds while we tried to figure it out. We fixed it, and we were fast again. It was annoying as it was such a simple fix, and it was something I should have noticed sooner.



Racing at Knockhill was a strange experience in the Cup car. The last time I went there was in F4, and the car was basically a canoe with fuel, so I couldn't touch any kerbs. In the 911, getting used to really hitting and riding the kerbs took me a long time, and in practice I was eight tenths off the pace, though we managed to get on top of it for Saturday's qualifying. Again, it was about changing my mindset.

Qualifying was really important in GB3, so the approach hasn't changed much in the Carrera Cup. If you mess up qualifying in either series your weekend is done, so it just amplifies the pressure to get the perfect lap in. In GB3 you could get away with a half-decent lap and probably still be in the top 10, but in the Carrera Cup, if your lap isn't perfect, you will be well outside of the top 10. It makes you a perfectionist and that is nice, as it helps you to learn quickly.

On some weekends you just can't make any progress through the pack, but then at Croft, which isn't the easiest track to overtake on, I managed to go forwards. And in the second race there I got my first win, so it took a bit of pressure off me.

It was nice to end my year with Team Parker Racing as the Rookie champion, though it wasn't what we wanted from the season. We came into the final two rounds close enough to be a factor in the overall championship, so it was annoying that we couldn't manage to do anything there, but winning a title is always something we'll take. It means we have experience from this year, which we can apply for 2025 and push on to try and win the main title. Drivers need to do a few years in the series as experience helps, and the other frontrunners, like George Gamble, Hugo Ellis, Charles Rainford and Will Martin, have all done two or more seasons in the car. In the long run it works for you as you learn to drive the hardest cars quickly.

It would be nice to add in a second programme, in another Carrera Cup series, but if it's a mid-tier drive it wouldn't be worth it. If you could hook up with a nice team and race at the front, maybe we'd be open to the idea, but we'll see. Everything for 2025 is up in the air right now.

Wera Tools put their belief in me this season and the support they've shown me is incredible. I went to the Goodwood Festival of Speed with them, which is something I've never been to, so that was a great experience, and it was nice to show people what we're about and how serious we are.

The experience of being part of the BRDC SuperStars is one that has been a positive for me. It's good coming to the grand prix and seeing everyone, especially with how many people turn up these days, and taking part in team and training days with everyone else on the programme is also good. Having the support and belief of people in the BRDC is a really nice boost.

TEEN TALENT EXCELS ON HIS CIVIC DUTY

Max Edmundson has won back-to-back titles against a competitive field in the Civic Cup and is now looking to progress up the tin-top ladder

STEPHEN LICKORISH

he Civic Cup has developed a reputation over the years for being a hugely competitive championship. The cars are closely matched and there's always a cluster of star names at the front. Take a look at this season's grid – the likes of 2019 TCR Europe champion Josh Files, 2021 TCR UK conqueror Lewis Kent, past victor Alistair Camp and Liam McGill, a multiple title winner in Fords, are just a few of those on the entry list. But, despite the quality of the opposition, it's the same driver who has ultimately prevailed in each of the past two years: Max Edmundson.

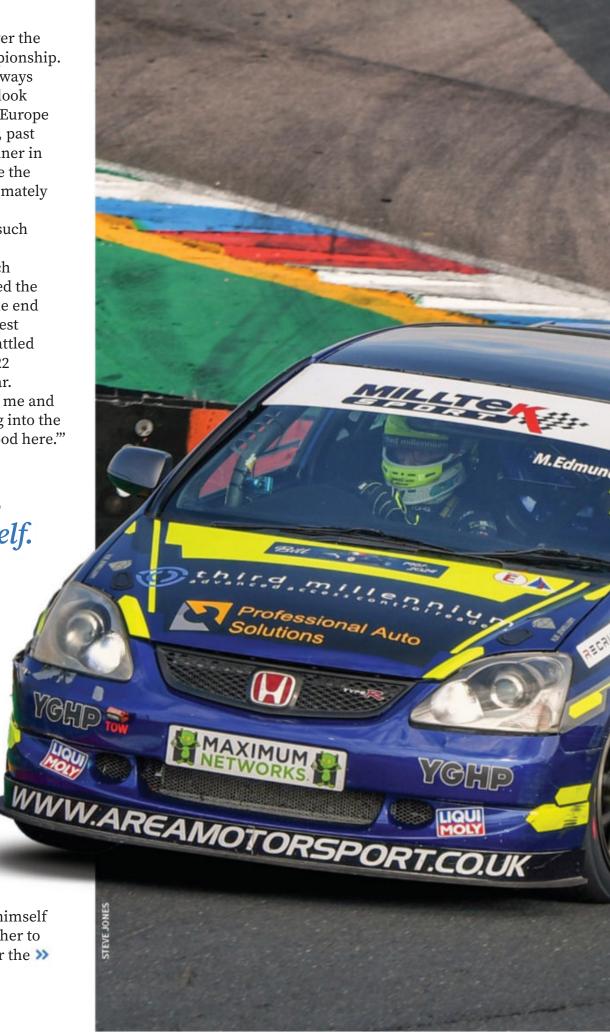
The category may not have the highest of profiles, but such results have marked the 19-year-old out as a rising star of the tin-top world. Especially when you consider how much Edmundson has progressed as a driver since he first joined the category as a karting graduate, having just turned 16 at the end of 2021. Across his first year and a half in the series, his best results were merely a couple of fifth places and he also battled a few mechanical problems, but a performance at the 2022 finale at Snetterton gave him optimism going into last year.

