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New F1 cars set to arrive as Toyota wins

IT SEEMS AS THOUGH WE'VE BEEN PONDERING THE

new Formula 1 rules for a long time now, but over the next few days we will finally get our first glimpses of what things will look like in 2017 as the teams start launch season.

Not long after that, the wider, faster cars will hit the track, answering some questions and no doubt posing others. So it was the right time to get Channel 4 technical expert and racing driver Karun Chandhok to answer some of the key questions — from how Lewis Hamilton and Valtteri Bottas will stack up at Mercedes to what impact the new regulations could have on the racing — and to be your guide to Barcelona testing.

As former Jordan technical director Gary Anderson argues on page 26, the next few weeks will be crucial. With such little lead time and major changes to get their heads around, all the teams will be desperate to make sure they don't head off down the wrong path. There's bound to be someone who does.

• Many congratulations to Jari-Matti Latvala and Toyota for their unexpected victory on Rally Sweden last weekend. Latvala had a troubled 2016 with Volkswagen and pre-season expectations were not high for the Yaris, so to win only second time out is truly remarkable. With M-Sport's Ford Fiesta and the Hyundai i20 showing good turns of speed (surely Thierry Neuville will win in 2017!), the signs are there for a proper title fight. All we need now is for Citroen to sort out the C3...







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NIGEL ROEBUCK

Franz Tost's peculiar notions

FRANZ TOST, IT MUST BE SAID, HAS

never been the most temperate fellow in the Formula 1 paddock. It may be remembered that last autumn, for example, he came forth with a diatribe about the penalties these days meted out to drivers adjudged by the stewards to have transgressed, sometimes — although not always — for venturing beyond track limits, sometimes — although not always — for causing an accident involving others.

"If a driver touches another driver, he gets a penalty," Tost said, "and I don't think these things should go to the stewards, and result in penalties. We need interesting races, and if they crash into each other, they crash into each other — this is what people want to see. F1 is also entertainment, and currently we take too much care about all these issues — we should get rid of these penalties and nonsense..."

Well, it's a point of view, and one with which — up to a point — I am in agreement. Last year I thought it ridiculous, for example, that Nico Rosberg was handed a 10-second penalty for a touch with Kimi Raikkonen while passing the Ferrari driver at Sepang, having been penalised — five seconds this time — for a similar move on Max Verstappen at Hockenheim.

This is not, after all, historic racing at Laguna Seca or whatever, but Formula 1 racing — where any hint of 'After you, Claude' will lead you swiftly to the exit door. This is not to suggest that I had any time for the sort of tactics employed — and routinely excused — by such as Ayrton Senna and Michael Schumacher, but of late the balance has swung too far the other way, so that even minor skirmishes are swiftly followed by retribution from the stewards.

If therefore I have some sympathy for Tost's opinion, I can't go along with his implied suggestion that on the race track anything goes. Hard but fair is what I expect of a Formula 1 driver.

On a different tack, Tost came out last week with another of his observations, and this one really was off the wall. Like most of us, the good Franz has started to find wearisome the seemingly endless domination by Mercedes, which — apart from anything else — he thinks bad for business. "Friends have said to me, 'I don't watch Formula 1 any more because there are the two Mercedes at the front, and if they don't crash on the first lap the race is gone'. That is absolutely wrong — we need to come up with parity between the different teams."





It is undeniable that the shunt between Rosberg and Hamilton at Barcelona last year made for an unusually exciting grand prix, not least because suddenly neither Nico nor Lewis could win, and we'd almost forgotten what that was like. Verstappen, making his debut for Red Bull, narrowly held off Raikkonen, and in the paddock afterwards folk were almost light-headed in their delight.

In Malaysia Red Bull won again, this time at the hand of Daniel Ricciardo, but only because Rosberg was spun around by Sebastian Vettel at the first corner, and later — more crucially — because Hamilton's engine let go. With Ferrari once again falling short in 2016, only the two Red Bull victories intruded on a third consecutive Mercedes parade, and if this were a sore disappointment to fans in search of close racing and unpredictability, it seems to have been rather more than that to Herr Tost.

Hence his proposal last week — which I still struggle to believe — that development of the Mercedes team's engine should be frozen until



Renault, Ferrari and Honda find ways to match it. Apart from the immediate thought that this could take a while, can anyone remember - in a sport where we're not short of them - a more asinine suggestion?

'You've had a good run, Dr Zetsche, dominating Formula 1 for the last 60 races or so, and, yes, we know that's because Mercedes has made a much better job of these hybrid engines than anyone else, but... how would you feel about sitting on your hands for a year or two until the others have caught up? Shouldn't be too difficult to sell that to the board — after all, you're only in this for the love of racing, aren't you? I mean, it's not as though you're hoping that Mercedes superiority and success will help you sell road cars...'

Can Tost please explain quite why any manufacturer would wish to compete in Formula 1 — or, come to that, any category of motor racing — on the basis that it was not allowed to build a more powerful engine than its rivals? Car companies do not go

"Can anyone remember – in a sport where we're not short of them – a more asinine suggestion?"

racing for reasons of altruism, as Bernie Ecclestone many times pointed out: they are in it while it suits their purpose, and their purpose is to win, for only then can exorbitant budgets be justified in the long term.

Ferrari, you could argue, is a special case (although with Sergio Marchionne at the helm, perhaps not as gilt-edged as formerly), but Renault and Honda, with directors to satisfy, positively need to succeed, to get at least to parity with Mercedes — and to be seen to do it though their own expertise, rather than by having their supreme rival hobbled.

Lest we forget, Toro Rosso is not a Mercedes

customer — were it so, one somewhat doubts that Tost would have come forth with his barmy suggestion. 'Parity' has never been a right in Formula 1, but instead something — plus a little bit more — to be aimed and fought for, and unless or until other teams find a way to get on terms with them, Mercedes will continue to hold sway.

Let them have 'spec formula' elsewhere in the world if they want them. Grand prix racing has always been about excellence, and that must never be allowed to change. Knowing Ross Brawn, thankfully I rather suspect that he feels the same way.

CONTROVERSY



GD2

Rowland targets GP2

"I DON'T JUST WANT TO WIN THE championship," said Oliver Rowland of his GP2 Series deal with DAMS for 2017. "I want to go out and dominate like Stoffel Vandoorne did in 2015 — that's the only way I can get into Formula 1. I have to do something special."

Off the back of his stunning Formula Renault 3.5 season in 2015, Rowland had a tough time on his switch to GP2 last year with MP Motorsport. Some cameo appearances in the series in '15 had led to high hopes that he would fight at the front with the Dutch team, but the 2011 McLaren Autosport BRDC Award winner's final tally of no wins, four podiums and ninth in the points was a disappointment.

Rowland slumped down the championship table after briefly topping the scores following the British Grand Prix support round at Silverstone, and did not visit the podium again during the remaining six race weekends. "To be honest I think over the first five rounds there were a lot of mistakes by other people — [Pierre] Gasly, [Sergey] Sirotkin... A lot of people didn't get up to speed," said Rowland. "But if you look at qualifying, even during that period we were never within seven or eight tenths of pole apart

from at Monaco, which is a special event anyway.

"After that, between the team and me we stayed where we were and other people did a better job — we stayed seven or eight tenths off the pace, but because the field closed up that turned into 15th or 16th for us. Now I know I have to pace myself slightly better."

This is predominantly an allusion to the task of managing the Pirelli tyres, which are considerably different to the Michelins Rowland was used to from his time in Formula Renault 2.0 and FR3.5. "If you start on the prime tyre and don't pace yourself properly, you've got no chance because the damage is done in the first five or six laps," added Rowland.

One notable aspect of the competitive order in GP2 last year was the drop in performance of the multiple title-winning DAMS squad, which lost technical director Remi Decorzent to the DS Virgin Racing Formula E team. But Decorzent is now back at the Le Mans-based operation.

"I don't really know [about the effect on the team of Decorzent's absence in 2016]," said Rowland, who began working with DAMS in the post-season Abu Dhabi test. "It just didn't work. But what I have experienced with Remi is that



domination with DAMS

"I've had my

year to learn.

to win GP2"

This is my year

he's an extremely competitive person and brings a lot to the party in terms of engineering and thought processes. The other engineers [including Jose Fontestad, who looked after Alex Lynn's car last year and will work with Rowland in 2017] are also extremely good

- they're some of the best I've worked with." DAMS owner Jean-Paul Driot also admits there were shortfalls in 2016. "We lacked a bit

of understanding of tyre management," he said.

The Abu Dhabi test performance left Rowland encouraged, not only with DAMS but with new teammate Nicholas Latifi, who will stay on at the team for a second season. "Most of the

drivers had already done the race weekend so by the end of the test everyone was at a similar level and it was difficult to read much into it," stated Rowland. "My main focus was to build myself into the team and get a good relationship with the engineers. But me and Nick were very quick we left happy, considering there were some things we knew we needed to improve."

Latifi's father – luxury-foods magnate Michael Latifi – is understood to have played a large role along in getting Rowland on board at DAMS, especially crucial as he has now 'graduated' from the Racing Steps Foundation, which has backed him since his first steps in car racing in the 2010 Formula Renault Winter Series. "I'm extremely grateful to Graham Sharp and Derek Walters [the RSF impresarios]," he

said. "For the past six years they've supported my racing. I intend to still represent them and hopefully I can still give them something back."

Rowland, who became part of the Renault F1 team's revived junior programme in 2016, is also expected to be the

F1 development driver for the Enstone squad. This could lead to Friday practice appearances or rookie test days as well as simulator work.

But the number-one priority is GP2: "I needed one year to learn in FR3.5 and then one more year to win the title. I've had my year to learn in GP2 and this is my year to win that." MARCUS SIMMONS

LYNN GETS TOP DRIVES FOR ENDURO CLASSICS

ALEX LYNN MIGHT HAVE been a surprise omission from Aston Martin's World **Endurance Championship** plans, but in the past few days he's scored rides with Cadillac in next month's Sebring 12 Hours and at Petit Le Mans, and BMW at the Nurburgring 24 Hours.

The Cadillac drive is with Daytona 24 Hours winner Wayne Taylor Racing, where Lynn replaces veteran Max Angelelli – the Italian, who is a co-owner of the team, has retired from driving - to share with Taylor's sons Ricky and Jordan.

The 23-year-old GP2 graduate says that his late-season 2016 WEC outings with the Manor LMP2 squad played a large part in his selection: "The opportunity to race for Manor gave me the credentials for someone like Wayne and Cadillac to take a chance on me, even with no Sebring experience and my relative inexperience in sportscar racing."

Lynn hopes to use the races to establish a foothold on the US scene. "I'd love to make it a long-term thing out there," he added. "I'd want to do Daytona, Sebring and Petit Le Mans in future years - three massive races that fit nicely in the calendar."

He will race a BMW M6 GT3 at the Nurburgring after a late call-up to the Munich marque's squad. Lynn, who has never even tested a GT3 car before, will also contest two prior races on the Nordschleife to familiarise himself.

MARCUS SIMMONS



WDC

LATVALA CHANGES KEY FOR TOYOTA

RALLY SWEDEN WINNER Jari-Matti Latvala's arrival at Toyota came just in time to turn the Yaris WRC into a winner, according to the Finn.

Latvala signed for Toyota in the first week in December, giving him a matter of days to finalise the car's specification.

The WRC series leader said: "If I had come to the team two weeks later then I wouldn't have won in Sweden. We had a lot of homologation details being sorted out and I had 14 days to give my input and get things done. I was working on gear ratios and differential set-up – key parts we changed to make the car [better]."

Victory for the Yaris on only its second outing stunned the rally world as Latvala edged the Ford Fiesta WRCs of Ott Tanak and Sebastien Ogier.

Consolation for M-Sport comes in the form of the manufacturers' lead and confirmation of the Fiesta's engine performance. The Fords were one-two on the fastest stage in recent WRC history. Tanak averaged 85.62mph in the 20-mile Knon stage. The second run was canned when the FIA deemed it too fast.

FIA's Jarmo Mahonen said: "We want stages with an average under 130kph [80mph]. This teaches us we need to take a more firm grip when organisers want to introduce new stages."



INDYCAR

Hildebrand breaks record then crashes at Phoenix

JR HILDEBRAND UNOFFICIALLY BROKE INDYCAR'S lap record at Phoenix International Raceway in IndyCar's two-day open test last week. However, the Ed Carpenter Racing-Chevrolet driver also crashed following an incident with Team Penske's Will Power.

Hildebrand, who is returning to racing full-time in IndyCar for the first time since being released by the now-defunct Panther Racing team in 2013, lapped the 1.022-mile course at 193.234mph, and even the lap he set without a tow from another car would have narrowly eclipsed the 192mph record pole set by Helio Castroneves last year.

However, in the final 20 minutes of the session, Hildebrand clipped the back of Power's car, ripped off part of his front wing, and understeered into the Turn 3 wall before grinding his way around to Turn 4, with both front corners of the car damaged.

Hildebrand's team owner Ed Carpenter was second fastest ahead of three Penske drivers — team newcomer Josef Newgarden, Castroneves and Power. Mikhail Aleshin, whose return to IndyCar was confirmed last month, was fastest Honda driver for Schmidt Peterson Motorsports.

The test was marred by accidents. As well as Hildebrand's wreck, two Andretti Autosport Hondas hit the SAFER barrier; both Indy 500 winner Alexander Rossi and new team arrival Takuma Sato lost it at the apex of 185mph apex of Turn 1, backing their cars hard into the outside wall on the exit of T2.

DAVID MALSHER



SUPER FORMULA

Gasly's Super Formula deal

HONDA HAS PLACED RED BULL Formula 1 reserve driver and reigning GP2 champion Pierre Gasly at Team Mugen for the 2017 Super Formula season.

Gasly had been expected to join Nakajima Racing before ex-Jordan and HRT F1 driver Narain Karthikeyan's surprise move to the team.

Mugen has now expanded to two

cars for the first time since 2014 to accommodate the Frenchman alongside team stalwart Naoki Yamamoto.

Gasly follows in the footsteps of 2015 GP2 champion Stoffel Vandoorne by competing in Super Formula alongside an F1 reserve programme.

Karthikeyan had been looking at options outside Japan, including a Blancpain GT drive, after parting with Toyota squad Team Le Mans earlier this month. But instead the Indian replaces Bertrand Baguette, the only driver dropped from Honda's line-up, at Nakajima.

McLaren driver Vandoorne took fourth in the 2016 SF standings with two wins, while Gasly scored four victories on his way to the GP2 crown.

DARSHAN CHOKHANI



FORMULA E Chassis supplier Spark Racing Technologies has released its first concept images of the next generation of Formula E machinery. Ex-Renault Formula 1 team principal Frederic Vasseur-owned Spark has won the tender to continue to supply the championship's specification chassis, which will deliver single-car races in 2018/19. Spark will continue to work with technical partner Dallara on the project to be known as the SRT-05, which is set to be officially launched at the end of this season. An extended windscreen is one of several new safety devices to be integrated. The new chassis will feature more aggressive packaging, efficient aerodynamics and a lower weight. **Photograph by Spark**

BTCC

Turkington to WSR

COLIN TURKINGTON WILL BE ONE OF the favourites for this season's British Touring Car Championship after tying up a deal to return to WSR to pilot one of its BMW 125i M Sports in 2017.

The Northern Irishman won titles with the team's BMWs in 2009 and 2014.

He left WSR in 2014 after its main backer eBay Motors withdrew, and joined Team BMR. He won the Independents' title with BMR, driving a Volkswagen CC in 2015, and was fourth in the points in the brand new Subaru Levorg last year.

However, after internal struggles within BMR, Turkington was left looking for a drive towards the end of 2016.

He has spent nine of his 12 seasons in the BTCC with WSR and has become renowned as a rear-wheel-drive expert.

He will link up with new WSR recruit Andrew Jordan and an as-yet unnamed team-mate in the German cars.

The 34-year-old said: "For me, this is like coming home. I have had such success with WSR, and we have a similar way of working and we have made happy memories together."

Turkington rejoined the team in 2013 and undertook much of the development work on

the BMW 125i M Sport, which is one of the most successful of the NGTC-spec machines.

He was a race winner in its first season and Turkington took it to the title in his second. "I know the car is an even better proposition now, so I can't wait to see how far it has come on," added Turkington,

Team boss Dick Bennetts said: "There's definitely a sense of unfinished business as, despite our intentions, commercial reasons meant we weren't able to stay together to defend our championships.

"We now head into 2017 with a very strong driver line-up, and we're aiming for more titles."

Despite Turkington's pedigree, Jordan believes the signing takes the pressure off. "It's a win-win for me," said the 2013 BTCC champion. "If I go to [the opening round at] Brands Indy and I outqualify him everyone will be, 'Bloody hell'. If he outqualifies me, well he's the RWD specialist.

"I think me and Colin can work very well together. He seems a normal guy and I think we'll be able to trust each other. I'd be surprised if we can't develop a really good working relationship."

MATT JAMES AND KEVIN TURNER

IN THE HEADLINES

NO AGREEMENT ON F1 SUSPENSION

Formula 1 teams have failed to reach an agreement on the legality of trick suspension systems, with a ruling now expected from the FIA before the start of pre-season testing. Debate about pre-loaded suspension systems has been ongoing since Ferrari designer Simone Resta wrote to F1 race director Charlie Whiting about the devices helping aerodynamic performance.

VETTEL SHUNT CURTAILS TYRE RUN

Ferrari had to cancel the second day of the Pirelli F1 wet tyre test at Fiorano because of a lack of spare parts after Sebastian Vettel crashed. The opening day of what was supposed to be a two-day test to evaluate Pirelli's wider 2017 rain rubber was cut short after Vettel ran off the artificially soaked track and hit the barriers head on.

RENAULT APPOINTS NEW HEAD OF AERO

Renault has appointed Pete Machin to the role of head of aerodynamics as the French manufacturer continues to restructure its Formula 1 outfit. Sachin, who previously worked at Red Bull as its aerodynamics team leader, will join Renault on July 3 and be based at Enstone.

MULLER DENIES COMEBACK DESPITE TEST

Four-time World Touring Car champion Yvan Muller has quashed suggestions his Volvo test could lead to a 2017 race seat. Muller called time on his WTCC career at the end of the 2016 season when Citroen left the series, but tested with Volvo at Portimao earlier this month.

TOYOTA JUNIOR SECURES ELMS SLOT

Toyota protege Ryo Hirakawa will return to the European Le Mans Series in 2017 with G-Drive Racing. The 22-year-old member of Toyota's development programme will drive an ORECA-Gibson 07 LMP2 fielded under the banner of the 2016 title-winning entrant by the US DragonSpeed squad.

