



DAMON HILL on team-mate wars

FERNANDO ALONSO How he found his smile



We've got facetime with Mr E, as...

BERNIE ANSWERS YOUK QUESTIONS

ON RUNNING F1

"You can do what you want... so long as you do it my way"

ON HAMILTON

"He's the best champion we've had"

ON QUITTING

"I've no idea when I'll retire"





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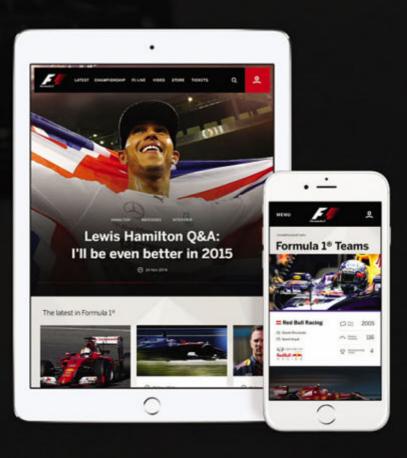


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		3 19 F	MASSA	31.6	30.5	1:14.800
1:15.448	1:14.958	4 7 H	. RÅIKKÖNEN	42.2	11.2	1:15.448
1:14.963	1:14.667					
S X LAPS	LAPS S					
PITS 2	PITS 3					
		5 22 J	. BUTTON	42.2	0.2	1:14.958

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- **BERNIE IN HIS OWN WORDS** He's always frank and often outrageous: here we present Bernie Ecclestone's most quotable utterings
- FERRARI'S DREAM MACHINE We take a closer look at this season's most beautiful car. the breathtaking - and Merc-beating - Ferrari ST15-T

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<complex-block>

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RICCIARDO IN AN ALFA ROMEO Following in the wheeltracks of the greats at the

old Targa Florio

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MR E ANSWERS YOUR QUESTIONS... ...including the one about whether he's ever broken the law

Aller





Ignition / Anthony Rowlinson / 06.15 A rare audience with Bernie

"The thing about Formula 1," remarked a paddock chum, late

on Saturday night in the Barcelona paddock, "is that the people in it are so alive. Go to a school reunion some time and you'll see how many of your old friends have given up and settled for a boring life."

That observation immediately put me in mind of Bernie Ecclestone, this month's cover star, who at 84 shows no sign of relinquishing his iron grip on F1. One reader's question this month teases Bernie about when he might retire. "No idea," he snaps back. "When I feel I can't do the job properly." So clearly not yet, then.

I'd hazard a guess that one of the many reasons Bernie remains at the helm is that he still gets a thrill from a sport he's controlled for more than 40 years indeed that it still makes him feel alive. Formula 1 can be frustrating, infuriating, exhausting, draining, exasperating, polarising and many other 'challenging' adjectives. But, you know what? It's never, ever, boring, not from the inside, not for a nanosecond. So why would Bernie choose to step aside from a top job that has not only made him staggeringly wealthy, but which remains one of the two or three most influential in world sport?

SON @Rowli Twitter 6 Follow Anthon

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The key word here is 'choose' for there are influences around Ecclestone that remain beyond his absolute control. He must, for example, keep happy the board of CVC Capital Partners, the private equity firm that holds Formula 1's commercial rights. This means he must continue to score mega-buck deals with new territories, such as Abu Dhabi, Russia and Azerbaijan, even if this

expansion away from the sport's traditional European heartland remains terribly unpopular in some quarters. But for as long as he can continue to close these and other deals, Ecclestone's position remains secure, regardless of his age.

The question of his departure remains pertinent, however, because even this remarkably resilient octogenarian billionaire can't go on forever - although he did once remark to an interviewer that he'd never die. He's quizzed again on immortality in this month's issue, but rather than have me reveal what he has to say on that particular topic, why not turn to page 40 and find out for yourself. Conversations with Bernie, while often destabilising, are never less than entertaining and this one's a cracker.