"At the last round, I had the previous champion behind me and he wasn't reeling me in," recalls Edmundson. "I was going into the off-season thinking, 'Next year I could have something good here."

"I decided to calm myself down, use my head and believe in myself. I was like a different person"

Allied to a switch to the frontrunning Area Motorsport squad (see panel, page 68), things were looking up for Edmundson. But a tough beginning to the campaign meant he needed a rethink. "At the start of 2023, I had the pace but I didn't *believe* I had the pace," Edmundson admits. "I got a win at round one but was defending like a bit of an idiot so that got taken off me. After then getting disqualified from Croft [the second round], I decided to calm myself down, use my head and believe in myself. I calmed myself and was like a different person."

Having worked with the Area team to achieve that shift in mentality, the results were immediate. From that Croft disappointment onwards, Edmundson finished outside of the top two on only three occasions across the next 11 races to catapult himself into title contention. When key rival Dan Thackeray, another to have achieved plenty of success in Honda machinery over the >>>







years, suffered a nightmare Brands Hatch finale with engine woes, Edmundson was there to pick up the pieces and seal the glory with a brace of victories.

Yet finding the budget to go racing has never been easy and Edmundson opted to try for a second Civic title for 2024. "People could have said it was a fluke the year before but I came back the next year, with harder competition, and won in a more dominant way, which felt great," Edmundson explains. "Some great names came into it, like Josh Files and Lewis Kent. Any of the top 15 could probably win a race and that's what spurred me on."

Files was among his Area team-mates for the new campaign and Edmundson describes him as "like my big brother". "Me and Josh worked well together – he was helping me with the data," he adds.

This bond developed into the pair sharing a Civic Type R in a Snetterton Saloons round when Files's regular co-driver was unable to make it. "I outqualified Josh in his own car!" laughs Edmundson, who says he struggled more for race pace, although they still netted class success. "I'm used to Civic sprint races so it was weird him getting out of the car and me jumping in."

The pair may get on well away from the track, but they also had some terrific battles on it in the Civic Cup – and these were helping to get Edmundson noticed. "I saw him at Oulton Park, he was duking it out with Josh Files and the pair of them were gapping the field," says Pete Jones, managing director of the Restart Racing British Touring Car team and someone who helps support promising drivers who struggle for funding. "He's a real talent."

When one of Edmundson's sponsors dropped out, Jones stepped in to help him continue his march to another title. Nine wins and four further podium finishes, including some brilliant charges through the field during the reversed-grid contests, helped propel him to a more comfortable triumph and dispel any lingering question marks surrounding his 2023 success. Such performances mean Jones believes the teenager can make it to the top of the tin-top tree. "I see him as a future BTCC driver," reckons Jones,

HOW AREA'S SUCCESS IS SPREADING TO NEW FRONTIERS

Max Edmundson's two Civic Cup titles have extended Area Motorsport's incredible record in the series to eight titles in 11 years.

While Edmundson and multiple TCR champion Josh Files duelled for this year's crown, Alistair Camp and Harvey Caton also contributed to an unprecedented clean sweep of race wins for the Staffordshire-based squad, whose drivers filled the championship's top six.