PEUGEOT BACK TO ERC AS WORKS TEAM

Peugeot will return to the European Rally Championship with a factory team of 208 T16s in 2017. The French marque abandoned the ERC last year in favour of the World Rally Championship-supporting WRC2 category, but it will be back this season for Pepe Lopez and Jose Suarez, the last two winners of its French Championship-based 208 Rally Cup series.

PEREZ BACKS ANTI-TRUMP INITIATIVE

Force India Formula 1 driver Sergio Perez has thrown his backing behind a Mexican Grand Prix initiative supporting the #BridgesNotWalls campaign prompted by American president Donald Trump's foreign policies. The social media hashtag #BridgesNotWalls has taken off amid the fallout over president Trump's plans to build a wall between America and Mexico and Perez is fully behind the Mexico City F1 track's decision to display the slogan.



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The opposition rises

There has been much fanfare around Formula 1's new commercial rights holder, but it could face problems from several sources

By Dieter Rencken, Special Contributor

梦 @RacingLines

"Unlikely allegiances

ability to change F1"

will test Liberty's

FOLLOWING LAST WEEK'S PROGNOSIS THAT

Formula One Group, F1's 'new' commercial rights holder, faces revenue squeezes from teams demanding greater income slices on one side and promoters, partners and broadcasters on the other, senior sources confirmed that the formation of a modernday Formula One Teams Association was under consideration.

Not surprisingly, enquiries kicked off a 'blame game'. Fingers pointed every which way: independent teams suggested the so-called CCB teams, namely Mercedes, Red Bull, Ferrari and McLaren — which, between them, carve up 65% of revenues — were collectively planning "to protect their positions", as one source phrased it, after prevailing contracts expire in 2020.

Members of the big four played round-robin by blaming each other; respondents, though, stressed they wanted no part of such a body, although some admitted that cohesion among teams could prove beneficial when it came to negotiations, with the recurring refrain: 'We must work together for the good of F1 by helping [FOG]'.

Independent teams did not escape unscathed, either.

There were suggestions they were the instigators given that they had the most to gain, and so the merry-go-round continued. Such team bosses, though, denied all culpability before singing off the same hymn 'good for F1' sheet — with the deeply instilled fear

of being 'caught' evident in some comments.

However, few denied they had recently attended individual and group meetings with FOG executives, nor that they strategised among themselves, ostensibly 'for the good of...' There's no denying from 2008-14 the original FOTA served a common purpose both for the teams and, albeit less so, F1 by forcing change on both the (2010-12) revenue and governance structures for all teams.

That, though, changed with the bilateral process, which enabled then-commercial rights holder CVC Capital Partners to pick off teams in vulture fashion ahead of its aborted plans to list F1 on Singapore's stock exchange. Bernie Ecclestone, a past-master at divide-and-rule tactics, certainly split them.

The question is, would a FOTA representing all teams serve constructive purpose? At one end of F1's structure are the privileged few that benefit enormously from skewed revenue/regulatory make-up; at the other is the disenfranchised majority, left with bare pickings and secondary votes...

Thus, parallel team alliances are more likely, with the big four (or three, given McLaren's lesser shares of CCB revenues, and could thus welcome a redistribution of revenues) bandying together to protect their privileges, while the rest regroup to extract financial and regulatory equality.

Imagine this tripartite fight spread over four years: FOG's faction, led by managing director Ross Brawn, versus a faction comprising the best brains trust Mercedes, Ferrari and Red Bull can pool, versus seven street-smart independents.

That, though, covers just one side of the vice. Ratcheting up further pressure are FOG's primary customers: race promoters, broadcasters and commercial partners, all of whom have some or other issue regarding increasing fees versus declining eyeballs. Could they, too, be digging in for a fight with FOG?

As was the case with team contracts, Ecclestone was extremely proficient at imposing non-disclosure clauses in promoter agreements, and, when they turned vociferous, he 'blessed' the formation of the Formula One Promoters Association — founded and presided over by his long-standing friend Ron Walker of Australian GP fame — to quell dissent.

Imagine the formation of an independent FOPA, one charged

with negotiating reduced hosting fees and improved fan access 'for the good of F1', ie fees that enable affordable ticket prices and improved support programmes and activities. FOG is talking '20 Super Bowls' each year — all well and good, but they

must be affordable for families and accessible to fans.

However, the promoter base is split between organisers of traditional grands prix — mainly in Europe, although events in Australia, USA and Japan are included — and hosts of 'money races', namely rounds staged in such as Abu Dhabi, Bahrain, China and Azerbaijan, usually for propaganda purposes.

While the first group is agitating for fee reductions, the second, aware its members are effectively subsidising traditional events, is demanding fee parity and greater input into calendars. However, their priority is to retain their GPs.

Thus, two (or more) promoter alliances are likely as organisers push to protect their positions, or fight to remain on the calendar despite reduced fees. Again, battle lines are likely to be drawn — even before similar confrontations are triggered by broadcasters, split into free-to-air/pay channels.

As F1 edges ever closer to its 2020 contractual cut-offs, so the jostling will become increasingly frenetic as groups and sub-groups align and some unlikely allegiances form, in the process testing FOG's ability to wring change 'for the good of F1' to the absolute maximum. **

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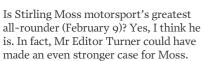
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He did have the chance for one crack at the alien oval-racing discipline when he drove the powerful but hastily prepared Eldorado Maserati V8 in the 1958 'Monzanapolis' Race of Two Worlds. Straight off, in the torrid first heat he was right up with the likes of Jimmy Bryan, Rodger Ward, Bob Veith and an inspired and heroic Luigi Musso to finish fourth. Then the steering broke on this fearsome one-off and tried to kill him!

Turner rightly stressed the importance of Moss's Coupe des Alpes en Or in the French Alpine Rally. However, he did not mention Moss's only Monte Carlo Rally, in 1952. Stirling was second overall in a Sunbeam-Talbot, beating all the Continental rally specialists, and beaten only by Sidney Allard.

Moss has to receive the nod as the greatest proven all-rounder. Jim Clark might have come close if he had had the chance to do more top-level sportscar racing and rallying, and in cars other than Lotuses.

Chris Mason By email

Clark, of course

Interesting feature on versatile drivers, but one meeting stands in my memory and involves Jim Clark. Spring Cup, Oulton Park, April 11 1964. In the main event his Lotus 30 failed to appear, so he borrowed the Lotus 19 of local farmer George Pitt and won the race. OK, maybe there wasn't a lot of opposition, but it was a great drive in an unfamiliar car.

Oh, and he also won the saloon car race (Lotus Cortina, of course) and the GT race (Lotus Elan). This was the reigning F1 world champion, about to return to Indy for his second crack at the 500.

Ian Dunbobbin **Billericay**

Not just king of rallying

You omitted one other contender whose all-round achievements eclipse many of those you have chosen: Sebastien Loeb.

Loeb is, of course, a nine-time WRC champion. But his achievements are much wider. He came second at Le Mans in 2006. He has six WTCC wins. He has four FIA GT victories. He smashed the record at Pikes Peak. He has come second on the Dakar Rally. He has competed with distinction in the Porsche Supercup and in rallycross. He has won the Race



Sebastien Loeb has a hugely varied CV; he's pretty mean on a pommel horse, too Of Champions three times.

The only serious omission on his CV is F1, but he was only denied the chance to compete because the FIA would not grant him a superlicence.

A further example of his ability as an all-rounder is that he was an international-standard gymnast!

Vincent Fairclough Carden Park, Cheshire

Lesson from history

Your feature on motor racing allrounders includes no 'pre-war' qualification. I therefore consider that the omission of Tazio Nuvolari is an astonishing oversight and injustice.

Multiple GP winner, motorcycle champion, twice winner of the Mille Miglia, Targa Florio, RAC Tourist Trophy and at Le Mans. May I suggest the gentlemen of Liberty Media are not alone in needing a history refresher course. Fortunately for your Messrs Turner and Straw, and for the price of a decent bottle of red wine, you now have 'our Nige' (Roebuck) at close hand!

David Smith Madrid

Jacques of all trades

Another versatile great: Jacques Villeneuve. Equal to Nigel Mansell, at least, just travelled in the opposite direction from Indy to F1.

Great feature, which brought home how much we're living in an age of specialists. Too bad Valentino Rossi didn't make the move into F1 when he had the chance. We might have seen another name on the list then.

John Durrell **Bvemail**

HAVE YOUR SAY, GET IN TOUCH

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TONS

WILL THE CARS LOOK MORE SPECTACULAR?

The short answer is yes. I think the cars will look better with the bigger tyres, and the proportion of the

front and rear wings will be better, so aesthetically the cars will look nicer. Whether they look more spectacular or not is going to come down to how fast they are through the corners.

Last year, in the Channel 4 office, we looked at some onboard footage of a lap of Suzuka, comparing a race lap from the 2005 grand prix versus the 2016 one, and the difference in cornering speed is immense. There's no question that in the Pirelli era the drivers have had to spend the races driving below the limit and managing their tyres much more than during the previous Bridgestone era, which has been the cause of some frustration for the drivers and their engineers. It was interesting to hear Stoffel Vandoorne's comments about how he felt he had to 'underdrive' the F1 car he raced in Bahrain last year, compared to his regular Super Formula car in Japan.

For the first time in F1 history, the objective of a rule change has been to make the cars significantly faster, and I do hope it works. We want to see the best cars and drivers in the world fighting on the ragged edge for two hours, not lapping six or seven seconds down on their qualifying pace.

I'm not an aerodynamicist or an engineer, but I've been fortunate to speak to a lot of paddock folk who are. The one concern with these new rules is that, with slower straightline speeds, high cornering speeds and therefore shorter braking distances, the actual spectacle of wheel-to-wheel racing and overtaking could suffer.

Personally, as a purist, I've never been a fan of DRS as I think it makes some overtaking too easy. When you think of the great overtaking moves in F1 history you would never choose a DRS-assisted one, but I do worry that we could end up relying on DRS much more for on-track overtaking in 2017.



CAN RED BULL TAKE THE FIGHT TO MERCEDES?

For the sake of the show in Formula 1, we would all hope so! This won't be a battle we can

judge too early in the year, as we're going to see a very high rate of development throughout the season.

Red Bull has shown in the last few years that aerodynamically it's as strong as ever, but, let's be clear, the Mercedes hasn't exactly been a lemon in the corners!

Looking at the GPS data, the RB12 was very strong in the slow-speed corners last year, which was why Daniel Ricciardo was able to beat the Mercedes drivers to pole in Monaco. However, when you look at a high-downforce track like Budapest, where people expected the Red Bull drivers to perhaps challenge Mercedes, they ended up nearly half a minute behind at the end of the race — and Adrian Newey said to me at the time that he thought the Mercedes drivers were backing the pack up early on.

We have all been focusing on the aero rule changes, but I think it would be wrong to forget the fact that the token system for the power units has now gone. This means that the development race between Brixworth [Mercedes engine HQ] and Viry-Chatillon [Renault engine HQ] is well and truly on, too, and it's not going to be enough for Red Bull to simply build a better chassis to topple Mercedes. Having sister team Toro Rosso now also use the same power unit as Red Bull will help Renault, as there should be more scope for sharing information, but will it be enough to push the senior team back to the top?





CAN WE JUDGE THE BOTTASV-LEWIS FIGHT FROM TESTING?

Valtteri Bottas has been given the opportunity of a lifetime to jump into the dominant car of the recent past. The new regulations could

mix up the pecking order, but Mercedes is too good a team now to not be a title contender.

Going up against Lewis Hamilton is not going to be an easy challenge and could make or break Valtteri. Either he will take the fight to Lewis and therefore establish himself as one of the elite, or he will be relegated to the role of the number two driver.

Toto Wolff, Niki Lauda and the team are coming off the back of a season full of internal battles, so they will be looking for a low-stress relationship between their drivers. Lewis, outside the car, created more headaches than they would have liked in 2016, but they'll tolerate it all because, in the car, an in-form Lewis Hamilton is unbeatable.

Pre-season testing will be all about relationship building for Valtteri. He needs to develop a rapport with his engineers, he needs to understand the systems and processes the team use, and they need to understand his style of driving and his method of communicating.





"Lewis doesn't show his hand until he really needs to" Like all the greats in F1 history, Lewis doesn't show his hand until he really needs to. Testing to him seems like a bit of a chore and I genuinely think that it

won't be until Q3 in Melbourne where he will really show Valtteri his full potential.

Valtteri has a good amount of experience under his belt now and has a calm, cool and methodical way of going racing. And he is fast. Very fast. But is he fast enough to take on the F1 driver with more wins than any other bar Michael Schumacher? We'll know in 10 months.



WHAT ABOUT A RESURGENCE FROM F1'S GRANDEES?

Both Ferrari and McLaren are coming into 2017 on the back of turbulent recent times.

Looking first at the Scuderia, you probably have to go back to 2010 (arguably 2008) when

they really had a car that was at least an equal of the one that won the world championship. The brilliance of Fernando Alonso kept them in with a chance in 2012, but otherwise it's been four barren years — that's a long time for one of F1's best-funded teams to not be in with a genuine chance of a world title.

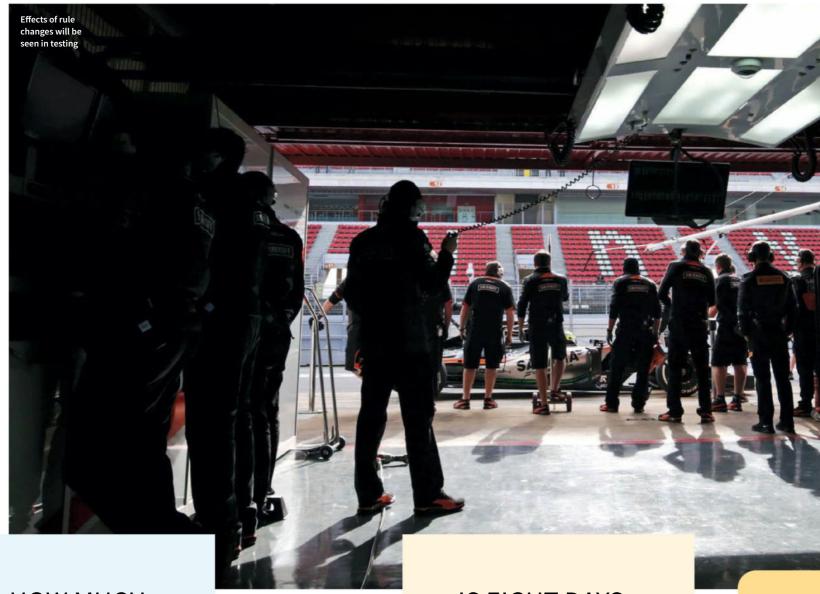
F1 needs Ferrari to be fighting for wins, and the pressure on the team to succeed from its fanbase around the world is probably higher than for any other outfit. The merry-go-round at the top with the Stefano Domenicali-Marco Mattiacci-Luca di Montezemolo-Sergio Marchionne-Maurizio Arrivabene management circle, along with the Pat Fry-James Allison-Mattia Binotto technical reshuffle, has undoubtedly created a degree of instability over the past few years and it will be interesting to see how Ferrari performs in 2017.

Its 2016 season was peppered with reliability issues, curious strategic calls, first-lap incidents sometimes involving both drivers, and ultimately they were also beaten for pace by Red Bull, let alone Mercedes. Ferrari's three wins in 2015 looked to be the foundation for a proper comeback, but finishing 70 points behind Red Bull last year was a big step backwards.

In its first season of the post-Ron Dennis era, 2017 is arguably a more important year for McLaren than its long-term Italian rival. There's no question the Honda power unit package has failed to live up to the pre-2015 expectations, but by all accounts it's starting 2017 with a completely new design architecture. Watching to see whether Honda hits the ground running or suffers the reliability woes of its 2015 campaign is going to be one of the big stories of the Barcelona tests, I think.

The Woking side of the team has been quick to point out how good its chassis has been on several occasions over the past 18 months, but as someone from Honda quietly pointed out to me in Suzuka last year, the McLarens were 16th and 18th in the first sector through the Esses during qualifying, which shows that they're far from perfect.

There was clearly progress in 2016 as the team was able to get a car into Q_3 on merit on several occasions and the ERS issues from the year before seemed to be a lot better in the races. But is that good enough for McLaren or Honda? Of course not — they exist to win. A big year ahead, indeed.



HOW MUCH FASTER WILL THE CARS BE IN 2017?

Last year, I spent quite a bit of time talking to senior technical people from teams about the 2017 regulations and it was interesting to hear the variations in estimates of the downforce numbers.

Most people ended up in

the range of a 30% to 40% increase over 2016, which itself is a huge range in Formula 1 terms, but, more importantly, a lot of people couldn't really guesstimate what the numbers would be in Abu Dhabi at the end of the season as the development curve is going to be very steep. The bigger footprint and different construction of the tyres are aimed at allowing the drivers to lean on them for longer periods during the grand prix, and we'll have to see how that pans out.

The initial aim was to make the cars five seconds per lap faster but, by the time we got to Abu Dhabi last year, there were mutterings of that number being closer to 2.5-3s depending on the circuit. The drag element of bigger tyres is huge and the weight limit has increased again, up to 728kg (for comparison, the minimum weight number in 2009 was only 605kg!).

The testing times from the post-season Abu Dhabi collective test with all three teams weren't spectacular, but it would be wrong to judge that as being a fair reflection of the performance gain. Pre-season testing in Barcelona will be the first true insight we get into how well these rule changes have worked.

IS EIGHT DAYS OF TESTING ENOUGH FOR NEW REGULATIONS?

Unlike the races, testing doesn't bring in any form of revenue for the teams, so reducing the amount of testing has undoubtedly been the right way to go in terms of cost saving. The drivers and engineers will never be happy with the amount

of testing. You could double the number of days and they would still have things to evaluate, but ultimately it's up to the team bosses and the financial guys to temper the engineers' instinct to test and test with what is a justifiable cost for testing.

It's going to be absolutely critical for every team to use every lap of testing to its full potential. With such big rule changes, every team will have a huge list of things to validate and the pressure to correlate CFD, windtunnel and simulation figures with data on the race track will be huge. The first four days of pre-testing in particular aren't about looking for the ultimate performance, but trying to get the car reliable and balanced.

The drivers will want to learn about the new cars and tyres so they will be praying for good reliability while they try and bank as many race distances as possible. We now know that the Pirelli tyres are extremely sensitive to temperature and track conditions, so using the right tyre at the right time of



Teams will be watching each other carefully PETRONAS PORMULA ONE TEAM

the day is going to be very important while banking their information.