But enough already on Mr Ecclestone, for we have plenty more for you to enjoy this month. For starters, we've investigated why it is that Fernando Alonso, despite driving a thus far painfully slow McLaren-Honda and seeing his old team, Ferrari, take a marked upswing in competitiveness, is looking happier than he ever has during his long Formula 1 career (p60). We've also got beneath the skin of the oh-so-elegant Ferrari SF15-T, surely one of the loveliest-looking cars ever to emerge from Maranello, even if it's not yet the fastest (p52). And by way of continuing the 'scarlet fever', we've joined Daniel Ricciardo on a blast round the rubbly roads of Sicily, as he tackles part of the epic Targa Florio route in a vintage Alfa Romeo (p68).

Sure beats a high school reunion ...



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Pat Symonds Williams's chief technical officer - and our tech guru

The F1 rule book is long, dense and complicated. Thankfully, Pat has the ability to explain its complexities in (relatively) simple terms (p30).





Marcus Simmons

Autosport's deputy editor

and keen genealogist

Returning engine firm

Honda have a rich history

in F1 – but it goes deeper

than you think. Marcus has

tracked all the connections



Norman Howell Granted an audience with F1's ultimate power broker

Few F1 journalists can secure an in-depth, sit-down interview with Bernie Ecclestone. Norman did (p40) – and he put your questions to Mr E.



Lorenzo Bellanca Making a beautiful Ferrari look even more stunning

The race-winning SF15-T is a bit of a looker, especially up close. Leading F1 snapper Lorenzo was granted access to take the incredible shots you'll see on page 52.

Thanks to Alberto Antonini Kate Beavan, Tim Clarke, Ben Cowley, Russell Day, Glenn Dunbar, Bradley Lord, James Mann, Enrica Marenghi, Anthony Peacock, Pizza Express Teddington, Will Taylor Medhurst, Steven Tee, Stuart Williams, Richard Woods Special thanks to The BORN Group (née Colour Systems EMG) for all of their work help and advice over the past 19 years especially Andy Berg, Ross Gregory, Ricky Sowten and Kevin Field, plus everyone else from this brilliant repro company who has worked on F1 Racing Missed an issue? issues ho

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Artiste line-up subject to change