"I don't think we've really done anything different to previous years as a team," says Area boss Rob Baker, who himself won the Civic title



in both 2014 and 2018. "We've certainly ensured that everything is identical across the board on the cars – set-up stuff down to a millimetre, down to a kilo on the corner weights, all that sort of stuff. So, when a driver is saying 'my car's doing this' and another one's saying 'mine's doing this', I know straight away that it's the driver and not the car. And I'm not harsh with the drivers, but I'm not scared to tell them that: 'You're telling me the car's understeering but in reality it's you creating the understeer.' I think they all appreciate that."

The former Pyro Motorsport engineer founded the team when others wanted to emulate his success in Civics. It has quickly established itself as a powerhouse in national and club racing. Baker and Carl Swift scored three consecutive Club Enduro crowns over 2020-22, and Area has won 20 races in TCR UK since 2021. This year it also swept the board in the inaugural Audi TT Cup championship season, winning 16 of 18 races as Bradley Burns headed team-mates Matt Luff and Swift in the standings.

Baker is particularly proud of his squad's





who has also supported the likes of Chris Smiley, Ronan Pearson and Dan Lloyd. "If he's not in a car, he's on a sim – that's all he thinks about – and it shows. He's pretty wily and very reflective of his choices. That's why he's been so successful because he's driving beyond his years."

For all his success in Civics over the past couple of years, Edmundson confesses to not exactly being overenthusiastic about joining the championship originally. "A friend was doing it at the time," he explains of how the Civic Cup first appeared on his radar. "I didn't want to race a Honda, then I jumped in and loved them! They're low power so you have to keep the momentum up and they're not on slicks. It's close, clean, competitive racing – that was what interested us."

But, with two titles now under his belt, it's time for Edmundson to try to progress up the racing ladder – not that he's expecting it to be easy. The top JCW class of the Mini Challenge or TCR UK are the categories he has considered to continue the front-wheel-drive

"I didn't want to race a Honda, then I jumped in and loved them! It's close, clean, competitive racing"

theme, but Edmundson says it's now all down to finances. "The Civic Cup is great value for money but there's nothing that's a small jump from it," he says, adding that he does indeed have an eye on the BTCC for the future. "My long-term goal would be to make a career out of it. But it all depends now on budget – and if I don't raise the budget, I won't be racing."

Considering the manner in which Edmundson has established himself as the Civic pacesetter, and beaten far more experienced drivers in the process, he would certainly be deserving of that move onto a bigger stage.





performance in the new arena. "You have to say Civic Cup, yes, it's nailed down," he admits, "but we've done something new this year and, in a way, dominated that as well. Other people have had the leg-up in terms of experience, doing them the previous year. I hadn't done anything with TTs until probably January this year. I did three test days with Files, and that's how we ended up with our base set-up for the TTs. I think sometimes

you've got to invest your own money."

Contesting three championships on the same package means regularly having 15 cars to tend. For a team with only two full-time employees working alongside Baker, the logistics are a challenge, but preparation is key. "I'd say that 50% of racing is won in the workshop, ironing things out so you're not chasing your tail on a test day," reckons Baker. "I definitely use

my time wisely with drivers. I don't sit there for an hour looking at finer details, I look at the bigger picture with most of them.

"Ultimately, I have the right staff in the right places. A lot of the staff have been with me seven, eight years. When we had seven new people this year, I could be confident that they're showing them how we do things correctly."

MARK PAULSON

FINISHING STRAIGHT



BOOK REVIEW

INSIDE MERCEDES F1: LIFE IN THE FAST LANE Matt Whyman RRP £22

When an F1 team

The inner sanctum of Formula 1 is open to precious few people and,

even then, the daily workings of teams, with all their secrets, are open to fewer still. Even to the media, access is strictly limited.

It is with this in mind that the pages of Matt Whyman's *Inside Mercedes F1*: *Life in the Fast Lane* passed by with sheer amazement at the level of behind-thescenes access that had been permitted and, seemingly, requested by Mercedes, with a message of 'we want you to push us, and we will push you'.

Despite this, there is a detectable sheen of PR and messaging that comes across, with the only hint of a slip coming in the much-talked-about comment from team principal Toto Wolff, when he says "everyone has a shelf-life" while speaking about seven-time world champion Lewis Hamilton.

Whyman was embedded within the Mercedes F1 team throughout the 2023 season, a campaign that the German marque had hoped would feature its return to the top of the sport after a controversial championship loss to Max Verstappen in the 2021 Abu Dhabi finale, and a difficult 2022 as the squad struggled to get to grips with the all-new regulations.