Performance in F1 is all relative and therefore the teams will have to keep an eye on what other people are up to. The usual caveats of unknown fuel loads and engine modes will apply, but if you spend eight days analysing long runs, you can sort of work out the pecking order.

"Drivers and engineers will never be happy with the amount of testing"

BARCELONA THE PERFECT TEST TRACK

"Barcelona

downforce

and balance

are crucial"

is a track

where

ALL EIGHT DAYS OF PRE-SEASON testing will take place at Barcelona. This is never an ideal situation but there are good reasons why it's such a popular test track.

The ambient and track temperature in late February and early March won't be perfect to get a full picture of where everyone stands, especially Pirelli, but the relatively short distances from the teams' bases mean that developments will be flying in every evening.

Most importantly, it's a track where downforce and balance are absolutely crucial. If your car performs well at Barcelona, then you can be sure that it's a decent package for the start of the season.

Barcelona has a good selection of corners that do genuinely test the car. There are some long, constant-radius turns where you really do rely on the downforce and need to get consistency of grip from the tyres. If not, it will just shred them to destruction.

There are some big braking episodes, especially down into Turn 1 and Turn 10, the hairpin into the final section, while the

final chicane means the car has to ride the kerbs well and also have good traction to carry onto the start/finish straight.

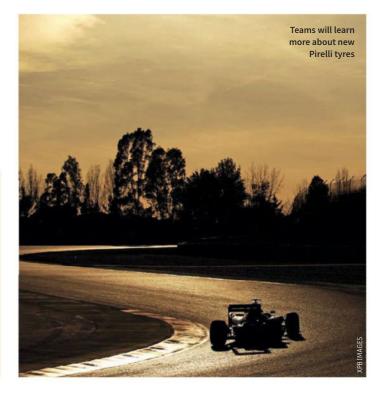
Turn 3 is the most obvious of the long corners—it's a great place to watch the performance of the cars to see who is handling well. If your car isn't well balanced and you run a little wide out of Turn 2 this makes the entry into Turn 3 a lot more difficult. If that happens, the driver's throttle control through this long 180-degree

> right-hand corner becomes a lot more evident as they attempt to keep the front of the car tucked into the corner. You can't hide it here, and if a driver is hesitant or they can't attack the corner, it's very obvious.

It's also a circuit that can tell you a lot about tyre life. That's going to be very important with the wider Pirelli tyres this year, with teams needing to learn as much as they can about how long they last and how to manage them.

With long lateral-load corners like Turn 3, which is followed by slower but just as important Turn 4 and 5 180-degree corners, it will certainly ask a lot of the tyres.

GARY ANDERSON



HOW WILL THE NEW, WIDER **TYRES BEHAVE?**

My personal view is that making the cars faster than 2016 in qualifying trim isn't really that important

- it's more about making them faster in the races over long periods of time. The build-up to pole position in Q3 really is one of the best parts of the weekend. It would be nice if the drivers were going a couple of seconds faster, of course, but I don't think it really matters.

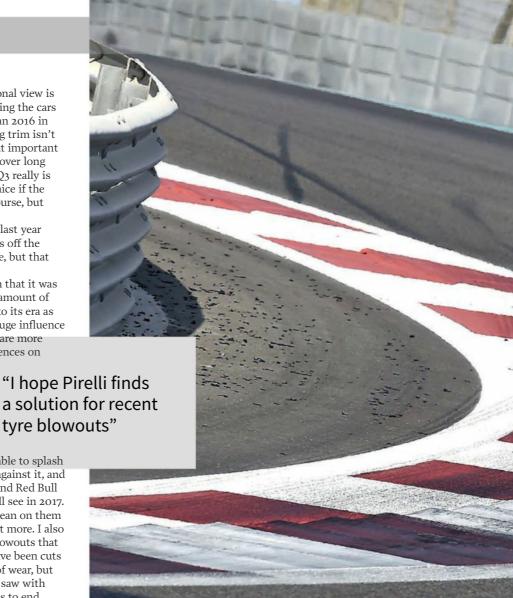
I remember phases of the Singapore Grand Prix last year when the drivers were running about eight seconds off the qualifying pace. That was probably an extreme case, but that level of tyre management isn't fun for the drivers.

Pirelli's defence over the past few years has been that it was given a brief to design tyres that had a reasonable amount of degradation and created better racing. Six years into its era as a single supplier, I think it's safe to say it's had a huge influence on the way the teams and drivers go racing. There are more engineering groups, debriefs, meetings and conferences on understanding the performance and wear of the tyres than ever before during a singlesupplier era of F1.

One area where I have a great deal of sympathy for Pirelli is testing and development. Goodyear, Michelin and Bridgestone all entered F1 in an era when

plenty of testing was allowed and the teams were able to splash the cash on tyre testing. Pirelli has really been up against it, and even the mule cars supplied by Ferrari, Mercedes and Red Bull have nothing close to the downforce figures we will see in 2017.

I really hope the 2017 tyres allow the drivers to lean on them during the races and push the cars to the limit a bit more. I also hope Pirelli finds a more robust solution for the blowouts that we've seen in the past few years. Yes, there may have been cuts caused by debris or the drivers pushed the limits of wear, but even so tyres being susceptible to blowouts, as we saw with Vettel in Austria last year, is pretty scary and needs to end.





WILL THE **DRIVERS BE** FIT ENOUGH?

Absolutely! I think the drivers are all excited about the prospect of being challenged to their physical limits again. Personally, I

always found a perverse sense of pleasure when I got out of a car after a physically tough race like Malaysia or Budapest and felt like I put my body and mind through a solid work out. Drivers are sportsmen at the end of the day, and we got into the sport expecting to feel physical pain.

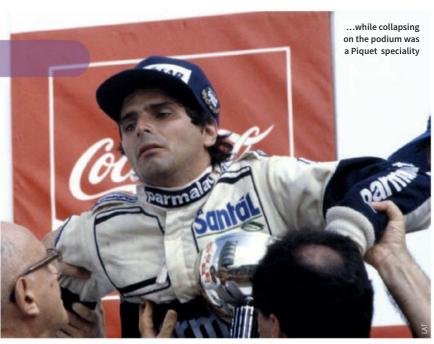
There's no question that the recent trend of heavier cars with higher tyre degradation has made the races run at a slower pace, presenting an easier physical challenge. The differences in the physical effort needed with a relatively small increase in g-loads when you're in the zone of 3-4g of lateral force are amazing. For example, Turn 3 at Barcelona will go from being a 30% lift off the throttle to being flat now, and the physical loads going



through a driver's body — and particularly his neck — will increase by a tangible amount.

The physios and drivers will have a rough idea of how much faster the cornering speeds will be from the simulator, and that will help them train harder. Sergio Perez raised a very interesting point that some drivers could suffer in pre-season testing if teams do the 600km (370-mile) days we saw last year. A driver's neck gets stronger through the season, as he does more driving, so there could be a few sore people in pre-season testing.

It's also important to look at the physical demands on the mechanics. The drivers have physios and are looked after very well by the teams, while the mechanics travel in economy, don't have massages twice a day, spend the whole day on their feet doing physical work, and now have to do pitstops with wheels and tyres that as a set will be about 6kg heavier than last year's. The teams who have worked hard on their fitness this winter will start the season with better pitstops.





WHAT ABOUT THE BATTLE BEYOND THE TOP THREE TEAMS?

The midfield battle between Force India, Williams, Toro Rosso and McLaren was very entertaining to watch in 2016, with Haas also occasionally able to throw its hat into the ring.

Force India did a very good job last season and, pound for pound, was

probably the best 'value for money' team of 2016. The battle for fourth place really started to swing in its direction as the season went on, as Williams couldn't get its updates to work as effectively as the Silverstone-based squad.

I really rate the Force India technical chief Andrew Green. He's a very clever and sensible character, who clearly builds a good team around him. He knows how to lead a structured development programme — not just on the current car during the season, but crucially in the design and manufacture of the subsequent year's car. How he hasn't yet been poached by one of the bigger teams is a bit of a surprise, or maybe just a matter of time.

It does appear as though Paddy Lowe will return to Williams fairly soon. I remember speaking with two Williams stalwarts, Patrick Head and Frank Dernie, about Paddy last year and they both concurred that he was one of the smartest people ever to work at Grove. Formula 1 is no longer a one-man show, but it's

still very much a people business, where good people attract other good people and can offer good direction.

Paddy will come with plenty of recent knowledge of how Mercedes operates in terms of what simulation tools it has, what its downforce targets would have been, how its engineering groups are structured, and so on. Of course, it will be impossible to implement everything at Grove without having the budget of a manufacturer team like Mercedes, but the team will certainly benefit from having Paddy back.

Lance Stroll comes into 2017 as the best prepared rookie in terms of testing mileage since Hamilton a decade ago, and the un-retired Felipe Massa will be a useful tutor for him. Many people have been quick to dismiss Lance as a sort of pay-driver, but I personally think that we should reserve judgement until the season gets going.

Toro Rosso should be in better shape with the Renault power unit now, as well as stability on the driver front. Daniil Kvyat will benefit hugely from the winter break and I hope to see Carlos Sainz Jr carry on his form from 2016. I genuinely believe he was one of the stars of the season.

"Willia benefit hugely from the winter break and I hope to see Carlos Sainz Jr carry on his form from 2016. I genuinely believe he was one of the stars of the season.

Renault publicly declared it would need until 2018 to start to reap the rewards of its late re-takeover of the Enstone squad, but even so I'll bet the sight of yellow cars on the back row of the grid on occasions last year didn't please anybody in the boardrooms in Paris. The departing Frederic Vasseur is a smart guy and a real racer. The fact he didn't last

Midfield scrap is intriguing, while Green (right, with Mallya) is underrated

"Williams will benefit from having Paddy Lowe back"





more than a year is a sign all is still not settled in terms of the structure of the team, but hopefully Renault will have a better season as the sport needs every manufacturer to be competitive.

On the whole, I thought Haas did a very good job in its first season of F1. Sure, people from other teams grumbled about the support it received from Ferrari, but in the end Haas scored points and got its cars into Q3 on occasions, which is a great achievement for a start-up team.

Back in 1998, Sir Jackie Stewart commented that the second season was much harder than the first for his eponymous team. The challenge of designing and building a new car alongside racing the current one is a big one, and I'm intrigued to see how the American squad can build on its solid base.

F1 2017 PRE-SEASON CALENDAR

LAUNCH DATESRED BULLFebruary 26SAUBERFebruary 20TORO ROSSOFebruary 26

RENAULT February 21 TESTING DATES

FORCE INDIAFebruary 22TEST 1February 27-March 2MERCEDESFebruary 23TEST 2March 7-10

FERRARI February 24 FIRST GRAND PRIX

McLAREN February 24 AUSTRALIAN GP March 26

FASTEST BARCELONA TIMES 2016

	POS	DRIVER	TEAM	TIME
	1	Kimi Raikkonen	Ferrari	1m22.765s
	2	Sebastian Vettel	Ferrari	1m22.852s
	3	Nico Rosberg	Mercedes	1m23.022s
	4	Nico Hulkenberg	Force India	1m23.110s
	5	Carlos Sainz Jr	Toro Rosso	1m23.134s
	6	Felipe Massa	Williams	1m23.193s

F1 teams' crucial fortnight

Why the next two weeks are critical ahead of this year's major changes

By Gary Anderson, Technical Consultant

y @autosport

he 2017 Formula 1 season is almost upon us, and with the first of the new cars set to emerge next week, nobody really knows where they stand.

There's a lot of smoke and mirrors

in F1 and every team will believe they have made more progress than their direct competitors. But right now the pressure is on the teams, as even the

last two weeks before your new baby hits the track for the first time are vitally important to how the season unfolds.

Most of the teams will be able to get a car up and running for the first test easily enough. But if anything goes wrong with any component, the car can be compromised while modifications are made. That's why parts will be arriving in Spain thick and fast. It'll be a busy week, so don't expect any cheap flights!

It will probably be the last day of the second test before we see what might be considered the Australia-spec packages. I can assure you that anyone saying what they run in Australia will be very different from the end of Barcelona testing is in trouble and are attempting the 'miracle fix'.

When you have major regulation changes, every day brings something new to the performance table. But the need for detailed design work and manufacturing lead times means decisions need to be made at the point where components actually need to be signed off.

That's why the component you have when the car hits the track isn't necessarily perfect, it's just the best design you had at the point when manufacturing needed to start.

Most teams concentrate on reducing their manufacturing times. Actually, this is just as important as component research. It's no good having components lined up and ready to go being delayed by a manufacturing problem.

Teams have grown dramatically over the past two decades. When I started my F1 career at Brabham in 1973, a two-car team comprised around 12 people. Eight would travel to the races, with four back at base making a few bits.

In 1991 we started the season with 27 people at Jordan and most of them travelled. By the end of the season we were up to around 40 people. Now a small team is knocking on the door of 300 and a big team is around 800! A lot of this explosion in man/woman power is in the areas of design and research, but the



main difference from a small to a big team is in manufacturing.

A good example of the impact of this would be if Force India came up with a new front wing. It might take it a month to get it made, but a big team like Red Bull might be able to do it in a week. In the research and design areas, the extra resource gives the bigger teams more opportunity when they are researching a new concept. I always think of it as arriving at a roundabout with three exits. I know I want to get to the beach, but I don't know which direction to go.

Well, the big teams have the personnel to head off down all three exits. When one gets to the mountains, they can stop and head in a different direction knowing that isn't the way to the beach. Another gets to an inland city and closes off that line of research. They both know that another part of the team will have got to the beach.

For a small team, it's much more difficult. They get to the same roundabout, but only have the people to take one road. So you have to make a choice as to which way to go.

Pick the correct one and they get there just as quickly and effectively as the big team. But take the wrong one and it takes so long to turn around and find another route that you're stuck with it for the season. So if you're running a small team, get out of the car, let the sea air blow in your face, smell the salt and then head in that direction.

In the design stage, luck doesn't play such a big part. It's simply about optimising the concept that you commit to. Do that and maximise its potential and you will normally be in the mix somewhere. A concept that is correct always feels good as it gives you returns from every windtunnel or CFD test. When you build that kind of momentum, everybody feels it.

If your concept isn't correct, it's like pulling teeth from a chicken. Nothing you do takes you anywhere, so if it gets like this the sooner you bite the bullet and change direction, the sooner you will recover. Keep going on the wrong path too long and it can adversely effect the whole year.

That's why 2017 is such a challenging season. Next year will be different as the die will already be cast in a certain direction and everyone's eyes will be open. But it's never a good methodology simply to copy others, because you don't necessarily know why a team has gone in that direction.

I remember speaking to Adrian Newey way back when he



was at McLaren and we were talking about Ferrari's three-main-element front wing. He was saying he didn't understand why Ferrari was running it, as every time McLaren tried it in the windtunnel it lost downforce.

Just look at front wings now, with six or seven main elements commonplace. What a difference a few years can make to the thinking. And with such big changes, there has been plenty of need to think about how you approach the cars.

Rule changes of this magnitude come along at regular intervals. For 1994 driver aids such as active suspension and traction control were banned. In 1998 narrow-track cars and grooved tyres arrived, then in 2009 the massively simplified aerodynamic regulations transformed the look of the cars.

In 2012 the ungainly stepped section between the nose and the chassis appeared, before the switch to the low frontal area a year later. Then, for 2014, we had the unprecedented introduction of an all-new multi-element power unit, controversial because of the loss of the shrill and exhilarating engine nose and its replacement by what sounds like one with a silencer or two on it.

Most of these changes brought some degree of controversy, but teams just have to accept that it is what it is even though I'm not convinced any of them did anything to improve the show. And that is the important thing.

Bigger teams can still be caught out, but it's the smaller operations that will struggle to react to a poor start

Problems will be discovered early on by drivers and engineers, but the on-track work is always slightly behind the design phase in the factory F1 has to remember it only exists because of the fans and if these people stop watching, the sponsors and the teams' budgets stop coming in. F1 could be a glacier melting far quicker than the however-many-terabyte CFD computers could ever have predicted.

Let's be honest, new F1 owner Liberty Media isn't in this for the fun of the chase. It is cash, plain and simple, that it's after and those involved won't stand around twiddling their thumbs if the bank balance isn't going in the right direction.

Over the winter we have heard a lot of opinions on the new regulations. But good, bad or indifferent, they are what they are and it's down to the individual teams to interpret them as best they can. With wider cars and lower wings, as well as the wider Pirelli tyres, the cars should look a bit more racey, which can only be a good thing.

So the question is, will we see runaway victors as we did in 2009 with Brawn, then Red Bull from 2010-13 and Mercedes since then? Or will it do what we all want and bring the field closer together?

A lot of people, me included, don't think it will have that impact. But only time will tell. Whatever happens, with new ownership in Liberty Media, Bernie Ecclestone sidelined and Ross Brawn on board, what takes place in 2017 is going to be very important for F1. **





The day Andretti shocked NASCAR

Despite many elements being against him — including members of his own team — 50 years ago this month Mario Andretti won the Daytona 500

By Mark Glendenning, Special Contributor

y @m_glendenning

he five grainy minutes of black and white video from the 1967 Daytona 500 that survive today seem woefully inadequate given the significance that the race has taken on in the years since. But they're enough to provide a few hints.

There's the incredulity in the voices of commentators Jim McKay and Chris Economaki when Mario Andretti opts not to pit during an early caution. There's a glimpse of internal politics when Andretti appears to be intentionally delayed by his own team during a fuel stop. We see an extraordinary late restart, again by Andretti. And finally a gloriously understated reaction at the end from McKay, who records the race's final moments as if he were observing a Vauxhall Corsa reversing into a parking space: "Mario Andretti is ready to take the chequered flag... and there it is. He made it."

But the 1967 Daytona 500 was so much more than all that. Andretti was still relatively early in his career, but his reputation still preceded him when he arrived at Daytona Beach. He was a two-time — and reigning — USAC Indycar champion who'd won rookie of the year at the Indianapolis 500 just two years earlier. And he wasn't a stranger to Daytona either, having participated in the '66 race in a Chevrolet Chevelle run by Smokey Yunick. That experience didn't deliver much from a performance

standpoint, mostly because Yunick decided to treat his charge as a guinea pig for some of his more creative set-up ideas. (Andretti later told an interviewer that the car "was fast, but it was like a pogo stick in the corners... [Yunick's] philosophy was weird about the dynamics of the banking as far as suspension set-ups".) But it was experience nonetheless, and it proved valuable when Andretti returned 12 months later.

History has since cast Andretti's 1967 Daytona 500 win in a starring role on a CV that ranks comfortably among racing's most versatile. Although the boundaries between categories were more blurred then than today, where contracts often prevent drivers from racing elsewhere in their spare time, drivers were still informally divided into camps. And as predominantly a road-racing guy, Andretti was viewed by the stock car brigade as an outsider. But he was an outsider with Ford backing, which opened up a lot of possibilities.

