

F1 2018 LAUNCH SEASON KICKS OFF

 **AUTOSPORT**

REVEALED NEW RED BULL

HAMILTON'S WORST NIGHTMARE?

How Newey's team has pulled out all the stops to beat Mercedes

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RENAULT, WILLIAMS
AND HAAS**

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F1 2018



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Red Bull's newest bid to catch Mercedes

OF THE 79 FORMULA 1 WORLD CHAMPIONSHIP RACES

of the turbo-hybrid era so far, Mercedes has won 63 times. It has taken every single title and Lewis Hamilton has added 40 victories to his personal tally – a strike rate of 51% over the past four years.

Last year, Ferrari provided the biggest threat to the Silver Arrows since the current engine regulations were introduced in 2014, but came up short. F1 needs more competition at the front and Red Bull is one of the few teams with the capability of challenging Mercedes.

As usual, Red Bull's development rate during the 2017 season was impressive, but it started too far behind. As Christian Horner tells Ben Anderson on page 18, it's something the team is well aware of, hence the decision to launch the RB14 early. If that works, then perhaps Daniel Ricciardo and Max Verstappen will be able to fight Hamilton and Sebastian Vettel at the front of the field, providing Renault is able to provide sufficient power (and reliability)...

The 2018 challengers from Williams, Renault and Haas have also been launched over the past week, with more teams to follow in the final days before the first Barcelona test begins on February 26. The aims for each will be slightly different, but the hope of most F1 fans will simply be that the competition and racing at the front is closer, despite the apparent handicap of the current rules.



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Bearne/Red Bull

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FORMULA 1

Renault expands, but can it move forward?



CONTINUING ITS UPWARD TRAJECTORY IS Renault's focus for the 2018 Formula 1 campaign, according to managing director Cyril Abiteboul.

The French manufacturer returned as a works team in 2016, but the late completion of its takeover of Lotus meant its car was a compromise and it finished ninth in the constructors' championship.

Last year was a distinct improvement, with the team improving dramatically as the season progressed. By the end of the year, it had the fourth fastest car on merit, which helped Renault snatch sixth in the standings from Toro Rosso at the final race in Abu Dhabi.

On Tuesday, Renault launched its 2018 challenger – the RS18 – with a target of improving across all areas as it bids to continue its move up the grid with a strong driver line-up of Nico Hulkenberg and team newcomer Carlos Sainz Jr.

“Our headline target is to show continued progression through results,” said Abiteboul. “We want to be able to showcase our progression in every regard; power unit, chassis, operations, drivers. Everything must improve and we must continue to grow. We want to demonstrate this in many different ways, from the teams we will be directly racing against, to the gap to the leaders.”

Renault finished 2017 more than 300 points behind customer Red Bull, which won three races and scored 13 podiums to expose the

substantial remaining deficit. With McLaren also taking Renault power this year after choosing to ditch Honda, Abiteboul has picked the two out as the works team's “benchmarks for performance this season”.

The power unit was Renault's Achilles' heel last year as it struggled with reliability, particularly with the MGU-K. But earlier this month, new customer McLaren said messages from Renault were encouraging. “They seem to be very confident,” said McLaren executive director Zak Brown. “In terms of power and reliability, they are happy with where they are at and what has been happening on the dyno. And specifically the reliability, they think they are on top of it.” Renault's capacity to deliver engine gains will have a big impact on whether it can continue its climb of the F1 pecking order this season.

Behind the scenes, Renault has been redeveloping its Enstone facility while also recruiting heavily – including the controversial signing of ex-FIA F1 technical director Marcin Budkowski as executive director – as it looks to build an outfit capable of challenging the big three: Mercedes, Ferrari and Red Bull.

“Among several projects, we have acquired new machine tools, the composite department has moved forward a great deal, a paint-shop area was created, CFD facilities came on line and we have built new working environments to accommodate our burgeoning workforce,” said



FORMULA1

The RS18: it's a bit like the RS17

RENAULT HAS BECOME THE LATEST team to reveal images of its 2018 challenger ahead of the car breaking cover publicly in pre-season testing at Barcelona next week. Gary Anderson gives his thoughts on the RS18 – and on initial inspection, he suggests that Renault has evolved rather than revolutionised its recent philosophy.



“Since taking over from the previous owners, Renault has been spending its time and money restructuring its chassis base at Enstone, but you

can only use that excuse for so long, and 2018 is the year that it needs to start producing results on the track.

“With Red Bull and McLaren now using its power unit, there are very few places for Renault to hide. In reality, that is the same for Red Bull and McLaren, so it will be good to see this three-team battle.

“I don’t expect Renault to do the same as Mercedes does when you compare it to its customer teams, but respectability will be nipping at Red Bull and McLaren’s heels.

“The new car doesn’t jump out at me as being a major change in philosophy from last year. Actually, the only 2018 car that does that so far is the Williams.

“The detail looks very similar to what Renault had at the end of 2017. Optimising what was probably the fourth-fastest car then is one thing, but it will take a lot more than that to move forward into the top three.”

GARY ANDERSON

● Gary Anderson’s in-depth analysis of the RS18 will appear in next week’s edition of *Autosport magazine*.

Abiteboul. “We have recruited over 100 people in the past year, with some very respected names joining the ranks. More will join us over the coming months.”

Personnel numbers have swelled by more than 100 new staff to around 750. Growth is expected to continue this year, albeit at a reduced pace. But Abiteboul has said that Renault intends to beat top teams Mercedes, Ferrari and Red Bull to the world championship with “85% of their capability and resources”. He added: “It can’t be an arms race.”

Renault is treating its latest F1 return as a works team as a long-term project that is now in its third year, with Hulkenberg having said that he accepts it may need another two or three years to match world champion squad Mercedes in F1. “It’s a very

time-consuming thing to get a team to the level that Red Bull and Mercedes are,” pointed out Hulkenberg. “The investment they make now in building and modernising the factory, the benefit we will get only in two to three years’ time – not until everything is up and running and we understand it. Look at Mercedes, how many years they were OK but not where they are now. Red Bull, the same.”

Renault’s current driver line-up is one of its

big strengths. Hulkenberg joined from Force India, with chassis technical director Nick Chester saying that his speed and consistency have given the team a dependable reference. When Sainz joined from Toro Rosso with four races to go in 2017, replacing Jolyon Palmer, Chester added that the Spaniard multiplied that effect. Together, he said they have made a “massive difference”.

With Sergey Sirotkin moving to Williams to partner Lance Stroll in a race seat this year, Renault has announced that 2015 Formula Renault Eurocup champion Jack Aitken, who finished second to Mercedes protege George Russell in the GP3 Series last season and will race in Formula 2 this year, will take over as the third and reserve driver.

“Jack has been nurtured in the Renault Sport Academy, so we’ve seen his development over the past couple of years,” said Abiteboul. “It is clear he’s a talented young driver and he is ready for this opportunity. He has a full season ahead of him with racing in Formula 2 and fulfilling his Formula 1 commitments. He has the perfect environment to reach his targets and we are keen on seeing him in action.”

LAWRENCE BARRETTO

“The benefit of investment, we will only get in two years”





FORMULA2

F2's 'angels' try their new halo on for size

THE FORMULA 2 FIELD SAMPLED THE series' new-for-2018 Dallara-built car at a snowy Magny-Cours circuit last week.

The teams took delivery of the behemoths, V6 turbocharged machines at the end of last month and ran them for the first time at the French circuit, despite wet and icy conditions in the morning. Luca Ghiotto topped the times for Campos Racing with a 1m24.404s, just ahead of Carlin's Sergio Sette Camara and Nicholas Latifi, who drove for the DAMS squad.

Trident racked up 58 laps, the most of any team, ahead of Arden International and Carlin, which both completed 50 tours. Prema Racing – which has taken Pierre Gasly and Charles Leclerc to the most recent GP2/F2 titles – completed the fewest laps, 21, after encountering a technical issue in the morning.

As is normal with a new car, the teams travelled to the former French Grand Prix venue to iron out kinks and pick up on any issues ahead of pre-season testing, which gets under way at Paul Ricard on March 6-8. The positives and negatives were spread out across the field.

"The reliability side went better than expected – we had no issues at all from that point of view," reported ART Grand Prix's George Russell, who helped complete 43 laps – the same number as Campos – with his team-mate Jack Aitken. "Our run plan changed because it went very smoothly – we could then actually get in a run of performance just to see how the car felt."

Although the wet weather meant Aitken, who

drove in the morning, could not push closer to the limit as Russell did when the track dried out in the afternoon, he reported that the F2 2018's chassis "feels pretty good, pretty similar [to the old car], which is nice because it's a bit heavier with the added safety features. But I didn't really feel that so much in the corners."

Another team to report strong reliability was DAMS, with Latifi completing 40 laps. "We have to bear in mind that it was more of a rollout and a shakedown than a proper test," said team boss Francois Sicard. "But we are pretty happy because we had no reliability issues, which is very good, and it's a turbo engine so it's quite complex. We were happy not to face any trouble."

LAPS COMPLETED ON SHAKEDOWN

	TEAM (DRIVERS)	LAPS
1	Trident (Ferrucci/Maini)	58
2=	Arden (Fukuzumi/Gunther)	50
2=	Carlin (Norris/Sette Camara)	50
4=	ART (Aitken/Russell)	43
4=	Campos (Ghiotto)	43
6	DAMS (Latifi)	40
7=	MP (de Jong)	31
7=	Charouz (Deletraz/Fuoco)	31
9	Russian Time (Markelov)	30
10	Prema (Gelael/de Vries)	21

Prema's technical issue occurred after McLaren Formula 1 junior Nyck de Vries had completed an installation lap in the morning session. The problem, which team principal Rene Rosin said is "now under investigation by the Formula 2 organisation" restricted the team to a single lap before the lunch break. The Italian team was able to get out again during the afternoon, with Sean Gelael completing 20 laps and "everything ran OK – nothing strange," according to Rosin.

"The main goal was to make sure that everything was in place, and then we will start working in Paul Ricard, like everybody," he added. "I'm not really bothered about performance [for now], but the importance is to be ready for Bahrain [scene of the opening round]."

Russell and Aitken highlighted the new car's turbo engine as an area where the drivers will need to spend time learning to adapt their style ahead of the new season. Russell, the reigning GP3 champion, also explained that the car, which takes design cues from the aggressive style of the current generation of F1 machinery, has "gained a good amount of grip in the low-speed corners" thanks to wider track and lower centre of gravity.

As Aitken correctly points out, times and performance levels are "all peanuts at this stage", but Sicard noted that the F2 2018 is "for the time being at the level of the previous one. Maybe it's going to be a little bit quicker because I think we are going to compensate the fact that it's heavier by the fact that it's getting more downforce."

ALEX KALINAUCKAS

BRITISH TOURING CAR CHAMPIONSHIP

Surprise call for Cammish

Porsche king gets Honda drive, but established star Jackson endures shock split from Motorbase

Double Porsche Carrera Cup GB champion Dan Cammish has joined the factory Team Dynamics British Touring Car Championship Honda squad for the 2018 season. The 28-year-old will join Matt Neal in one of the team's new Honda Civic Type Rs, which are currently under development at the firm's workshops. He will take the place of Gordon Shedden, who has joined WRT for an attack on the World Touring Car Cup (see page 8).

While Cammish will join Dynamics, Motorbase Performance issued a statement last week saying that it had parted ways with Mat Jackson, who had been scheduled to stay on for a ninth season with the team to drive one of its Ford Focus machines. Autosport understands that there had been contact between Jackson (battling Shedden, below) and Dynamics, which led to the decision for the parties to split.

Leeds driver Cammish will begin his test programme with Team Dynamics in Spain within the next two weeks.

Cammish, who combined the Porsche Supercup with his campaign in the UK last year, said: "I'm obviously over the moon to be signing for Honda — they are a team with a highly successful background and a team that has proven they can win championships. I have my hopes set high for 2018 and lifting the overall drivers crown would be a dream come true, but first of all I appreciate that, as a works-team driver, points for the manufacturer and teams championships are the main priority."

Team boss and team-mate Neal said: "Dan will be able to handle himself in this highly competitive championship. He conducts himself with professionalism and is good on camera. He really ticks all the boxes as a replacement for 'Flash' [Shedden] and I wish him all the best for the coming season — it's great to have him on board."

Motorbase Performance has yet to announce a replacement for Jackson. It will field three Ford Focus STs in the championship this year.

In a team statement, team boss David Bartrum said: "Mat Jackson has been a fantastic driver for Motorbase Performance and I've enjoyed all of the years that we have worked together. We've had some great times, but like all things in life, things move on."

Jackson said that he was unlikely to be on the BTCC grid this term. "I got the news quite late in the day, and therefore I'm probably going to be a spectator this season," said the 36-year-old, a 31-time BTCC race winner.

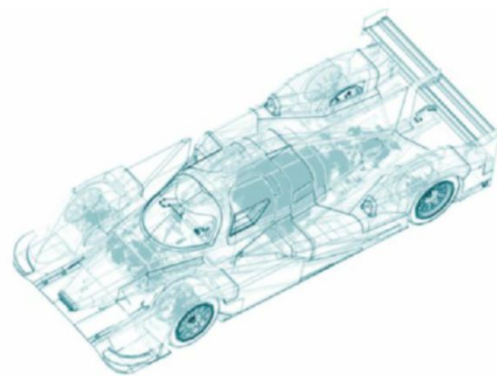
Meanwhile, Laser Tools Racing confirmed that it is remaining in the BTCC with 21-year-old Scot Aiden Moffat at the wheel of its Mercedes A-Class. Moffat was a two-time race winner in 2018.

Team Parker Racing's Stephen Jelley will also return to the grid this season. The team has swapped its Ford Focus for an ex-WSR BMW 125i M Sport for the fresh campaign.

MATT JAMES



JEP/LAT



LE MANS 24 HOURS

'WORLD'S FASTEST ELECTRIC RACER' IN LE MANS PLAN

IT'S BILLED AS THE world's fastest electric racing car and will be powered by motors borrowed from a Formula E car — three of them!

British constructor Perrinn has agreed a deal with an undisclosed FE powertrain supplier to provide the motors for its LMP1-based 424 prototype. The motors, two powering the rear axle and one the front, will give the Perrinn 424 a power output of 750kW, equivalent to just over 1000bhp.

It has been conceived as a demonstrator to prove the validity of electric technology in advance of a proposed assault on the Le Mans 24 Hours some time in the early 2020s.

"We have agreed a deal with one of the existing FE suppliers to use its season-four [2017-18] powertrain, but we can't say which one until the business plan is in place," said marque founder Nicolas Perrin, whose CV includes stints with Williams in F1 and Courage Competition in sportscars.

"The FE motors are limited by regulation to 200kW, but they can go higher and we will be using them to their full capacity, which gives us the 750kW or 1000bhp."

The Yorkshire-based team will buy off-the-shelf battery cells to assemble its own

batteries, arranged in nine modules each containing 64 cells. Packaging the 400kg battery pack inside the monocoque behind the driver has resulted in the reworking of a design that started life as a privateer LMP1 contender so that it is now 200mm longer than the P1 maximum.

Perrin believes that a car weighing in at 1200kg, 330kg more than a hybrid P1 contender, can achieve lap times between those of LMP1 and P2. A top speed of 355km/h and acceleration from 0 to 100km/h in two seconds have been targeted.

The task now is to raise the £2million to build the 424 and undertake initial testing. Perrin is confident that he can have the car up and running six months once finance is in place.

The aim is to use the 424 as a test bed and to build a new car each year, leading up to a Le Mans assault. Perrin believes that advances in battery and charging technology could allow an all-electric prototype to race at the 24 Hours without the need to change batteries "within four to five years".

"I'm expecting that a lot of manufacturers will want to do something like this in the next three or four years," he said. "It's important that we get out there as soon as possible."

GARY WATKINS

WORLD TOURING CAR CUP

IT'S AN AUDI FOR 'SHEDS' IN WORLD TIN-TOPS

THREE-TIME BRITISH TOURING Car champion Gordon Shedden will race an Audi for top team WRT in the new World Touring Car Cup.

The Scot (below) announced last month that he would step away from the BTCC for 2018, and was always tipped for a full-time move to the world cup with WRT, with which he raced in the final round of the TCR International Series last year in Dubai.

Shedden grabbed pole position and a podium on his TCR debut in a Volkswagen Golf GTI, which came in support of the successful title bid of Jean-Karl Vernay.

Vernay stays on with WRT to partner Shedden in the new WTCR, which is run to TCR technical rules and replaces the old TCR International Series and the World Touring Car Championship.

WRT's switch from VW to Audi for its tin-top attack comes alongside its status as the Ingolstadt marque's long-time leading squad in GT3 competition. As in GT3, WRT will receive customer racing support to run its pair of RS3 LMSs. Shedden and Vernay have also been awarded Audi Sport driver status for 2018.

Another Belgian Audi customer racing team, Comtoyou Racing, has also announced its complete 2018 line-up. Its '17 season regular Frederic Vervisch – who has also been confirmed as an Audi Sport driver – and ex-GP2 driver Nathanael Berthon join Aurelien Panis and Denis Dupont in a four-car line-up.

JACK COZENS



LE MANS 24 HOURS/ELMS

Vergne-led G-Drive team in driver-ratings rumpus

THERE'S A NEW TWIST IN THE ONGOING DRIVER rankings controversy in sportscars. G-Drive Racing has entered an all-pro line-up for the European Le Mans Series and may yet get clearance to race without a silver-rated driver in the six-race series and at the Le Mans 24 Hours.

G-Drive, which is fielding an ORECA-Gibson 07 together with TDS Racing, has registered Jean-Eric Vergne, Roman Rusinov and Matthieu Vaxiviere for the car. That's a platinum-gold-gold line-up.

The Russian entrant, winner of the World Endurance Championship LMP2 crown in 2015, has exploited a clause added to the sporting regulations for the ELMS and the WEC that allows a dispensation on the composition of a driver line-up. Most teams interpreted it as a means to

allow a suitably qualified bronze-rated driver to race an LMP1 car after the DragonSpeed squad stepped up to the higher division with primary backer Henrik Hedman.

The G-Drive trio has been marked with an asterisk on the ELMS entry and its line-up will have to be signed off by a special committee. The new rule states that a line-up outside of the regulatory requirements can be allowed if it "does not generate a sporting advantage in relation to the other crews entered in the same category".

That will probably depend on how Rusinov's talents are regarded by the committee. The Russian, who was promoted to gold status for 2017, has long argued that he is a bona fide silver.

GARY WATKINS



WORLD ENDURANCE CHAMPIONSHIP

Kubica could race Ginetta in WEC

WILLIAMS FORMULA 1 RESERVE Robert Kubica has emerged as a contender for a seat with the Manor Ginetta LMP1 team in the 2018-19 World Endurance Championship.

The Pole took part in the maiden test for the team with the first of its new Ginetta-Mecachrome G60-LT-P1s at Motorland Aragon early this week. Kubica drove the car over the course of a three-day Michelin tyre test along with the team's first

two signings, Oliver Rowland and Charlie Robertson.

Manor, which will run in the WEC under the CEFC TRSM Racing banner, refused to discuss Kubica's presence at the test. It would only say that it is hoping to announce further drivers in the next few weeks.

Kubica was lined up to race with the ByKolles P1 squad in last year's WEC. He tested the team's CLM P1/01 contender at the Bahrain rookie

test at the end of 2016, but stood down from the project after the team endured a disastrous official pre-season test at Monza.

Meanwhile, Kubica's free-practice outings with Williams (above) were confirmed last week. He will drive in FP1 in Spain, Austria and Abu Dhabi. He will also take part in pre-season testing at Barcelona and drive in the in-season test sessions.

GARY WATKINS & LAWRENCE BARRETTO



WORLD ENDURANCE CHAMPIONSHIP

‘Misleading’ privateers could pay price against Toyota

PRIVATEER LMP1 CARS THAT outperform Toyota in the 2018-19 World Endurance Championship will be penalised. Exactly how, we don’t know yet, but the philosophy is based on the promise from the rulemakers to give the non-hybrid P1s lap time parity with the factory hybrids – and nothing more.

The procedures are being put in place because the majority of the privateer P1 cars racing in the WEC in the superseason are new: the Ginetta-Mecachrome G60-LT-P1, the BRE Engineering BR1 with both AER and Gibson power, and the ORECA-built Rebellion-Gibson R-13 will all race for the first time at the WEC opener at Spa at the start of May. That means the rulemakers have been reliant upon data supplied by them while they were formulating the Equivalence of Technology between hybrid and non-hybrid cars.

The message from the FIA and the Automobile Club de l’Ouest, which jointly formulate the regulations, is a firm one.

“We are saying that we have given you a certain level of performance and if you are above this level, you have misled us,” said ACO sporting director Vincent Beaumesnil. “There will be a penalty system, of which we will release details later, in case a non-hybrid car is faster than a hybrid.”

He said the system was “quite clever” and “would not disrupt the racing.”

The principle of the new system is laid

down in the sporting regulations for the 2018-19 WEC superseason.

It states: “All competitors and manufacturers that deliberately provided misinformation, tried to influence the EoT process, or whose level of performance is higher than the expected result may be sanctioned with a penalty before, during or after a race.”

The rules allow for a minimum penalty of a five-minute stop-go and state that a one-lap penalty can be awarded at the end of the race.