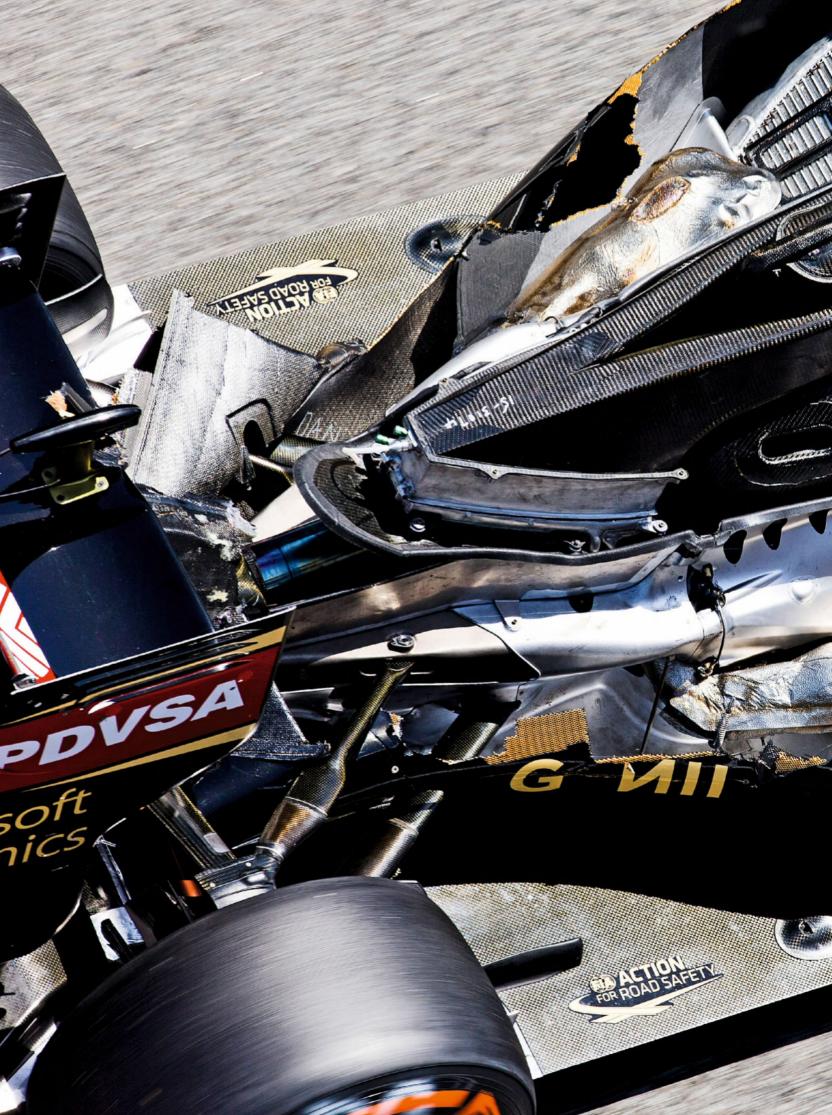


A spark of genius Nico Rosberg and Sebastian Vettel leave a trail of sparks as they battle into the night during qualifying in Bahrain. The addition of titanium skidblocks for this year was, in part, designed to add spectacle, particularly during night races. A simple idea, maybe, but clearly an effective one... Where Sakhir, Bahrain When 6.29pm, Saturday 19 April 2015 Photographer Lorenzo Bellanca Details Canon EOS-1DX, 300mm lens, 1/6th at F13





The definitive answer Having been outshone by team-mate Lewis Hamilton in the first four races of the season, everything came good for Nico Rosberg with his dominant performance in Spain. The ninth victory of his career was one of the most important: he proved he *can* be a contender for the championship Where Circuit de Barcelona-Catalunya When 3.48pm, Sunday 10 May 2015 Photographer Steven Tee/LAT Details Canon EOS-1DX, 85mm lens, 1/400th at F1.8





0

Lotus uncovered F1 teams are notoriously secretive about the internals of their machines. But the failure of a 'bodywork fastener' during practice for the Spanish Grand Prix caused the engine cover of Romain Grosjean's Lotus to blow apart spectacularly – leaving the E23 exposed and its driver scurrying to the pits so mechanics could restore its modesty

RICHARD MILLE

PRIVATE

Where Circuit de Barcelona-Catalunya, Spain When 2.16pm, Friday 8 May 2015 Photographer Lorenzo Bellanca

Details Canon EOS-1DX, 300mm lens, 1/640th at F7.1





NEWS

Ferrari prepare to launch engine upgrade

Scuderia hope increased horsepower will allow them to challenge Mercedes for the championship

Ferrari's title challenge is to receive a major boost with the news that their engine is set to take a step forward over the coming weeks. The development could potentially push the Ferrari power unit to a level higher than that of reigning world champions Mercedes, who have consistently set the standard since the turbo-hybrid era began in 2014.

Ferrari's leap forward in competitiveness this season is mostly down to a major engine upgrade, which has added somewhere in the region of 65bhp. Ferrari were reputed to be in the region of 40-50bhp down on Mercedes last season, and their competitiveness was further damaged by their under-effective energy recovery system.

Mercedes were reportedly aiming to add approximately 50bhp for 2015, but it has since transpired that they have so far managed to boost their engine only by around 15-20bhp at most, having focused mostly on reliability over the winter.

The speed-trap figures suggest that Mercedes still have a small power advantage over Ferrari in the full-power specification that is available for both qualifying and race, but Ferrari's upgrade, which is most likely to appear at the Canadian Grand Prix in early June, will add a further 15bhp or so to their engine, which would give a net increase of 80bhp.

There had been suggestions in Italy that the upgraded engine would be ready in time for

the Spanish Grand Prix, but Ferrari claim that this was never the case. They fitted new examples of their 'A-spec' engine to both cars on Friday in Bahrain, having used the same design at the opening races in Australia, Malaysia and China. These new units would be expected to be used for at least the same amount of time, which would take them up to the Canadian GP.