"I had a good relationship with Ford," Andretti says. "I was driving the sports-prototypes in the Le Mans programme, and I had Ford power in the Indycar, so anytime I expressed a desire to compete in Can-Am or stock cars at Riverside or whatever races were interesting to me, they would accommodate it.

"I always wanted to do something. If there was a weekend where I had nothing else going on and there was something important happening over on the other side [in stock cars], I'd say, 'I'd like to do it?"

At a superficial level, Ford's commitment seemed absolute. >>







"It's not that they

treated us badly.

They just didn't

want us to do well"

Andretti was given a car run by the works Holman-Moody team alongside that of Fred Lorenzen. ("Their golden boy," says Andretti wryly). But Andretti hadn't been at the track long before he began to notice that something was amiss.

"I learned a little bit about the politics as time went on, but in those days it was difficult to get information, especially if you were coming from open-wheel," he says. "It's not that we weren't treated well, or anything like that. But they didn't want us to do well, either.

"I certainly wasn't getting the good engines. I remember talking to Donnie Allison, and through practice I knew the speeds that I was doing and the revs that I was pulling and the gear that I had, and he said, 'You should be pulling 400 more revs'. I was pulling 6800, and should have been pulling 7200."

Andretti complained, but his protests were ignored. In an effort to reclaim some of the missing speed, he put an

extremely shallow spoiler onto the rear of the car for qualifying and, in accordance with the rules of the time, he'd be required to keep that same aero profile for the race. He found himself battling armfuls of oversteer — but the car was quicker.

All the while, he kept pushing for a better engine. Eventually, the situation came to a head.

"I said, 'OK, can I look at some dyno sheets?' And they said,

'Oh, the engines are all pretty much the same; they're all within five horsepower," says Andretti.

"So when the engines started coming in for the 100-mile qualifiers, there was one marked for [AJ] Foyt, and one for [Cale] Yarborough, and one for Lorenzen, and one for me, and I went and switched the tags. And they went, 'No, no, no, you can't do that'. I said, 'Well, they're all within five horsepower'. And they said, 'Well, you can't do that'. I said, 'Well, that answers my question'.

"Then I started going higher up, and finally Ford's Engine and Foundry [division] — they were doing the experimental engines. A guy by the name of Bill Innes [chief engineer] called and said, 'Mario, if you want an engine, you can use one of ours'. And I said, 'OK, yeah'. And John Holman said, 'Naw, that engine, you'll do 20 laps and blow up'. And I said, 'Well then, I'll go out in glory'.

"So we put in one of those engines and I started practicing at pole speeds, because my car was so fricken' loose. That was the

only problem — I had to race with that [spoiler]; and it's hard to compensate for the amount of downforce that I had to give up."

It was for this reason that Andretti adopted the radical driving style that would help define his race. So loose was his car, and so high was his line, that most of the NASCAR regulars took pains to keep themselves clear of what they figured could only be an accident waiting to happen. And that wasn't the only unconventional aspect of Andretti's game plan.

"The one thing I had to do was lead," he says. "If I was following I was all over the place; I had a really tough time [in traffic]. And I had to run high on the track. And they did not understand that, because in those days the cars were not very aerodynamic. Drafting was really the thing to do because you saved fuel, and you could pass at will. But I had to lead. So they all said, 'OK, go ahead, boy'. But it worked for me, because obviously I was playing a different game in their sandbox.

"And I didn't dare have anyone overtake me on the outside, because I would have spun. So I rode high. And what was happening was, for them to follow and not lose their front end aerodynamically, they had to ride just below me, just on my left corner. That was perfect, because that was actually making my car neutral. So the whole day just played perfectly. I think I started

12th, and I was up among the leaders very early."

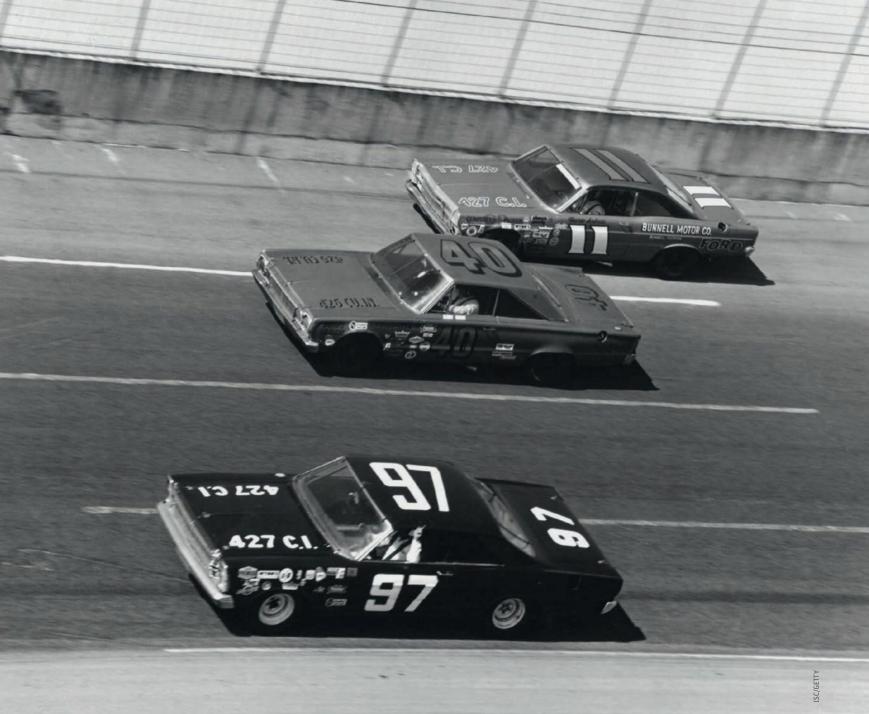
Unorthodox or not, the approach was working. Andretti had the car speed, and as the field thinned itself through a combination of spins and mechanical failures, it became incrementally easier for him to find the clear air he needed. But Lorenzen was still close behind when the pair made their final fuel stops. And that's where things got really interesting.

Andretti was first into pitlane, but Lorenzen was first out, by several seconds. To this day, Andretti remains convinced that was not an accident.

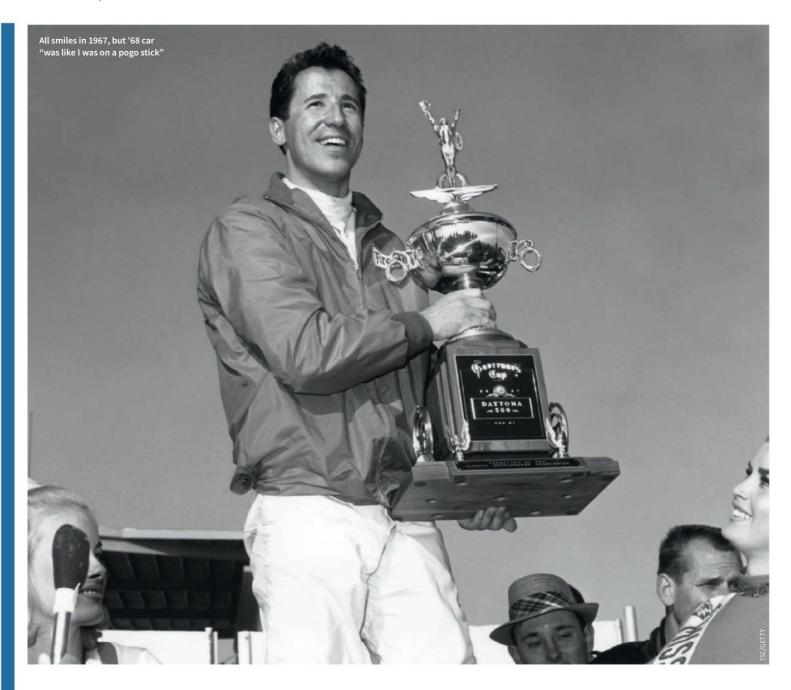
"They let him out of the pits seven seconds before me," he says. "They held me back, because for [Ford] it was more interesting to have him win than me. So they held my car up on the jack — and I now know who ordered that."

The late 'Suitcase Jake' Elder, the legendary car-whisperer who served as Andretti's chief mechanic at Daytona that year, reportedly revealed later that the order came from Ford's >>>

Above: celebrations were muted; above right: "fricken' loose" set-up meant Andretti had to run radically high on the track; below right: slow final pitstop was no accident, he reckons







AN ABRUPT END TO THE DAYTONA 500 LOVE AFFAIR

From the start, Mario Andretti harboured aspirations of making it into Formula 1, and the fact that he was just beginning to make inroads into the world championship at the same time that his NASCAR stock was at its highest goes some way towards explaining why he never embraced it to the extent that some of his Indycar rivals like AJ Foyt and Parnelli Jones did.

Even so, it seems remarkable in retrospect that, after winning at Daytona in 1967, his return the following year would mark his final appearance at the race. He was still with Holman-Moody when he rolled up in 1968 – but that was about the only thing that hadn't changed from the previous year.

First, and most crucially, his chief mechanic Jake Elder had left to work with David Pearson. Given that it was the short-fused Elder's propensity for moving teams that earned him his nickname 'Suitcase Jake' in the first place, this probably didn't come as much of a surprise. But not only had Elder been Andretti's mechanic, he'd also been one of the only people within the team who really had Andretti's corner.

"Losing Jake was very important, because the biggest problem was that I didn't have much time to test, and in 1968 they had a brand-new car, the Mercury Fastback, which was a bit tricky, and I didn't have any information," Andretti says.

"There was nobody in the team who really wanted to help you out. So you were on your own. In 1967 at least I had Ralph Moody on my car, and he was one of the owners of the team. And then Jake was really a good dude, and he knew

what was going on. So they helped me out; they gave me something decent to drive. And in '68 the car was not good at all. And after that, I was not interested."

The Mercury might not have felt good, but it was clearly effective to some degree – Andretti qualified back in 20th, but managed to make his way up to the lead. He was running second behind Cale Yarborough, who had recovered from earlier problems of his own, when he was eliminated in a crash that also took out frontrunner Buddy Baker. Yarborough, driving a Wood Brothers-prepared Mercury similar to Andretti's, won the race.

But for Andretti, the experience was enough to put him off returning to Daytona ever again – although he could have been tempted to change his mind had the right opportunity come his way. "I probably would have," he admits.
"But it would have had to have been just the right situation. So many factors were in play in 1967 that I was able to take advantage of. That win was not a miracle – so many things went right, and I was able to take advantage of what I had. But my God, with that car in '68... it was like I was on a pogo stick."

His best shot at replicating his 1967 Daytona success came at the next NASCAR race he entered: at the Atlanta 500 in April, he was running third when one of his front tyres exploded and put him in the wall with just three laps to go.

Andretti made just seven more
NASCAR starts after his 1967 Daytona
win, with the best result coming the
following year – also at Daytona –
when he crossed the line 12th at
the Firecracker 400

stock car racing boss John Cowley. If true, this puts Cowley at the scene of two high-profile examples of team orders during that era: he was also involved with Ford's 1966 Le Mans effort, which famously included an unsuccessful attempt to produce a dead heat between the two leading MkIIs.

"Did I know that it was deliberate at the time?" Andretti says. "I had a pretty good idea. I knew the politics. So anyway, I chased Lorenzen down, and during the lapping situation I unstuck him from my bumper and he couldn't catch me again. I built up a lead and then a yellow came out two laps from the end, but by then I was 20s ahead so he couldn't do anything."

The response afterwards was... subdued. Andretti doesn't recall much in the way of a victory party from Ford, and Lorenzen wasn't full of high-fives, either.

"At the time, he obviously wasn't very happy," Andretti says. "It would have been the same if he'd come to Indianapolis and won ahead of one of us. Later on he and I became closer, but at that point I was too new for a veteran to open up to and allow that kind of camaraderie. That all came much later."

The world was quick to pick up on the theme of the stock car establishment being beaten in their own backyard by an upstart from open-wheelers. Andretti speaks of a South Carolina newspaper leading its report with the headline 'All of Dixie mourns Andretti's victory'. In fact, that headline appeared in the *Philadelphia Evening Bulletin* — a paper published in Andretti's

adopted home state of Pennsylvania, far from NASCAR's south-eastern heartland. As such, there's a good chance that it was intended in the spirit of celebration, rather than despair. But the underlying point remains the same: this was a significant achievement.

And while it wasn't one that was wildly celebrated by the NASCAR community at the time, Andretti insists that any rivalry between the racing camps was built upon a foundation of mutual respect. "Honestly, we developed a good camaraderie with all those guys, and we started encouraging the Allisons and the Yarboroughs to come to Indy," he says.

"We'd be talking and we'd say, 'Hey, why don't you come over to our side?' And they did. And I thought that was very healthy for the sport. They were very popular. It was good. Again, this feeling of not being totally welcome at the time was temporary. Racers are racers. I never felt like I wasn't at ease down there [in NASCAR]; I always had a great relationship with the [organising] France family, and they accepted me as a driver that enjoyed what they had to offer. I never felt like

I was totally out of place there. I really didn't."

The win was well-timed from a historical standpoint, because by the late '60s NASCAR was undergoing something of a boom. The manufacturers, which had collectively withdrawn from racing in 1957 in a response to the Le Mans disaster of two years earlier, were mostly back, although their participation was still subject to political fluctuations: Ford itself had boycotted the '66 season. TV coverage had been introduced earlier that decade and was expanding almost by the year, and Ford's return in '67 brought with it a lot of spectators — almost 97,000 braved the cold to watch Andretti triumph.

And yet not even a shock win in NASCAR's biggest race changed Andretti's underlying feelings about stock cars.

"They were really not my cup of tea, quite honestly," he says. "But I knew that others like Dan Gurney were quite successful in the road races — he was winning at Riverside almost every year. Parnelli Jones was successful over there, Foyt was, and I wanted to be one of them. I was curious about the versatility aspect and what it's like on the other side, and having these

opportunities with top teams made it very appealing."

In addition to NASCAR, Andretti was a reasonably prominent figure in USAC stock cars, which at the time used identical equipment to its NASCAR counterpart. He won a USAC stock car race at Mosport in 1967, and added further road course victories in the mid-'70s. Several drivers who went on to star in NASCAR originally came from

the USAC stock car ranks, including Paul Goldsmith and, coincidentally, Lorenzen, who was a two-time USAC champion. The series pioneered 500-milers at Pocono and also ran 500-mile races at Texas but began to decline when CART took over the sanctioning of Indycar events, and vanished in '84.

But Andretti had other priorities. Just a year after his Daytona win he made his F1 debut at Watkins Glen, setting him on the path that would make him a world champion in 1978. And in between he won another Indycar title and the Indy 500, both in '69. That year also marked his final NASCAR appearance: a one-off in the Motor Trend 500 on the undulating road course at Riverside in southern California, not far from where the Fontana Superspeedway stands today. He led twice before his engine blew up, leaving him to watch from the sidelines as Richard Petty went on to win ahead of Foyt.

Andretti was one of the few who was able to enjoy NASCAR as an indulgence; an occasional diversion from his day job as one of the sport's greatest road-course racers. Fifty years ago this year, he turned that into a seat among stock car royalty.



"This feeling of not

being fully welcome

Racers are racers"

was temporary.





that Crutchlow is about as expansive and opinionated a competitor as you will find in motorsport these days. But casual observers, without context,

could conclude that Crutchlow is arrogant. After winning his maiden MotoGP race at Brno last year, he said he was simply "playing with" his rivals. Win number two at Phillip Island two months later was followed by the comment that he "planned to come and win".

He has also blasted "tow artists" fixated on tucking in behind top riders in qualifying, promising to start a caravan club for them, sledged rivals for seemingly obligatory 'I am

struggles Honda was facing with its aggressive engine and MotoGP's switch to control electronics.

It's hard to think of too many other competitors who speak their minds on the record like Crutchlow does, and as regularly as he does, complete with good doses of humour and a cheeky grin. In a vast, growing sea of beige, he stands out.

"I've always gone along the lines of the same thing, I won't lie," he tells Autosport when the topic is broached. It's an answer that lasts four minutes without ever descending into a rant and could just about fill a magazine page on its own.

"I might not tell you the answer, and I'll tell you I'm not answering it, but I wouldn't lie, because lying's plain-faced >>

MOTOGP/CAL CRUTCHLOW











lying. Sure, I will go along the lines of what sponsors want, what manufacturers want, what your team wants. And if I get told not to say something, or I get told to say something, I will.

"But if I'm not told not to, or not told to, then I will express my opinion. If I feel there's something wrong, I'll say it. Sure, over the years — I've been around this game long enough, for 10 years — I've been told to an extent that I'm arrogant. I'm not arrogant, I'm just telling the truth.

"And if somebody calls me out, then I'm not allowed to call them back out?

"I can take criticism, fine. What somebody says about me, unless it's my manufacturer, unless it's my boss — as in racing terms — unless it's my sponsor or unless it's the people in my close circle around me, the rest is not going to affect my life.

"I'm not saying I pay no attention to it, but it makes no difference to me."

Crutchlow agrees that more riders should speak their minds more often, but he's been able to do the right thing when required. He says the only time he has encountered anything resembling trouble was with Ducati in 2014 — "It was a warning for one time in one room, for one meeting. And it was done, finished, I never did it again."

He notes some of his rivals play it straight down the line, "will not say anything, will not do anything", while others are more outgoing but "come across differently" speaking in a second or even third language. It is something, Crutchlow says, that motorcycle racing needs, with

Formula 1 already heading down that path.

"Why have I been with my sponsors, the same sponsors, for 11 years?" he adds. "Because I create press, create media and you have to be clever with stuff like that as well. You can't just be a motorcycle racer.

"I'm not the best motorcycle racer in the world. I've stayed in my job long enough and I've had good results here and there — not fantastic — but I've created a lot of press and that's the way this also works, rather than just racing a bike nowadays.

"There are also other riders that are the opposite, with a completely clean-cut image, which is fine. But I look at F1 and I think that we're seeing a change that they're going more — don't get me wrong, I'm not saying 'my direction' — but they're also saying what they feel.

"They say it live on TV in the car. And they know people can hear it, so I think that's swinging it a little bit. I think you have such a character with Lewis [Hamilton], the way he is as well, and he's not afraid to show his opinion or show his emotion. I think in MotoGP, a lot of riders are covering their own backs to keep their jobs.

"I think that motorsport in general is changing a little bit; I don't really see too many people complaining. You're going to have people on one side and people on the other side — great, that's the way it should be. You're entitled to your opinion. But I think the viewing figures show that it's good for motorsport in general."