The penalty system has been deemed necessary because the EoT cannot be modified prior to Le Mans, after which it can be changed if necessary based on the data collected during the opening races. It is then set in stone until after the 24 Hours the following season, as per previous years.

Beaumesnil stressed that the privateers would not be given any performance breaks after Spa should they prove substantially slower than the Toyota TS050 HYBRIDS.

The outright performance of the Toyota TS050 HYBRID has not been reduced on last season’s levels, only its fuel allocation to reduce the length of stints between pitstops.

For the 8.47-mile Le Mans circuit the Toyota will now have a fuel allocation of 35.1kg, down from 44.1kg in 2017. This is designed to reduce the stint length for the TS050 HYBRIDS from a potential 14 laps to 11 laps, one more than the privateer cars.

GARY WATKINS

IN THE HEADLINES

LATIFI GETS CANADIAN GP FP1 RUN

Formula 2 race winner Nicholas Latifi will drive for Force India in FP1 at his home Canadian Grand Prix in June. The 22-year-old, who has joined the team as reserve and test driver, will also take part in next week’s first pre-season Formula 1 test at Barcelona.

DI RESTA GIVEN MORE IMSA ACTION

Mercedes DTM star and ex-Formula 1 racer Paul di Resta will get two more outings in the IMSA SportsCar Championship this season with United Autosports. The Scot, who raced one of the team’s LMP2 Ligier-Gibsons in the Daytona 24 Hours, will also contest next month’s Sebring 12 Hours and July’s Watkins Glen 6 Hours. Di Resta will share with Bruno Senna and Phil Hanson. In the IMSA GTLM class, BMW has been given a performance break after struggling at Daytona. The M8 GTE is granted a revised turbo-boost curve to improve top-end power. BMW, Ford and Porsche have had fuel capacities tweaked.

GUNTHER SECURES F2 SEAT WITH ARDEN

Top Formula 3 European Championship racer Maximilian Gunther has secured a Formula 2 seat with Arden International for 2018. The German Mercedes DTM junior, F3 runner-up in 2016 and third in the ’17 rankings, partners GP3 starlet Nirei Fukuzumi in the British team’s line-up. Gunther makes the move after testing DTM, F2, Super Formula and Formula E over the winter.

LORANDI LEADS RAFT OF GP3 SIGNINGS

Former Pau Grand Prix winner Alessio Lorandi tops a host of recent GP3 Series driver announcements in the past week. The Italian, a reversed-grid race winner in his rookie GP3 season, switches from Jenzer Motorsport to Trident. American Ryan Tveter has also been confirmed for a second year with Trident. Meanwhile, Tatiana Calderon switches to Jenzer for her third season in GP3, the Swiss team also naming Juan Manuel Correa, who made his series bow with late-season runs last year.

F4 KING VIPS STEPS UP TO EURO F3

Not to be outdone by GP3, the Euro F3 boys have been pushing out announcements too. German Formula 4 champion Juri Vips has joined Motopark, the Estonian having made his F3 debut with the squad in last year’s Hockenheim finale. Russian Euroformula Open runner-up Nikita Troitskiy lines up with Carlin, while his compatriot, F4 starlet Artem Petrov, has joined Van Amersfoort Racing. Meanwhile, German team Ma-Con Motorsport makes a surprise return for the first time since 2013 with German F4 race winner Julian Hanes.

MURRAY TO SPEAK AT DINNER

Legendary designer Gordon Murray will speak about his career in Formula 1 and the future of automotive technology at the Victoria Foundation Sport Dinner at Royal Mid-Surrey Golf Club in Richmond on March 8. For more details visit www.thevictoriafoundation.org.uk

NEIL MALLARD 1930-2017

One of the pioneers of modern F1 TV coverage, Neil Mallard, who died recently aged 86, helped found FOCA TV alongside Bernie Ecclestone. An enthusiasm for motorsport brought Mallard into contact with Ecclestone as he pursued a career in sports journalism and TV production. Noted for his catchphrase “leave it with me” and ability to find solutions to awkward problems of TV logistics, Mallard is survived by his wife and four children.

NIGEL ROEBUCK

Circling around a dangerous subject

As Formula 1's launch season gets under way, we're seeing more of the halo... and asking how far the sport can go to mitigate risk

[@autosport](#)

THE 2018 FORMULA 1 CARS ARE BEGINNING TO break cover now, and for me the only discordant note is that all, of course, are kitted out with the halo: if one more person tells me we're all going to get used to it in no time, I won't be responsible for my actions...

Maybe it's a generation thing. When I first fell in love with racing, such as rollover bars and seat belts, like guardrails and runoff areas, were unknown; the drivers' lives were seriously at risk every weekend, and they were paid damn all to do it. At school my dad's weekly letter often contained a newspaper cutting about the death of a driver, and when my childhood hero Jean Behra was killed in 1959, I came face to face with grief for the first time.

Through the 1960s it was the same story. Following the recent loss of Dan Gurney, I looked back to the victory that meant most to him, at Spa in '67, and noted that eight of the 18 drivers on the grid that day subsequently died in racing accidents. In 1971, my first year in the business, I attended the memorial services for Pedro Rodriguez and Jo Siffert.

Clearly things had to change, and the man who did

more than any other to bring it about was Jackie Stewart, who campaigned relentlessly for greater safety, in the process making himself mighty unpopular in some quarters. As Chris Amon said: "Every racing driver of the past 40 years is in Jackie's debt."

My point here is that *of course* safety in motor racing should be a paramount consideration – but not the only one: Formula 1, as Niki Lauda says, has a fundamental DNA that

has entranced generations of fans, and if we ignore that we risk losing them. Lauda thinks the halo a step too far.

"You know me. I'm not one of these corporate bullshit guys – this is the way I am. Formula 1

does have a DNA, and part of that has always been 'open cockpit'. We're slowly going to destroy it if we keep inventing what are – for me – too many safety issues. If you go too far with these things, it's no wonder that fewer people are watching these days.

"Although Formula 1 has never been as safe as it is today, of course I understand if a driver says he is in favour of the halo – these guys love to go to the limit, and they

"If any driver needs no reminder of the perils of racing, it is surely Lauda"



LAT IMAGES



RED BULL

For all its safety virtues, the halo is ugly

know when they hit something they could get killed, so if you ask them about the halo for sure some will say they want it. No-one, though, asks them about the DNA of Formula 1, and I think – in a very respectful way – that it needs to be maintained.

“In the end the attraction of any sport like Formula 1 or downhill skiing is how far we can go on safety issues without losing the interest of the people. Sure, the racing on its own is interesting, but there is also the aspect of what these guys are really doing – in the end risking their lives – and without that people are going to lose interest. My worry is that we go over the top, and the attraction of Formula 1 slowly disappears.

“I was upset when the FIA came up with this halo thing in the first place. It’s the end of ‘open cockpit’ in Formula 1, and also it’s as ugly as hell, and for the spectators the look of racing cars is important. As well as that, it’s impossible to see the drivers’ helmets, and with the numbers on the cars impossible to see, anyway, you won’t know who’s sitting in the bloody car! It’s another layer between the fans and their heroes, and I think – until we found a proper solution both for the sport and for safety – we should have left it: in the end it’s not only the drivers who are involved with this sport.”

If anyone on Earth needs no reminders about the perils of racing, it is surely Lauda, but a few years ago he made the point that in his day Formula 1 had a ‘gladiatorial’ aspect that has now been greatly dissipated.

“There’s no doubt about it,” Niki said, “and I think for the fans that was a big part of the attraction. My feeling is that if drivers want to do it, fine, but they have to take the decision themselves: ‘Do I want to take the risk or not?’ If someone says he wants to make \$40million a year, and no risk... I’m sorry, this is not reality.”

Lauda is not without support in his views. Nigel Mansell recently voiced his dislike of the halo, suggesting that there had to be an element of risk, and that, with the drivers hidden away even more, his fear was that a lot of fans might be turned off. And Martin Brundle told me of a conversation with one current driver, who said it was far from the truth that the majority of his fellows were in favour of it. “What happens now?” Brundle said. “Where do we stop? The only logical conclusion – eventually – is driver-less cars...”

Across the pond IndyCar has turned its face against the halo, and is working on an extended windscreen, constructed of materials used in the cockpit protection of F-16 jet fighters. Something similar was tried on Sebastian Vettel’s Ferrari last year, but he dismissed it after a single lap, saying it made him feel dizzy, and thus the halo got the final green light.

In a recent test at Phoenix, though, Scott Dixon and others were favourably impressed with the IndyCar version of the screen, which emphatically has the aesthetic edge on the halo, so maybe Nico Hulkenberg – very much in the ‘anti’ camp – was right when he recently suggested the halo might not be around indefinitely. Light a candle... ❄



Burning bridges

Gordon Shedden's unexpected departure from British Touring Cars upset the status quo in ways nobody could have anticipated

By Matt James, BTCC Correspondent

[@MattJMNews](#)

ON THURSDAY MORNING LAST WEEK, THE BOSSES of Team Dynamics put out a press release announcing that Porsche star Dan Cammish had been signed as Gordon Shedden's replacement in the factory-backed Honda squad in the British Touring Car Championship for the 2018 season.

Within 24 hours the chiefs of rival BTCC team Motorbase Performance issued a terse statement, saying that they and stalwart driver Mat Jackson had "parted company".

That was quite a surprise, because 31-time race winner Jackson had been paraded at the Autosport International Show in the middle of January as a leading light of the Motorbase attack with its restyled Ford Focus RS machines alongside Tom Chilton. The team had also recently been bolstered by the arrival of former championship runner-up Sam Tordoff.

Are the announcements from Team Dynamics and Motorbase linked? *Of course* they are – although neither party is likely to admit it in an open forum.

Ever since Shedden announced his decision to leave the BTCC and head off to the revamped World Touring Car Cup this year – a move he finally completed last week by joining the WRT Audi attack – Team Dynamics has been on the prowl for a replacement.

Dynamics was in a tricky position. Co-owner, driver and three-time

champion Matt Neal had done the magnanimous thing by not holding Shedden to his commitments with the squad, and instead let his friend go and chase a golden opportunity. But that left a 'Flash'-sized hole in the Honda line-up in the UK.

Neal said, at the time, that Honda was desperate to get a driver who could hit the ground running, a racer it could "plug in" to what will be a newly built Civic Type R for this season and win straight away. When anyone puts that caveat in their demands for a new driver, the options narrow considerably.

Despite that, Neal was bombarded by likely candidates, all of whom fancied what is one of the plum drives on the grid. Shedden took three titles with the team, and the car has been among the best-engineered machines on the grid for nearly a decade. Who wouldn't want to take this golden opportunity?

Now for the sticky bit that ultimately led to the situation that unfolded last week: alongside the avalanche of enquiries that Team Dynamics fielded in the aftermath of Shedden's decision, there was contact between Neal and Jackson. It is unclear who instigated it, but they did talk about Jackson joining the Honda factory team as Neal's team-mate.

Since Jackson had already agreed a race deal – whether it was signed or not – with Motorbase, there was some delicate negotiation to be done. But when Motorbase boss David Bartrum was informed, he was furious. He wanted to protect his team, his commercial interests and the line-up he thought he had already nailed down. Things quickly got very heated.

Jackson was always going to be near the top of anyone's list as a BTCC driver. During his 11 years in the championship, he has been a consistent frontrunner. He hates the statistic, but he has more BTCC wins than any other non-champion.

He's been around the BTCC block, and has helped Motorbase turn itself from a customer team into a car builder in its own right. He's been at the forefront of all its new projects with the Ford Focus, and that has given him a good instinct for developing a car. But he's never brought a big budget; there are drivers out there with deeper pockets, but Motorbase was loyal to his abilities and retained his services for the longer term.

Whatever the background to the deal, Jackson and Honda could not reach an agreement, which left Dynamics to secure

the services of two-time Porsche Carrera Cup GB title winner Cammish.

He's a driver with huge potential, and one who has the ability to step up to the next level in the BTCC in terms of his profile.

For Motorbase, there was still a big hurdle to get over. Bartrum says he wanted to keep Jackson and that there was some to-ing and fro-ing. But the relationship had broken down to such a degree that it all fell apart. Bridges had been burned and it seems there was no way to rebuild them, no matter what the desire from either side.

Whoever was in the right and wrong inevitably depends on who you talk to. That will probably always be the case, and it has left a considerable amount of bad feeling.

What it has also left in its wake is a conundrum of mixed emotions for the fans too. There is the excitement of seeing Cammish finally flourish on a high-profile platform, but the series will be without Jackson, who has been one of its strongest performers over the past decade.

It also means Bartrum has a prime drive on the grid to offer in one of his redeveloped Fords, which could also lead to some exciting news in the future. Expect that vacancy to be filled very rapidly. This story isn't quite finished yet.

Shedden's departure from the BTCC paddock was likely to create a number of ripples, but the water is still unsettled more than a month later. 🌀

"What it has left in its wake is a conundrum of mixed emotions for fans"

FEEDBACK

Thank goodness for historic racing

I have just read with horror the proposal that the World Rallycross Championship from 2020 is to be for electric cars. I thought they were trying to reduce costs, but I fail to see how a carbon monocoque and a composite body kit will achieve this. I believe at one of the Scandinavian rounds last year they had more than 100 entries; can't see that with all-electric, can you?

I am quickly becoming turned off by modern motorsport, electric/hybrids, halo, silly aerodynamics, etc, etc. Gone are the days when you could tell a car by its engine note; I can't tell the difference between the whine of an electric motor or a transmission. Give me the sound of a Healey 3000, Lotus twin cam, DFV or a 3.5 V10 any day.

So now I am going to be left with the only top-level motorsport worth watching being the WRC, WEC and MotoGP. Unfortunately they are all on pay TV, which I can't afford.

Thank goodness for historics, no wonder it is so popular, great cars, great drivers, great sounds and great racing too.

Terry Dutton
Byemail

Money talks loudest

Does anybody know where I can buy a radio or an app that automatically

recognises when the presenter is going to give out the results of Formula 1 qualifying and the race, so mutes the transmission or changes the station?

Sarcastic comment over; this year terrestrial UK TV (Channel 4) will not show 11 races live, 11 occasions when I have to dodge the news so as not to spoil my highlights viewing. In 2019 terrestrial TV will transmit highlights only.

Can we please have some common sense instead of chasing the dollar at the expense of both diehard and casual fans? I am 100% an F1 guy who has avidly followed and watched the sport since the early 1970s. I am now retired and while I am lucky I could afford to pay for Sky, I will not subscribe. I know Liberty will use the excuse, 'It was Bernie who put these deals together, guv, not us, we must respect them'. Well, they could come up with a solution for the future, but Sky's £200million for the rights speaks loudly for CVC as was and Liberty now.

Also I guarantee the teams will find it a lot easier to sell space on their cars if F1 was free-to-air. With the pending threats of a pull-out by Ferrari (a bluff or not), for Italy, a diehard racing nation, to go behind the paywall is utterly crazy.

We hear a lot from Liberty that



Historic racing strikes a chord with reader Dutton

they are promoting F1, helping fans get closer, plus generating new fans, but it looks to me they are just trying to make another quick buck.

Chris Hamlin
Byemail

Grand Prix date clash

My daughter's wedding is on the same weekend as the British Grand Prix! I am thinking of asking Fernando Alonso to drive the wedding car (not a Honda, hopefully). If he accepts the 'drive', he will then be able to get the grand prix moved to the following week so that I can attend both events.

Peter Allen
Byemail

Close encounters

Was just thinking it's a pity there are no viewing areas for spectators at Thruxton's Church Corner or the Jim Clark Esses at Croft. It would be great to see the BTCC cars close up at these corners.

Ronnie Boyd
Newry, N Ireland

The spectacular nature of these corners is likely the very reason spectators need to be kept well clear. Serious suggestion: if you want to get closer to the action, how about becoming a marshal? — ed

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RED BULL RB14

Will this be the first Red Bull of the hybrid era to go properly wheel-to-wheel with Mercedes, or yet another to emerge from Milton Keynes half-baked?

By Gary Anderson, Technical Expert



NOSE¹

Red Bull has an S-duct, with the entry under the nose and the exit halfway up Daniel Ricciardo's number '3'. This S-duct helps pull airflow across the FIA-defined neutral central-wing section, improving the mass airflow to the bargeboard area. It also reduces the lift created on the top of the chassis by the airflow accelerating over the upper surface.

Red Bull has also retained its 'driver-cooling duct' in the front of the nose. This helps with the stagnation point of the airflow on the leading edge of the nose – where the airflow 'decides' whether it is going to go over the top or underneath it.

FRONT WING²

The front wing is the customary multi-element component, but with a more uniform slot-gap placement than we have seen on the other cars. By that I mean the chord lengths of each component from the leading edge to trailing edge are more parallel.

These slot gaps are all there to control the airflow separation and, more importantly, allow recovery from any separation problems. Greater control over this enables you to generate more-consistent aero loads from the front-wing assembly. Also, airflow separation creates turbulence behind the trailing edge of the front wing, which will have a detrimental effect further downstream.

To have any chance of winning the world championship this year, Red Bull must start the Formula 1 season strongly. It threw away 2017 through weak initial performance and poor late-season reliability, but on the positive side it demonstrated that it has the infrastructure to overcome these problems.

We must wait until the Barcelona test to see the rear in detail. Since the diffuser is one of the dominant components in the aerodynamic package, it will be interesting to see what Red Bull has come up with. Last year at the first test I said I didn't see the 'wow' factor with the RB13, and I have to say I also expected more this year. There's no standout component optimisation that I can see.

The other worry for Red Bull is where the engine package is at in terms of power and reliability. Renault must unlock more one-lap power to challenge Mercedes and Ferrari consistently.



BARGEBOARDS³

Behind the front wheels, the RB14 becomes a bit more distinctive. The initial bargeboard package is a large vertical three-element component with a horizontal outer vane holding them all together. The car also has a curved lower-foot area, helping to prepare the airflow better for the underfloor. All of these elements pull more mass airflow through from under the front of the chassis, helping the performance of the front wing and the underfloor's leading edge.

The outer bargeboard area is a vertical four-element component mounted as wide as possible on the outer corner of the sidepods. This area is all about managing the turbulent airflow coming off the trailing edge of the front tyre, and trying to keep it away from the leading edge of the sidepod and underfloor.



SIDEPODS⁴

As opposed to last year's Ferrari, which had a very high letterbox-style radiator inlet, Red Bull has gone for a narrower and taller inlet. The leading edge of the sidepod has the customary lower undercut, but it's not as pronounced as the other cars we've seen and this undercut doesn't continue through the sidepod.

Instead, Red Bull has gone for a very narrow overall sidepod section angled inwards from the floor to the top. This will entice the airflow coming over the top of the car to be pulled down into the Coke-bottle area inside the rear tyres.

There's a horizontal wing section protruding from the leading edge of the sidepod and going out to the maximum width of the car, twisting downwards in profile with a small endplate on the upper surface. This is also helping the airflow to sweep down into the Coke-bottle area.

COKE BOTTLE⁵

The Coke-bottle area and the rear body section are fairly conventional, with the radiator exits in a T-section at around top rear-wishbone height. Again, this not as exaggerated as we've seen on other cars.

Red Bull continues to run the car at an aggressive ride height angling up to the rear, which we call rake. This improves the performance of the front wing at low speeds when the rear is high and the front low, then it tapers off as the rear is drawn closer to the ground at higher speeds.

It also means that the rear diffuser doesn't stall so early, again helping to move the centre of pressure rearwards as the car increases speed.

Will this car break the Mercedes stranglehold?

Red Bull ended 2017 with arguably the strongest Formula 1 chassis, so has pulled out all the stops to hit the ground running and be in contention from the off this year

By Ben Anderson, Grand Prix Editor



Every Formula 1 team is world champion in their own heads at this time of year, before the stopwatch delivers its dose of cold hard reality to all those heady winter dreams of glory. But there is genuine reason for optimism at Red Bull in 2018.

After an unexpectedly slow start under F1's latest aerodynamic regulations, Red Bull finished 2017 with arguably the strongest chassis on the grid. Had the world championship been contested over just the final six races of last season, Max Verstappen would have tied Lewis Hamilton on points and lost the title only on second-place countback. The aim is therefore to come out firing straight from the off in '18, avoiding the sort of slow start that has become a worrying feature of Red Bull's development pattern over the past six seasons. The RB14, replete in special pre-season 'camobull' disruptive livery, broke cover for the first time at Silverstone on Monday, taking part in a filming day with Daniel Ricciardo at the wheel.

That means Red Bull has hit the track a full week before testing is due to start at Barcelona on February 26. This is an unusual occurrence for a team used to pushing winter deadlines to the absolute limit. It's indicative of a fresh approach from the squad and its Adrian Newey-led design team, as it seeks to avoid the sluggish beginnings that have hindered its progress over recent campaigns.

"Adrian's pushed the team very hard again, as he usually does, together with all the other senior technical members here," Red Bull team boss Christian Horner tells Autosport. "It's been a good winter for the team, in that we're definitely earlier than we've ever been. It's probably two weeks earlier than we've been in any of the previous seven or eight years – probably 10 years.

"Usually, the car would still be being built on the way down to the track for the first test. We've made a concerted effort to move that forward. The purpose is to try to arrive at the first test in better shape. The team's always been strong at developing a car throughout a season, so what we're trying to do is get ourselves onto the front foot going into the first test.