Ferrari also have more leeway for engine development across the season than Mercedes. Limited in-season development is permitted this year, following a change of rules over the winter. This meant that teams could use their 32 engine development 'tokens' – ascribed to various parts of the engine on the basis of their influence on performance – throughout the whole year.

Ferrari made their step forward over the winter using only 22 of their tokens, so they still have ten remaining. Mercedes have only seven.

Although the gap between Mercedes and Ferrari has closed to 0.705s, it's believed that this is largely attributable to Lewis Hamilton



Ferrari have also made a significant step forward on their chassis performance in relative terms compared to Mercedes. But an analysis of the data suggests that this accounts for only around 0.2 seconds of their total progress. Ferrari were an average of 1.22 seconds slower than Mercedes in qualifying in 2014, with about two-thirds of that down to the engine and the rest attributable to the chassis.

Over the first four races of this season, that gap has closed to 0.705secs, but the growing suspicion is that a significant part of that margin is down to Lewis Hamilton. This is because Nico Rosberg's average advantage over Sebastian Vettel, the faster Ferrari driver, is only 0.214secs. Adding further credence to the theory is the fact that the average finishing position of the best Ferrari in the first four races was 2.25, compared with Rosberg's 2.5.

In the races themselves, the two cars have tended to be more evenly matched than they are in qualifying. Mercedes have the edge in terms of absolute pace, but this is counterbalanced by the Ferrari's superior tyre wear.

The way the Ferrari SF15-T treats its Pirelli tyres is usually an advantage in races, but this also has an impact on the car's qualifying form. Because the car is more gentle on its rubber, the Ferrari drivers often struggle to get the tyres up to the optimum working temperature for the start of a lap, which puts them at an inherent disadvantage on Saturdays. Ferrari have already added an extra 65bhp to their engine for 2015, with a further 15bhp believed to be on its way shortly

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NEWS DIGEST

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The month's big stories at a glance

15.4.15 Daniel Ricciardo wins the Breakthrough of the Year prize at the Laureus Sports Awards for his efforts during the 2014 season

16.4.14 Bernie Ecclestone calls for F1 to "urgently" revert to V8 engines, albeit with their power upgraded to 1,000bhp



28.4.15 Australian GP chiefs confirm they will host the 2016 seasonopener on 3 April. It will be the latest the F1 year has kicked off since 1988 29.4.15 Reports suggest the returning European Grand Prix, which will be staged in Azerbaijan, will be given a July calendar spot in 2016 8.5.15 The Circuit de Catalunya-Barcelona signs a new deal to host the Spanish Grand Prix until 2019 10.5.15 The FIA issues a technical directive to clamp down on fuel pressure and fuel-flow rates 12.5.15 Ferrari reserve driver Esteban Gutiérrez has his first run for the team at the in-season test in Barcelona

That gives Mercedes the advantage in terms of track position for the race, something that can often be crucial during an era in which the delicacy of the Pirelli tyres makes it very hard to follow a car closely. That in itself limits the inherent tyre-usage advantage Ferrari have in races – as long as the Mercedes are in front.

It should be noted that Mercedes also have their own development programme. Following on from Sebastian Vettel's victory at the Malaysian Grand Prix, a new front wing that had been scheduled for Spain was brought forward for use at the Chinese Grand Prix, and they have significant upgrades in the pipeline for both the car and engine.

INSIDER

NEWS

CVC urged to sort out F1's woes or step aside

Call for action as teams struggle for survival and an inequitable division of commercial rights money causes mounting disquiet

F1's main shareholder CVC Capital Partners is under pressure from other key stakeholders either to take action to solve some of the sport's problems, or sell out to someone who will. The situation is based on concern over F1's future, taking into account the financial struggles of smaller teams, plus declining TV audiences in key markets such as Italy and Germany in 2014.



TV audiences have improved in both countries this year, and are increasing in the UK, but the issue of costs, which many believe are too high, is a concern and has put the spotlight on CVC.

At least four teams are struggling, and the commercial rights money shared out is weighted towards the richer teams (see table). In that context, the fact that CVC pockets nearly 40 per cent of F1's total income is of major concern.