That, Crutchlow says, has always been his nature. But

Far left: celebrating his breakthrough win at Brno. Above, top to bottom: on LCR test duty; dad Derek preps the pitboard at 2016 French Grand Prix; '17 test debrief. Above, right: testing shows Honda's still got a lot of work to do this year



"I've been told that I'm

arrogant. I'm not, I'm

just telling the truth"

perhaps that fact that Carl Fogarty — Britain's outspoken four-time World Superbike champion of the '90s — is described by Crutchlow as his racing idol is telling, pipping five-time 500cc world champion Mick Doohan, now-rival Valentino Rossi and former British Superbike protagonists Neil Hodgson and Chris Walker.

While his father Derek was a motorcycle racer, including in the two-wheeled World Endurance Championship, Crutchlow's interest in riding did not start as early as

many of his rivals. Growing up in the Midlands, football seemed a more likely path, and he had trials with several local clubs.

When he did start racing aged 11, and progressed through the junior ranks, he remained in

the UK rather than heading further afield, stepping into the British Supersport — which he won in 2006 — and then British Superbike Championships.

By the time Crutchlow left home turf to contest the World Supersport Championship full-time in 2009, he was 23. Far from old, but in a unique position compared to most of the riders who start what's now the journey from Moto3 to Moto2 to MotoGP as teenagers. Marc Marquez won his third MotoGP title last year as a 23-year-old, Maverick

Vinales is 22 and could well take this year's championship. Crutchlow made the next two years count, winning the World Supersport title in his first season and doing enough in his maiden — and ultimately sole — World Superbike Championship campaign to earn a MotoGP ride for 2011 with Tech3 Yamaha.

"I think it's easier to move from a [smaller] grand prix bike to a grand prix bike," he says of his career path. "Even more back then. Now I think it's not as bad — I think Superbike

is technically closer and the feeling of the bikes seems to be a lot closer to what MotoGP is now.

"If I had the choice I would have gone grand prix racing, as in 125cc, 25occ. But I never had the opportunity. I had

"It's difficult and you don't see it often enough that a Superbike or Supersport rider can come across. As I've explained many times, I took my opportunity when I got it, and I think I took the right decision then. Obviously I think I took the right decision now."

After finishing 12th in 2011 as a rookie, Crutchlow grabbed podiums in his second MotoGP season and more to go with >>>

to go the Superbike route, and [125cc and 25occ bikes] wouldn't really have suited my weight at that time.

"It's difficult and you don't see it often enough that

MOTOGP/CAL CRUTCHLOW

two pole positions in '13 on his way to what remains a career-best fifth in the championship. What looked a prize opportunity of a factory ride with Ducati in '14 followed, but it was hard work from the outset.

In the second round at Austin Crutchlow had "probably one of the biggest crashes of my career", breaking his right hand, an injury that shattered his confidence and plagued the rest of his season. Although he finished the year strongly, his career had lost momentum.

For its part Ducati was still picking up the pieces after Rossi's disastrous two-year winless stint, and was just putting things in place for its 2015 and '16 improvements, which eventually led last year to its first grand prix win since October 2010. Ducati also had its eyes on a young Italian talent, Andrea Iannone, who at the time was being groomed at the Pramac satellite outfit for a factory future.

Crutchlow could see the writing on the wall and elected to leave after just a single season, returning to life as a satellite rider with LCR Honda. While Honda's RC213V is the toughest bike he has ever ridden — Crutchlow says the Yamaha is "like smoking a cigarette riding around" by comparison — it was a happier union.

A podium and eighth in the 2015 points was followed by that breakthrough '16, during which Crutchlow ended a run of 35 years without a British winner in the premier class dating back to Barry Sheene in 1981, nearly four years before Crutchlow was born. He then won a second time to double his tally.

"I had no idea," Crutchlow admits, when asked if he was aware of the extent of the drought. "I knew that a British winner was before 2000. That was all I knew because I was watching it from 2000, that was it.

"It was nice to be the first one in a long time. I would have been very disappointed if it was someone else."

That victory was part of a year of two halves for Crutchlow. Struggling with Michelin's front tyre in its return as supplier, and battling to compensate for Honda's acceleration deficit, Crutchlow crashed in four of the first five races to sit 20th in the standings. Things got better briefly with two points finishes, before a day when Crutchlow will feel he could, maybe even should, have become a grand prix winner.

The Dutch TT at Assen was the first of last year's mixed-weather races. Crutchlow was in the lead pack in the first half of the race, but crashed on the opening lap after the red-flag period. While livid with his own downfall and missed opportunity, he got to parc ferme to congratulate 2015 team-mate Jack Miller on taking his first victory in a chaotic race, and was genuinely pleased for the Australian.

Crutchlow left the Netherlands 18th in the standings, but the next race in Germany signalled both the start of the second half of the season and an upswing in fortunes. Again, he could have perhaps won another rain-hit race, if not for staying out on wets too long while battling Rossi and Andrea Dovizioso for the lead. Still, he grabbed his first podium of the year with a fine ride to second.



He became a father for the first time during the ensuing summer break, but jumped the start of the Austrian Grand Prix and finished 15th after serving a penalty. Then came Brno. It was the third wet race in a run of four, and Crutchlow nailed his tyre selection to perfection. Always strong in wet or mixed conditions anyway, he favoured the harder compound and was patient as they warmed up, then charged through as the soft wets fell off in the closing laps.

"I was cruising around, I made the right choice and I knew the race would come to me in the end," he said after the flag.

Crutchlow had showed earlier in his career that he was capable of being part of the group of premier-class winners. The notion of 'aliens' in MotoGP — as in the absolute superhuman performers — has existed for a number of years. That group includes Marquez, Rossi, Jorge Lorenzo and now perhaps Vinales rather than Dani Pedrosa.

While Crutchlow will readily admit that he does not have the raw talent of the freakish Marquez — musing during 2016 Short stint with Ducati was difficult, but Crutchlow says he's happy with his efforts

Generation next

THE 70 DAYS BETWEEN CAL Crutchlow's two MotoGP victories in 2016 is a much more palatable window for British fans than the 12,782 days – and 532 races – between two-time champion Barry Sheene's last 500cc win at Anderstorp in Sweden in 1981 and Crutchlow's Brno breakthrough.

But there are renewed efforts to ensure that sort of drought is never repeated, led by MotoGP promoter Dorna. While Crutchlow is again joined in the premier class this year by Bradley Smith with the incoming KTM and Pramac Ducati's Scott Redding, as Sam Lowes steps up as a rookie with Aprilia, it goes beyond that quartet. It also goes beyond 2015 Moto3 champion Danny Kent in Moto2, and John McPhee (right) – who also won for the first time at Brno last August – in Moto3.

It even goes beyond Rory Skinner and Dan Jones, the Racing Steps

Foundation-backed 15-year-olds who will race in the Red Bull Rookies Cup and the Spanish-based CEV Moto3 Junior World Championship.

Dorna is working to create a new series to run in Britain from 2018 to help find and foster local young talent and put them on a pathway to MotoGP, following the template of the Asia Talent Cup that started in '14.

A former racer and key player in Casey Stoner's and Dani Pedrosa's junior careers, Alberto Puig has been tasked with setting up a one-make domestic series, the Spaniard having been an architect of the Asian class.

McPhee will race under the new British Talent Team banner in Moto3 on a factory-specification Honda, while former 500cc and MotoGP rider Jeremy McWilliams is also set to have an involvement in the push.

Having taken an unorthodox path to MotoGP – via British Superbikes and then World Supersport and Superbikes, rather than the junior grand prix classes – Crutchlow believes any additional framework will help young riders.

"We know how difficult it is to come across to MotoGP," he says.



that if the pair's factory and satellite Hondas were swapped in the middle of the night, their results would be the same — he is not a million miles away.

Then you have that mystical confidence, so much more important on two wheels than four. More so than work ethic, determination or experience, confidence can help riders reach new heights — or leave them flailing, in the case of Lorenzo's mixed-weather woes last year.

By his home race at Silverstone, Crutchlow had bags of it. He also had an updated Honda chassis, as part of his involvement with the Japanese manufacturer, even though rider and factory never quite sing from the same hymn sheet on how much support the LCR man gets.

Crutchlow claimed a dominant pole position in the wet and finished a strong second in the dry race. He started his 100th grand prix at Misano a week later, nabbing fifth-place finishes at Aragon and Motegi before winning again at Phillip Island.

While he was second when Marquez crashed in Australia,



Crutchlow was closing the gap after having to contend with early traffic, and he left with the dry win he craved. His season finished with a pair of falls at Sepang — where he was in the lead group in the wet — and Valencia, but seventh in the points still represented a significant turnaround.

Despite the swing of results and purple patch, Crutchlow finished the year feeling like he had ridden better in the first half of the season, and that 2016 was not even his best campaign in MotoGP.

"It was a good season, of course, but I honestly don't think it's my best season as such," he sums up. "I think I'm happy enough with the way it went, but I believe I had better years with Tech3. I missed the opportunities then to win, but I'm glad I got them this year. I believe I could've won on the Tech3 but I never took the opportunities, or something happened on the day that wasn't on my side.

"And I have to say my Ducati year was good. I took a podium, I wasn't on the best package at all and I was riding well, especially in the second part of the year. I've had some great moments in my MotoGP career and I've enjoyed every single one of them."

This year, for the first time, Crutchlow starts a season as a grand prix winner. How he fares will largely come down to how much progress Honda can make with its engine, having adopted a brand new philosophy and configuration in a bid to smooth things out. The end-of-2016 tests at Valencia and early '17 at Sepang suggest there's still a lot of work to do, but the 31-year-old feels immune to any extra expectation that comes with being a race winner.

"The expectation is there now [externally], that's for sure," he says. "But we know that it's not going to be easy this year. It's probably going to be tougher than last year. You've got strong riders on strong bikes — last year we saw nine different race winners, so there's nine different possibilities to win now. It's going to be interesting."

But, then again, it always is with Crutchlow. **

"As we know there is talk of a series to help kids get across to MotoGP. It's too difficult to make that step across without any help, and without an organisation behind you, without sponsors behind you.

"Maybe there's a kid in the UK better than any of us. But you just don't see it because there's not the opportunity. That's not to say our domestic series is not good enough, because [British Superbikes director] Stuart Higgs and BSB put on a great series, but I don't think it's the feeder to MotoGP, in honesty."

Crutchlow hopes the new push to aid young riders will help ensure Britain does not have to wait as long for its next MotoGP race winner.

"I will have absolutely no regret, or anything like that, about somebody else doing it now," he adds.

"I would be happy for a kid to do it, somebody that's coming up, or if there's somebody that's moved in. I'd like to see Sam [win]: that's a big ask, he hasn't even raced a MotoGP bike, but if I had a choice I'd like to see Sam be able to do it, and then these kids, if you can get some kids across."







WRC/SWEDEN

he telephone rang. A +358 prefix in the middle of last year meant only one thing: more drama in the ongoing soap opera that had become Toyota's

return to the World Rally Championship. This time? Another engineer had walked out? No. Not quite.

"It's not a Yaris." What? "It's not a Yaris. It's the new crossover thing." What, the C-HR?

Another nonsensical call delivered more madness. Very little seemed to make sense for a very long time as far as Toyota's new base in Puuppola was concerned.

And then we got to the launch in December and Jari-Matti Latvala and Miikka Anttila rocked up in jeans and sweatshirts. They'd dashed directly from the airport, having jetted in from the latest test.

By this point, eyebrows were no longer being raised. Instead, there was a growing sense of sympathy at the humiliation awaiting the woken giant on the Monte Carlo season opener just a few weeks down the line.

Then Latvala locked into a podium on round one. The service park offered a collective, benevolent pat on the head. That was a nice. But fortune had favoured the Finns.

Sweden would be different. Just wait and see. This allegedly flawed programme would be blown apart in the snow. That shows what anybody in the service park knows.

Last Sunday afternoon, with the sun high in the sky and the temperature heading south of minus five, the good and the great of the service park gathered to say sorry to team boss Tommi Makinen and his Toyota colleagues.

A big screen was showing all the action

FIA WORLD uvat ONEBET uvat.se Miikka Anttila

Toyota boss Makinen celebrates with his winners Latvala and co-driver Anttila

Toyota's last win in the WRC was in China 1999 with Didier Auriol from the powerstage and, soon enough, Toyota's first World Rally Championship win since Didier Auriol, and a Corolla in China.

Disbelief gave way to delight at what was a dream result for Latvala and the Yaris WRC. The winner arrived on the podium through a cloud of dry ice with the car in stage mode, popping, banging and loud as you like. But still the cheers drowned out the engine note.

This most popular of wins meant the rabbits could finally avert their eyes from the headlights. Toyota's return is complete.

And Latvala has joined the Japanese back at the top.

Neuville's nightmare

The final day belonged entirely to Toyota, but the Yaris had been shaded through Friday and Saturday by another spellbinding drive from Thierry Neuville.

Where was the Hyundai driver pulling these performances from? Just as he was through the mountains on round one, the Belgian was simply superb in the speed and ease with which he moved to the front and stayed there.

If there was a bit of a tussle with Sebastien Ogier on round one, nobody could touch him last week. To lift a line from Ari and his beloved RS1800, Hyundai has supplied Neuville with a glove for his hand.

Two years ago in Sweden, Neuville was at the top of his game and came within an ace of winning the event in an i20 that was no match for Volkswagen's Polo.

The intervening 24 months have taken Thierry as low as a driver can possibly go. But his Monte speed brought redemption, even if it didn't deliver the points it promised.

For two days in Sweden, Neuville was making good again. He walked away with this rally on Friday — an exceptional time on the second run through Svullyra where he quadrupled his advantage to a 24-second lead being a particular highlight — and controlled it beautifully through Saturday's forest stages.

Forty-three seconds up and with just a mile and a bit of trotting track, a brace of Likenas stages and a second shot at Torsby, he seemed to have this rally in the palm of his hand.

Then he dropped it.

Turning into a left-hander, he ran the i20 too close to a barrier made out of truck tyres. His studded left-front made contact and, with a degree of steering





"These things shouldn't happen on a superspecial stage when you are 43 seconds in the lead"

Michel Nandan

lock on, the force ripped the wheel open and tore the steering arm from its socket.

The crowd was silenced to the extent that you could almost hear the reaction from inside. "This can't be happening!" yelled Neuville. He'd woken from his Monte nightmare only to fall asleep and dream an even more impossibly unpleasant dream.

Hours later and after a chastening walk of shame into the Hyundai service park, Neuville's take on the matter was interesting: "It would be frustrating if I did a mistake and destroyed the car, but I was doing the perfect job and Nicolas [Gilsoul, co-driver] as well. We can't blame ourselves, we were missing some luck. Even if this is another mistake, you can see from the images that we were not pushing too hard.

"We had spent all Saturday with a

deliberate strategy to take things steady and to stay in control of the rally. We didn't want a repeat of Monte, but that's exactly what we got. I am so disappointed for the team, for Nicolas, and myself, but we have to put it quickly behind us."

Team principal Michel Nandan wasn't nearly so pragmatic. "I can understand this kind of thing on an event like the Monte," he said. "But not on a stage like this. These things shouldn't happen in a superspecial stage when you are 43 seconds in the lead."

Neuville's quotes prompted fascinating insight via a text message from a former World Rally champion: "If you put something down to luck, you'll do it again. If you take responsibility, you'll learn and do something about it. Champions take responsibility, almost blame anything they can." >>>



CITROEN OFF THE RAILS

LET'S REPLAY THAT TOYOTA MEETING AGAIN, Kris. What's the answer now? It's Tommi asking the question. Two years, three years? Money? No problem. Fancy signing to drive the Yaris?

Nobody, but nobody could have called this one. Two rounds in and Toyota has virtually doubled Citroen's tally and a Yaris driver tops the drivers' championship table.

So dark was Meeke's mood last week, nobody dared put the concept of turning back time to the Dungannon driver. They probably didn't need to – it's a consideration that has surely made its own way through his mind on more than one occasion.

So what's going on?

In short, Kris crashed again. But this time there's more to it than that. In Monte Carlo, the Citroen was excused for its white line-snorting rideheight and lack of efficiency in suspension. The Monte's the Monte.

But Sweden's a rally that demands both precision and traction-supplying suppleness from its dampers. Citroen really had neither.

Even at the Karlstad superspecial, the C3 looked like a handful. But once it was in the woods, it was a liability. If you've got a minute, have a peak at the onboards. Look at, for example, Thierry Neuville, and then compare and contrast with Meeke or team-mate Craig Breen.

There's no pizza being made in the Hyundai. Yes, Meeke crashed again, but right now the team needs to look closely at what's connecting the wheels to the chassis. Which car lost the most studs last week? The C3. So what's that going to mean for tyre wear on a hot rally in, say... Mexico?

And it's not only the suspension. Pre-season testing had supposedly shown the engine on the C3 to be the gutsiest, yet, when push came to shove, it lost out big time to the Ford in Sweden last week.

The wheels are far from off Citroen's return, but it needs quick and decisive action to keep them firmly where they should be.



THE STAR ON THE SIDELINES

RALLY SWEDEN WAS WHERE ANDREAS Mikkelsen wanted to be. But he didn't really want to be here like this. A guest reporter alongside Red Bull TV's Mike Chen wasn't what he had in mind for the second round of the World Rally Championship.

And, nice as it was to have last year's Rally Australia winner with us in the media centre, it was a terrible waste of a supreme talent. It made it slightly harder for Mikkelsen that his arrival in Karlstad followed hot on the heels of news that he wouldn't be driving a 2017 Volkswagen Polo R WRC after all. The FIA's decision not to grant a waiver for the car to be used by private teams hit the Norwegian hard.

"Everything," he reasoned, "that could have gone wrong, went wrong and last week was another punch in the face."

With Hyundai, Toyota, Citroen and M-Sport full, there's nowhere to go for Mikkelsen. And, right now, no 2017 car for him to hire. The prospect of driving a 2016-spec World Rally Car is not one that fills him with joy.

"I need to be in a 2017 car," he said. "I could find the budget to drive a 2016 car, but it would cost a lot and I would be fighting to finish eighth – it's not really worth it. To be honest, I'm a professional driver and I don't think I should have to pay to drive. I've done it before and I won't do it again. It would show the sport in a really negative way if I had to do this."

Asked how it felt to be standing roadside watching his colleagues fly by, he smiled thinly.

"Torture," he said, "just torture."

And what was worse was that it was the Toyota – the car he was most closely linked with – that looked the best to him.

"Jari-Matti [Latvala] looked really good where I was standing," he said. "But I don't want to stand there much more. I will be back and I will be fighting for the title next year."