"We're hopefully in a position to put in a large quantity of laps. The target is to arrive at Melbourne in better shape than we have in the past couple of years. Even though it's only moved the process forward effectively two weeks, in order to achieve that the design targets have still been just as aggressive – it's just that they've had to be completed in an even shorter time.

"The way the whole team has risen to that challenge is phenomenal. There's obviously been a lot of burning the midnight oil in Milton Keynes. We've been keeping the fast food companies in good employment over the winter months!"

Red Bull should be in much better shape heading into 2018, having finished last year so strongly and corrected the aerodynamic inconsistencies – traced to problems correlating its windtunnel with Pirelli's new wider tyres – that stunted initial development of the RB13.

Fitted with a Ferrari-style bargeboard concept for the final leg of last season, that car became a real weapon. The aim with the RB14 is to build on that solid foundation, making allowances for the halo, and fresh restrictions around the engine covers and rear wings, but not attempting to reinvent the wheel. The regulations are largely stable for 2018, so there is no need to get carried away.

"Definitely, the progress we made in the second half of 2017 was impressive and we've got to try to take that momentum into the concept of RB14," Horner agrees. "The car is very much an evolution rather than revolution, but hopefully picking up on the successful themes introduced last season.

"This time of year, you know what you're doing but you have no idea what your opponents are doing. We've kept our heads down and followed the comments coming out from other areas of the UK with interest, but really we're just focused on our own performance.

"Most of the big teams don't want to show their hand too early, because it obviously gives the ability for others to copy. Certainly, all the big teams inevitably hold something back just prior to Melbourne. That's customary practice.

"We'll have an indication during the Barcelona test – probably the second test more than the first, but really, until >>



Red Bull has worked hard to get car ready earlier than normal



RED BULL'S CATCH-UP CULTURE

WHEN IT COMES TO IN-SEASON development of a Formula 1 car, Red Bull is capable of great things. But too often it leaves itself with a mountain to climb at the start of the year.

During its time as a frontrunning team, and dating back to its emergence as a contender in 2009, Red Bull has only ended a season further away from the ultimate pace than it started it once, in '16. That's an impressive achievement, but in the V6-hybrid era it has repeatedly given itself too much ground to make up at the beginning of the year. The graph below uses supertimes (based on the fastest single lap by each car at each race weekend, expressed as a percentage of the fastest) to show this trend.

There is a common theme in Adrian Newey's excellent new book, *How to build a car*, even during the dominant Red Bull years, where he speaks of coming up with new ideas, but having to win over the rest of his colleagues in the design office when

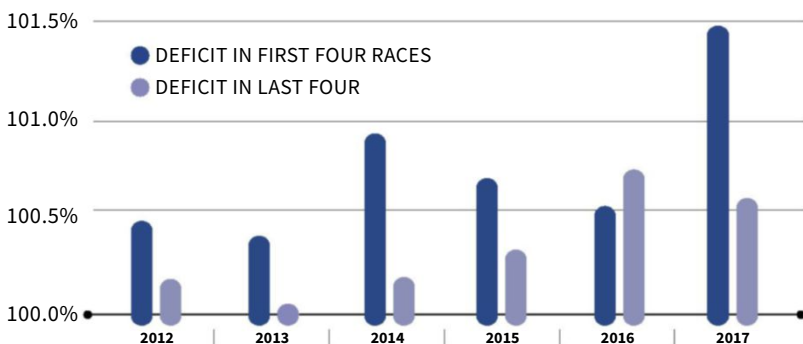
time was tight to have the car ready in time for pre-season.

One such example was in getting ready for the return of KERS for 2011, when Newey was convinced that going for a different battery location would bring a big gain in performance. He pitched it to chief designer Rob Marshall, whose reaction "was a deep breath". After discussing it with the rest of the team, Marshall came back and told Newey "everybody agrees, it's just not possible".

Newey persisted, certain with what he considers a brave but also "irresponsible" belief that he could make his idea work. While he was right in the end, giving Red Bull a "baked in advantage" while the rules were stable, he also admits "it took longer than I hoped".

Perhaps that created a culture within Red Bull of always pushing up to – and even beyond – the perceived limits of a car's potential, no matter the consequences.

GLENN FREEMAN



the motor's wound up and fuel's taken out of the car when we get to Melbourne, that's going to be the first litmus test of the initial pecking order.

"It's very much a development race from the moment the car hits the ground to Abu Dhabi, and I think this year, because the regulations are still pretty immature, there are still considerable gains that can be made. It's going to be interesting to see what routes different teams have taken over the closed season."

The FIA's controversial halo safety device is the biggest visual difference for 2018. It's also an area that some believe will create variation in design, as teams attempt to incorporate the mandatory structure and minimise the aerodynamic disturbance it causes.

The halo "still hasn't grown" on Horner, who prefers the aeroscreen system IndyCar trialled recently, but says: "Hopefully, in time, we'll become more accustomed to it."

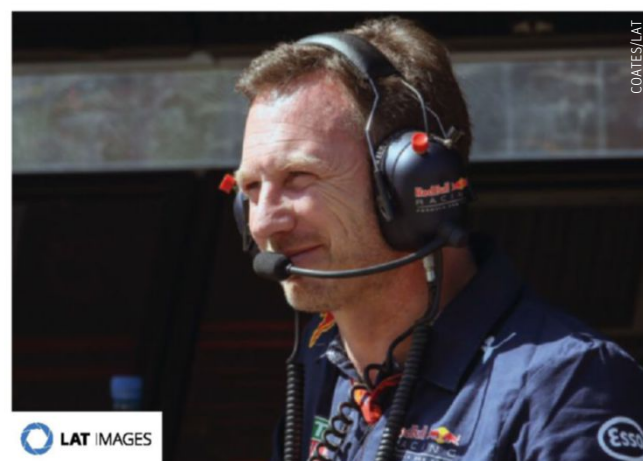
"It's a big component high up and it's very heavy. We're slightly at odds, because we've spent millions of pounds trying to make things as light and sleek as possible, then you introduce what looks like a scaffold pole that adds quite a lot of weight to the car high up. It's not particularly F1-ish."

But what's underneath the bodywork will be of more concern to Red Bull this season – namely the updated Renault engine that will need to be more powerful and significantly more reliable if the RB14 is to stand any real chance of forcing its way into title contention.

Red Bull is potentially the biggest threat to Mercedes, given its usual potency in aerodynamic development, and what Horner calls "the most exciting driver line-up on the grid". But, as ever in the V6 era, Red Bull's chances largely depend on whether Renault can meet its winter targets.

"I don't think the pecking order is going to change in terms of engine development," Horner says. "The feedback we've had from our engine partner is they've had a positive winter so far. They've completed a lot of mileage on their dynos, so reliability has been a key factor for them. We'll wait to see what performance gains come once we get testing."

"I've given up trying to second guess, to be honest. We've got an open mind. I think it's been encouraging, the mileage they've covered. Obviously, it's crucial for their own team as well as the customer teams they're supplying that the engine makes progress because the competition won't be standing still."



Top and above: Ricciardo gave RB14 its first outing at Silverstone on Monday. **Above, right:** Horner believes team's earlier launch will help it hit the ground running

That's the great fear looming for Mercedes' opponents. While Renault, Ferrari and Honda all work on refining their existing concepts for 2018, Mercedes plans to introduce an engine that its technical chief Andy Cowell suggests will be "pretty much all new".

Just as the gap between the top manufacturers appears to be closing, prompting suggestions that engine development under the V6 rules is levelling off, Mercedes could be about to take another giant leap forward with its own power, efficiency and reliability.

"It is a concern," concedes Horner. "I guess it's a concern for F1 that Mercedes probably didn't have the best chassis last year, but their other strengths saw them through. If they get their act together on their chassis this year we might not see too much of them."

"But we can only deal with the bits that we control, which is the chassis, the drivers, and I think in both of those areas we're in good shape. The reality is we've just got to do a better job in those areas to try to mitigate whatever gap there is in the horsepower department."

With McLaren ditching Honda to join Red Bull on the Renault customer engine programme this season, plus the burgeoning Renault works team looking to latch onto its customers as the campaign wears on, Red Bull could be

under pressure from all sides this season.

Horner says Red Bull "don't underestimate any of our opponents", but the focus is chiefly on closing the residual gap to Mercedes and Ferrari, especially having pulled out all the stops to re-sign ambitious prodigy Verstappen to a new contract late last season.

"Obviously, the engine regulation change won't come until 2021 – it's a long time to be treading water, so our determination is to be as competitive as possible this year, next year, and the year after, and see what Liberty and the FIA put on the table for '21," Horner explains.

"Our job is to be, hopefully, a challenger this year. We'll grab opportunities where we can. I think we've got one of the best driver line-ups in F1, we've got a great team, great strength in depth, and, hopefully, if the engine becomes both reliable and a bit more performant, then we can enjoy a competitive season."

"The car is the result of a lot of hard work. It's been a busy, winter. I think everybody's looking forward to getting out on track again, and getting going."

Red Bull arguably looks in better shape than it has done heading into any other year of the V6 era. But soon enough the stopwatch will indicate whether it can finally threaten Mercedes, or is simply set for another season of valiant but fruitless chase. ❧

Williams FW41

The British squad has gone aggressive with a 2018 design that features notable ideas that were seen on the Formula 1 field-leading Mercedes and Ferrari cars in 2017. Will this approach help Williams rise up the grid?

By Gary Anderson, Technical Expert



Williams has taken a very aggressive approach towards its car, which has a completely different aerodynamic philosophy. With Paddy Lowe joining from Mercedes and Dirk de Beer from Ferrari early last year, it's easy to see an influence from the approach that Ferrari took in 2017 and the car also incorporates some ideas from Mercedes.

I would classify the philosophy change as one of 'downforce solves all problems'. That includes getting the tyres to work and last longer, so it's time to forget the very aero-efficient recent Williams cars and concentrate on downforce.

All in all, it looks a major step forward from last year's Williams challenger. When you put together a package of ideas from other cars it's always difficult to get the best from them, so Williams will need to hope that its two relatively inexperienced drivers – Lance Stroll and Sergey Sirotkin – will be able to keep their cool during testing.

FRONT WING ¹

This is the normal multi-element package with a very short-chord leading main plane. All of this is to control the front-wing airflow-separation problems when the wing gets close to the ground at speed.

Under the nose, Williams has incorporated the Mercedes snowplough (or duck bill) that tidies up the airflow as it comes around the sides of the nose to help the bargeboards. By the look of the exit duct on the top of the nose, Williams has also incorporated an 'S' duct with its inlet on the underside of the nose. This helps to pull greater mass airflow through the centre section of the nose and wing-mounting pillar area, feeding more flow to the bargeboards.

FRONT SUSPENSION ²

The front suspension is reasonably conventional, with a top and bottom wishbone and inboard suspension units operated by pushrods. But, in the interests of aerodynamics, the suspension geometry has been compromised by having the inboard wishbone pick-ups mounted very high on the chassis. This may lead to a compromised tyre-contact patch under braking and at low speed.

Behind the front wheels is where it gets a bit more interesting, with the Ferrari-style short sidepods allowing much more space for the bargeboard package. This requires a different approach to the side-impact structures, so structurally the chassis will be fairly different.



HALO ³

The halo integrates quite well, but on a modern-day Formula 1 car it looks a bit retro. It looks like it should have been around when F1 cars were using spaceframe chassis! But if it saves a life it will have done its job.

The engine-cover fin is reduced in area, as per the regulations, but I think we all knew it wouldn't take long before a T-wing of some sort made an appearance and here it is. It's smaller, lower and not as ugly as last year's example, so we should be thankful.

As you can imagine, with the airflow coming around the engine cover and over the tops of the sidepods, the flow is not very uniform and this T-wing is there to optimise the direction of that airflow to the undersurface of the rear wing.

SIDEPODS/BARGEBOARDS ⁴

The actual bargeboard package appears to be a combination of what Ferrari and Mercedes ran last year. The lower parts are more Mercedes, and the upper and outer components are more Ferrari.

The delta fin coming from the chassis to the upper part of the outer bargeboard will be there to control the wake coming off the trailing edge of the front wing. Again, all these components are there to pull as much mass airflow from under the front of the raised chassis as possible to improve the performance of the front wing and the underfloor.

The sidepods themselves are very curvaceous and look like they wrap all the internal components very tightly. I would imagine that extra cooling exits may appear when we get to circuits where temperatures are an issue. It's very easy to compromise the cooling package, especially when pre-season testing is carried out at a fairly cool location in early-year Barcelona.

The sidepod undercut and raised inlet area again are very aggressive. This allows more airflow through to the upper surface of the diffuser and the lower surface of the rear wing, and reduces the car's overall cross section, which in turn reduces the overall drag.

DIFFUSER ⁵

The diffuser is the maximum height and width allowed in the regulations, with a gurney flap along the upper trailing edge. The outer vertical double turning vanes are there to turn the airflow as much as possible to connect it to the low-pressure area behind the rear tyres. If you can get the rear of the car all working as one, then the increase in underfloor downforce is significant.

The multitude of turning vanes in the diffuser are there to help turn that airflow outward, but also to control the areas of diffuser stall when the car gets near the ground. Managing this inevitable aerodynamic stall and making sure the airflow reattaches as the rear rideheight increases is critical, otherwise the driver will lack confidence when they brake.

The Williams greatest-hits package

There is now influence from Mercedes and Ferrari, but for F1's 'small big' team even standing still in 2018 could be regarded as a success

By Edd Straw, Digital Content Manager

Since catapulting up to third in the constructors' championship in 2014 with the help of a switch to Mercedes propulsion, it has been a case of diminishing returns for Williams. Third – with 80% of the points of the previous season – in '15; fifth in '16; fifth in '17 with fewer points... the pattern is clear.

Formula 1 car launches are always steeped in optimism. But to predict even a levelling off of the Williams decline, let alone a revival based on something more tangible, there must be cogent reason to expect the trend to reverse. With a budgetary chasm to F1's big beasts, and reason to expect McLaren and Renault will take strides forward this year, Williams faces a tough task this year even to stand still. But this trajectory could change with a car that is, in many ways, a fusion of the best of Mercedes and Ferrari conceptually.

This is the first Williams designed and produced entirely under the technical leadership of former Mercedes and McLaren man Paddy Lowe. That's significant, even if the days when a grand prix car could entirely reflect one individual's vision have long passed.

"I'm very pleased with what we've been able to do with this car," says Lowe. "It's the first step I hope on the road to moving ourselves further up the grid and the result of strong collaboration across the different departments to put together some big steps that we've made – some of which are visible, some of which aren't."

While the first of the 2018 cars to be revealed – the Haas VF-18 – offered no surprises, the new Williams is more attention-grabbing, and is likely to be even more so when the full aerodynamic complexity is revealed in the testing spec.

"We have the benefit of bringing a number of people together who have come from other teams to add to the existing team, which already had some strong players," Lowe says. "When we put that all together, we were able to make some progress I would describe as more of a step change than evolution. A good example, which is visible, is the aerodynamic design and the philosophy behind that. What you see is a result of strong collaboration between the different groups within engineering. Aerodynamics can be seen as an aerodynamic problem, but it's delivered through a contribution from all across the company, and not just from the aerodynamics department."

Which is where Lowe comes in. His predecessor at Williams, Pat Symonds, described the chief technical officer as the conductor of the orchestra – and that's exactly what Lowe is. And when it comes to getting the different groups

within the company working together, that's precisely where he should have a big impact.

It does appear that the dials have been moved a little to emphasise aero performance, a metaphor that oversimplifies but does encapsulate the need to ensure the objectives are set correctly to exploit the areas where performance can be delivered. In recent years, Williams has lagged behind F1's big teams in terms of aerodynamic complexity. Downforce, delivered consistently, produces lap time, and can help with areas such as tyre use where Williams has also struggled at times in the V6-hybrid era.

Crucially, this is another area of change. Lowe mentioned that Williams had recruited from rival teams, and Dirk de Beer's arrival as head of aero is significant. Previously at Ferrari, de Beer was one of the largely unsung heroes of the Enstone Lotus team's race-winning exploits of 2012-13, and he has played a key role in improving collaboration between departments as well as impacting aero.

"There is increased complexity," says Lowe. "You may not see it now, but the 2017 regulations permitted far more opportunity in the bargeboard area and we've seen a lot of growth of complexity in that space, and that continues this year, certainly on our car. Dirk started in March last year, the same as me, and has made a very big difference to that department, giving the right kind of focus and leadership to take them forward. A lot of what we've achieved on the car is down to what Dirk has brought within aerodynamics."

But while the aero detail, which around the sidepods shows some of the conceptual thinking that was at play at Ferrari, is eye-catching, inevitably the halo is the first thing you spot. There has been plenty of grumbling on the impact this has on the car design, more in structural terms than in the inevitable impact on aero. But as Lowe points out, it's also an area that gives some teams the opportunity to do it better than others.

"That's been a fairly significant project to deliver, principally around the structural requirements," he says. "It has to carry some fairly significant loads and that's required some very hard work within the structures groups. The opportunity for differentiation would be around the mounting requirements, the loads it has to take that I mentioned. There is a small aerodynamic impact, which we can mitigate to some extent with some small shrouds, but even so it's not going to be a big factor from team to team. The biggest opportunity is how much weight do you have to spend that you didn't spend in the past?"

It's clear even to the untrained eye that Williams has achieved the step change Lowe has described, although only time will tell whether that translates into performance. And there are some key problems that needed to be addressed for a team that has ➤

FW41 is the first Williams designed solely under Paddy Lowe's stewardship





S. BLOKHAN/LAT

LAT IMAGES

been on the slide. Lowe cites improving consistency, performing well across a range of circuits, as critical.

A Formula 1 car is a virtuous circle, with strengths in each area multiplying that of others. That's why saying that the focus is on aerodynamics is an oversimplification given, as Lowe stresses, aero is not only about aero. But with last year's change in regulations, it's clear that downforce has become yet more significant. And while Lowe doesn't get into whether Williams has perhaps not focused enough on this area in previous years, this appears to be the logical interpretation of what he does say.

"Aerodynamics has certainly increased in its relative effect on your competitiveness — and by intention," says Lowe. "The regulations were designed for the first time to increase downforce rather than decrease it, and that's changed the performance balance between aerodynamics and other factors like tyres and engines and brakes and so on. I can't comment on things that went before, I can only comment on the decisions we've made as a technical team to move ourselves to a better place, and we'll have to see how effective those are. We think we're going in the right direction."

Williams is in the middle of an infamously uneven playing field, and its days as one of the big-spending giants are behind it. It's competing against a midfield pack that includes Force India, which has a similar budget but smaller facilities, and pioneered the striking up of technical partnerships with other teams to receive components such as gearboxes.

This is a direction Williams has eschewed, and continues to do so. Williams is a small big team, whereas Force India is a big small team — and the swapping of those two words makes all the difference. Lowe is quick to point to the historic success of Williams. This approach could either prove to be wise long-term planning, or a hubristic refusal to bow to the realities of a changing landscape.

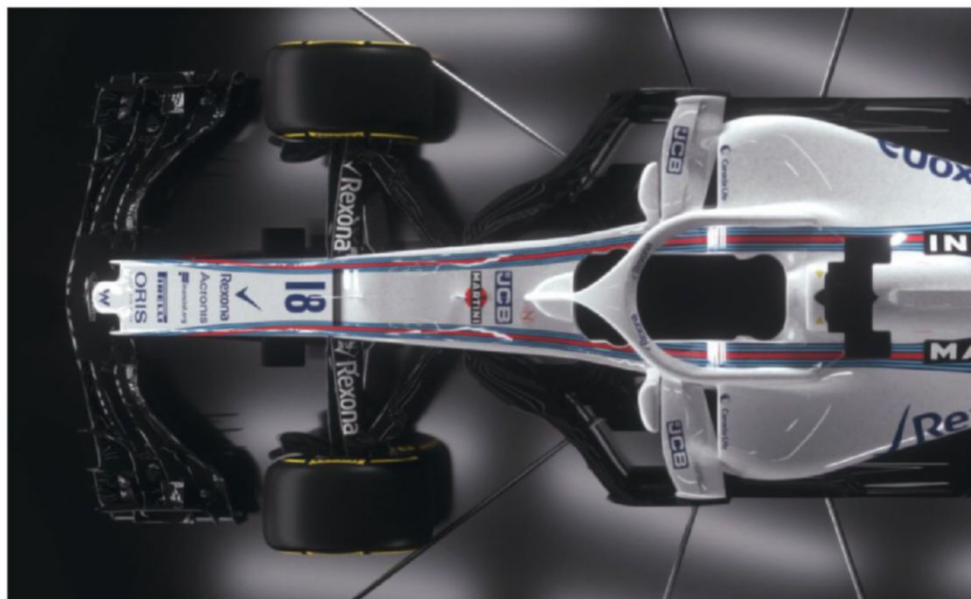
"It would be a relatively easy decision to abandon a number of areas of the car that could be purchased as permitted from other

manufacturers, but that puts us into a different context and maybe not one that is correct for the long-term ambitions of the team," says Lowe. "If you look at 2017, it would appear that Force India had a better philosophy: concentrate on fewer things and do them better. But we're here to change that and take ourselves forward. We can concentrate on the right things but still leave ourselves positioned as a full constructor. That gives us the basis to mount championship campaigns in the future."

Whenever a new car is launched, the obvious question is 'what are the targets?' Few teams can set rigid targets in terms of results, certainly not those in Williams's position, so Lowe has a clear idea of what he wants to see from the team over the coming year.