High race fees are also causing worry, as they are putting pressure on the organisers of European events and placing historic races with a strong fanbase at risk in favour of largely Eastern races, which rarely attract good crowds.

The blame for much of this lies at Bernie Ecclestone's door: he made the contracts with the teams and he negotiates fees with circuits. But he is working to a model dictated by CVC, who have multi-million pound debts to service.

The concern is that the current model is putting F1's future under threat, and CVC appear unable or unwilling to act. As a result, both Ecclestone and the teams are putting pressure on CVC to either start investing in the sport, which, in effect, means giving up more of their revenues to help the smaller teams – or sell up to someone who will concentrate on fixing the problems.

Luca Di Montezemolo, the former president of Ferrari, who was last year appointed to the Formula 1 board as a non-executive chairman, said: "The owners have to invest. They must set clear priorities, and they need to engage a management team that is fully focused on those new objectives."

Di Montezemolo insists that Formula 1 is in need of a "clear plan for 2020", when the contracts binding the teams to the sport expire. And he added that CVC "must decide now: do we want to sell or not?"

If CVC want to retain their asset, Di Montezemolo said: "they must change their business philosophy" to invest in the sport. "Otherwise it could be really dangerous for F1."

2014 FOM team payouts

Team	Money received	Constructors' standing		
Ferrari	\$164m	4		
Red Bull	\$156m	2		
Mercedes	\$126m	1		
McLaren	\$98m	5		
Williams	\$83m	3		
Force India	\$60m	6		
Toro Rosso	\$54m	7		
Lotus	\$51m	8		
Marussia	\$48m	9		
Sauber	\$44m	10		

\$884m (approx. 65% of revenue)

QUIZ



F1 Mastermind



Total

CANADA AND F1

Q1 In which year did Mosport Park host the first Canadian Grand Prix? Q2 Who won the inaugural Canadian Grand Prix? Q3 How many Canadian drivers have scored points in F1 races? Q4 Who did Jenson Button pass on the last lap to win the 2011 Canadian Grand Prix? Q5 The Canadian GP was held at Mont Tremblant twice, in 1968 and 1970. Name the two race winners. Q6 Which Ferrari driver scored his sole GP win at Canada in 1995? Q7 Gilles Villeneuve won the first GP held in Montréal in which year? Q8 How many times has Lewis Hamilton won in Canada? Q9 At which track did Jacques Villeneuve score his first Formula 1 win in 1996? Q10 Name the Canadian driver who is currently a member of the Ferrari Driver Academy. Q11 Which Canadian IndyCar racer tested for Benetton in 1993? Q12 How many races did Canadian businessman Walter Wolff's eponymous team win in the 1977 season? Q13 How many teams did Jacques Villeneuve drive for in his F1 career, and can you name them? Q14 Which Canadian, who now races in the DTM, tested for Lotus Renault and Marussia in 2011? Q15 For how many Formula 1 races did Jacques Villeneuve Sr try (and fail) to qualify?

I J967 2 Jack Brabham 3 Two 4 Sebastian Vettel 5 Denny Hulme (IJ968), Jacky Ickx ('70) 6 Jean Alesi 7 1978 8 Three 9 The Nürburgring IO Lance Stroll II Paul Tracy I2 Three I3 Four (Williams, BAR, Renault, Sauber/BMW. Sauber) 14 Robert Wickens I5 Three D Lance Stroll II Paul Tracy I2 Three I3 Four (Williams, BAR, Renault, Sauber/BMW. Sauber) 14 Robert Wickens I5 Three

NEWS

Return to V8 power units for smaller teams proposed

Plan to run V8s alongside 900bhp turbo hybrids most likely a ruse to force engine suppliers to reduce costs

Formula 1 bosses have arrived at an impasse on changes to the engine rules aimed at reducing costs.

Bernie Ecclestone has never liked the new V6 turbo hybrid power units and has championed a return to the V8 engines. He recently suggested old units could be modified to produce 1,000bhp. Red Bull have also been critical of the new units, largely due to their engine supplier Renault's recent struggles.