"I told Jari-Matti to go to the car and enjoy it. I told him to enjoy his work"

Tommi Makinen

You wouldn't have found many arguing with such sentiment on Saturday night.

Neuville aside, obviously.

The accident was stupid and unnecessary. And now the world awaits Mexico next month with even more interest. Can Neuville finish the job he's twice started or will he bag the most horrible of hat-tricks on the season's

first showing on gravel?

Having heaped praise on Neuville for his pace through the first two days, it's worth remembering he was running in the most favourable conditions on both days. But still, he had the speed and — for the most part - the absolute composure to win this rally.

Looking at Hyundai's bigger picture, the Koreans look like they might have just edged M-Sport's Ford Fiestas in terms of speed from rounds one and two (remembering the caveat that it's still far too early to judge anything...). Dani Sordo was his usual supremely consistent self to collect more points for fourth and Hayden Paddon returned from a genuine Monte nightmare with some strong times and a typically and expected strong attitude.

Make no mistake, once Neuville finds the finish as well as his form, Hyundai



makes the strongest possible case for the manufacturers' silverware.

Latvala's Sunday drive

On hearing of his rival's downfall, Latvala's first thoughts were of a possible win. But, being the lovely fella he is, his second thoughts were for Neuville.

"You remember," he said, "I have been there as well..."

An ever-so-slightly vacant look appeared in Latvala's eyes as he was taken back to the nightmare of Poland, 2009 — a mistake that almost cost him his career. He kept his seat, but lost his mind for more than a while afterwards.

Such thoughts and memories were kicked into touch. Just after six on Sunday morning and Latvala was a bundle of energy. Up on his toes, bouncing. It was minus 12, but he was jacket-less as he stepped towards the car. Senses had been numbed by the greatness of the occasion.

Did he sleep? "I have been here before,"

he smiled, "I'm not so young boy anymore. Of course I slept."

The response was the same from the ice-cool Ott Tanak, whose sole aim was to lift 3.9 seconds from the only man ahead of him and his Fiesta WRC.

This one was impossible to call. On the faster, icier stages of Saturday morning, Tanak had been unbeatable. Privately, Latvala feared more of the same with three to go.

The leader was over the moon with the conditions: solid ice. If there's one thing JML likes it's plenty of grip at the front when he's slowing the car down — he's among the most aggressive on the brakes and he feeds off the feel fed back from the front on turn in.

From the first corner, this deal was done. Latvala loved it. Full of confidence, he took more and more time out his rival: seven seconds on the first run at the 13-mile Likenas stage, nine on the next. With only the powerstage to run, he had a 20-second advantage.

Neuville was in control until he crashed on Saturday night's superspecial stage And then for the icing on the cake: the hat-trick. Fastest on the powerstage. A la Ogier. Perfect.

"I was lost last year," said the winner.
"I was going in circles." Now? He's found.

Did Volkswagen kill him with kindness? Perhaps. The all-enveloping arm around him ensured there was a shoulder to cry on, but Makinen's more route-one guidance looks to have struck a chord.

Out spectating, Makinen could see his man hesitating in some sections. He took him to one side.

"The car," Latvala told his boss, "feels a little bit nervous."

"No," came the response. "It's you that's nervous. Don't be."

Predictably, Latvala has a theory on the Makinen management style: "The difference between [former VW boss]
Jost [Capito] and Tommi is that Tommi was driving not so long ago and as a rally driver he has won four titles. He knows exactly what goes through your mind >>>



when you are fighting for the victory or when you are frustrated. He has been able to jump in my shoes and help me get my feeling."

What were the words of wisdom? "He told me to drop my shoulders and drive."

Asking Makinen about this in the hours that followed the finish, he grinned.

"It's true," he said. "I told him to go to the car and enjoy it. I told him to enjoy his work."

Moving on, Makinen paid tribute to his team and then paused. He knew the debt of gratitude he owed to Latvala. Before Volkswagen's decision to walk away from the WRC, he was staring at a team led by Juho Hanninen — a likeable Finn, but one who has, nonetheless, stuck his Yaris in the trees for the second event in succession.

"Without Jari-Matti we couldn't do this," he said. "Very clearly I want to say, he was the strongest man in the world this weekend. He has... sisu [grit]."

There was no denying Latvala's inner strength. He looked confident, walked tall and controlled proceedings perfectly.

New dawn or false dawn? Only time will tell, but it's more than fair to say the former would definitely be favourable for one of the sport's most popular drivers.

A man with a plan

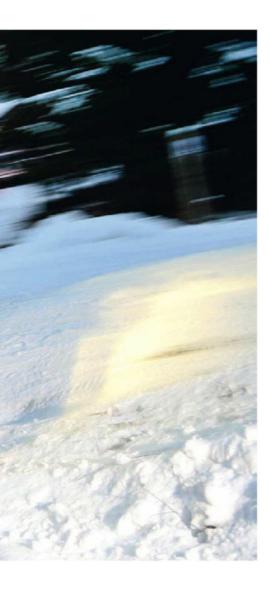
If Tanak couldn't take Latvala, there was a school of thought that insisted his M-Sport team-mate Ogier would. This one had the Frenchman's name written all over it in what would be a repeat of his heroic victory on these very roads two years ago.

Certainly, Ogier was fired up for it. He fancied a shot and the 16 seconds separating him from the front was nothing in comparison to the Tanak kept Latvala on his toes with immense speed through the faster, icier stages but couldn't catch the Finn mountains he's climbed some Sundays.

Incredibly, his challenge lasted 50 metres into the first stage. "I tried to take too much in the first corner," he said. "I took the snowbank on the inside and I spun, then I stalled. It was stupid, probably the most stupid spin ever."

As championship leader and first on the road, he had suffered on Friday, but throughout the event he genuinely had the look of a man with a plan. Ogier's never going to be happy if he's





not winning, his DNA simply won't allow it, but he and co-driver Julien Ingrassia have come to this season with a slightly different mindset.

Winning remains the ultimate target, but the move to M-Sport and an early season lack of familiarity in and out of the car means they have to be clever. Having shown a cheetah's speed for years, a more fox-like approach was found in his decision to throttle back in the powerstage in an effort to allow Latvala the lead of the championship and the 'honour' of running first on the road next time out in Mexico.

While Ogier slipped from the top of the table for the first time in three years, the consolation was that M-Sport stood firm as leading the manufacturers' points. And, even better, on the stage where power told its own story, the Fiestas were one-two.

Further down the order, the DMACK-shod Ford of Elfyn Evans struggled to keep pace with its Michelin rivals, but still there were split and stage times to cheer the Welshman.

There wasn't much cheer to be found at Citroen. Pre-season, the French firm was considered the returning force to be reckoned with, but so far it's Toyota that's shown it's good to be back.

RESULTS 2/13, RALLY SWEDEN, FEBRUARY 9-12								
POS	DRIVER	CO-DRIVER	TEAM/CAR	TIME				
1	Jari-Matti Latvala (FIN)	Miikka Anttila (FIN)	Toyota Gazoo Racing WRC · Toyota Yaris WRC	2h36m03.6s				
2	Ott Tanak (EST)	Martin Jarveoja (EST)	<i>M-Sport WRT</i> · Ford Fiesta WRC	+29.2s				
3	SebastienOgier(F)	Julien Ingrassia (F)	<i>M-SportWRT</i> · Ford Fiesta WRC	+59.5s				
4	Dani Sordo (E)	Marc Marti (E)	<i>Hyundai Motorsport</i> · Hyundai i20 Coupe WRC	+2m11.5s				
5	Craig Breen (IRL)	Scott Martin (GB)	Citroen Total · Citroen C3WRC	+2m51.2s				
6	ElfynEvans(GB)	Daniel Barritt (GB)	<i>M-Sport WRT</i> · Ford Fiesta WRC	+5m26.6s				
7	Hayden Paddon (NZ)	John Kennard (NZ)	<i>Hyundai Motorsport</i> · Hyundai i 20 Coupe WRC	+5m31.2s				
8	StephaneLefebvre(F)	Gabin Moreau (F)	Citroen Total · Citroen DS 3 WRC	+7m14.7s				
9	Pontus Tidemand (S)	Jonas Andersson (S)	Skoda Motorsport · Skoda Fabia R5	+9m11.1s				
10	Teemu Suninen (FIN)	Mikko Markkula (FIN)	<i>M-SportWRT</i> · Ford Fiesta R5	+10m02.9s				
OTHERS								
12	Kris Meeke (GB)	Paul Nagle (IRL)	Citroen Total · Citroen C3WRC	+10m28.7s				
13	Thierry Neuville (B)	Nicolas Gilsoul (B)	<i>Hyundai Motorsport</i> · Hyundai i 20 Coupe WRC	+11m31.5s				
15	MadsOstberg(N)	Ola Floene (N)	<i>M-SportWRT</i> · Ford Fiesta WRC	+13m54.7s				
20	Valeriy Gorban (UA)	Sergei Larens (RUS)	$\textit{EurolampWRT} \cdot \texttt{MiniJohnCooperWorksWRC}$	+17m10.5s				
23	JuhoHanninen(FIN)	Kaj Lindstrom (FIN)	<i>Toyota Gazoo Racing WRC</i> · Toyota Yaris WRC	+23m05.6s				
31	$HenningSolberg({\sf N})$	Cato Menkerud (N)	Henning Solberg · Ford Fiesta RS WRC	+1h09m53.3s				
R	Lorenzo Bertelli (I)	Simone Scattolin (I)	FWRT · Ford Fiesta RSWRC	SS15-electrical				



DRIVERS' CHAMPIONSHIP

1Latvala 48; 2 Ogier 44; 3 Tanak 33; 4 Sordo 25; 5 Breen 20; 6 Evans 18; 7 Lefebvre 10; 8 Neuville 8; 9 Paddon 7; 10 Mikkelsen 6.

MANUFACTURERS' CHAMPIONSHIP

1M-SportWRT73;2 Toyota Gazoo Racing WRC53;3 Hyundai Motorsport40;4 Citroen Total 26.

STAGE TIMES							
STAGE	FASTEST	LEADER	SECOND				
SS1 SSS Karlstad 1 1.18 miles	Latvala 1m34.1s	Latvala	Neuville ++0.6s				
SS2 Rojden1 11.48 miles	Neuville 9m37.3s	Neuville	Tanak ++3.0s				
SS3 Hof-Finnskog1 13.21 miles	Neuville 10m10.3s	Neuville	Latvala ++4.6s				
SS4 Svullrya1 15.46 miles	Latvala 12m52.3s	Latvala	Neuville ++3.9s				
SS5 Rojden2 11.48 miles	Neuville 9m25.7s	Neuville	Latvala ++3.8s				
SS6 Hof-Finnskog2 13.21 miles	Neuville 10m06.4s	Neuville	Latvala ++6.1s				
SS7 Svullrya2 15.46 miles	Neuville 13m04.0s	Neuville	Latvala ++24.0s				
SS8 Torsby1 10.21 miles	Tanak 9m24.8s	Neuville	Latvala ++28.1s				
SS9 Knon1 19.64 miles	Tanak 13m45.5s	Neuville	Latvala ++30.6s				
SS10 Hagfors1 9.86 miles	Tanak 8m03.0s	Neuville	Latvala ++33.2s				
SS11 Vargasen1 8.87 miles	Tanak 8m20.7s	Neuville	Latvala ++32.8s				
SS12 Knon2 19.64 miles	Cancelled						
SS13 Hagfors 2 9.86 miles	Latvala 7m50.9s	Neuville	Latvala ++31.6s				
SS14 Vargasen2 8.87 miles	Neuville 8m07.5s	Neuville	Latvala ++43.3s				
SS15 SSS Karlstad 2 1.18 miles	Sordo 1m33.9s	Latvala	Tanak ++3.8s				
SS16 Likenas1 13.17 miles	Latvala 11m06.9s	Latvala	Tanak ++10.9s				
SS17 Likenas2 13.17miles	Latvala 11m06.3s	Latvala	Tanak ++20.0s				
SS18 Torsby2[PowerStage] 10.21 miles	Latvala 8m51.1s	Latvala	Tanak ++29.2s				



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RACE CENTRE



Randle takes dramatic title

TOYOTA RACING SERIES MANFEILD (NZ) FEBRUARY 11-12 ROUND 5/5

AUSTRALIAN THOMAS RANDLE snatched the Toyota Racing Series title at the final round in a dramatic conclusion to the five-week, 15-race championship.

The Melbourne-based 20-yearold, who will compete in LMP3 this year, had a healthy lead coming into the finale, but the second race of the New Zealand Grand Prix weekend threatened to derail his hopes. On the opening lap he banged wheels with Force India protege Jehan Daruvala, sliding into the grass and rejoining 15th.

"I thought, 'That's it, she's all over,' so I just went nuts," he said afterwards. But Randle fought back, reaching fourth by the flag.

Up front, Red Bull Junior Richard Verschoor won, while race-one victor Pedro Piquet moved to the top of the table by one point.

Daruvala and Piquet shared the front row for the 35-lap Grand Prix race, and the Indian driver made a perfect start to lead. On the final turn of lap one Luis Leeds and Christian Hahn came together, and Hahn rolled into the gravel trap, causing a restart.

Piquet only had to defend his second place to win the championship, but when he was unable to stay with Daruvala the chasing pack began to attack.

Kiwi Marcus Armstrong made a move on Piquet to snatch second place and Randle followed through to take third.

"After that I just drove for the championship. Marcus was fast, and Jehan had cleared out, so we made sure of the title," said Randle, who topped the table by five points from Piquet.

The Grand Prix weekend was also notable for a massive crash on Saturday, in which Invercargill's Brendon Leitch was an innocent party in a tangle between Leeds and Keyvan Andres. Leitch was launched into a spectacular barrel roll that smashed the front and rear suspension and tore the wings off his car.

"I saw the sky twice, the g-forces must have been massive," said Leitch the following day. He was ruled out of the Grand Prix when the locating studs holding a rear wheel on the car sheared. It's likely that the damage was a consequence of the Saturday crash.

The Grand Prix title went to a delighted Daruvala, who came to New Zealand looking to reignite his career and took 'bookend' wins, putting his name on the Lady Wigram Trophy at the opening round and the NZ Grand Prix Trophy last Sunday.

MARK BAKER

RESULTS

Race 1 1 Pedro Piquet 20 laps in 22m08.872s; 2 Jehan Daruvala +3.453s; 3 Marcus Armstrong; 4 Richard Verschoor; 5 Tom Randle; 6 Enaam Ahmed. Race 2 1 Verschoor 15 laps in 18m53.796s; 2 Armstrong +0.830s; 3 Piquet; 4 Randle; 5 Ferdinand Habsburg; 6 Taylor Cockerton. Race 3 1 Daruvala 35 laps in 38m43.048s; 2 Armstrong +0.855s; 3 Randle; 4 Piquet; 5 Verschoor; 6 Ahmed. Points 1 Randle 855; 2 Piquet 850; 3 Verschoor 843; 4 Armstrong 792; 5 Daruvala 781; 6 Ahmed 586.



IN BRIEF

NZ TOURING CARS

Holden driver Simon Evans continued his fine New Zealand tin-top season in Manfeild, taking two wins and a second place. He could have won the finale, but a slow pitstop enabled Sam Barry's Toyota to take the flag first, following a serious accident the day before.

TCR MIDDLE EAST

A Yas Marina double for Briton Josh Files on his first weekend in the series launched the Lap57 Motorsports Honda Civic driver into title contention. The reigning TCR Germany champion took pole and defeated Davit Kajaia's Alfa Romeo in race one before dominating race two. However, his wins remain provisional, pending ECU checks by the series' technical department.

UAE FORMULA 4

Briton Sean Babington and Swiss Fabio Scherer scored their first wins in the penultimate round of the series at the Abu Dhabi Grand Prix venue. Babington took the second encounter and Scherer won race four, while the other two contests fell to runaway championship leader Jonathan Aberdein.

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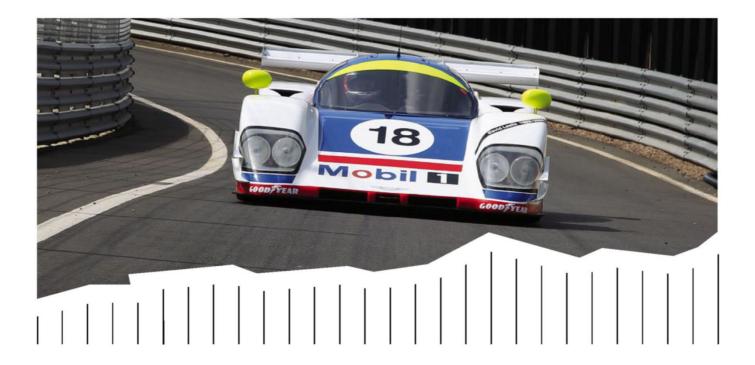
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1968	Rover 2000TC	No Reserve	1963	Sunbeam Rapier Series Illa	£15,000 - £20,000
1974	Ford Escort 1300 Mk1	£25,000 - £30,000	1980	Ford Capri Group 1 Ex-Alan Mann	£80,000 - £90,000
1996	Lotus Elise	£10,000 - £14,000	1968	Ginetta G16	£90,000 - £110,000
1956	Austin A30 HRDC	£33,000 - £38,000	1962	Alfa Romeo Giulia Spider	£38,000 - £44,000
1973	Triumph Dolomite Sprint	£20,000 - £25,000	2006	Radical SR3	£22,000 - £25,000
1965	Lotus Cortina Mk1 FIA HTP	£40,000 - £50,000	1963	Jaguar E-Type Roadster Lightweight Recreation	£75,000 - £85,000
1973	Ford Escort Mk1	£20,000 - £24,000	1960	Austin Mini Cooper 'S' Works Recreation	£15,000 - £20,000
1968	Chevrolet Camaro	£65,000 - £75,000	1972	BMW 3.0 CSL Batmobile	£100,000 - £125,000
1991	Reynard Formula Vauxhall Lotus	£10,000 - £14,000	1998	Mitsubishi Pajero Evolution ex-Dakar car	£15,000 - £20,000
1996	Honda Accord Super Tourer - Ex-David Leslie	£60,000 - £70,000	1984	Rover SD1 V8	£25,000 - £30,000
1987	Renault 5 GT Turbo	£15,000 - £20,000	1993	Cantrac Ultima	£15,000 - £18,000
1961	Emeryson Formula 1 Climax FPF (FIA)	£150,000 - £180,000	1963	Lotus Cortina	£35,000 - £40,000
1986	Ford Sierra RS Cosworth	£20,000 - £25,000	1973	Ford Escort RS1600	£65,000 - £75,000
2009	Westfield XTR2	£20,000 - £25,000	1998	MG Metro 6R4	£80,000 - £100,000
1972	MGB	£15,000 - £20,000	1976	Ford Escort Mkll - Colin McRae Rally History	£29,000 - £34,000
1973	Ford Capri 2600	£25,000 - £35,000	1980	Alfa Romeo Alfasud Ti Race car	£10,000 - £12,000
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1989	Aston Martin AMR1 'Group C'	£500,000 - £550,000	1973	Ford Escort Mk1 V8	£16,000 - £20,000
1966	Alfa Romeo Giulia Sprint GT - FIA Appendix K	£30,000 - £35,000	1967	Crosslé 12F Single Seater Racing Car	£18,000 - £22,000

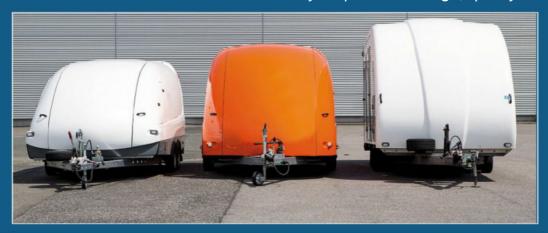
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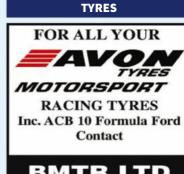
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HR080217 - ELECTRONIC SUPPORT ENGINEER

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Applicants should have current experience of F1 Electronics and Control Systems, including ATLAS and System Monitor. Experience using MATLAB will also be advantageous. Applicants should also have experience in all types of Electrical and Electronic installations, including MIL specification wiring installations and sensor technologies

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You will have excellent communication and teamwork skills as you will be required to interact with various departments across the Company.