PETRONA CROWDSTRIKE

To keep the lesson on recent history short, what followed was another year of considerable disappointment, as Red Bull and its superstar Dutchman completed the most dominant season on record, with 19 wins in 22 races. Mercedes, in contrast, saw Hamilton feature on the podium six times, and George Russell twice.

The simplest task would have been to have simply chronicled the season as it progressed, reflecting on the on-track performances while making observations on what's going on around the author. But instead, Whyman throws himself right into the mix, finding out what makes team personnel tick and getting to know them on a personal level - travelling with and acting as an official member of the squad dressed in the full garb.

While this makes for an interesting and incredibly nerdy read, it comes at a cost, and Inside Mercedes F1 can hardly be described as a page-turner. A chapter at a time is perfectly manageable, however. A highlight comes in chapter 13, when we move into the early stages of 2024 and Mercedes learns that Lewis Hamilton has signed for Ferrari, only a handful of months after he had signed a fresh two-year deal to stay at Brackley.

The chapter looks at Wolff, his character, and how he runs the team with little engineering knowledge of his own. It even includes something of a catchphrase of the Austrian's, familiar to those within the paddock: "Formula 1 racing is about physics, not mystics." Without delving into spoiler territory, the way Wolff describes his work and family lives is very telling of the man,





and adds colour to the black-and-white nature of what you see on screen.

The main area of confliction is the photo pages, which come in two small sections. While there are some gorgeous images of the cars on track - especially in Las Vegas - and of the drivers in various locations from the factory to the paddock, these are nothing new and similar offerings are available to anyone who is willing to spend a few moments searching the internet.

But there are some highlights for fellow nerds, these being the less visually impressive images of the factory, the preparation and the simulator. While it cannot be denied that some of the garage photography showcases behind-the-scenes action, images from within the beating heart of the team's factory offer access to an area seen by far fewer people, with camera access to these zones strictly limited and, quite often, outright banned.

If you're looking for something to read over a period of time rather than a book to binge in one or two sittings, this could be for you. This is definitely aimed at the more hardcore fan, but there is nothing to prevent a new viewer who watched the 2023 season from enjoying it with a basic working knowledge. **SAM HALL**



Autosport Q&A

Haydn Cobb and Jake Boxall-Legge join Bryn Lucas for the Autosport Q&A podcast. On the agenda this week: how high is Max Verstappen on the list of all-time Formula 1 greats?; has the Franco Colapinto hype train derailed?; and the latest on the General Motors F1 entry for 2026.





Cadillac "agreement in principle" to be F1's 11th team

In a shock announcement, Formula 1 revealed that it has an "agreement in principle" with General Motors to join the grid in 2026 via its Cadillac brand. Bryn Lucas is joined by Jake Boxall-Legge in a special video to break down how the negotiations suddenly got pushed through during the Las Vegas GP weekend.



WHAT'S ON

INTERNATIONAL MOTORSPORT

Qatar Grand Prix

F1 World Championship **Round 23/24**

Losail, Qatar

30 November-1 December

Live Sky Sports F1, Sat 1300, Sun 1555

W Highlights

Sky Sports F1, Sun 1930, Channel 4, 2100

Formula 2

Round 13/14

Losail, Qatar

30 November-1 December

Live Sky Sports F1, Sat 1600, Sun 1215

F1 Academy

Round 6/7 Losail, Qatar

30 November-1 December

Live Sky Sports F1, Sat 2000, Sun 1055

GT World Challenge Endurance Cup

Round 5/5

Jeddah, Saudi Arabia

30 November

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FROM THE ARCHIVE

The 27-car field that had started the 1984 British Grand Prix at Brands Hatch was down to 23 barely three corners into the race. Here the wrecked RAM of Philippe Alliot, Eddie Cheever's Alfa Romeo and the Tyrrell of Stefan Johansson take to the grass at Graham Hill Bend, while behind them Jo Gartner's Osella wallops the tyre wall. Gartner had failed to qualify, but was allowed to tag along at the back due to the likelihood of the 25th and 26th-qualifying Tyrrells' ineligibility to score points – later to become exclusion from the championship. The incident was triggered by an over-optimistic move by Cheever's team-mate Riccardo Patrese on the Williams of Jacques Laffite; the Italian got all out of shape, Johansson and Cheever lifted off in avoidance and Alliot clattered into - and over - them both, seemingly at undiminished speed, as Gartner also got caught up in the midst of the chaos. Patrese emerged unscathed, ending the race classified 13th and last after running out of fuel five laps from the finish - then was party to a free and frank exchange of opinions instigated by Cheever.