Ecclestone's proposals were rejected by the manufacturers, who are committed to the new power units because of their relevance to road-car technology through diesel technology and engine recovery systems.

But now some smaller teams are backing the introduction of a low-cost V8, based on the old units, with an ERS they could use with an equivalency formula alongside the turbo hybrids.

Force India deputy team principal Bob Fernley said the idea had: "A lot of merit... as long as we can get reasonable (performance) parity."

Small teams suggest a return to V8 units with

bolt-on energy recovery systems, but these would

not be able to compete with the hybrid power units

It is yet to be explained how a 2.4-litre V8 with a tacked-on ERS could allow the low-budget teams to compete with works-developed 900bhp turbo hybrids using a third less fuel, and thus starting the race 30kg lighter.

The idea is suspected to be a negotiating ploy aimed at getting manufacturers to lower the costs of the engines they supply to their customers. Despite scare-mongering claims that the new power units are four times as expensive as the old V8s, on a like-forlike basis the rise in cost is somewhere between 20 per cent and double.

The row is linked to another debate about changes to the chassis rules for 2017 aimed at making the cars more spectacular and more challenging to drive. The plan is to widen the cars to two metres and use wider rear wheels with lower-profile tyres in time for the start of a new contract, which could potentially be with a new supplier when Pirelli's contract ends in 2016.

The idea is to return to the look of the early 1990s, although Ferrari have suggested more radical solutions in an attempt to stoke the debate.



FACT FILE





1 ST. DEVOTE

The track's first turn is named for the nearby Sainte-Devoté Chapel. Saint Devota, who lived from around 283 to 303AD, is the patron saint of Monaco.

2 MASSENET

The long left hander leading into Casino Square honours Jules Massenet – a bust of the French composer stands in front of the Opéra de Monte Carlo, which the circuit passes at this point.

3/4 MIRABEAU/FAIRMONT HAIRPIN

These two turns are named after nearby hotels. But while Mirabeau is a constant, the tight left hand Fairmont Hairpin has undergone numerous name changes. It was originally named the Station Hairpin after a nearby train station, and since the hotel was built on the outside of the bend it has been variously named the Grand Hotel, Loews and now Fairmont hairpin, reflecting the hotel's rebranding.

5/7 TABAC/RASCASSE

These two turns are named after local amenities. Tabac recognises the small tobacconists that sits on the outside of the bend, while the tight Rascasse hairpin winds around the bar of the same name.

6 LOUIS CHIRON CHICANE

The left right flick that begins the Swimming Pool complex celebrates the winner of the 1931 Monaco Grand Prix. To date, Louis Chiron is the only Monégasque driver to have won his home race.

8 VIRAGE ANTONY NOGHÈS

The circuit's final turn is named after the man who founded the Monaco Grand Prix. Antony Noghès also helped to establish the Monte Carlo Rally, and pioneered the waving of a black and white chequered flag to signal the end of a race.

(1)NSIDER

NEWS

VW reshuffle boosts Formula 1 entry hopes

The resignation of VW Group chairman Ferdinand Piëch, who opposed expansion into F1, could bring new teams to the grid

The surprise resignation of long-term Volkswagen boss Ferdinand Piëch could increase the chances of one of the German group's brands finally entering Formula 1.

Piëch, 78, has been the head of the VW Group for more than two decades, most recently in the position of chairman of the board. He has departed after losing a power struggle with VW chief executive Martin Winterkorn.

Piëch was the biggest obstacle to any VW brand entering F1. He has always been opposed to the idea, partly because he prefers endurance racing and partly because of a personal antipathy towards F1 boss Bernie Ecclestone.

Sources close to VW say there was no way any of the Group's brands, which include Porsche, Audi, Bentley, Lamborghini, Seat and Skoda, would be allowed to enter Formula 1



while Piëch and Ecclestone were respectively heading up the VW Group and Formula 1.

Within Audi, however, there is understood to be significant support for a move into Formula 1. The company, which has taken 13 Le Mans 24 Hours wins over the past 15 years, conducted a feasibility study into the idea last year, which was led by former Ferrari team boss Stefano Domenicali.