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The ideal candidate will be responsible for delivering brake performance developments to the track; co-ordinating programmes with design, vehicle dynamics, aerodynamics, CFD, and test engineering groups. You will be able to deliver the highest standards of work whilst operating in a high-pressure environment.

RESEARCH AND DEVT. TEST ENGINEER

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Circuit of Wales receives funding boost

CIRCUIT OF WALES BOSSES HAVE submitted a new funding proposal to the Welsh government that could lead to construction starting later this year.

The project, which was first unveiled in 2011, secured permission to buy land in Ebbw Vale, Blaenau Gwent in November 2015, but received a major setback last April when the government confirmed that it would not underwrite it.

In July 2016 Welsh Assembly member and cabinet secretary for economy and infrastructure Ken Skates clarified that for the government to consider helping with funding, the Circuit of Wales needed to secure private-sector money for 50% of the project.

In a statement released last week, Skates said that the Heads of the Valleys Development Company — which is responsible for building the circuit — had submitted a new deal that "includes the names of the private investors and which they assert meets the criteria I set out in July".

Skates had last month "challenged the Circuit of Wales team to make faster progress with the proposals and to provide me with the names

of private sector investors to the project within two weeks, mindful of the time that had passed".

The Welsh government will now conduct due diligence and evaluate the new proposal before it gives the circuit the green light.

Skates' statement continued: "The due diligence exercise will include rigorous value for money testing and a fit and proper person assessment of the directors. It will also assess deliverability and the long-term sustainability of the proposal."

The project initially received £2million as a grant from the government, with subsequent efforts to secure additional contributions turned down.

The Circuit of Wales also issued a statement last week confirming that its new proposal meets the criteria set out by the government.

"The submission, developed with his officials over the past seven months, complies with [Skates'] stated criteria and demonstrates private sector funding support for the project," the statement read in part.

"This evidence has been provided to the

cabinet secretary to support the Welsh government guarantee for a minority of the funding for the project.

"The guarantee would be for less than 50% of the £425m Circuit of Wales scheme, a development that will be entirely funded by private investors in the project.

"We are now preparing to move to the confirmatory due diligence and final documentation process with the Welsh government and our partners.

"We are working to a proactive timeline and look forward to beginning construction by the spring of this year, bringing to life our vision of a world-class hub for motorsport, leisure, tourism and innovation, which will be transformational for the local community, generating employment opportunities; and helping to both stimulate and diversify the Welsh economy."

Circuit of Wales had signed a five-year deal to host the British MotoGP round between 2015 and '19, but the event is currently being held at Silverstone.

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BRITISH GT

Beechdean pulls out of British GT

BRITISH GT TITLE-WINNING SQUAD Beechdean AMR will take a sabbatical from the championship this year.

The team, which won the GT3 title in 2015 with Jonny Adam and team owner Andrew Howard as well as the GT4 crown, is competing in the European Le Mans Series, Le Mans and a number of other SRO-sanctioned events in '17.

In 2016, Beechdean's GT3 entry, shared by Howard and Ross Gunn, competed in six of the seven British GT rounds, missing Snetterton. Howard has stated that the right driver line-up did not materialise for the team in the run-up to the British GT season.

"If I'm honest, I want to run people who are right for the team," he said. "And with a proven record like we have in British GT, I want to make sure that's right. Unfortunately that hasn't pulled together."

Howard will compete in the European Le Mans Series this year — with Gunn and Darren Turner — and also appear at Le Mans. The squad has unconfirmed plans for racing in the Blancpain Sprint Series and at Spa. "Hopefully we'll be entering the Blancpain Sprint Series at Brands Hatch, and we're also looking at entering a Pro-Am car at the Spa 24 Hours," he said. "We're looking at other GT4 stuff too.

"I think we've tended to get so hooked on championships in the past that I think actually there are a lot of young drivers coming through that want to experience different kinds of racing."

The entry and drivers for Beechdean's assault on BSS at Brands Hatch is expected to be announced in the next two weeks.

BRITISH F

Simmons heads Arden's British F4 line-up



ARDEN HAS BECOME the first British F4 team to complete its driver line-up for this season, announcing Ayrton Simmons, Oscar Piastri, Yves Baltas and Olli Caldwell.

Simmons (left) raced for the team in the series last year, impressing in the final round of the season as he took second.

Australian Piastri has starred in karting and was second fastest in the first F4 collective test earlier this month. He is also competing in United Arab Emirates F4 this winter.

New Yorker Baltas spent the past year testing with Arden after competing in numerous kart series in the US, while Caldwell has become the second driver to commit to the series' new Challenge Cup. The former Ginetta Junior racer will make his debut when he turns 15 on the weekend of the Croft meeting in June.

GINETTA GT4 SUPERCUP

Higgins swaps FF1600 for GT4

TWO-TIME CASTLE COMBE FORMULA Ford 1600 champion Adam Higgins will switch to the Ginetta GT4 Supercup this season, while his father Bob will race the same G55 in Combe GTs.

Adam, 30, won the FF1600 title in 2013 and '14 and raced a Ginetta for the first time last year with a one-off appearance in the Welsh Sports and Saloon Car Championship when it visited Combe.

"The Supercup attracts me because of the high profile and the fact that they are so tight on the regulations," said Higgins. "We bought a G50 in July and did one meeting with it."

Higgins Jr will drive for Hurricane Motorsport in the Supercup, a new team that he has formed with his father — himself a four-time Combe FF1600 champion.



MINI CHALLENGE

Bladon and Barr to JCW Minis

SUNOCO CHALLENGE WINNER MAX Bladon and Irish karting champion Reece Barr are among the first entries for the Excelr8 Motorsport team in this year's Mini Challenge JCW Championship.

Reigning Cooper Class champion Bladon, 20, won last year's Sunoco Challenge and took part in the SportsCar Challenge race supporting January's Daytona 24 Hours at the wheel of an Aston Martin.

"I had been working on a deal to move into GTs, but then this came about and it seemed perfect," he said. "The JCWs run alongside British GT this year, so it's a big season for them and the entry is looking quality.

"The JCW has a lot more power, but I think it will suit my driving style better as you can be more aggressive with the car."

Barr, 16, graduates to the Mini Challenge having won back-to-back Irish karting titles.

VSCC

VSCC changes name for 2017 season

THE VINTAGE SPORTS-CAR Club's racing programme will be rebranded as Formula Vintage for 2017 in an attempt to broaden its appeal.

The 2017 season marks the 80th anniversary of the club's first race, which was staged at a pre-war Donington Park circuit on July 10, 1937. Formula Vintage's 2017
programme will feature five
UK race meetings at well
established venues to maintain
continuity. Its season starts
with a visit to Silverstone on
the April 22-23 weekend for
the GP Itala Trophy event, and
will include trips to Oulton
Park, Cadwell Park, Mallory

Park and Snetterton.

A core programme of six trophy races for pre-war and historic cars will top each card, showcasing Pre-1931 Vintage Racing Cars, Aero-Engined hybrids, Pre-1961 Racing Cars, roadgoing Pre-War Sports-Cars and Pre-War All-Comers Scratch and Handicap grids.



LMP3 CUP

Speedworks signs Butel for LMP3

SPEEDWORKS MOTORSPORT WILL enter this year's UK-based LMP3 Cup Championship after signing single-seater convert Jack Butel as its first driver.

The British Touring Car squad will expand into prototype racing this year after buying a Ligier JS P3, and the team is also planning entries in European prototype races.

Butel graduates to LMP3 after two seasons in FIA British Formula 4. His team-mate has yet to be confirmed.

"Single-seaters weren't working out for me and my ultimate ambition has always been to race at Le Mans, so when this deal came along it was too good to turn down," said Butel, 20.

"The step from F4 to LMP3 is big. This will be a learning year for both me and the team as we're both new to this form of racing and we both have to learn how the car works."

IN BRIEF



SURTEES CARS TO RACE RETRO

Two Surtees grand prix cars will join the display celebrating 50 years of the Cosworth DFV engine at Race Retro (February 24-26). The team's first F1 car, the 1970 TS7 (above), was raced by team owner John Surtees and won the Oulton Park Gold Cup. Meanwhile the TS14 from '72 has history in the hands of Mike Hailwood.

POMEROY TROPHY ATTRACTS 144 CARS

Saturday's Pomeroy Trophy at Silverstone has drawn a 144-car entry for the VSCC event. Spectator access to the circuit is free and the cars will be split into three groups for regularity trials on the Grand Prix circuit.

GOW TO RETIRE FROM MSA ROLE

Motor Sports Association chairman Alan Gow will retire from his position as the head of the British governing body at the end of this year. Gow, 61, has held the post since January 1, 2006 and has confirmed he will not continue beyond a fourth term.

MICK HOWLETT 1956-2017

Hillclimb paddocks across the country will be the poorer for the loss of Mick Howlett, who succumbed to cancer shortly after it was diagnosed. 'Pilbeam Mick' had been with Mike Pilbeam's company for 40 years, and was responsible for much of the day-to day running of the company's competition vehicles.

CLIO CUP DROPS DROPPED SCORES

Dropped scores have been axed from the Renault UK Clio Cup this season. In the past, drivers dropped their two worst results when the final points were calculated, but from 2017 all 18 Clio races will count.

BRDC SUPERSTARS ADDS NEW DRIVERS

McLaren Autosport BRDC Award winner Lando Norris (below) heads the list of new names added to the BRDC SuperStars scheme. He is joined by fellow European Formula 3 driver Callum Ilott, British GT driver Seb Morris and new British Touring Car Championship Team BMR recruit Ashley Sutton.



PEV/I AT

GT4 CHEVROLET CAMARO UNVEILED

Chevrolet has unveiled its new Camaro GT4 challenger, which will make its competitive debut in America this season before becoming available to teams. The car will be eligible to race in global GT championships, including British GT. It has been developed by Pratt & Miller, the same firm that manufactures and runs the Corvette C7.Rs that currently compete in the World Endurance Championship and Le Mans. The Camaro features a 6.2-litre V8 engine with an Xtrac sequential gearbox.



BRITCAR

Britcar WHT race to go ahead

FORMULA FORD WILL REMAIN THE PRIORITY at this year's Walter Hayes Trophy, despite a Britcar night race being added to the schedule.

Talks have taken place between event organiser the Historic Sports Car Club and Britcar, with the result that a two-hour race will be held after the WHT has concluded on the Sunday evening.

HSCC CEO Grahame White says the timetable will be otherwise unchanged and the main focus remains the FF1600 contests. "It has been agreed that a two-hour race running into the evening will happen," he said. "The timetable otherwise will be pretty similar as we have to finish racing by 1800, so the Britcar race will run to finish at about 1750.

"The event is predominantly the Walter Hayes Trophy and that must not be affected in any way. We will make sure it's not a problem and everything else will have to fit in around the [WHT races].

"I think [the Britcar race is] something a little bit different and they should have a reasonably good entry. There are still a few issues to sort out with the rules — it's not 100% yet, but I'm pretty sure it will happen."

The exact timetable for the meeting has yet to be drawn up, but qualifying for the Britcar contest is set to take place on Saturday, meaning the rest of the Sunday timetable will be unaffected. White added that the other HSCC support races will remain on the schedule.

"We will try to run all of the support races too," he said. "We will have a ladies race for closed-wheel cars and that will run to a handicap. That will probably replace one of the support races, but that will be the only change. It's a tight timetable but I'm sure we will get it in."

2CV RACING CLUB

2CV ADDS FUND TO RESTORE RACE CARS

THE 2CV RACING CLUB has put aside a £10,000 fund to restore cars with the aim of returning them to racing.

The BARC-aligned championship will be back at Snetterton for its 24-hour fixture this season, having raced at Anglesey for the past three years.

While grids for its sprint races have regularly numbered 20-plus, the 2016 24-hour race featured 16 2CVs from the UK.

The club intends to use the fund to help return cars to its grid, and has also given the 2CVs that contested the 2016 24-hour race a £250 entry-fee rebate.

"We've put £10,000 aside," said chairman Meyrick Cox. "In the past few years some parts may have gone out of date or [drivers] may need a HANS device; we've got a bit of money to support this kind of thing.

"It effectively funds itself, because if we get a car back on the track it pays entry fees and that goes back into the club. If you get an entry into the 24H, you can afford to put money into getting that car back out again."

FUN CUF

Four veterans will compete in Fun Cup with view to GT3 move

A NEW TWO-CAR TEAM FOR injured armed forces veterans will feature in the Fun Cup this season, with a plan to race in GT3 within three years.

Four veterans will drive a specially adapted car with hand controls, and aim to step up to GT4 in 2018 and GT3 in '19 with Team BRIT (British Racing Injured Troops).

The drivers are Andy Searle (24), who lost both legs in an IED attack in 2011, Tony Williams (32), who was shot

six times while serving in Afghanistan, Jimmy Hill (34), who was also shot in Afghanistan, and Warren McKinlay (35), who suffered a traumatic brain injury in a motorbike crash.

McKinlay believes that competing allows him a distraction from the difficulties of everyday life.

"I struggle day-to-day, I get quite easily overloaded and I do find it hard to concentrate on a single task," he said. "But with motorsport, once I pull on the crash helmet and jump in the kart or the car, everything goes away.

"I wish I could find a way of bringing over the way I concentrate in the race car to everyday life."

Team BRIT founder Dave Player added: "These people have been through trauma that the majority of us could not imagine, and deserve the chance to compete at the highest level like anyone else."





A level playing field for historic racers

By Marcus Pye, the voice of club racing



WINNING BY THE RULES SHOULD BE THE VERY BASIS

of any sport. To have beaten your rivals fairly and squarely should be a given, a badge of honour, an unimpeachable claim in whatever form of competition you chose to engage in. All too often these days we learn via the news that another oncehallowed sport has been sullied by cheating, state-sponsored doping, bet-rigging or even icons being exposed for taking banned performance-enhancing substances and disgraced.

Motor racing and rallying should, in an ideal world, be decided by the simple tenet of whoever passes the chequered flag first — or in the least time over a prescribed set of tests — is the winner. Sadly, it's not as simplistic as that these days. At the top level both are multi-billion-dollar sports in which the best-resourced teams are inevitably stretching the envelopes of vehicle performance to the limit while impecunious but no less ambitious rivals desperately try to keep up. Many respected players have been caught in the act, and paid a huge price, for transgressing the regulations, crossing the line. Others have been pulled up short and had spectacular ground-breaking vehicles stopped in their tracks by bans.

Engines have always been a greyer area. What goes on inside them, or indeed externally, either directly or through computer software-triggered electronic trickery, is an incredibly complex black art that successful manufacturers go to extraordinary lengths to protect. While nobody doubts that the internal combustion element of current Formula 1 engines (sorry, power units) displace 1600cc or run to a 15,000rpm limit, was that the case at the height of the three-litre Cosworth DFV era in the

late '70s? Or in F5000 where tail-enders could easily have run larger capacity Chevrolets with little risk of being found out?

We saw the occasional glitch in the F1 formbook when a 'development engine' altered the pecking order, and specialist builders of American V8s can hear a 'big un' at 100 paces. That's water under the bridge, but nobody wants or should attempt to justify tinkering to influence club or historic sport.

Most modern one-make championships are too well policed for mechanical advantages to slip the net, but diverse club and particularly historic racing have become such big industries in themselves that some combatants have lost sight of the reason why the vast majority do it: for fun and to celebrate what their heroes achieved in those gallant machines. Unfortunately it is sometimes only when a car changes hands that the hapless new owner uncovers a nest of vipers and is saddled with a large unbudgeted bill to correct the anomalies before use.

Motor Racing Legends has addressed the issue with an MSA scrutineer-led Engine Capacity Certification Programme — voluntary bore, stroke and capacity checks this season but mandatory later — across its Historic Touring Car Trophy and Tony Dron Trophy for Group 1 saloons, plus its long-running RAC Woodcote Trophy and Stirling Moss Trophy competitions for sports-racing cars built before 1961. MRL chairman Duncan Wiltshire and series scrutineer John Hopwood have masterminded the scheme, which will see certified cars eligible for awards and others placed into invitation classes where appropriate. A "positive response" is reported from competitors who seek no more than a level playing field. **



ERA R1B AT DAVID GOOD'S WAKE LAST WEEK

ERA enthusiasts among those attending 1961 RAC British Hillclimb champion David Good's funeral last Thursday were delighted to see the ex-Richard Seaman R1B, which the Berkshire ace campaigned in 1955-56, at the wake courtesy of owner Michael Gans and preparer Andy Wolfe. David's sons James and Jeremy, daughter Melissa and granddaughters Georgie and Lottie are pictured with the car.



THREE GRANDS PRIX FOR MASTERS USA

Masters USA's historic Formula 1 racers have been invited to support the Canadian GP this season, in addition to the end-of-season events in the USA and Mexico for the third year. The calendar, which opens at Laguna Seca in May, offers back-to-back Ile de Notre Dame and Mosport Park weekends in June, and the WeatherTech International Challenge with Brian Redman at Elkhart Lake's fabulous Road America circuit in July.