"I'd like to be performing, at least in lap time, an awful lot closer to the front," says Lowe. "We were between two and two and a half seconds off the front last year, and that's not where

Above: Williams locked out front row in Austria in 2014. Top, right: last year it was well back in the midfield. Right: Lowe has set a clear target for 2018 of closing the lap time gap to the front

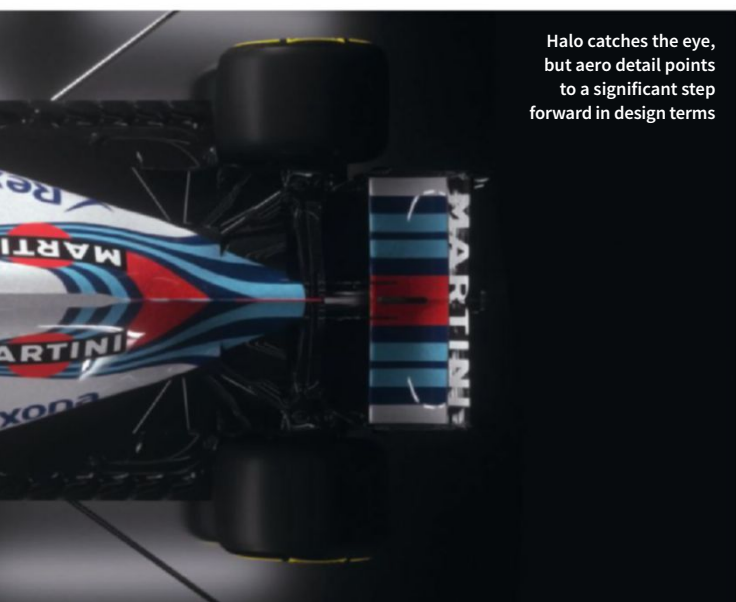




we want to be. I'd like that gap to be considerably closed down. If there are others in that space and we don't make up position championship-wise, that will be what it is, but we want to make progress towards the front from a lap time point of view.

"I'd also like to see us exploit that car strongly and get the points that it's capable of delivering with its performance. So that will be great teamwork, good work from the drivers, good consistency and reliability to score the points that we can. We can do a much better job of that than we did in 2017."

Whatever happens, things have changed at Williams technically. The stopwatch will decide whether it's for the better. And given how congested the midfield could be, and the question marks over the driver line-up (see right), a few tenths here or there could make a huge difference to where it stands in the pecking order. *W*



Halo catches the eye, but aero detail points to a significant step forward in design terms



Sensational third place for Stroll in Baku last year

THE WILLIAMS DRIVER GAMBLE

IT WAS INEVITABLE THAT DEPUTY team principal Claire Williams would be asked about running two drivers who bring financial backing when the team held its season launch in London last Thursday. She said she was expecting it.

Sergey Sirotkin and Lance Stroll are both capable drivers, but there is no denying that their seats are linked to significant financial packages.

Williams, unsurprisingly, defended the team's pairing. "It's nothing new in F1 that drivers come with money, and thank goodness they do," says Williams. "It would be incredibly naive for anyone to make that statement, saying, 'He's just a pay driver'. It's great if a driver has financial interests from partners – it's great for the team, it's great for the driver. This is an expensive sport, not just F1 but at grassroots level as well. We'd miss out on so much talent coming into F1 if drivers didn't have financial backing supporting them through the junior formulas, and bringing them into F1.

"I think the terminology used around pay drivers is wrong, it's inappropriate and it's unnecessary,

and it puts negativity around a driver that we just should not be doing in this sport anymore. There are commercial issues of course, but we make our driver decisions based on talent, based on what Paddy [Lowe]'s engineering team needs in order to take this team forward, not about any potential financial backing that they have."

Stroll already had a deal to drive for Williams in 2018, and Lowe is adamant that Sirotkin was the best available driver, since the team decided Robert Kubica wasn't good enough to get the race seat.

"The selection process we used for that race seat was incredibly exhaustive, the most exhaustive I've ever been involved with, involving the technical team," he says. "Sergey was selected simply on merit for his driving. That team knows nothing about finances, they're not involved in it, they weren't aware of any factors like that."

But ultimately, Williams has the youngest line-up on the grid and questions remain as to whether they will be able to get the most out of the car given their inexperience.

LAWRENCE BARRETTO



Sirotkin was picked entirely on merit, stresses Lowe

Haas VF-18

Haas has produced a neat design for its third Formula 1 challenger, but will this uncomplicated approach help the team gain more consistent performance levels after its mixed first two seasons?

By Gary Anderson, Technical Expert



1 FRONT WING/SUSPENSION

FRONT WING/SUSPENSION ¹

It looks like there are a couple of extra slot gaps on the outboard section of the front-wing flaps. Also, the furthest-forward element of the front-wing main plane is a very short chord. Both of these features will help to manage the pitch sensitivity and produce more-consistent front downforce.

The front suspension is conventional, with a fairly narrow base lower wishbone where it goes into the chassis. The angles of these components, combined with the top wishbone and pushrod-operated inboard suspension, are all optimised to manage the airflow coming off the front wing and help with the performance of the leading edge of the underfloor.

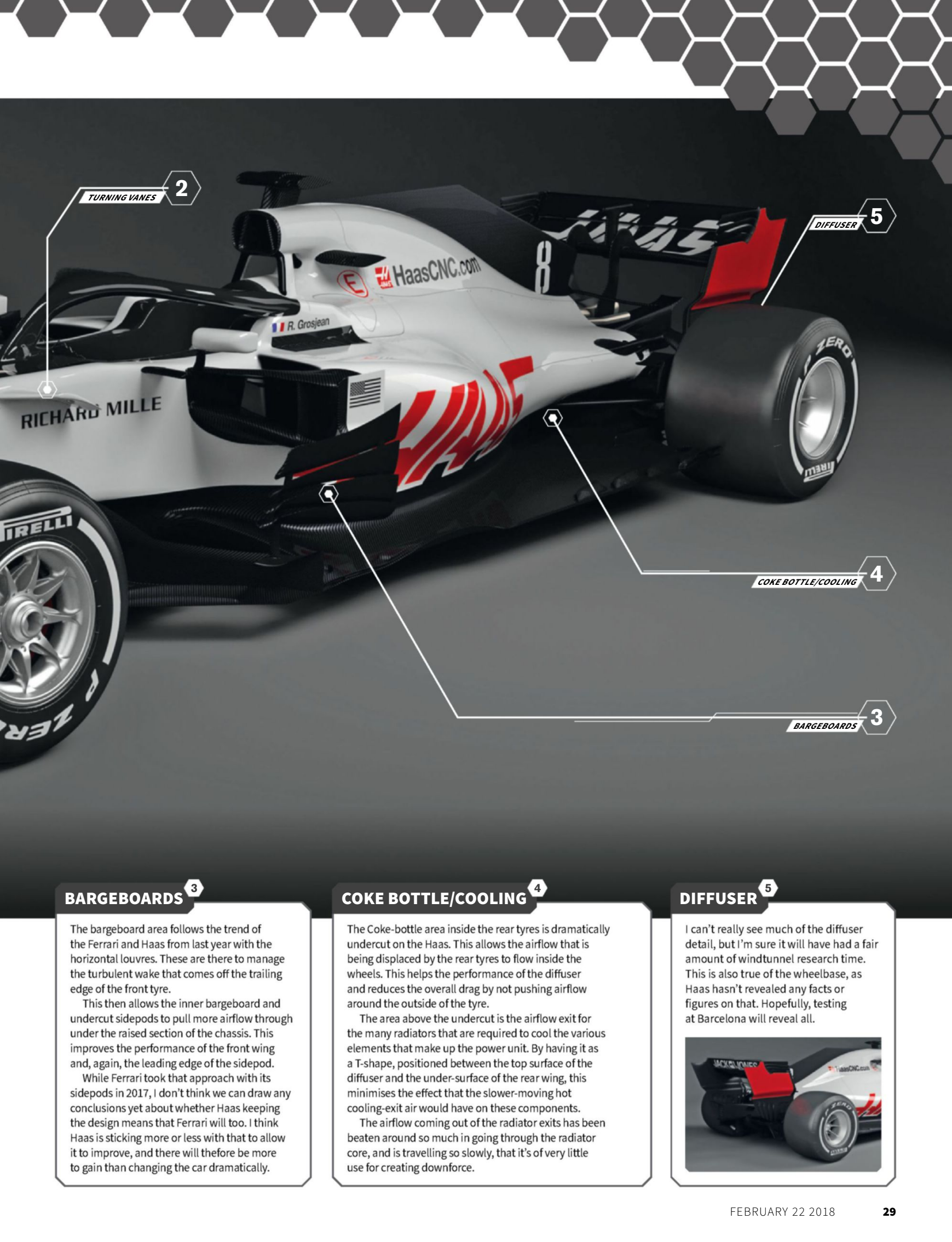
TURNING VANES ²

The two horizontal turning vanes on the sides of the chassis work in a similar way to the front-suspension elements. They do this by picking up the wake coming off the trailing edge of the front wing and help realign it to improve the performance of the leading edge of the sidepods. They also reduce the lift that is created when the airflow accelerates over the top of the sidepod leading edge.

For Haas, 2018 is going to be about achieving greater consistency after two erratic seasons in Formula 1, with some great results and some very difficult weekends. To do this, you need to understand how to get the car into its working window for a range of circuit conditions, which is Haas' challenge.

The new car looks very neat and tidy. But most impressively, the integration of the halo doesn't create too much of an eyesore. It has been housed in a carbonfibre fairing, minimising the effect it has on the aerodynamics. Also, the undercut airbox/headrest section looks like it has been exaggerated to help manage the halo's wake.

As these are renderings of the car, it's important to remember things could look a little different when the new Haas hits the track in testing later this month.



TURNING VANES

2

DIFFUSER

5

COKE BOTTLE/COOLING

4

BARGEBOARDS

3

BARGEBOARDS

3

The bargeboard area follows the trend of the Ferrari and Haas from last year with the horizontal louvres. These are there to manage the turbulent wake that comes off the trailing edge of the front tyre.

This then allows the inner bargeboard and undercut sidepods to pull more airflow through under the raised section of the chassis. This improves the performance of the front wing and, again, the leading edge of the sidepod.

While Ferrari took that approach with its sidepods in 2017, I don't think we can draw any conclusions yet about whether Haas keeping the design means that Ferrari will too. I think Haas is sticking more or less with that to allow it to improve, and there will therefore be more to gain than changing the car dramatically.

COKE BOTTLE/COOLING

4

The Coke-bottle area inside the rear tyres is dramatically undercut on the Haas. This allows the airflow that is being displaced by the rear tyres to flow inside the wheels. This helps the performance of the diffuser and reduces the overall drag by not pushing airflow around the outside of the tyre.

The area above the undercut is the airflow exit for the many radiators that are required to cool the various elements that make up the power unit. By having it as a T-shape, positioned between the top surface of the diffuser and the under-surface of the rear wing, this minimises the effect that the slower-moving hot cooling-exit air would have on these components.

The airflow coming out of the radiator exits has been beaten around so much in going through the radiator core, and is travelling so slowly, that it's of very little use for creating downforce.

DIFFUSER

5

I can't really see much of the diffuser detail, but I'm sure it will have had a fair amount of windtunnel research time. This is also true of the wheelbase, as Haas hasn't revealed any facts or figures on that. Hopefully, testing at Barcelona will reveal all.





Martin Brundle

ON THE F1 GRID

The TV presenter and ex-Formula 1 racer sat down with **Nigel Roebuck** to discuss the strengths and weaknesses of the current driving talent

As we ready ourselves for the 2018 Formula 1 season, I talked through last year with Martin Brundle, as ever over lunch at a favourite Italian restaurant in Knightsbridge. It was no more than inevitable, I suppose, that we started with Lewis Hamilton, world champion for the fourth time.

The time-honoured theory, I said, has been that drivers give of their best when pressured by a team-mate, but in fact both Hamilton and Sebastian Vettel seem rather to disprove it: with Valtteri Bottas, rather than Nico Rosberg, in the other Mercedes, Lewis thrived like never before, while Sebastian clearly flourishes with Kimi Raikkonen, rather than Daniel Ricciardo, alongside him.

"Yes, it's true," said Brundle, "and although harmony's obviously a good thing in many ways, I find it interesting that Toto Wolff's now saying he thinks there needs to be a bit more friction at Mercedes! When they had that with Hamilton and Rosberg, they didn't seem to appreciate it."

Perhaps, I suggested, it was only in 2017, after his retirement, that we began to appreciate just how good Nico had been. Not only did he quite often beat Lewis, but also very clearly managed to get under his skin. By contrast, the presence of Valtteri seemed to bring out the best in his team-mate.

"Apparently it did," Brundle said, "and I also sensed, after the

summer break, that Lewis came back, and said, 'I'd better take this a bit more seriously – otherwise I'm going to lose it'. He just took off – I thought his pole lap at Suzuka, for example, was just incredible – and when that happened, Bottas's head dropped, because he couldn't figure out what was going on."

And perhaps also because, after the break, he was told that from here on he was supporting Hamilton's run for the championship...

"Well, personally, I'd have told him that about three or four races in! Actually, that's a bit unfair – for quite a long period of time Valtteri, mathematically, was still in the hunt, wasn't he?"

"There's quite a lot about Lewis I still find difficult to work out. When he's on it, which is most of the time, he's brilliant, but throughout his career he's always had inexplicably 'off' weekends, and he still does. I can only think that something in his life – outside Formula 1 – just gets to him occasionally."

Astonishingly, one of those weekends came at Monaco, where Hamilton could get nowhere near Bottas, let alone the Ferraris.

"Yes, I'll admit I was quite shocked by that. Occasionally Lewis just defaults emotionally from the weekend, doesn't he? It's very strange, although I accept there's a spotlight on these guys, and it's bloody hard to keep delivering like they're expected to do."

"Hamilton's a 'Marmite' driver, isn't he? Loved by many, and loathed by many. He loves to make bold, emotional, statements about life, and certainly he puts it out there, with all the bling, and whatnot, so inevitably he's going to stir up strong feelings



— but I tell you what, very few drivers can turn on TV sets, and fill grandstand seats. Could Jenson Button, for example? Does Vettel? I mean, they're struggling to keep the German Grand Prix going! Ayrton Senna did, and Nigel Mansell and probably Alain Prost — and of course Fernando Alonso single-handedly created an audience in Spain — but there are very few who can do that, and Lewis is one of them.

"He's got some huge deals coming along — Mercedes are having to change things to accommodate that — and clearly he's going to be around for a little while yet. At the BRDC lunch he as good as said, 'I'll see it through this phase of Formula 1, and then I'll probably be out by the time they change things for 2021.'"

As and when Hamilton leaves the world of motor racing, I said, you suspect it will be without a backward glance.

"Yes, absolutely. As I said, he's building all sorts of commercial deals, but I was struck by something that happened in Abu Dhabi. David Coulthard and I did the launch of the new F1 logo on the podium — it wasn't my proudest moment, I must say — and we were supposed to hand each driver a hat. Lewis looked at it, then pointed to his Mercedes cap, and said, 'This is where the money comes from,' and refused to put the hat on. I thought, 'You're not right, mate — this is where a lot of the money originally comes from...'

"Lewis is what he is. I don't even try to talk to him on the grid — I don't need to be blanked, thank you! — but I know that when we do a Sky feature with him, we'll get something out of it, compared with Vettel or Bottas or Raikkonen or whomever — how the hell do you get anything juicy out of them? You can't. So at least Lewis is doing something, whether you like it or not."

For the fourth year running, he went through a season with essentially one championship rival, the difference

being that this time, rather than his team-mate, it was a driver from a rival outfit, Ferrari.

"I thought Bottas might do a bit better than he did, but essentially what we got from him was what I expected," reckoned Brundle. "Before the season started, I said I thought he'd be all right, he'd win a few races, but he wouldn't really challenge Lewis — especially not in year one.

"Having said that, I've met a lot of drivers who would like that race in Abu Dhabi on their CV — beating Lewis to pole in the same car, and then having him in his mirrors for the whole race. OK, it was F1 2017-style, where unless you make a mistake he ain't going to pass you, but under pressure he didn't make a mistake, and undoubtedly that's one of his strong points. Valtteri did a solid job, but when you hear Lewis going on about how happy he is with him... my alarm bells would be going off at that!"

There were times in 2017, particularly during the first half of the season, when Vettel, rather than Hamilton, looked like the probable world champion, but if Ferrari rather lost the plot in the second half so too did Sebastian.

"He just cannot control his temper, can he? Something like the incident in Baku, where he nudged Lewis during the safety car period, that's just instinctive, isn't it? That's in your personality.

"Seb might be only 30, but he's a bit of a grumpy old man, isn't he? His default mood is to get angry. We've seen it so many times now — against Charlie [Whiting], against other drivers — and in a way it cost him the championship. I think what happened at Singapore was a consequence of having Max Verstappen alongside him, and being told by Christian [Horner] that he'd better watch out because Max was on a mission...

"I think Seb was fixated about leading into the first corner, >>>

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and on top of that it was wet. What he did was ridiculous, chopping across in front of Max and Kimi – apart from anything else, why would you take a risk like that when your main rival was fifth on the grid?

“The thing about Vettel is that he’s got this sense of entitlement – and it costs him. Remember when he first turned up; bright-eyed, rucksack on his back, looking as if he was fresh out of uni? It all seems like a very long time ago, but still I think he had some outstanding performances in 2017 – his overtakes against the Force Indias in Canada, for example, and his qualifying laps in Mexico, were absolutely breathtaking. Overall I thought he did a good job, but it was bittersweet – here and there he let himself down.

“Although Mercedes were obviously pacing themselves a bit, over the whole season I think Ferrari had the best car, but you could sense that they had it turned up to 11 most of the time, and later the package just wilted, didn’t it? Mind you, I think if Alonso had been in the Ferrari, he’d have won the championship. They might have found Fernando difficult in some ways, but everyone in the team would have him back in a heartbeat...”

Raikkonen meantime had another typical Kimi season, thereabouts but not there. “Well, although I thought he showed a bit better speed last year, Kimi’s past his sell-by date, isn’t he? Keeping him is a soft option for Ferrari – it keeps Vettel happy, and, as someone pointed out to me, he’s still incredibly popular around the world, and he sells cars, sells merchandise!

“As much as I like Kimi as a bloke, and admire him as a driver, his time’s up, and I would love to see a Ricciardo, or someone like that, in the team. At the same time, of

course, Charles Leclerc is waiting in the wings – the kid seems to have it all, doesn’t he?”

It is so typical of Formula 1, I said, that already many people have... not written Ricciardo off, but significantly downgraded him after his 2017 season alongside Verstappen, and that seems a little unfair. How many, after all, would be as out-and-out quick as Max in equal cars – particularly in qualifying?

“Yes,” Martin said, “although Max does go on the ‘missing’ list occasionally – he struggled in Abu Dhabi, for example. I’d never write Danny Ricc off – his problem is that he’s now seen as number two at Red Bull. For me he’s not a number two driver *anywhere*.

“Something that’s always impressed me about Danny is his

overtakes: look at the one on Raikkonen at Monza – it was *outrageous*! Same thing at Baku, where he ended up winning. And when I talk to him about these moves, there’s always total logic: ‘Well, I could have gone straight on

if I’d got it wrong; and ‘I thought he’s not going to defend because he won’t be expecting it from this far back...’

The whole thing’s thought through.

“As for Max, he won those races beautifully, didn’t he? Towards the end of the year the Red Bull went off the pace – I think something, like a cunning rideheight thing, got taken off it – but look at Mexico and Malaysia, cruising up, passing Lewis, disappearing – I mean, in Mexico Max was out front, and couldn’t go slowly enough!”

In light of his extraordinary talent, of what he has achieved in such a short time, it would have been easy for Verstappen to become insufferably arrogant, but so far there is no sign of it.

“He’s just a great kid. When I’m talking to him, I need to >>

“Although he showed better speed, Kimi’s past his sell-by date, isn’t he?”



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have everything together, because he's as sharp as you like with his answers — it's almost as if he's reading your mind. I interviewed him in Brazil, and the heavens opened — the rain was bouncing off the track — and I thought, 'He's not going to come out in this'; but to my amazement he did — stood there, did the interview, no problem."

Like early Vettel...

"Yes, exactly. It'll be interesting to see if Max changes, but I don't sense a side to him. For me, Red Bull has the strongest pairing on the grid, but what Danny's going to get now is what DC had at McLaren — Ron [Dennis] could only love one driver, and it was Mika Hakkinen. Emotionally, Red Bull are committed to Max, aren't they? They see him as the future of the team, and Danny's going to have to suck that up, and fight back."

Yes, I said, but surely that's why down the road he can't stay — just as he was the reason Vettel had to leave at the end of 2014.

"I agree," said Brundle, "and that means Mercedes or Ferrari, doesn't it? There's been a lot of talk about Danny going to Ferrari — although I wouldn't have thought Seb would be keen on that idea! — but I understand that his first choice would be Mercedes. Is there going to be a vacancy there in 2019 — and if there is, will they go for Esteban Ocon, anyway? Thing is, I'm not aware that Ricciardo's got a manager — and Toto manages Ocon, doesn't he?"