Sources in both F1 and the German car industry claim Audi had agreed a deal to buy Red Bull Racing for £500m from Red Bull boss Dietrich Mateschitz as a precursor to an F1 entry. But when that suggestion was put to Piëch in January, he rejected it. Red Bull team boss Christian Horner also denied the claims, saying they are "a long way off the mark".

An Audi spokesperson said: "The current situation is that Audi definitely has no intention to enter Formula 1."

The complex political realities of the VW Group were emphasised when the two board members appointed to replace Piëch and his wife were named as Piëch's two nieces.



F1 BANTER

PASSNOTES Your essential F1 briefing #15 Predator



Name Predator Age Its hunger defies time itself Appearance Variable. Hungry

That's one ugly motherf-Language, Timothy!

Apologies, but seeing that put me in mind of

a classic Arnold Schwarzenegger line. We've already heard from him in F1 this year. This matter is one of more pressing topicality.

Disappointing. I rather enjoyed his podium officiation in Australia. What, then?

McLaren have just revamped their car's livery to a "dynamic, predatory, graphite-grey colouration".

Without seeing a picture, I have in mind something along the lines of Grace Jones in her Slave To The Rhythm-era garb. Wasn't it a sort of dull grey anyway?

I'm not sure that was the exact Pantone reference. But they've dropped the chrome effect that's been part of the livery for several seasons. **Oh no! It's not some ghastly matt effect, is it?** Thankfully not.

Good. Every time I see some overcompensated stockbroker type cruising around in a matteffect Mercedes, I'm reminded of Dolly Parton's maxim concerning the exorbitant cost of looking that cheap.

Quite so. McLaren say the point is to "optimise" the look for both day and night races, and reduce "reflection issues".

I'll say. In Bahrain, the old paint spangled like those floor tiles in the Gatwick duty-free shop. And there's more. It's "complemented by McLaren-dayglo Speedmarks and keylines".

So they've painted some go-faster stripes on it. Vinyl roof next?

Perhaps. I suppose you could call the car an apex predator now, eh?

Last time I watched the Discovery Channel, an apex predator was actually at the top of the food chain.

Boom, boom!

Do say I've not seen a finer mix of colours since Vermeer set pestle to mortar

Don't say Is "Dynamic, predatory, graphite-grey" in the Farrow & Ball catalogue?





























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INSIDER

COLUMN

MOTOR MOUTH What we're talking about at F1 Racing Towers

THE EDITOR'S SPORTSCAR SOJOURN

Spa in May? Did we get our travel bookings wrong? No – *F1R* decided to check out the 'buzz' surrounding the World Endurance Championship. You know, the one attracting ex F1 drivers such as Mark Webber, Sébastien Buemi, Kazuki Nakajima, Alex Wurz and Anthony Davidson – plus current racer Nico Hülkenberg.

It's also the one with some seriously heavyweight manufacturers involved: Audi, Porsche, Toyota – and soon Nissan. Not to mention the likes of Ferrari and Aston Martin in the non prototype class.

The verdict? It's a serious motor racing championship with stunningly quick machinery and plenty of techno fascination for race geeks. It's also fan friendly: punters in the paddock? They'd never get away with that in F1.

Let's be clear: it's not Formula 1; nor does it aspire to be. But it *is* another rather sexy top line motorsport championship. What's not to like? *Anthony Rowlinson*

A sight very seldom seen: sportscars in *F1 Racing*



Lotus held a filming day – and let fans in for free

F1 RETURNS TO BRANDS HATCH

Some in the F1 paddock claim modern F1 cars no longer appeal to the fans, but the car park at Brands Hatch one Monday in late April told a different story. It was almost full to capacity as several thousand visitors were crowding the Kent circuit's prime spectator areas.

Why? To catch a glimpse of a modern F1 car. Just one. Lotus were holding a filming day at the circuit, during which they were permitted to run a current E23 Hybrid for up to 100km. And rather brilliantly, they decided to allow spectators in for free. There were sideshows – including a classic Lotus 72E – but the main draw was the modern machine, even though it was mostly doing very short runs at greatly reduced speeds.