How F5000 cars can take on F1 machines

In the '70s, F1 cars tended to have the edge over their bigger-engined F5000 counterparts, but now the fight is more even

By Marcus Pye

y @Autosport



ormula 1 and Formula 5000 evolved from disparate gene pools on opposite sides of the Atlantic, yet had much in common, not least in performance. The concept of bespoke three-litre racing engines competing against five-litre stock-block sluggers was championed in Great Britain by its last visionary promoter, Motor Circuit Developments' John Webb, and

worked rather well, until double F5000 champion Peter Gethin beat Formula 1's establishment to win the 1973 Race of Champions at Brands Hatch.

Blinkered 'purists' may conveniently dismiss shock results as circumstantial, the product of conditions, entry, attrition, circuit or the day itself, but nobody in the grandstands on that March afternoon will forget the frisson of excitement as reality dawned. Gethin's blue Chevron-Chevrolet B24 was not going to be caught by 1967 F1 world champion Denny Hulme's McLaren M23 or future F1 star James Hunt's Heskethsupported Surtees TS9B, locked together in its wake.

British racegoers were fortunate as the 'swinging sixties' gave

F1 McLaren (right) and F5000 Lola (left) led the way in New Zealand last month



way to the '70s to enjoy a trio of non-championship F1 races to which it became expedient to invite the F5000 brigade: the BRDC's Daily Express International Trophy at Silverstone, the hallowed Oulton Park Gold Cup in the north, and the Race of Champions at MCD's southern outpost. Uniquely in '72, all three engaged the 'big bangers'. As good as top drivers in the 'second division' were, however, they didn't normally have a prayer of overall success — and F1's grandees wanted it that way.

Aside from Gethin's resounding victory over 13 F1 entrants in a 29-car field, only twice previously had an F5000 racer reached the podium, both times at Oulton. In '69's thin affair, Andrea de Adamich (Surtees TS5) growled home behind Cosworth-powered Jacky Ickx (Brabham BT26) and Jochen Rindt (Lotus 49); in '71 European champion-to-be Frank Gardner (Lola T192, with the futuristic F2-based T300 under development) placed third to John Surtees' TS9 and Howden Ganley's BRM P160.

If the opposing factions were probably more equal than they appeared, mechanical unreliability hobbled both. Originated in '67 within all-embracing Formula A in the USA — although Lou Sell (Eagle) was the first champion to use an American V8 engine in '68 — F5000 provided an affordable and marketable localised showcase for racers seeking F1 performance. The regulation demanding production engine blocks and cylinder heads meant cast iron for Chevrolet and Ford users (the stretched Oldsmobile/Rover was aluminium) and proved its Achilles' heel. Overheating and dropped valves were common causes of retirement.

Formula 5000 thrived in various theatres of war until the mid-1970s. The roll of honour is impressive. In the United States David Hobbs, Graham McRae and Jody Scheckter were among the champions before Brian Redman landed three successive SCCA titles in Lolas. Gethin was king in Britain, winning the inaugural crown in 1969 and defending it in '70 in McLarens. Belgium's Teddy Pilette — latterly Peter's team-mate — matched his tally, while Australian veteran Gardner, Dutchman Gijs van Lennep and Bob Evans all earned their spurs.

Spanning Australia and New Zealand, meanwhile, the Tasman Cup's F5000 era was a happy hunting ground for Kiwi Graham McRae — who landed a treble in a McLaren M10B, then eponymous chassis of his own design — that man Gethin again (in Count van der Straten's Team VdS Chevron B24), and finally in '75 by Australian Warwick Brown in one of the by then almost omnipresent Lola T332s.

While some chassis morphed into centre-seat Can-Am cars, F5000 rapidly faded into club racing obscurity in the USA. It lived on in the V8-mad Antipodes, though, sustaining international events and national Gold Star drivers' title races past 1980 in Oz. Gritty little Aucklander Ken Smith, who graduated to a muscular Lola T330 brilliantly, dominated New Zealand's '76 Peter Stuyvesant Series and, at 75, is still cleaning up in his favourite cars...

For more than a decade, the NZ F5000 Association has led the way in preserving the category's heritage with its Tasman Cup Revival series. With the planet's largest nucleus of the





leviathans — more than 40 over the twin islands — and the support of period aces Graeme Lawrence (1970 Tasman champ in the ex-works Ferrari 246T acquired from Chris Amon, another fan), Ganley and Smith, four times an historic champion, it's a crowd-puller. And it's gathering momentum again in Australia.

Last month, promoters at New Zealand's recently rebranded Bruce McLaren Motorsport Park welcomed the charismatic F5000s back for the first time in years, for the fourth of five championship rounds. Moreover, they climaxed the inaugural Taupo Historic GP event with a fascinating Race of Champions Revival match race against a handful of pre-'78 Formula 1 cars from Britain.

Two of the three F5000-only preliminaries were blitzed

by Smith in his ex-Danny Ongais Lola T332 (his period T330 is still raced in Australia by Andrew Robson), but the middle stanza harboured a surprise. In the most sensational historic F5000 race I've witnessed, and had the privilege to call as

"Hauling these monsters around any track quickly is an art"

commentator, Briton Mark Dwyer boldly rounded Smith and Clark Proctor (March 73A) at Turn 1 and narrowly held on to win in Neil Glover's Lola T330/332. Despite a brush of wheels that sent Smith's car airborne and bent a nose fin, he and Proctor continued to attack. Although he ceded the lead momentarily, Dwyer scored a superb victory.

It went down a storm with combatants and spectators, paving the way for the anticipated Race of Champions confrontation between Smith and FIA Masters Pre-'78 champion Michael Lyons, 26, in father Frank's ex-Jochen Mass/James Hunt McLaren M26-1 after water pump seal issues sidelined his programmed Hesketh 308E. Their best laps in the build-up were barely a second apart, Lyons' the quicker.

While the original rules of engagement remain, the balance of power has shifted in favour of F5000. After-market aluminium cylinder heads and better materials have transformed engine reliability and breathed far greater power into the American sluggers. Whereas a decent 302ci Chevrolet made perhaps 475bhp on four downdraught 48IDA twin-choke carburettors in the early '70s and towards 530bhp in crossover fuel-injected form by the end of the category's contemporary era, the latest powerplants develop much more.

Australian Bryan Sala, winner of the new Trans-Tasman element within the 2016-17 SAS Autoparts championship, which opened at Barbagallo and Sandown Park on his side of 'the ditch', is said to have 570bhp on tap in his slender Matich A50, now running a Chevy V8 in place of marque founder Frank

Matich's lighter original Holden-Repco, yet is still being outdragged. Indeed, the strongest Chevrolets are said to be well north of 600bhp, matching claims from the USA.

Ford Cosworth DFV F1 engines made a conservative

400bhp when Lotus 49-mounted Jim Clark won the Dutch GP at Zandvoort on the combo's debut in June 1967, but by the mid-'70s — when F5000 faded outside the Antipodes — outputs were rising towards 500bhp. In ultimate 90mm bore shortstroke spec, which took peak revs well past 11,000, it was closer to 530bhp. The Historic F1 engines are limited to 10,000rpm, thus earlier 'long-stroke' units are barely disadvantaged. They make around 490bhp, around 90bhp less than a decent Chevrolet.

Of course, the DFV loses out to its American rival on torque. Massively so, for while the Cosworth V8's lighter rotating masses spin up quicker, it makes little power before 650orpm when it comes 'on cam'. Close-ratio gears keep it singing



thereafter. The bigger, thirstier (think three miles to the gallon of high-octane fuel) Chevrolets, meanwhile, pull from a few hundred revs but run out of puff beyond 8000rpm. Interestingly, both Smith and Lyons were geared for 165mph on Taupo's longest straight and were almost as quick after the sweepers before the tight left onto it.

So why doesn't a top-line F5000 romp away from an equally well set-up and driven F1 car today? The answer lies in chassis dynamics. Mid-'70s F1s run to a period minimum weight of 575kg, with engines mounted low, as stressed members. F5000's lower limit is 1250lb (560kg), but while early lower-downforce cars may need ballasting to reach this, it is difficult to get the favoured Lola T332s, which carry a lot of bodywork, below 640kg. A few are 700kg-plus, with the 400lb iron-block engines sitting high, mated to bigger Hewland gearboxes to cope with the torque.

Hauling these monsters round any track quickly — let alone a challenging, technical circuit like BMMP — is an art, yet not as physical as you might think. At five-feet-two and 65kg, Kenny Smith is fit, but no all-in wrestler. He masters his finely poised Lola more subtly than most, balancing its hefty tail to minimise weight transfer and the potential for roll oversteer. Skilled operators like Lyons — a regular winner also in F5000s — can nail nimbler, grippier, F1 cars into corner apexes almost at will, on reflexes.

"I just had the legs on Michael down the big chute and nosed ahead a couple of times, but even braking as late as I dared, he was able to dive back under me," says Smith. "I thought I might have him when his third gear started to jump out, but he bounced back.

"My [old] front tyres lost grip towards the end but I've got to hand it to him, he's great to race against. I'm happy going wheel-to-wheel with Michael. I love winning, but have never had a problem being beaten in a great, clean, fight. He deserved it today."

Just as Peter Gethin did at Brands Hatch 44 years ago. 🚜

Dwyer (Lola T330/332) leads Smith (Lola T332), ahead of Proctor's March 73A in exciting F5000 race

A track worthy of Bruce McLaren

IDYLLICALLY SITUATED beneath Mount Tauhara, a dormant volcano whose summit is more than 1000 metres above sea level, New Zealand's only FIA Grade 2 circuit is a 10-minute drive from the stunningly picturesque Lake Taupo and its major holiday resort.

A club venue since the early '70s, the track was extended and upgraded to offer a 2.3-mile, 14-turn international layout for the A1GP championship's arrival in 2007 – a landmark event in which future F1 driver and Le Mans winner Nico Hulkenberg triumphed for Germany.

Its writhing centre section, replete with twists, undulations and tricky cambers, separates the aces from the rest in any car, but made for superb racing across the classes. Few competitors visited the hard-packed pumice-like volcanic sediment runoff areas, from which most drove out.

Although its entry was reduced to six F1 cars, following breakages at Hampton Downs the previous weekend, a highlight of the Taupo Historic GP was the first all-Irish F1 podium with James Hagan (Hesketh 308-1), Tommy Dreelan (March 761-4) and Frank Lyons (McLaren M26-1).

The facility also proved challenging for Super Touring, Historic Formula Junior and FF1600 and accompanied by a huge rock concert and the Thunder on the Lake powerboat races on Auckland Bank Holiday weekend. An earlier date of January 20-21 has been pencilled in for 2018.

WHAT'S ON



THE GREEN HELL. THREE WORDS, three syllables, have rarely stirred such emotion in motorsport.

The nickname afforded to the Nurburgring by Sir Jackie Stewart, *The Green Hell* is also the title of Hannes Michael Schalle's film about the legendary German venue and the history of events in the Adenau Forest that hits cinemas for one night only next week.

Watching first-hand as touring cars and GT3 machines hurtled down the Dottinger Hohe before slamming on the anchors was enough of a hair-raising experience during the Nurburgring 24 Hours weekend last year, so footage from the first ever race on the 'full' Nurburgring in 1927 early on in the film really rams home just what a daunting prospect the 'Ring must have been at the height of its notoriety in the '60s and '70s.

From the need for Germany to have a race track, built by Gustav Eichler in one of the country's traditionally poorer regions, to questions about safety that threatened its success as a venue during the golden age of motor racing, *The Green Hell* tackles an impressive number of topics relating to its past, present and future. But while a number of those are covered off in detail, it's the constraints of its 90-minute running time that ultimately leave the viewer wanting more.

A star cast of motor racing names were invited to talk about the track, and it's here where the film succeeds most.

The 1976 German GP was the final Formula 1 world championship race held at the track



Insights from the likes of Jochen Mass, Jackie Stewart and Stirling Moss not only paint a picture of the challenges of the 'Ring in period, but perhaps more crucially give a face and a voice to the stories that have played out on the Nordschleife that have come to define the circuit and, to a lesser extent, motor racing itself.

A lack of exploration into the success of reluctant Nazi hero Bernd Rosemeyer at the circuit in the '30s is among the film's notable omissions. And as a defender of World Touring Cars, my next comment might make me sound like a bloke with a stick up his backside, but the return of an FIA world championship to the Nordschleife after a 30-year absence was a significant milestone in the circuit's recent past - so its lack of mention is puzzling. Small details, too, like calling Nico Rosberg simply 'Formula 1 driver', take points away (surely there was enough time in post-production to change that?).

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Introducing the topic of sim racing shows a good awareness of topicality in motor racing, but its inclusion feels somewhat misplaced in the context of the rest of the film, focusing on the process of replicating such a track – an interesting angle, it must be conceded - rather than the relevance of sim racing at the Nurburgring to modern audiences.

That may feel like a long list of criticisms, but they should still do nothing to dissuade anyone from seeing the film. The Green Hell is great for an overview of the history of the circuit, and maybe on reflection that's where the film succeeds best. But as an involved racing fan, one can't help but feel a little short-changed — though perhaps that was always likely to be the case when trying to cram 80 years of history at one of the world's most revered sporting venues into 90 minutes of film.

The Green Hell is showing at UK Odeon cinemas on Tuesday, February 21. JACK COZENS



HOT ON THE WEB THIS WEEK

YOU TIME MERC'S QUICK-CHANGE SPECIALISTS

Search for: See it First: F1 Pit Stop with 2017 Tyres

Mercedes' new recruit Valtteri Bottas drops by the factory to spend time getting to know his team-mates, and has a chance to witness pitstop practice with the wider tyres introduced for the 2017 season. The rubber might be heavier, but that doesn't appear to have slowed the crew down one jot.



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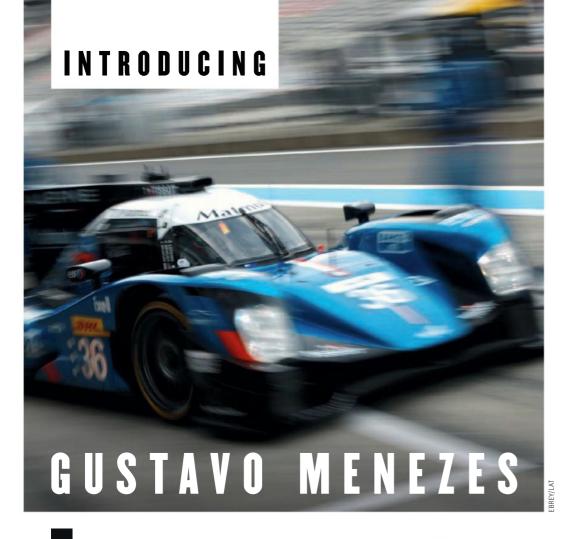


THE ARCHIVE

There was more than enough time at the ill-fated 1975 Spanish Grand Prix at Montjuich Park for McLaren team manager Alastair Caldwell and his mechanics to take a break for a bap and a bottle of pop. Question is, did they share with Hesketh?

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T WAS A NATURAL LINK-UP AND, AS IT TURNED out, a successful one. Gustavo Menezes was reviewing his options during a difficult season of European Formula 3 with Carlin in 2015. And the rival Signature team was looking for a quick silver-rated driver for its '16 World Endurance Championship campaign under the Signatech Alpine banner.

The tie-up resulted in LMP2 championship honours — a class win in the Le Mans 24 Hours included – for Menezes and team-mates Nicolas Lapierre and Stephane Richelmi. The victory meant Menezes became the first American to win an FIA world crown since Bob Garretson took the inaugural drivers' title awarded in the original world sportscar championship in 1981.

Menezes can't remember who approached whom first, but it resulted in a try-out in Signatech's Alpine-badged ORECA at the end of 2015. The driver who'd already had an introduction to sportscars with a handful of Prototype Challenge-class IMSA outings knew there and then what he wanted to do.

Menezes describes Signatech as the "right team to groom me", pointing out that its F3 involvement meant it understood the needs of a single-seater convert. The season aboard the team's lead ORECA-Nissan coupe also restored his faith in himself.

"It was a good feeling to be able to put the laps together and pace someone of the experience of Nico [Lapierre]," he says. "It showed I was doing things right and do have the ability."

Menezes reckons he's "still scratching his head" to understand what went wrong in his second year in European F3 after a promising debut in 2014: "We thought we'd shift it up a notch by going to Carlin, but it didn't work out.'

The first steps in car racing were made by Menezes in Star Mazda in his homeland, but he quickly returned to Europe where he'd cut his teeth in karting. He got his career "back on track" with a season in the German F3 Cup.

Another year in LMP2 beckons in 2017, almost certainly with Signatech, though Menezes can't confirm it. He regards a second season as a continuation of his sportscar apprenticeship.

"I won the title as a silver," he says, "but if I can come back and win it again as a gold that will put me in the eye of the manufacturers." 38

GARY WATKINS



CV

22 Age

1 race IMSA SportsCar Championship

3rd Asian Le 2016-17 Mans Series, 2

(3GT/Lexus)

wins (DC Racing) 2016 1st WEC LMP2, 4 wins

(Signatech)

2015 13th European F3 Ch'ship

(Carlin)

2014 11th European

F3 Ch'ship (Van Amersfoort)

2013 4th German F3 Cup, 2

wins (Van Amersfoort)

9th Star Mazda 2011 8th Star Mazda

2012



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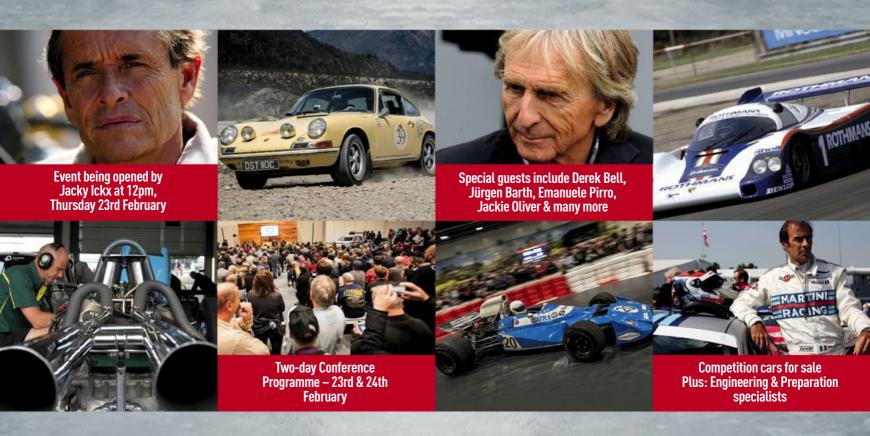
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