"There's another lad really going places. Talk to Eric Boullier about Ocon — about when he was a kid, living in his caravan, rummaging through the bin to get Nyck de Vries's discarded tyres, because they were better than anything he was going to get... I love all those stories."

"Esteban has humility, and he also *clearly* has a competitive edge — Jesus Christ! He looks gangly — he doesn't look like he'll fit in a racing car — but if there's nothing to the lad, clearly that's not a problem. I thought he was outstanding last year, but it must be said that Sergio Perez responded, and beat him in the championship. I know they say he's lazy, but Checo's turned into a much better driver than I ever expected."

"He and Ocon took pieces out of each other at Montreal and Baku and Spa, but in a way that's a nice problem to have, and

I thought Force India handled it very well. Everything about that team impresses me — they've got nine bob to spend, and it's amazing what they achieve with it."

"Ocon is very obviously a star of the next generation, together with Verstappen, Carlos Sainz, Leclerc and so on... Lando Norris looks pretty handy for 18, and others will pop up, too."

What about Stoffel Vandoorne?

"Yes, he's in there, too. I think Vandoorne might be a slow burner — in the first half of last year he struggled, but in the second half he really did start to show something. Stoffel's a bright lad, and he'll get there — let's remember that's how Nico finished up beating Lewis: cerebrally."

"Some said Fernando should never have done Indy, but that's bollocks"



"I'll never understand how the Honda project turned out so badly – you just hope that with the Renault engine McLaren will be back up there, because it would be fantastic for the sport, and for all the Alonso fans who've missed him being up at the front. I thought Fernando was *incredible* last year. On Friday afternoons I go out on the circuit to watch, and I can always hear him coming – I can tell it's him before I can see him, because the throttle's always lit, and the guy turns up, and just carries fantastic speed through a corner..."

"Alonso's motivation is astonishing: he *never* gives up, even in a hopelessly uncompetitive car, and that's something I admire enormously. Having said that, every time a Ferrari blasts past him down a straight, he's not human if he doesn't think, 'I should have been in that...' I know he insists that he has no regrets about any decision he has ever made, but my reply to that is, 'Well, you should have!'"

"Some in the paddock have said Fernando should never have done Indy, but I think that's bollocks – apart from anything else, it was a masterstroke by Zak Brown, because it took the focus off all the misery at McLaren and also gave him an opportunity to vent all his speed and energy. I thought he was amazing at Indy – the likes of Gil de Ferran don't get watery-eyed over much!"

"Now he's done Daytona and is doing Le Mans, whereas Lewis, for example, says, 'Not for me – I've no interest in anything but Formula 1'. Alonso's a throwback, in some ways, and reminds me of going to races when I was a kid – I'd like it if he raced a Formula 2 car and a Lotus Cortina the same day!"

"I really think, though, that Fernando needs someone to help him with decisions, someone stronger than he is – but I'm not sure such a person exists! In a way, I wasted my talent – I didn't

fulfil my potential for a number of reasons – and I see Fernando as that times five, in that he's allowed his emotions to control where he's ended up driving, and that's a terrible shame. He should have four or five championships."

In recent weeks, Williams have finally confirmed that Sergey Sirotkin will partner Lance Stroll, and Brundle is a little underwhelmed: "Two pay drivers at Williams! I thought Massa had a great season, and I don't know who's going to do a better job there – certainly Stroll drove a great race at Baku, and apparently thought he was going to trounce Felipe in the second half of the season, but it didn't happen, did it? I think he's lost his way."

"Personally, I'd have put Daniil Kvyat in the Williams. He needs to sort his head out, but I think he's a lost talent, and I don't know why they booted him out of Toro Rosso – he's bloody quick, that boy."

"What's really sad is that we were all getting our hopes up that Robert Kubica would get the Williams, but testing by yourself on a dry day is one thing – being in a pack of cars on a wet day is something else entirely. Talk to Anthony Davidson, who does a lot of work on the Mercedes simulator, and he says, 'When they start giving me instructions I need three hands, so how would anyone cope with one and a half?'"

"I talked about that to someone at Mercedes, and he said, 'Yep, that's right – and, what's more, our steering-wheel is far more automated than most teams, because we've got the budget to do it: many of those changes are done automatically, so I couldn't see how Kubica was going to cope – with starts, aborted starts, spins...' It's a shame. I feel very sorry for Robert, and for Formula 1 – what a hell of a story that would have been." ❦



McKLEIN

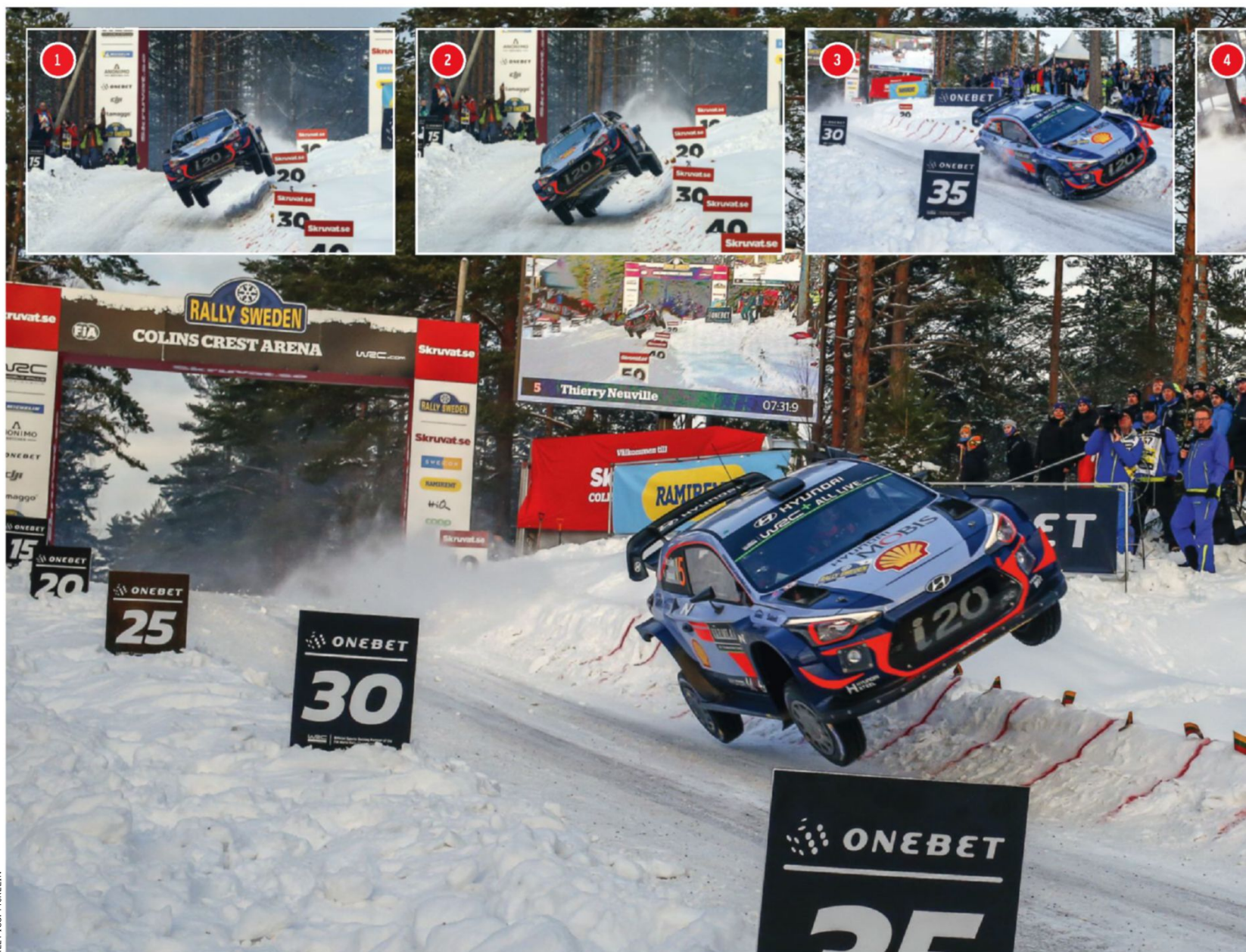


Neuville delivers title warning

Hyundai's mercurial star was on top form in Sweden and charged into the WRC points lead

By David Evans, Rallies Editor

🐦 @daviddevansrally



ALL PICS: MCKLEIN

For around a second, just a second, nobody breathed. During that same second Nicolas Gilsoul glanced upwards, rather than to his left, to focus on Thierry Neuville, who was briefly regarding him from a similarly unfamiliar angle. Touchdown. Another second, another note. Onwards.

And for a Hyundai team transfixed by the spectacle on television, a long, loud exhale. When the #5 i20 Coupe WRC arrived at the end of the second run through the Vargasen stage last Saturday afternoon, there was spontaneous applause from the mechanics. Team principal Michel Nandan emerged from the command centre in search of a cup of coffee. A drop of something stronger wouldn't have gone amiss.

Heavy snow had altered the line through the famous Colin's Crest jump

section of the stage, requiring drivers to keep as far to the left on takeoff as possible. The #5 i20 did that, but then – mid-flight – scuffed the top of the head-height snowbank at 100mph, tipping an extraordinary angle.

Was it a moment, Michel? “Yes. It was a moment.” Was it a moment, Thierry? “No,” he said, deadpan. “I was careful here. The stage had gone well until then and I didn't want to take a risk. I only jumped 32 metres or something...”

That was Neuville's state of mind last week. Always full of confidence, Neuville delivered a ruthless drive through horrible conditions. Comfortable in the car, he took his Hyundai to places where others feared to tread, and he did it quicker than anybody else.

That confidence has often seemed misplaced. Twelve months ago he offered further evidence for the case that his genius is flawed when he wrecked his car's left-front suspension against a

Neuville's unorthodox trajectory through Colin's Crest was a shoo-in for the highlights package

barrier, needlessly trying to tighten a superspecial corner in Karlstad. Had that played on his mind this time around? “No,” he asserted. “That was last year. I look only forward.”

But he might have permitted himself a glance in the rear-view mirror, for when he arrived back in service unscathed late on Saturday night, he grinned: “I took my revenge on this place.”

Neuville led the event from the third stage forwards. The closest he came to being headed after that was when Citroen's Craig Breen whittled his advantage down to 4.2 seconds after the first run through Hagfors.

Breen's decision to run with only one spare wheel for the afternoon was, technically, where the event was decided. The Irishman knew he absolutely had to make his 20kg weight-saving count on the first stage of the afternoon – thereafter he would be on the back foot as Neuville made the most of the sharper studs on offer from two spares.



“I was careful. I didn’t want to take a risk. I only jumped 32 metres or something...”

Breen was quickest in Torntorp, but only by 1.3s. It wasn’t enough. From then on, Neuville edged and eased away. Fastest on the afternoon’s remaining two stages, the leader felt his confidence swell. He backed himself.

This sort of result had been coming since the start of last year. From the moment Neuville set foot in Hyundai’s 2017 offering, his ascendancy began. Arguably, he would have had the title last year had it not been for impatience and a determination to show the rest of the world he could round each and every corner quicker than they could.

Last weekend he got all that under control and drove one of the best rallies

of his career. Through Friday and Saturday, his rivals squirmed as their cars hopped in and out of the ruts, darting and diving in every direction. Neuville danced his car through and around those obstacles in some style. The grip and stability at the rear of the i20 were exceptional. And marked by comparison with the set-up of his team-mate Andreas Mikkelsen.

Mikkelsen and Hayden Paddon had joined Neuville on a provisional Friday night podium, but the other two Hyundais fell back. Mikkelsen chased too much time, running his car too hard for Saturday’s faster stages, and finished third. Paddon’s first outing of >>

THE RISE OF A JAPANESE CONTENDER

NOT MANY TOM’S JAPANESE FORMULA 3 drivers end up in WRC2. In fact, you can probably count them on, well, one finger. Takamoto Katsuta is that solitary example. A kart racer in his early days, he moved up to win Formula Challenge Japan at 18. But when your father is a five-time Japanese Rally champion and your grandfather was also a man from the muddy side of motorsport, you’re not going to reach too venerable an age before you have a run between the trees yourself.

Being selected as part of Toyota Gazoo Racing’s Challenge Programme provided the launchpad for Taka to switch disciplines – he’s been rallying for the past three years. But nobody expected him to do what he did last week. He won WRC2 and he did it in fine style, beating Skoda-backed Swede Pontus Tidemand and his Norwegian team-mate Ole Christian Veiby on their home territory.

Nobody saw this one coming, and what makes it even better is the genuine enthusiasm with which the 24-year old’s maiden victory was received. Everybody loved this story – especially Tommi Makinen. It’s part of Tommi’s remit to try to find a Japanese hero to put in his Japanese car (although at the moment the TGR juniors are driving Ford Fiesta R5s because Toyota doesn’t make an R5 car). What did the four-time world champion think?

“Absolutely brilliant drive,” Makinen told Autosport. “Absolutely brilliant. This was the rally that built his confidence for himself. To beat the local stars like he did here is incredible – and he did this by going flat-out.”

Katsuta will now contest all remaining European WRC rounds except Germany, and there’s even the chance of a test in a Yaris WRC starting to appear on the horizon.



the season was shaping up nicely – despite his continued inability to find the same pace on his first run at stages as he was doing in the afternoon. Paddon lost fourth to a charging Esapekka Lappi on the final stage.

Early on, Neuville and Mikkelsen had run one-two. “It’s a bit like Tom and Jerry,” joked Norwegian Mikkelsen. The first run through Hagfors was a certainly a comedy of slapstick errors for the pair as they both spun at the same corner. That was the beginning of the end of Mikkelsen’s challenge for the lead. For Neuville it was nothing more than a blip.

“When I spun, I saw some components in the road,” said the Belgian. “The snowbank was quite destroyed there. I knew it was him...”

Ultimately, then, Breen was the closest challenger – a shade under 20s behind Neuville at the finish – but the result, in all honesty, hadn’t been in much doubt. When Scott Martin, Breen’s co-driver, suggested at the post-event press conference that he and his man had put the leader under pressure when they were just 4.2s down, Neuville just gave a wry smile.

“What pressure?” he said. “It must have went the other way. I didn’t see it.”

It was a joke. But he meant it.

“The confidence was high in the car,” said Neuville, “and I always felt like I had another gear if I needed it.”

Brilliant Breen

Friday night, Saturday night and Sunday lunch. Same question, same answer. Tell us, Citroen team principal Pierre Budar, what do you think of Breen’s work? One word: “brilliant”. He got that right.

Now, there will be plenty out there who will point to him being ninth in the running order on an opening day that kicked off with heavy snow still falling. Undoubtedly he benefited from a cleaner road, but he’d earned it by running first through far worse between Agnieres-en-Devoluy and Corps on the Monte last month.

From the first stage in Sweden, things started to look good for Breen. “There was a fast left-hander near the start of



the stage,” he said, “when we went into it I thought, ‘Oh...’ We were a bit hot in there and I was waiting to run wide. But the car stuck. After that I pushed a bit more and it kept on coming.”

If the morning had been bad for the boys at the front, the afternoon was reckoned to be even worse. The national and historic cars had been through between the first and second loop of the WRC field. Narrower cars on narrower tyres wrought havoc with the surface.

This would be a good opportunity to introduce five-time world champion Sébastien Ogier into this tale. Remember him? Winner and hero of the Alps for a

The C3 was quicker and more consistent than it had been in Sweden last year

fifth consecutive January last month, he was nowhere in Sweden. He made one mistake and dropped some time in a snowbank on Friday, but otherwise he was simply sacrificed at the front of the field. He managed just one top-three stage time before making a tactical time loss, his M-Sport Ford shipping four minutes in penalties for a better place on the road ahead of the powerstage.

“The ruts,” said Ogier, “are 20cm narrower than my car. Even in a straight line I have to fight like hell to stay on the road. The feeling is horrible – in every corner there is no way I can load the car and I hit virtually every snowbank. I just put my front wheels in [the ruts] like everybody else, but the rear is in 10 or 15 centimetres of loose. Car after car after car you see the times are getting faster and faster and faster. It’s a joke.”

In Ogier’s wake, the line progressively widened and the grip improved. Ninth in on Friday, Breen rattled the C3 through the second run at Svullrya and Rojden on the Norwegian side of the border faster than anybody. The violence of the lateral movement in the car was astonishing, and the only answer was to bury the throttle, let the car pull itself through, and hang on.

“It’s bloody tricky, but we’re in there and I’m giving it everything,” said Breen. “You get it in those ruts and it’s like *Cool Runnings*...”



Breen finished a fighting second for Citroen



Breen could certainly feel the rhythm. The confidence continued to build as he hauled more and more time out of his team-mates Kris Meeke and Mads Ostberg. Fourth on the road on Friday, Meeke struggled to find form, favour or fortune in Sweden and paid the highest price of anybody when he nerfed a snowbank. Not only did he drop a handful of seconds, his Citroen had swallowed snow, which found its way into the turbo and cut the power.

Ostberg was a sensational second quickest at shakedown, but struggled to carry that pace forward into the event. He did, however, deliver a very much appreciated sixth place to keep Citroen's manufacturer tally ticking over.

More importantly, Citroen has turned a page from the shocking inconsistency of Sweden last year, when the C3 looked like it had a mind of its own on more than one occasion.

Work on the suspension, rollbars and the torque split has wrought a major upturn in pace on gravel, and there was huge relief when Breen showed this to be the case in the snow.

Technical director Christophe Besse is a man who knows all about the advances for the car, but he was more than happy to hand credit to Craig on this one. "He was not happy with the car in shakedown, and in the test he was a bit lost without the direction," he said. >>

RETURNING STARS MAKE THEIR MARK

IT WAS 1981 AGAIN. STANDING AT THE SIDE OF a frozen runway in northern Sweden, I revelled as the peace was shattered by the urgent, crisp bark of an RS1800. The co-driver jumped out and shouted: "Ten minutes, boys."

Fuel, tyres, two sips of tea, and Petter and Pernilla Solberg were back aboard the family Ford Escort and gone. Still leading, still smiling. With last year's Rally Sweden Historic winner Mats Jonsson back in his Group A Mazda 323 and a good few other well-wheeled Audi quattros on the entry list, the Solbergs were expected to be blown away. They weren't.

In a beautiful Escort, period prepared to the final nut and bolt by Petter's former co-driver Phil Mills and his Viking Motorsport concern, the Solbergs were well and truly on song. Fastest on three of Friday's four stages, they just missed out on the win after slipping off the road on the ski-slope section of the Hagfors stage on Saturday.

"It doesn't matter," said Solberg. "It was Pernilla's birthday yesterday, so it was important that we came out and enjoyed ourselves and we did that."

They weren't the only ones delighting in their return to competition. Standing among the thousands in the Torsby stage, I was astonished by the appreciation for the 2003 world champion – not least because of the incredible angles at which the Escort came into view. Previous four-wheel-drive cars had seen just one corner here; braking, turning, accelerating. To stand any sort of chance, Petter had to make a few more corners. He threw the car one way, then the other; he was on the throttle harder and earlier than anybody else. Commitment, self-belief and natural ability carried 37-year-old technology from apex to exit quicker than anything else.

Not far behind, another driver wound the clock further back. Now we were in 1967.

Welcome back Rauno Aaltonen. Half a century after his last start on the Swedish, the 80-year old was back for another shot. And in many ways, the former 1000 Lakes, Monte and RAC winner was in for the toughest and roughest ride in the narrowest car in the field.

Last month it was a real pleasure to talk to Carlos Sainz Jr about his first time driving a stage in the World Rally Championship, and last week it was the same feeling to talk to Aaltonen about what he'd just done. Typically, for a man who'd been right at the top of his game, each question was given the same consideration you'd have expected when he was fighting Erik Carlsson and Timo Makinen through the 1960s.

Talking about the conditions, the same frustrations were evident as for world champion Sebastien Ogier – even if they were expressed with slightly less vigour by the superstar octogenarian.

"All the stages were more difficult than expected," he said. "This is because of the weather. The ice was firm, but it wasn't firm enough and we had ruts. When the car was jumping out of the ruts, there was no traction from the snow on the outside – a couple of times we got the pendulum effect and we were approaching the snowbanks! I've done events like this in the past in Scandinavia, but previously the roads were ploughed and had a very hard ice base [which didn't rut], but we cannot complain. This is the sport and these are the world championship roads. I've really enjoyed this event and I'll certainly be back if there's another chance."

It doesn't matter where a legend like Aaltonen finished – suffice to say the pukka BMC Cooper S wasn't first (that was Kenneth Tomasson's 323, with Jonsson's Mazda third behind Solberg), but he wasn't last either.

He was a class act.





Hyundai went to the top of the standings

ALL PICS: MCKLEIN

“But then when we come to the event he got the confidence and he is very strong. He didn’t complain about the car, and the car wasn’t perfect – I don’t think anybody had the perfect car here. What was important was that he didn’t chase the car, he didn’t change a lot, he took the confidence and a lot of this result came from him and his confidence. He did his job.”

Those feelings were echoed from within the car, where Scott Martin reported a perfect performance from the man on his left.

“No spins, no nothing,” he said. “Everything just came to him and we were able to just get quicker and quicker. You could feel the confidence rising in the car – it’s so important to get back to this place and now we need to kick on.”

By the finish, Breen, typically struggling to keep his emotions in check, was delighted. “In Finland a couple of years ago we were third,” he said. “But we were a bit of a way away. This time we’re here in second, but we’ve been at them for the whole event. We really turned a corner this time.”