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A s the machine in which he achieved his greatest career successes, Ryan Hunter-Reay's pick for his

favourite car comes as no surprise. The more pertinent question is establishing the 2012 IndyCar champion and 2014 Indianapolis 500 winner's preferred Dallara DW12 specification.

Named after its late development driver Dan Wheldon, the DW12 can be considered as a family of cars that share the same name. Although its carbon fibre monocoque is unchanged, numerous facelifts have resulted in vastly different aero characteristics, while the extra weight due to the arrival of hybrid power means today's iteration is "a completely different car" to drive.

Hunter-Reay picks the Chevroletpowered version he raced in 2012-13, above the Honda he drove to Victory Lane at the Brickyard, as his favourite DW12. That his ongoing Indy 500-only deal with Dreyer & Reinbold Racing uses Chevy engines is circumstantial when expressing his preference.

"I really got on well with the DW12 when it came out," explains Hunter-Reay. "It was producing a lot of downforce; it was way lighter than it is now and that really suited my driving style. I need a lot of front aero, a very positive front end, and that car allowed me to develop my set-ups to suit me. We started with a clean sheet of paper and that really benefited us."



Hunter-Reay points to 2012 being "such a special time in IndyCar" as the first time since he'd arrived at the pinnacle of the US open-wheel scene in 2003 that he'd been involved with developing a brand-new car and engine, with the 2.2-litre V6 turbos arriving. RH-R was heavily involved in test and development, which he regards as "a huge maturation process".

He believes the DW12 reset "came at the exactly the right time" in his career since "I was just starting to hit my stride". That was borne out by four wins putting him in the frame. When Will Power crashed at Fontana, Hunter-Reay held his nerve to deliver a title Andretti Autosport (now Andretti Global) has still to repeat.

"I was firing on all cylinders, the team was as well," he reflects. "Operating under that pressure also prepared me for the 2014 Indy 500 win."

JAMES NEWBOLD



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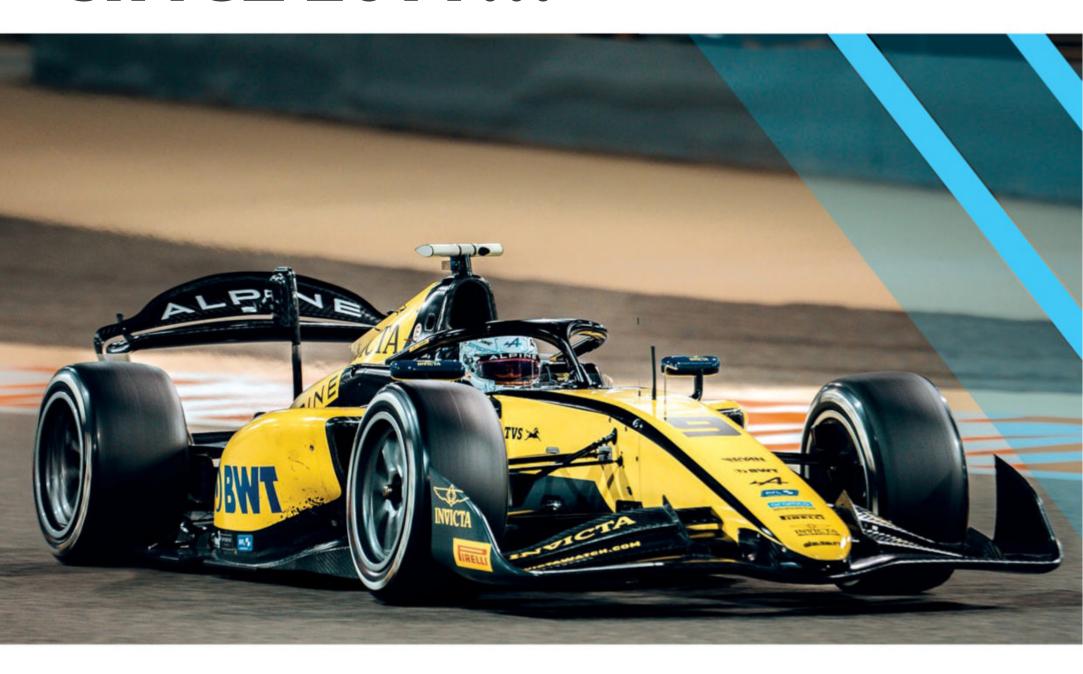
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