Unfortunately, that corner has led them into a two-month holding pattern

as Breen and Martin step down for Sebastien Loeb to drive their car in Mexico and Corsica.

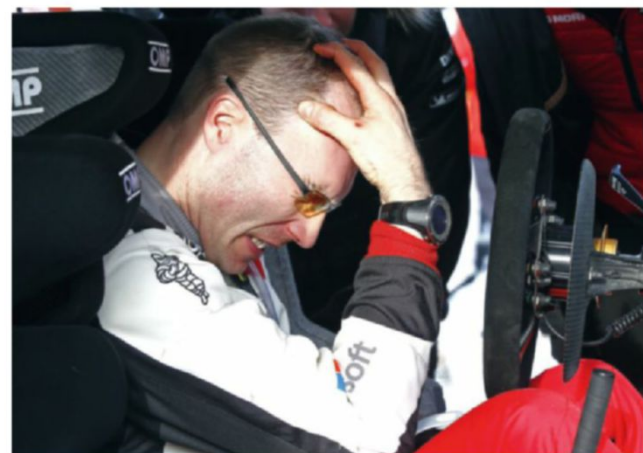
What happened to Toyota?

Last year, Toyota silenced the service park with an incredible maiden Rally Sweden win for the Yaris WRC. Last month, Tommi Makinen warned Ogier and the best of the rest about what they could expect when they stepped into his back yard on round two. Fourth, seventh and ninth probably wasn’t what Makinen had in mind.

With Ott Tanak and Jari-Matti Latvala running second and third on the road, the running order did for them on Friday, but the speed from the Estonian and Toyota’s second Finn Lappi in more consistent conditions was extraordinary.

Tanak led after the first two stages before slipping down the order and into a Hagfors snowbank after whacking Meeke while trying to pass the ailing Citroen. At that point he knew this wasn’t going to be his rally.

Despite that, his stock continues to rise within the team – as does that of Lappi, for whom second became seventh when he got sucked into a Svullrya snowbank. Such misdemeanours are



Latvala had good cause to ponder – slower than his team-mates, he finished in seventh, two minutes adrift

tolerated on your first visit to the event in a World Rally Car (and only your second ever appearance here). That tolerance was extended when Lappi leapfrogged from sixth to fourth in a sublime final-day charge that ended with maximum powerstage points.

The bigger question for the team is how Latvala deals with the speed his team-mates are finding. To begin with it was quite endearing as Latvala, after seeing his times, pondered whether Tanak had come from another planet.

**RESULTS** ROUND 2/13, RALLY SWEDEN, FEBRUARY 15-18

POS	DRIVER	CO-DRIVER	TEAM/CAR	TIME
1	Thierry Neuville (B)	Nicolas Gilsoul (B)	Hyundai Shell Mobis WRT · Hyundai i20 Coupe WRC	2h52m13.1s
2	Craig Breen (IRL)	Scott Martin (GB)	Citroen Total · Citroen C3 WRC	+19.8s
3	Andreas Mikkelsen (N)	Anders Jäger (N)	Hyundai Shell Mobis WRT · Hyundai i20 Coupe WRC	+28.3s
4	Esapekka Lappi (FIN)	Janne Ferm (FIN)	Toyota Gazoo Racing WRT · Toyota Yaris WRC	+45.8s
5	Hayden Paddon (NZ)	Sebastian Marshall (GB)	Hyundai Shell Mobis WRT · Hyundai i20 Coupe WRC	+54.4s
6	Mads Ostberg (N)	Torstein Eriksen (N)	Citroen Total · Citroen C3 WRC	+1m15.3s
7	Jari-Matti Latvala (FIN)	Miikka Anttila (FIN)	Toyota Gazoo Racing WRT · Toyota Yaris WRC	+2m04.9s
8	Teemu Suninen (FIN)	Mikko Markkula (FIN)	M-Sport Ford WRT · Ford Fiesta WRC	+2m52.2s
9	Ott Tänak (EST)	Martin Jarveoja (EST)	Toyota Gazoo Racing WRT · Toyota Yaris WRC	+3m44.4s
10	Sebastien Ogier (F)	Julien Ingrassia (F)	M-Sport Ford WRT · Ford Fiesta WRC	+8m45.4s
OTHERS				
14	Elfyn Evans (GB)	Daniel Barritt (GB)	M-Sport Ford WRT · Ford Fiesta WRC	+9m47.4s
19	Henning Solberg (N)	Cato Menkerud (N)	Adapta Motorsport · Ford Fiesta WRC	+16m38.5s
R	Kris Meeke (GB)	Paul Nagle (IRL)	Citroen Total · Citroen C3 WRC	SS19-withdrawn/acc damage
R	Yazeed Al-Rajhi (SA)	Michael Orr (GB)	Yazeed Racing · Ford Fiesta RS WRC	SS19-withdrawn

DRIVERS' CHAMPIONSHIP

1 Neuville 41; 2 Ogier 31; 3 Latvala 23; 4 Lappi 23; 5 Tänak 21; 6 Mikkelsen 21; 7 Breen 20; 8 Meeke 17; 9 Paddon 10; 10 Evans 8.

MANUFACTURERS' CHAMPIONSHIP

1 Hyundai Shell Mobis WRT 54; 2 Toyota Gazoo Racing WRT 53; 3 Citroen Total 46; 4 M-Sport Ford WRT 43.

STAGE TIMES

STAGE	FASTEST	LEADER	SECOND
SS1 SSS Karlstad 1 1.18 miles	Tanak 1m32.7s	Tanak	Latvala +0.3s
SS2 Hof-Finnskog 1 13.21 miles	Tanak 10m32.7s	Tanak	Ostberg +6.8s
SS3 Svullrya 1 15.46 miles	Neuville 13m16.4s	Neuville	Tanak +2.7s
SS4 Rojden 1 11.89 miles	Mikkelsen 10m18.5s	Neuville	Mikkelsen +3.7s
SS5 Hof-Finnskog 2 13.21 miles	Paddon 10m19.5s	Neuville	Lappi +2.1s
SS6 Svullrya 2 15.46 miles	Breen 13m17.3s	Neuville	Mikkelsen +1.0s
SS7 Rojden 2 11.89 miles	Breen 10m06.1s	Neuville	Mikkelsen +4.8s
SS8 Torsby 1 5.90 miles	Paddon 6m23.8s	Neuville	Mikkelsen +4.9s
SS9 Torntorp 1 12.43 miles	Tanak 10m02.0s	Neuville	Mikkelsen +5.2s
SS10 Hagfors 1 14.64 miles	Tanak 12m58.2s	Neuville	Breen +4.2s
SS11 Vargasen 1 8.87 miles	Neuville 8m35.9s	Neuville	Breen +5.9s
SS12 Torntorp 2 12.43 miles	Breen 9m55.3s	Neuville	Breen +4.6s
SS13 Hagfors 2 14.64 miles	Neuville 12m44.5s	Neuville	Breen +14.0s
SS14 Vargasen 2 8.87 miles	Neuville 8m28.2s	Neuville	Breen +18.8s
SS15 SSS Karlstad 2 1.18 miles	Tanak 1m34.7s	Neuville	Breen +19.7s
SS16 Torsby Sprint 1.94 miles	Neuville 2m32.7s	Neuville	Breen +22.7s
SS17 Likenas 1 13.17 miles	Tanak 11m11.8s	Neuville	Breen +14.8s
SS18 Likenas 2 13.17 miles	Lappi 11m15.0s	Neuville	Breen +16.2s
SS19 Torsby 2 (Power Stage) 5.90 miles	Lappi 6m01.2s	Neuville	Breen +19.8s

Latvala dropped time with a transmission problem on Saturday afternoon, but he needs to look forwards — he's not going to find the answer to this question with his head in his hands.

There would have been similar cause for reflective introspection at M-Sport. For the first time in 13 rallies there wasn't a Ford Fiesta WRC on the podium. Ogier's misery has already been documented, and an early puncture spiked Elfyn Evans's guns (just like on the Monte). Teemu Suninen showed some promise when the going was good for him on Friday, but his lack of experience of both car and conditions told as the weekend advanced.

Hyundai went from bottom to top in the manufacturer standings last weekend, with M-Sport doing the exact opposite. There's no doubt this was a conditions thing and nothing fires that team up like losing. Ogier left a Sweden's WRC winter wonderland in a dark mood on Sunday. As well he might, since he's 10 points down on the new championship leader.

Neuville walked on water last weekend. If he emerges in a similar position from running first on the road in Mexico, he'll look like a man capable of doing the same when that water isn't frozen. ❄️

Dillon bringing it all back home

Are the times really a-changin' with a new wave of NASCAR talent? Well, not yet. Instead, Austin Dillon took an emotional last-gasp win with the #3 Chevy

By Tom Errington, Special Contributor

🐦 @tomgerrington



The new generation made its mark in the 60th Daytona 500, but in a way it lost out to its own exuberance. Instead, the race boiled down to a wild finale between those who've been around a little longer.

To describe eventual winner Austin Dillon as a wily, wise veteran would be inaccurate — at 27, he is in 'only' his fifth full-time Cup season and had just one

top-level career win to his credit before last Sunday. But the way in which he surged to the front seconds from the flag — after a last-lap scrap with fellow medium-termers Aric Almirola and long-time topline Denny Hamlin — bore the hallmarks of experience.

Dillon poignantly took the #3 Richard Childress Chevrolet combination made famous by the late Dale Earnhardt Sr into Victory Lane, while there was in the end a victory of sorts for youth, as Darrell Wallace Jr pipped Hamlin for second.

There's a cliché about new kids and blocking that would perfectly summarise

Last lap: Dillon leads as Wallace rounds Hamlin, and Almirola hits the wall

last Sunday's race day. But, rather than take the cop-out, seven-time Cup champion Jimmie Johnson had a better summary of the on-track conduct.

The Hendrick Motorsports star was caught out in a huge nine-car pile-up at the end of the first stage, having failed to make much of an impression on the leading pack. Having been cleared from the medical centre, he turned to the cameras and said: "There was some great racing throughout but, unfortunately, many thought it was the black-and-white chequered flag and not the green-and-white chequered flag. On lap 59 [of what



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would transpire to be 207, rather than the scheduled 200], to be throwing blocks like that – just a lot of wrecked race cars.”

He quickly added: “I’m not picking on the young guys by any stretch. Veterans typically cause more problems out there because we have more confidence and experience and usually create more issues than the young guys do. I’m not sure everybody was thinking big picture and really using their head through that.”

Certainly, almost one quarter of the 40-car field did not during a single incident that summarised an often-aggressive and sometimes close-to- »



WHITTON/LAT

Blaney (leading Logano) was in front for most of the race



farcical race. Drivers had predicted beforehand that the race was likely to be a single-file, cautious one, with everyone expecting the usual late dives for victory. But instead, from the off, the field raced like it was a 10-lap sprint. Often three cars wide, the lead changed hands 24 times during a frenetic afternoon in Florida.

But one man was able to take a decisive stranglehold on the race and ruffle a few feathers on track in the form of Penske Ford wonderkid Ryan Blaney. Ford's dominance of restrictor-plate racing — seven wins in a row heading into Daytona — was never in doubt and Penske led the charge in the race. But not before Blaney learned a lesson at the end of the first stage. Chasing down Ricky Stenhouse Jr on entry to Turn 3, he nudged his rival as they battled for third and Stenhouse got loose, collecting Daniel Suarez as others — including Johnson — wrecked out.

Blaney now knew the fine margins of Daytona, and he set about controlling the race after that shunt, which had come a lap before the first stage ended.

Last year's Daytona 500 winner Kurt Busch handed Blaney the lead at the start

of the second stage after the Stewart-Haas Racing Ford man slid past his pitbox and was forced to do another lap before stopping. After taking the lead on lap 68, Blaney held on to win the second stage, aided by the Ford lockout at the front, with his team-mate Joey Logano and the 'sister' Wood Brothers car of Paul Menard helping him stay clear.

With the NASCAR off-season dominated by talk of the series' new generation having riled up the two Busch brothers in particular, here was a chance for Blaney to silence Kurt Busch's criticisms that none of them had actually won a race. Yet ironically, Blaney's dominance — he would lead 114 laps in the race — was scuppered by another of the new kids: 20-year-old reigning Xfinity champion William Byron.

Byron had picked up damage in the crash that had caught out his Hendrick Chevrolet team-mate Johnson, and quick repairs meant he continued well down the order. But having worked his way up to 12th by lap 91, he suffered a high-speed puncture and created a fourth caution of the race.

Dillon gave the #3 its first Daytona 500 win since Dale Earnhardt Sr's success in 1998

That was all the chance that Blaney's Penske team-mate Brad Keselowski needed. The pre-race favourite had been forced to drop to the back of the field in the starting line-up, having switched to his back-up car following damage in Thursday's qualifying races. But Keselowski, the master of restrictor-plate racing, climbed the order to be third at the time of Byron's incident, and threatened Blaney as soon as the race went green a few laps later.

Having nudged the fluorescent-green leading Ford several times, Keselowski took it one step too far at the midway point. The expected successor to Dale Earnhardt Jr in the popularity stakes, Hendrick's Chase Elliott, was to lose out. Having led a handful of early laps, Elliott pulled one stunningly aggressive move after another to climb the top 10.

Spotting Keselowski's time loss behind Blaney, Elliott snuck past the 2012 Cup champion, only for Keselowski to respond by punting him straight into the outside wall. Keselowski was too aggressive; Elliott defending too forcefully. Karma levelled it up between



LAT IMAGES

PATRICK BOWS OUT OF NASCAR

"THAT'S THE GAMBLE AT DAYTONA. IT CAN go so well, and it can go so awful."

So said Danica Patrick after the final NASCAR race of her career. The 35-year-old had secured her place for NASCAR's flagship race just a month before the green flag when long-time sponsor GoDaddy returned and revitalised her bid to make Daytona in time.

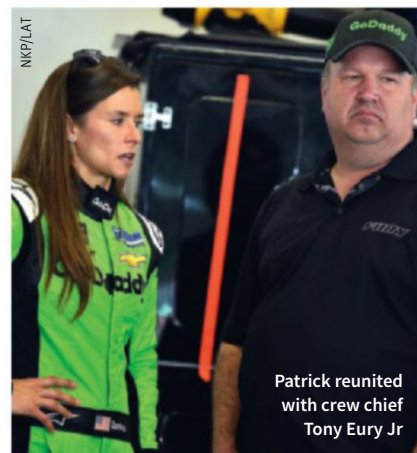
She made an underwhelming start to her drive with Premium Motorsports, qualifying her Chevrolet 28th on the grid. But, free from the pressure of last year, a season she described as a "grind", Patrick relished the early laps.

She made up seven places on the first lap alone, and ran as high as the fringes of the top 10. But as Patrick pointed out, Daytona is a fickle race. When Brad Keselowski tapped Chase Elliott and sent him into the wall, she was one of the drivers caught out. With severe damage to the front of her Camaro, she was classified 35th.

"It just wasn't meant to be today," Patrick said after being cleared from Daytona's infield care centre. "I'm proud. I'm grateful for everything. Thank you to all the fans. I still have one more [the Indianapolis 500]."

Patrick had enlisted her first NASCAR Cup crew chief Tony Eury Jr, who oversaw her initial transition from IndyCar, and he praised her efforts. "It just shows me I made an impact on her driving career in NASCAR and it makes me feel really good," Eury said. "I told her I was really honoured that she asked me to come to do this deal.

"The whole deal coming down here was we're going to have fun and try to run the best we can, and she had a lot of confidence I would



Patrick reunited with crew chief Tony Eury Jr

bring her a good Daytona 500 car. Everybody here at Premium is really good as far as making this happen really quick. We were right where we needed to be but had to finish to pull it off."

Patrick's demeanour all weekend was of a driver at ease with her decision to leave, even if it was largely enforced by her 2017 sponsorship woes. It's unlikely she'll ever be seen at a NASCAR race again as she plots her second career as a businesswoman. That relaxed attitude meant that she accidentally revealed during a media conference that she would be driving for Ed Carpenter Racing for the Indy 500, awkwardly denying the sponsor who helped her its chance of a grand reveal.

Patrick will just have to make up for it in Indianapolis as the 'Danica Double' heads to its conclusion at one of her strongest races.

those two, with Elliott collecting Keselowski, but the quietly impressive and unfortunate Kevin Harvick and another five cars were out on the spot.

The wonders of Blaney's defensive driving were twofold: his ability to cover both lines and predict an attack was stunning to watch, but in a looking-through-the-gaps-between-your-fingers way. And further twists were inevitable.

To the surprise of few, Blaney's next opponent was the Furniture Row Racing Toyota of reigning Cup champion Martin Truex Jr. Having qualified a lowly 24th, Truex prioritised stage points in the first segment, and stayed out several laps longer than the rest to be fourth at one-third distance. When his rivals crashed out, he followed Blaney to second. Running off-sequence, while Penske never replaced all four of Blaney's tyres in one stop, Truex had the benefit of fresh rubber.

Penske's gamble meant that Blaney's left-side tyres were almost 90 laps older than Truex's. But if the final result looked inevitable, Blaney defied belief once again when Byron, for the second »



WHITTON/LAT



time, threatened to ruin the race leader's day. Continuing to run with his barely repaired Chevrolet, Byron once again suffered a puncture and caused yet another caution.

Now with a 20-lap sprint to the end, Blaney was not so lucky this time. While Truex's restart was poor and allowed his rival clear, Kurt Busch and the Joe Gibbs Racing Toyota of Denny Hamlin, following a stunning recovery drive, set up an intriguing finale.

Front-row starter Hamlin's pace had not been in doubt at any point in the weekend, the 2016 Daytona 500 winner having opted to sit out the last two practice sessions, content with his Toyota. Sure enough, Hamlin beat polesitting Hendrick Chevrolet man Alex Bowman into the lead early on, before falling a lap down for a needless one-lap penalty for refuelling outside his pitbox.

But the patience and pace paid off as Hamlin was clearly quicker than Blaney. Hamlin's move on the leader cost Blaney three places, as Kurt Busch and new SHR recruit Aric Almirola blocked him on all three sides. With no way out, Blaney pushed Busch along and spun him into the outside wall with five laps to go, triggering an enormous pile-up that left just eight cars on the lead lap as the pair took out another nine machines.

Blaney would limp on to seventh, but his mistake opened up the most unexpected battle in the final two laps between Hamlin and Almirola. Hamlin had little answer to the increasing prowess of Almirola on the final lap of overtime, and instead the battle was decided by Dillon.

Dillon was another who had benefited from contenders dropping like flies,

had used the draft to keep his Richard Childress Racing Chevrolet in the top 10, and that was enough to put him in place for the showdown. Dillon then used brute force to nail Almirola into the outside wall and charge clear to win in a farcical decider in which he led just one lap — the last.

"He's not driving too aggressively, he's trying to win the Daytona 500 just like I was," Almirola said. "I saw him come with the momentum and I pulled up to block and did exactly what I needed to do to try to win the Daytona 500. I wasn't going to just let him have it. I wasn't going to just stay on the bottom and let him rail the outside, so I blocked and he got to my bumper and pushed, and I thought I was still going to be OK and somehow I got hooked. I still haven't seen the replay, so I don't know what happened, but I'm just devastated."

Shunt! Bowman is collected by Newman, while Kurt Busch, Stenhouse and Gaughan get into each other. Bottom: Wallace (43, battling Almirola) took a fine second position



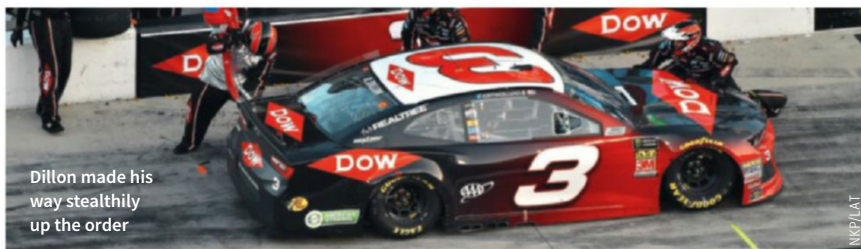
It was a sour end to a race that had promised much — not that Dillon minded as he gave Chevrolet's new Camaro a debut win. "I guess I could have lifted and given it to him [Almirola]," said Dillon. "I guess that was my other option, give up a Daytona 500 ring that I'm wearing. I don't know, I'm glad he's not mad. If he needs to do it to me at Talladega for everybody to feel good, I've got a Daytona 500 championship trophy, ring, whatever."

In a race that almost provided a feelgood story in the form of Blaney's second Cup win and a chance for the next generation to prove its mettle, the wily tactics of veterans eventually decided it, with the helping hand of youngster Byron's escapades.

Thankfully, there was a promising moment for NASCAR's youth as Wallace finished a career-best second ahead of Hamlin. The trailblazing African-American has faced plenty of pressure driving for the team of NASCAR deity Richard Petty, but 'Bubba' has relished it. "I just went out and tried not to be a hero, like 'The King' told me right before climbing in," a choked-up Wallace said.

When 'The King' explains, you listen. NASCAR puts a premium on experience, and no-one has more than Petty. That lack of knowhow turned the race on its head and cost Blaney, Elliott and others dear.

"You can have the best car in the world and not win the race," Blaney said. "I thought we had a good car today but you just try to figure out what you can do better for next time and it's a shame it didn't work out for us, but you try to live and learn and move on. Yeah, you're disappointed, you dominate a good race, but that's the way it goes." ❁



Dillon made his way stealthily up the order

NXP/LAT

RESULTS ROUND 1/36, DAYTONA 500 (USA), FEBRUARY 18, 207 LAPS – 517.50 MILES

POS	DRIVER	TEAM/CAR	TIME	GRID
1	Austin Dillon	Richard Childress Racing · Chevrolet Camaro	3h26m15s	14
2	Darrell Wallace Jr	Richard Petty Motorsports · Chevrolet Camaro	+0.260s	7
3	Denny Hamlin	Joe Gibbs Racing · Toyota Camry	+0.262s	2
4	Joey Logano	Team Penske · Ford Fusion	+0.411s	5
5	Chris Buescher	JTG Daugherty Racing · Chevrolet Camaro	+0.419s	21
6	Paul Menard	Wood Brothers Racing · Ford Fusion	+0.524s	16
7	Ryan Blaney	Team Penske · Ford Fusion	+0.558s	3
8	Ryan Newman	Richard Childress Racing · Chevrolet Camaro	+1.243s	13
9	Michael McDowell	Front Row Motorsports · Ford Fusion	+1.247s	22
10	AJ Allmendinger	JTG Daugherty Racing · Chevrolet Camaro	+1.476s	20
11	Aric Almirola	Stewart-Haas Racing · Ford Fusion	-1lap	37
12	Justin Marks	Rick Ware Racing · Chevrolet Camaro	-1lap	29
13	Trevor Bayne	Roush Fenway Racing · Ford Fusion	-1lap	18
14	David Gilliland	RBREnterprises · Ford Fusion	-1lap	39
15	Clint Bowyer	Stewart-Haas Racing · Ford Fusion	-1lap	10
16	Jamie McMurray	Chip Ganassi Racing · Chevrolet Camaro	-2laps	19
17	Alex Bowman	Hendrick Motorsports · Chevrolet Camaro	-2laps	1
18	Martin Truex Jr	Furniture Row Racing · Toyota Camry	-2laps	24
19	Kyle Larson	Chip Ganassi Racing · Chevrolet Camaro	-3laps	38
20	Gray Gaulding	BKRacing · Toyota Camry	-3laps	34
21	Jeffrey Earnhardt	StarCom Racing · Chevrolet Camaro	-3laps	27
22	Mark Thompson	MBM Motorsports · Ford Fusion	-4laps	40
23	William Byron	Hendrick Motorsports · Chevrolet Camaro	-4laps	33
24	DJ Kennington	Gaunt Brothers Racing · Toyota Camry	-6laps	30
25	Kyle Busch	Joe Gibbs Racing · Toyota Camry	-7laps	12
26	Kurt Busch	Stewart-Haas Racing · Ford Fusion	198laps-accident	11
27	Matt DiBenedetto	Go FAS Racing · Ford Fusion	198laps-accident	36
28	Brendan Gaughan	Beard Motorsports · Chevrolet Camry	198laps-accident	25
29	Ricky Stenhouse Jr	Roush Fenway Racing · Ford Fusion	197laps-accident	9
30	David Ragan	Front Row Motorsports · Ford Fusion	107laps-accident	15
31	Kevin Harvick	Stewart-Haas Racing · Ford Fusion	105laps-accident	6
32	Brad Keselowski	Team Penske · Ford Fusion	102laps-accident	31
33	Chase Elliott	Hendrick Motorsports · Chevrolet Camaro	101laps-accident	4
34	Kasey Kahne	Leavine Family Racing · Chevrolet Camaro	101laps-accident	26
35	Danica Patrick	Premium Motorsports · Chevrolet Camaro	101laps-accident	28
36	Erik Jones	Joe Gibbs Racing · Toyota Camry	59laps-accident	8
37	Daniel Suarez	Joe Gibbs Racing · Toyota Camry	59laps-accident	17
38	Jimmie Johnson	Hendrick Motorsports · Chevrolet Camaro	59laps-accident	35
39	Ty Dillon	Germain Racing · Chevrolet Camaro	59laps-accident	23
40	Corey LaJoie	TriStar Motorsports · Chevrolet Camaro	8laps-engine	32

Winner's average speed 150.545mph.

Championship 1Blaney58;2Logano50;3ADillon47;4Wallace47;5Menard46;6McDowell39;7Hamlin37;8Newman34;9Buescher33;10Almirola33.

CHEVY ON THE UP

DECIDING THE PECKING ORDER BETWEEN NASCAR's manufacturers on the basis of the Daytona 500 is a fool's errand, but there was enough to suggest that Chevrolet's record-breaking win bodes well for the manufacturer.

The brand-new Camaro ZL1 proved its mettle with pole for Alex Bowman (below) and with a very competitive showing in the Thursday Duels, with Chase Elliott winning one of the two races.

The 500 was expected to be a different story, with Daytona not considered a representative track and Ford having won seven restrictor-plate races in a row – despite its Fusion being the oldest car on the grid.

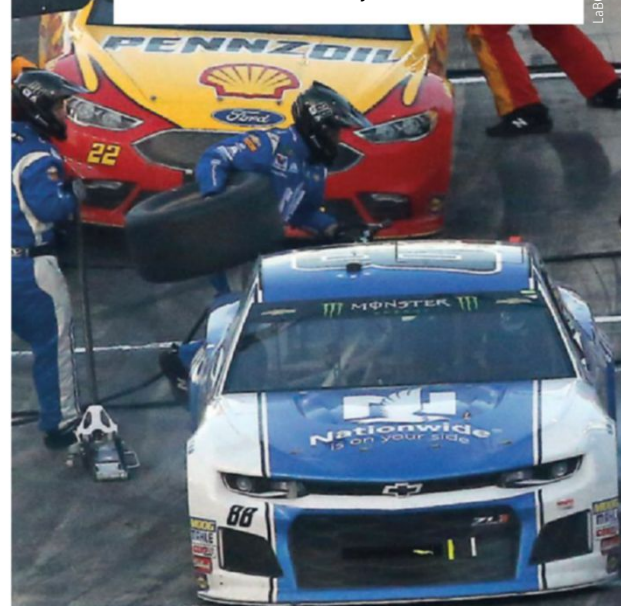
The expectation in the paddock is that the competitive order for the 2018 season will take clearer shape at Atlanta this weekend, but the fact that three of the top five at Daytona were Chevrolets bodes well.

Race winner Austin Dillon and second-placed Darrell Wallace Jr effectively made it a Richard Childress Racing one-two, with Wallace's Richard Petty Motorsports team aligned with RCR, while Chris Buescher was fifth with JTG Daugherty Racing.

Chevrolet has now won more Daytona 500s than any other manufacturer – with a total of 24 – and it took a clean sweep of the weekend with victories in the Xfinity (with Tyler Reddick) and Truck (Johnny Sauter) series too.

But it may have been a lucky penny that made the difference, according to Dillon. "I met a fan and actually he had no favourite driver," Dillon explained. "I told him I would give him my hat if I was his favourite driver. Well, I gave him the hat. The next day he saw me in the infield and said here's a lucky penny I found heads-up and I said, 'Man, we have to put this in the car'. We put it in the car and here we are in Victory Lane."

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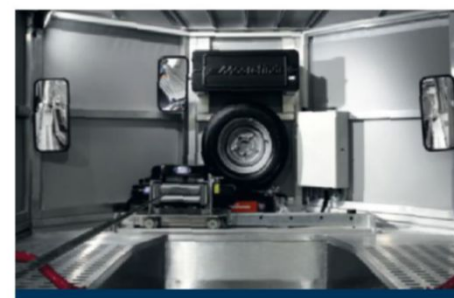
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BRDC BRITISH F3

Monger faces challenging racing return

BILLY MONGER MIGHT BE CLOSING on his racing return, but securing a seat is just one obstacle the double amputee has to overcome as he bids to resume his single-seater career.

The 18-year-old says he is not “too far away” from completing a deal to race in the BRDC British Formula 3 Championship with Carlin this year after beginning a testing programme with the team. But along with securing the final sponsorship he needs to occupy the seat, he is having to learn a new way of driving in a specially adapted car, and will face scrutiny over whether his arrangements confer an advantage.

Monger suffering amputations to both of his legs following a horrific British F4 crash at Donington Park last April.

“I’m doing more testing than I would’ve done if I hadn’t had my accident in terms of figuring out the controls,” said Monger. “I’m braking with my [prosthetic] leg still and the rest is on the steering wheel.

“The one thing that has really moved place is the throttle, which is now on the left side of the wheel. Then on a normal car you would change [gear] up on the right side and down on the left but on mine they’re both on the same side. We’ve been working with the series to



Oulton Park was the chosen venue for Monger’s comeback

make sure all the controls work and to make sure there’s no advantage.”

Monger is certainly in the best place to make his dream of single-seater success become reality. Carlin steered dominant champion Enaam Ahmed to the title last year and Monger has been working with the team in the simulator since last July.

But just because he is with a frontrunning team does not assure

Monger of glory. The British F3 line-up may not be the strongest, but Monger has spent a long time out of racing.

It is impossible to be sure where he would have finished in the British F4 standings last term; even before the accident he was struggling for budget and might not have completed the season. But his early form suggested top three.

That would ordinarily make him a British F3 frontrunner, but considering the challenges Monger faces this season that is far from a certainty.

For the moment, Monger is relishing the opportunity to be back behind the wheel of a single-seater. “If you had told me last April that I would be testing in a British F3 car with Carlin this year, you would’ve had to pinch me,” he said. “I’m back where I want to be.”

Getting to F3 will be a major achievement, but the next chapter of Monger’s incredible story promises to be even tougher.

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Race two will include a full reversed grid

JEP/LAT

LAT IMAGES

BRDC BRITISH F3

Points for overtakes in British Formula 3

THE BRDC BRITISH FORMULA 3 Championship has announced a radical format shake-up, including a complete reversed grid for one race per weekend and points for gaining positions.

The changes only affect the second of the three races held at each round. Previously, the top eight race-one finishers were reversed on the race-two grid, but all cars that finish race one – and set a fastest lap within 103% of the overall fastest lap – will now be reversed.

Points will then be awarded based on the number of places gained between the start and finishing positions, as well as for the result itself.

The changes have been introduced by ex-Formula 1 driver Jonathan Palmer's

MotorSport Vision company, which operates BRDC British F3, to promote overtaking.

"MSV has a history of being innovative to maximise the appeal of motorsport," said Palmer, "and with the full-reversed-grid system, coupled with a carefully derived points system, the BRDC British F3 Championship will produce some captivating racing for drivers, teams and fans to enjoy while adding to the learning value for drivers by giving them far more opportunities to overtake and reward them when they do."

The grid for race three will remain based on the outright fastest lap achieved by each driver across the first and second races of the weekend, while the grid for race one will still be decided by a qualifying session.

• Jamie Chadwick will remain in the BRDC British Formula 3 Championship this season, moving to Douglas Motorsport.

The 19-year-old, who won the GT4 class of the British GT Championship in 2015, finished ninth in the points last year with Double R Racing, taking a best result of third.

"I wanted to come back with Double R, but all their seats were full so I had a conversation with Wayne [Douglas, team principal] and it seemed like a really good fit," she said.

"He runs a really good team and I will work with my engineer from last year, which is really important. It [the title] has got to be my aim. The whole point of doing two years is so I can have a big push for the championship."



JEP/LAT

PRO MAZDA

FFord Festival winner grasps US chance

JAMES RAVEN WILL COMPETE IN the Pro Mazda Championship in 2018 after agreeing a deal with DEForce Racing.

The 23-year-old, who won the 2014 Formula Ford Festival, recently drove one of the squad's US F4 Championship cars at the series' official test, where he recorded the fastest time.

The driver and team have been working on a deal since. Raven will join fellow Brit Harrison Scott in the Road to Indy affiliated Pro Mazda

for the first two rounds, at St Petersburg (March 10-11) and Barber Motorsports Park (April 21-22). DEForce will compete in Pro Mazda for the first time.

"I've got nothing to lose," said Raven (left). "I know I have two, maybe three rounds at the most, so I'm going to try to win and I'll push for the win on every occasion."

"Hopefully I can be quick in the test and that will give us an idea of where we stand."

Raven will test for the first

time this weekend at Homestead track and will be engineered by either multiple Formula Ford 1600 champion Peter Dempsey or ex-Fortec Motorsport man Alex Ridge.

Pro Mazda has a new Tatuus PM-18 chassis for this year, after consigning its previous workhorse to history at the end of last season.

The winner of the championship earns a subsidised entry into the following year's Indy Lights Championship.



GINETTA GT5 CHALLENGE

Ginetta move for world karter

WORLD KARTING CHAMPION BRETT Ward will make his car-racing debut this season in the Ginetta GT5 Challenge.

The 20-year-old won the Senior Rotax Max Challenge last season and also claimed the European IAME X30 Senior crown.

Ward will now compete with W2R Motorsport – the racing arm of the company that organises Ginetta trackdays and the squad that powered Michael Crees to the G40 Cup crown last season – and has already

impressed team boss Ben Hyland in testing.

“That [signing Ward] is a breakthrough for the team,” said Hyland. “The GT5 Challenge will be the one-make series to watch this year. Grids are full and it’s looking exciting, so I wanted to be very much in the mix.”

“Brett shone immediately and on track I’ve never seen a driver pick up going from karting into cars so well technically, and from a data point of view. He was two tenths off our Pro driver coach in testing.”

IN BRIEF



ERICSSON JR GRADUATES IN F4

British Formula 4 series drivers Hampus Ericsson and Johnathan Hoggard will remain in the series this year with Fortec Motorsport. Ericsson, brother of Formula 1 racer Marcus, won the Challenge Cup title last season, completing seven events, while Hoggard only contested four. “Winter testing has gone exceptionally well. Fortec have given me fantastic support and guidance to ensure I am fully prepared for this season,” said Hoggard.

CHATEAU IMPNEY ATTRACTS 200+ CARS

More than 200 invited pre-1967 cars will take part in the fourth edition of the Chateau Impney Hill Climb over the weekend of July 7-8. Competition will centre on the 885-metre course at the Droitwich hotel, which drew 18,000 visitors last summer. Star attractions will include demonstration runs by the 1950 V16 BRM from the National Motor Museum.

BURNS JOINS UP WITH BMR IN CLIOS

Renault UK Clio Cup driver Bradley Burns will be backed by top British Touring Car Championship squad BMR this season. The 16-year old, who contested the final three rounds last season, is racing for Team Pyro under the BMR Academy banner, just as BMR’s reigning BTCC champion Ash Sutton did when he won the Clio crown in 2015.

MINI CHALLENGE TO SUPPORT DTM

The Mini Challenge JCW Championship will support the DTM’s return to Brands Hatch after securing a calendar change. The single-make series will hold two races on the undercard of the German touring car category’s event on the Brands Hatch Grand Prix Circuit on August 11-12.

SANGER TO BE REMEMBERED AT COMBE

The life of Terry Sanger will be celebrated by a race for pre-1966 Touring Cars (below) at the Castle Combe Autumn Classic on Saturday October 6. The Appendix K race will be held in memory of local hero Sanger, who died in 2013 aged 79. Sanger did the Targa Florio in a factory Ford GT40 in ’69 and raced an early Special Saloon, a Ford Cortina Mk1 with a V8 engine. He later drove the fast-intervention medical car at the circuit.



ST-XR CHALLENGE

XR Challenge open to more classes

THREE NEW CLASSES HAVE been added to the XR2 Challenge for this season.

The British Racing & Sports Car Club series, previously open to the Fiesta XR2 and SI and Escort XR3i, has been renamed the ST-XR Challenge to reflect the changes.

“The changes have gone down very well,” said series

coordinator Dave Fairclough. “We’ve got a class for the Fiesta ST with a fixed cage and a mandatory suspension kit. We wanted it to be cost-effective and we’ve got seven or eight cars in build.”

“Another class is for XR2s that don’t run limited slip differentials, but we will allow them to run 30kg lighter. That

is aimed to attract people from the 750MC [Classic Stock Hatch] and Scottish XR2s.

“Class F is for any front-wheel-drive Ford with a limit of 1800cc engine that is aimed to attract people who want to race a Ford Puma.”

Fairclough added that the rising costs of XR2s led to the series looking at other cars.



More classes will run in ST-XR Challenge

PORSCHE CARRERA CUP GB

Ellinas switches team for title push

PORSCHE CARRERA CUP GB RACER TIO Ellinas will move to the Slidesports team for his second season in the category.

The Cypriot, who was a race winner in GP3 and Formula Renault 3.5, finished sixth in the standings last term with JTR, taking a best result of second on his way to winning the rookie class.

“I’m really optimistic for this season and

now is the time to go for the overall title,” he said.

“With the new car it’s a reset for all the drivers. There will not be as much testing available, so it will be like starting from zero for everyone.”

“I’m looking forward to working with David [Fairbrother, the team’s other driver] and the Slidesports team. I think we can really start the season on the front foot and go for the championship.”



HISTORICS Reunited with his 1994 Donington Park race-winning Ford Mondeo BTCC machine, Paul Radisich finished second in last Saturday's Historic Touring Car series finale opener at Teretonga Park's Evolution Motorsport Classic in New Zealand. Top qualifier Phil Mauger (Nissan Primera) won the race by half a second. "I just had to wait for the rear tyres to come up to temperature," said Radisich. "Having power steering was a nice surprise. We didn't have that when I raced the car first time around and you had to have forearms like Popeye." Mauger won the sequel from Bruce Miles (BMW 320i), who claimed the subsequent pair from Scott O'Donnell, driving his Wolf-built Mondeo from the period German Super Touring championship. **Photograph by Alex Mitchell/Fast Company**

MONDELLO PARK

MURRAY TEAM TOPS SMALL ENDURANCE FIESTA ENTRY

THE MURRAY MOTORSPORT team of Michael Cullen, John Denning, Barry English and Hugh Grennan rebuffed constant attacks from a Kellett Motorsport equipe comprising Alan and Keith Dawson, Sean Woods and William Kellett to win the Mondello Fiesta 6 Hour Endurance race last Sunday.

The winners initially ran second as the sister car, driven by Formula Ford 1600 ace Niall Murray, sprinted away from the field. Less experienced team-mates and a number of dramas gradually dropped them down the field, despite Murray lapping two seconds faster than the rest at one stage.

Rallycross duo Ciaran Murphy and Vincent O'Rourke – running with Fiesta ST regular Simon Quinn – had run third initially but had to give way to Johnny Whelan, partnered by son Robert and Johnny Taylor.

Stryker champion Alan Auerbach, paired with 2015 World Hot Rod champion Shane Murphy, Mark Meenehan and Steven Ross, gradually climbed the leaderboard, and clinched an impressive third place in the final hour.

Despite plenty of demand following the successful November race, the event only attracted a disappointing 12 entries.

HSCC

Historic Fford to Thruxton 50th

HISTORIC FORMULA FORD 1600 IS THE HEADLINE event of four Historic Sports Car Club series included in Thruxton's 50th-birthday celebration on June 2-3.

The meeting also features special displays and demonstrations – William Heritage plans to run an ex-Keke Rosberg FWo8C – and the new hospitality clubhouse, which will be opened at Allard Corner.

Ben Mitchell, who won both races the last time Historic Fford visited in 2015, said: "Thruxton in a Formula Ford is sensational, it ticks all the boxes."

Thruxton managing director Bill Coombs added: "Formula Ford always provided the best racing pretty

much anywhere it appeared. Here at the fastest circuit in Britain, it was exceptional. I remember watching Nigel Mansell and Ayrton Senna in 1977 and '81.

"Seeing the cars slipstreaming furiously around the back of the track, then hurtling up Woodham Hill to the Club Chicane five-abreast, is always a thrill."

Guards Trophy Sports and GT cars, Super Touring and Libre (F2, F3, FF2000) grids are also coming from the HSCC. Sportscars from the 1950s (Motor Racing Legends' RAC Woodcote and Stirling Moss Trophies) and the Historic Touring Car Challenge will also feature, plus frenetic Mini Se7en and Miglia races.

RACERETRO

Ground-effect F1 to be celebrated

BRITAIN'S MOST VENERABLE dedicated historic motorsport show, Race Retro, is marking 40 years of ground-effect Formula 1 cars. A Lotus 79 and a Williams FW07 will take centre stage at Stoneleigh's National Agricultural Centre from tomorrow (Friday) until Sunday.

The annual event also remembers Dan Gurney's

stellar career; McLaren M14A/1, the last F1 car he raced (in the 1970 German GP), will be on display. Racing great Brian Redman and rally legend Miki Biasion are among the personalities being honoured. Every element of wheeled historic sport, from racing to sporting trials, is covered in the halls, with a live rally stage outside.

Last week, Historic Motorsport International moved into the main hall at the London Classic Car Show at ExCeL, albeit with fewer major exhibitors than last year. Stars included a raft of Ferraris and the Parnell-MG single-seater that competed in the 1938 Donington GP and won a race at Brooklands' final meeting in 1939.



Williams FW07 will be among the Race Retro stars



Living history

If you're yet to be bitten by the historic racing bug, then get yourself to Stoneleigh Park this weekend for Race Retro

By Jack Benyon, Group National Editor

[@jackbenyon](#)

IT'S TAKING OVER. HISTORIC RACING APPEARS TO be growing in popularity year on year, and enthusiasts of all ages are being opened up to a whole 'new' area of the sport. OK, that may be a bit of a stretch, and an excuse to use the word 'new' in the context of historics purely for my own amusement. But the point stands. You wouldn't have caught me at a historic meeting five or 10 years ago, but now historic-based events top my list of must-sees.

As highlighted by Kevin Turner in Autosport's Historics supplement (February 15), the discipline is booming at a time when other championships and series are struggling. In recent years one of my early-season highlights (aside from Autosport International) has been Race Retro, at Stoneleigh Park near Coventry. It has evolved into the biggest and most rewarding historics-based show on the motorsport calendar.

As a new era of high technology dawns in motorsport, actual participation is one of the key hurdles to overcome. It barely warrants a mention in mainstream publications and, despite the rise of social media, it's more difficult than ever to enlighten the uninitiated about the pleasure motorsport provides.

The key problem is getting across that motorsport can be done on a budget; you don't have to aspire to be, or have the cash to compete, in a six-figure-budget national or international championship.

For that reason, the arrive-and-drive classic-car experience run by HERO events does a perfect job of opening people up to the joys of what some cars can do. While you won't be driving them competitively at Stoneleigh Park, you'll be able to *feel* what makes a historic car so special. And that's a win.

For £63 you can drive on a specially designed course at Stoneleigh and out onto the public roads in a Jaguar E-type or a Lancia Delta, and for £45 there's a number of other cars available including a Lancia Fulvia and a BMW 1602. Like-minded enthusiasts will be on hand to recount tales of events competed in and drinks consumed afterward, no doubt.

Speaking of like-minded enthusiasts, back in the main foyer of the show you'll find most of the major racing groups: the Historic Sports Car Club, Classic Sports Car Club, Classic Touring Car Racing Club, Vintage Sports-Car Club, Castle Combe and the 750 Motor Club. If you have questions about how to get involved, there's no end of people who can advise.

And for those who are already competitors and fans, there's plenty more to attract you to the show.

Don't pass up the chance to see Brian Redman up on a stage, since he can recount tales of winning the Targa Florio, Sebring 12 Hours and Formula 5000 titles, driving some of the most spectacular cars ever produced. Joining him will be John Barnard and Frank Dernie, who designed cars for Ferrari, McLaren, Lotus, Williams and Hesketh between them.

One notable absentee is the late, great Dan Gurney, but his life will be celebrated, in true poignant Race Retro fashion, with his final F1 car on display as a fitting tribute.

The era of ground-effect F1 cars will take centre stage, in the form of a Williams FW07 and a Lotus 79. And don't forget the ex-Robb Gravett 1990 British Touring Car-winning Ford Sierra RS500 is being auctioned.

Rallying is also taken care of, with two-time World Rally champion Miki Biasion joining Jimmy and Alister McRae on the rally stage, which features a range of machinery including Group B cars. Since they can't run in competition in the UK, this is an unusual chance to get up close to the machines. One of the rarest, a Ford Escort RS1700T, will make an extremely rare appearance after a full restoration.

Tickets for the event can be ordered from its website or on the gate, and Friday-Saturday entry is just £35 in advance.

It's difficult to mention the Williams FW07

that will be at the show without getting excited about its sister car's appearance at Thruxton later in the year.

Plans for the Hampshire circuit's 50th Anniversary celebrations are progressing nicely, with the news this week that one of the closest fought and exciting racing championships in the UK, the HSCC's Historic Formula Fords, will be joining the billing alongside the ex-Keke Rosberg FW08C. There's a reason a variety of Autosport's writers, including Grand Prix editor Ben Anderson (who has competed in the series), who wax lyrical about it, and to see some up-and-coming young stars fight the Richard Tarlings of this world will be thoroughly enjoyable at this super-quick circuit.

Joining the Formula Fords will be the Super Touring Car Trophy, along with a 40-minute race for the Guards Trophy and a non-championship Formula Libre race. The billing is shaping up to become unmissable.

If you're a historic naysayer, Race Retro is the perfect way to get up close and personal to a different aspect of motorsport. It's very different to modern forms of racing, but offers just as much fun and excitement to fans of all ages. 🏁

“Participation barely warrants a mention in the mainstream press”



The hottest of the hatches

There has been a rapid increase in the number of hot-hatch series in recent years. Here Autosport takes a look at some of the best

Compiled by Stephen Lickorish

Entries by Jack Benyon, Matt James, Matt Kew,
Stefan Mackley and Mark Paulson

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The 750 Motor Club's Hot Hatch Championship. Castle Combe's Hot Hatch Challenge. The Classic Sports Car Club's Turbo Tin Tops Series. The Scottish Hot Hatch Trophy. The list of hot-hatch categories that have either recently launched, relaunched or are about to launch is incredible. It's

certainly a growing and increasingly popular area of club motorsport, with ever-more competitors deciding that competing in cheap hatchbacks is the form of racing for them.

But not all of the hot-hatch series are new — some have been around for decades. With this type of series enjoying unprecedented success at the moment, now is the perfect time to have a look at some of the best categories that are already on offer, and find out why they are so popular.



CLIO CUP

Out of the plethora of championships that cater for hot hatches, there is no denying which is the most high-profile: the Renault UK Clio Cup (below). A popular fixture on the British Touring Car Championship package, the series has cemented itself as the unofficial BTCC feeder series. Ten of the BTCC drivers currently confirmed for 2018 have competed in a Clio at some point, including four champions.

And there's a reason for that. The series provides incredibly close racing, with a competitive grid, and gets good television coverage.

If anyone should know why the Clio Cup is such a success it's Paul Rivett. Although he has never made that graduation into the BTCC, he has contested more than 200 Clio races and the series keeps attracting him back year after year.

"It's a championship that's such good value for money and there's nothing better at the top of UK motorsport,"



says Rivett. "As well as value, it's such close racing and a friendly environment."

Budgets cannot be described as cheap. It's up to £100,000 to join a frontrunning team, but that should perhaps be expected considering that drivers contesting this series are serious about launching a long-term motorsport career, and it benefits from live terrestrial TV coverage as part of the TOCA package.

There are also far cheaper ways of

competing in a Clio in the UK. At the other end of the spectrum is the 750 Motor Club's Clio 182 Championship (above). This is for the second-generation Clio that was used in the main Clio Cup between 2002-06. The much-cheaper budgets have attracted huge grids, with more than 25 cars regularly competing last term. Despite the much older machinery, it still encapsulates the Clio Cup spirit of frenetic racing and packed grids.



750MC HOT HATCH

The original series for modified hatches, the 750 Motor Club Hot Hatch Championship has a long and storied history. And a recent rebirth has people queuing up to compete in the championship once more.

It launched in 1993, when Roger Ebdon took the title in a Ford Fiesta XR2i, for cars then described as 'roadgoing hatchback saloons of up to 1600cc two valve per cylinder, or 1400cc with more than two valves per cylinder'. In 2018, most parts can be modified while the chassis and engine must remain standard, and the cars are restricted with power-to-weight ratios.

The championship was successful early on, but by 2008 it had become a victim of its own success, with budgets outgrowing the clubman nature of the series.

In 2016, though, the 750MC sprinkled its 'new' championship fairy dust on the

series and it was revived. In its second year in 2017, grids averaged 24.3 in an impressive resurgence.

"It is the real Hot Hatch championship," says Honda Integra driver Ben Rushworth. "Back when I used to watch in the late 1990s, early 2000s, the cars were awesome."

"They started getting a bit mental and that's why they shut down the series. They've restructured it now into a really useful package where it's a clubman championship. You can build a competitive car without going mad."

A season is doable on £10,000, but there are drivers investing a lot more than that. So series organisers need to remember what happened in 2008 – costs must be watched in order to safeguard the future of this category, and worrying amounts of money went into some cars in '17. Safeguard it against an arms race, and it will be difficult to beat the original hot-hatch haven.





CLASSIC STOCK HATCH

"It must be one of the most affordable series of motorsport anywhere on the planet," reckons former British Touring Car star Anthony Reid of the 750 Motor Club's Classic Stock Hatch championship.

For older hatchbacks, sold in the UK before January 1992, the series offers competitive motorsport at a relatively modest cost. Eligible cars can be bought for around £3000, including Peugeot 205 GTis that are worth double in road-going form.

The series restricts engine capacity to 1600cc depending on the valve configuration, with suspension, brakes and transmission all kept close to factory spec, while minor rules tweaks aim to keep the various models competitive. The lack of freedom to develop keeps costs in check and also helps ensure that the racing is tightly contested throughout the 14-race season. The format consists of qualifying and two 15-minute races per event,

with entry fees ranging from £240 to £340.

The series has proved popular, with grids of up to 30 entries – the Ford Fiesta XR2 the most common choice. That said, over the past five seasons there have only been two champions in Lee Scott and Matt Rozier, although the large number of drivers who've remained in the series for several years shows that Scott's and Rozier's stranglehold on the title hasn't detracted from the championship's appeal.

Reid, who won the opening race at Brands Hatch last season in a guest appearance, was impressed by Classic Stock Hatch.

"It's a good concept for club motorsport," he says. "You've got an interesting mix of cars, but each one is quite uniquely different in the way that they handle and the way the engine delivers power. At the end of the day, it produces good racing and there are some very handy drivers in that championship."

"All in all, it works well as an affordable club-level series."



BRSCC FIESTAS

With roots stretching back nearly 40 years, the British Racing & Sports Car Club's Fiesta Championship currently comprises classes for the past four generations of the UK's best-selling car. The Mk6 ST sets the outright pace – its two-litre engine boasting around 160bhp – while last year's overall champion, Jamie White, came from the 140bhp Zetec S class for 1600cc Mk7 models.

Annual budgets can hit £25,000 for an arrive-and-drive package with an established team, including an allowance for the damage that's inevitable in such a competitive environment. But privateers are capable of winning on less than half of that. Track time is plentiful, with 22 races of 20 minutes' duration across eight weekends.

"I don't think you can get much cheaper for that kind of experience," reckons former British Touring Car driver David Nye, a three-time class champion in three different cars. "It's well-scrutineered and there's a lot of help in the paddock – it's not insular."

New tyre supplier MRF is offering a prize drive in India to the champion, while the series has enjoyed an hour-long highlights package after each meeting on Motorsport.tv.

The championship has a track record of producing tin-top stars of the future, with past title winners including Gordon Shedden and Colin Turkington.



COMBE HOT HATCH

Any series or championship averaging 25 cars per race could be deemed a success, even more so when that series was only introduced last year. But that's exactly what the Castle Combe Racing Club's Hot Hatch Challenge Series has done.

Open to non-turbo saloons, four classes from 1400cc to 2100cc means that competitors can enter in almost anything – from Peugeot 205 GTis and Renault Clio to Honda Civics and Ford Fiestas.

Big names have already taken part in the series,

including 2015 Castle Combe Saloon champion Mark Wyatt and Gary Prebble, Combe's most successful driver.

"Because it's non-turbo it opens the door to a lot of cars that were getting thrashed in Saloons [the popular Combe series that has run for many years]; in this series they have a chance of being up the front," says Prebble. "It's good, it's more equally powered cars and more of a level playing field. It puts the racing close together."

Prebble plans to stay in the series in 2018, having competed in five of the six races last year and only missing the final round after selling his

Peugeot so he could build another.

"I sold that car, and am in the process of getting another Peugeot GTi with a GTi6 engine from a Peugeot 306," he says. "It means it will have more puff."

Entry prices per round are between £150 and £180 and, says Prebble, you could do a season for £5000.

Looking ahead to this year, the series will have five meetings consisting of six races, with a double-header at the August 27 event. Numbers are expected to be similar to last year, and should the series continue its success it could soon be turned into a championship.



MINIS

No list of hot-hatch championships would be complete without Minis, and there's a multitude of different series available, with the Mini Challenge sitting at the top of the tree.

The headline JCW-class cars (below) run 265bhp two-litre engines, slick tyres and rear wings. Prices for a season start from £25,000 if you own the car and run it yourself, but an arrive-and-drive experience with a top team will set you back almost £80,000.

Also part of the Mini Challenge are the Pro, Am and S classes, requiring varying levels of experience and budget in Cooper machinery.

But there's even more choice when it comes

to series based around the iconic original Austin/BMC Mini, with Mini Se7en one of the most popular. The championship has been held since 1966 and currently uses modified 998cc A-series engines and treaded tyres.

Prices vary between £15,000 and £18,000 for a season, while Mini Miglia – also part of the Mini 7 Racing Club – is another option. Costing between £25,000 and £30,000, the class uses modified 1293cc A-series engines and slick tyres.

There's also Mighty and Super Mighty Minis (left), the former using 1.3i Mini Cooper power units, while the latter offers more of a technical challenge.



LAT IMAGES

MG TROPHY

There are few places cheaper to race than the MG Trophy (top, right). In its Class C, for the virtually road-going ZR 160 (with 160bhp), it's possible to compete for less than £6000 per season.

And there is no shortage of drivers taking up that opportunity. More than 30 cars regularly compete, with Class B (for the ZR 170) proving the most popular.

British Touring Car Championship frontrunner Jack Goff began his career in the MG Trophy.

"I always wanted to go to the BTCC, and the Clio Cup was the obvious choice," he says. "But I don't come from a wealthy family and we couldn't afford that, so we looked around at what was out there."

"The MG Trophy ticked all the boxes: it was very close, it was front-wheel drive and it was on Dunlop slicks. It also went to all the circuits that the BTCC went to. It was perfect for me and taught me a



heck of a lot about good, close racing. I also picked up my first sponsor there, and they are still with me today. It did me a lot of favours."

But the MG Trophy is not the only MG Car Club hatchback offering. The Metro Cup (right) is another option for those wanting to race in a closely fought series for an even smaller budget.



WHAT'S ON



Formula Yum: Grosjean's cuisine

FULL, FLUSTERED, FLECKED WITH flour. All of the above apply to *Autosport's* culinary odyssey, testing out the dishes included in the recently released cookbook *Marion and Romain Grosjean – Cuisine and Confidences*, written by Grosjean's journalist-and-TV-presenter wife Marion.

The roots of the Haas Formula 1 driver's passion for cooking are explained in the book's editorial introduction, as Marion recalls that he needed to lose weight during 2009 when going from GP2 to his first, short-lived, F1 stint. When Renault dropped Grosjean at the end of that season, he used his catering expertise to help process his career reboot, which ultimately led to the 2011 GP2 title and rejoining the same Enstone-based team, by then called Lotus, in 2012. Since then, Marion writes, cooking helps Grosjean relax and spread joy among his family and friends: "I often say jokingly: 'the F1 driver serves no daily purpose. It's the cook that I married.'"

The book is split into six sections: 'Welcome to Our Home', 'Children, it's Ready!', 'Between Us', 'The Athlete's Diet', 'Friends Bistro', and 'Eminent Chef's Cuisine'. Each contains a

selection of dishes, with the final chapter dedicated to recipes provided by Grosjean's chef friends including Akrame Benallal and Guy Savoy. These are interspersed with images of Grosjean's F1 career, kitchen exploits and family life, and each recipe includes a short explanation of its background or importance to the couple.

To sample a wide range of the book's flavour, *Autosport* picked out five dishes that hint at Grosjean's F1 diet or just looked mouth-wateringly good. The chosen smorgasbord: "So British" pea soup; 'beef stroganoff'; 'sole fillets in papillote with truffle oil, cherry tomatoes and fennel'; and 'salmon tartar and green asparagus' – plus 'macaroons with raspberry' for the office to enjoy.

Although some elements of the *Autosport* staff can boast seven years' experience in the catering industry, and others have links to bagel empires and kitchen hobbies, this writer's skills are basic at best. But, overall, the results are good – which was not guaranteed.

The pea soup – "one of the first recipes that Romain tried when we moved to England" – is a triumph. The invitingly vivid green colour hints at what is to come and the taste is



Autosport's efforts at "So British" pea soup (above left), beef stroganoff (above right), sole fillets in papillote with truffle oil, cherry tomatoes and fennel (below left), salmon tartar and green asparagus (right)



Various *Autosport* staffers described the macaroons (pictured left, in the office) as "interesting, edible", "tasty, but not macaroon-y", and "not ghastly"

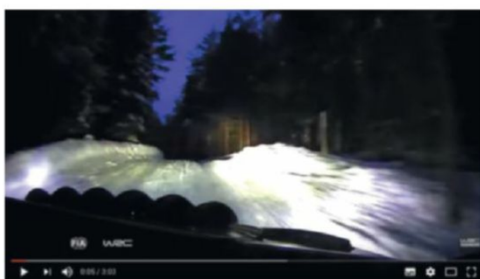
flavoursome, velvety and moreish. The salmon tartar, once we'd got past the trepidation and then amazement at fish essentially cooking without heat, is splendidly tender and rich – "I would try it if I wasn't a vegetarian," says *Autosport's* infinitely more skilled and patient sous chef. The stroganoff is also colourful and charming, but the beef doesn't pack much of a flavour punch. The sole – smoky and very tasty – is sadly full of bones, which make eating it risky. But more time at the fish counter (or with a pair of tweezers) would have solved a problem of our own making.

There are some issues with *Cuisine and Confidences* that impacted on our experiment. The English translation is a touch off at times – although that does give it an authentic feel – and



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HOT ON THE WEB THIS WEEK

NO PLACE FOR SNOWFLAKES

Search for WRC - Rally Sweden 2018: SS8 Onboard Paddon

It's the combination of darkness, looming trees and a frozen surface that cranks up the white-knuckle factor as Hayden Paddon and Seb Marshall set fastest time on SS8 Torsby on their way to fifth place on Rally Sweden.



ALL PICS: NAUCKAS

some instructions are confusing. The soup, for example, needs to be blended before serving, which is not included in the stated process. The macaroons (see results left) taste delightful, but following the recipe exactly calls for the oven door to be left ajar; the heat is promptly blown out by the fan, leaving the end product unrisen and lumpy. There is also the grand total of six (out of 46) options available for vegetarians – our sous chef is rather unimpressed at this, not to mention the kitchen hierarchy, and the soup calls for poultry stock which we switch out for a suitable alternative. Plus, two dishes contain ethically repulsive foie gras.

But overall these are minor complaints. *Autosport's* meal was thoroughly enjoyable and pleasantly



different. That, in addition to the love between the Grosjeans and their family and friends that flows through the pages, is what makes *Cuisine and Confidences* stand out. There are few tales from the motorsport sphere, but the book is full of smaller stories about their lives that provide fantastic insight and understanding. It is decidedly different, and all the better for it.

ALEX KALINAUCKAS

NEXT WEEK

F1 LAUNCH SPECIAL

A detailed guide to the 2018 cars as testing gets under way



LAT IMAGES

SBLOXHAM/LAT

INTERNATIONAL MOTORSPORT

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NASCAR SPRINT CUP

THACKER/LAT

FROM THE ARCHIVE

Sandro Munari gave Lancia's Stratos a stunning RAC Rally debut with third place in 1974, but things went awry when the Italian returned to the event 12 months on. He slipped down the order after completing one lap too many of the Oliver's Mount circuit in Scarborough, but was back up to fifth when this right-hander in Dyfi caught him out.

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TOP FIVE

SPECIAL HELMETS

A racing driver's helmet is a both a signature style and a message to the outside world. We've picked five unusual designs that have caught the eye in recent years (and, no, Sebastian Vettel's many lids don't make the cut).

1 BUTTON GOES PINK

At the 2014 British Grand Prix, Jenson

Button revealed a special pink helmet design to honour his father John, who had passed away earlier that year. Button switched back to his previous Union Flag design for the next race in Germany, but then sported the pink helmet for the remainder of the year. The 2009 world champion applied neon yellow colours to his favoured helmet design in his title-winning season and also had a red-and-white approach during 2015.



TEE/LAT



MAUGER/LAT

2 LECLERC HONOURS HIS FATHER

In another touching tribute, 2017 Formula 2 champion Charles Leclerc finished last season using the same helmet colour scheme as his late father Herve used during his days racing in Formula 3 in the 1980s. "Last thing I promised you was to finish this championship with your design," Leclerc wrote on Twitter as he revealed the livery. "Here it is. #TumanquesPapa [You are missed dad]."

3 RAIKKONEN JOINS THE HUNT

Ferrari driver Raikkonen is well known for not giving too much thought to the opinions of others, as well as his lack of engagement with the media trappings of the grand prix world. But he famously expressed his support for another enigmatic world champion, 1976 title winner James Hunt, with a special helmet livery using the Briton's design at the 2012 Monaco Grand Prix.



FERRARO/LAT



BELLACIO/LAT

4 BARRICHELLO SWAPS WITH KANAAN

IndyCar star Tony Kanaan has never entered the Monaco Grand Prix, but in 2006 his helmet colours were taken to fourth place by his friend Rubens Barrichello, who finished just off the podium for Ferrari. Returning the compliment, Kanaan used Barrichello's design on his way to fifth place for Andretti Green Racing in the Indianapolis 500, which takes place on the same day as F1's blue-riband street race.



LIQUID COLOUR DESIGN

5 MARCIELLO'S PRECIOUS METAL

For this season, Mercedes GT driver Raffaele Marciello is using a luxurious lid that features a diamond coating and 24-carat gold leaf. The Italian's two designs have been produced by artist Brandon Seaber and Iain Baldwin, founder of the Liquid Colour Design company. Painting the helmets took two weeks; there's 38g of paint applied to the red helmet and 41g on the blue version.

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