Aside from the novelty of seeing a modern F1 car sweep through Paddock Hill Bend, the event proved the allure of the current spec of machine to the fans. James Attwood NEWS

Williams upbeat despite heavy 2014 losses

Increased prize money and new backing mean the team are positive about their financial future

Williams say they expect a

"significant improvement" in their financial results in 2015 after they recorded a loss of £42.5m last year.

They blame the 2014 figures on "lower revenue and higher costs" in the F1 team, and the figure was also affected by accounting practices.

The pay-off Williams received following the departure of Pastor Maldonado at the end of 2013 had to be applied to the books for that year, even though it was put towards the 2014 season's budget.

Compensation from Maldonado's main backer, Venezuelan stateowned oil company PDVSA, led to a £12m profit in the 2013 accounts, which would otherwise have shown a loss of £8m. Applying those figures to the group's accounts in 2014 would have turned a £34m Group loss into an approximate £14m loss – on the basis of the actual money that was used by the company in that calendar year.

Williams blame the loss on their poor performance from 2011-2013,

Williams' strong results last season should translate into a better balance sheet in 2015

leading to a decline in income from prize money and sponsorship. The team's upturn in 2014, when they climbed to third in the constructors' standings from ninth in 2013, has attracted new backers, including title sponsor Martini. The team say 98 per cent of that new money continues into 2016 and 2017.

The difference in income from prize money alone is more than half the company's total loss in 2014. Williams look to be a decent bet to retain third place in the 2015 constructors' standings, and chief executive officer Mike O'Driscoll is optimistic about the future.

"All of us at Williams want to continue the charge on the circuit and we will never be satisfied until we win another championship," he said. "Our objective when we started this process a couple of years ago was to return Williams to winning ways. We would also like to be able to make a profit. We're not allowed to make forward financial projections, but you'll

> see a really good improvement financially in 2015."



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(1)NSIDER

NEWS

'Condensed' 2016 F1 calendar to start in April

More back-to-back races are expected as, for the first time since Brazil 1988, the F1 season is set to begin later than March

The Australian Grand Prix, which will be the opening race of the 2016 Formula 1 season, is to be pushed back to 3 April, making it the latest the season has begun in 28 years.

Organisers of the Melbourne race released a statement noting that despite the date change – two weeks later than this year's event – the race would still be the season-opener. They noted that the effect would be to "condense the season".

No further information has been given about the new F1 calendar, but the delayed start – the latest since 1988 – is likely to mean smaller gaps between races and more events on consecutive weekends. A provisional schedule leaked to *autosport.com* on the same day as the Australia announcement had the Chinese GP pencilled in for the weekend after Australia, with Bahrain and Russia also running back to back. The Malaysian GP had moved to September and was set to run the weekend after the neighbouring Singapore GP, and the new European GP in Azerbaijan was scheduled for July.

The summer break had also been reduced to three weeks from four. A statement from FOM said the calendar "has not yet been approved".

Meanwhile, F1 boss Bernie Ecclestone has shrugged off concern over the race in Azerbaijan,

The 2016 Australian GP will run on 3 April, with the Chinese GP set for the weekend after

despite signing F1 up to a new "statement of commitment to respect for human rights". Amnesty International and Human Rights Watch accuse the state of using torture and having a poor record on freedom of speech and assembly.

But Ecclestone claims to have checked the human rights situation in the country, saying: "Everyone seems to be happy; doesn't seem to be a problem."

He has also done little to assuage concerns over the future of the Italian GP. Its contract runs out in 2016 and it says it does not have the funds to pay the increased fees Ecclestone is demanding. When it was put to him that losing Monza was unthinkable, Ecclestone said: "I'll tell you something, I was told that when we didn't have a race in France. And Germany now."

That remark was a reference to the absence of the German event from the 2015 calendar due to financial problems at the Nürburgring. Ecclestone had previously suggested that the 2016 race at Hockenheim might also be under threat, but it is understood to have been reinstated for next season. France, meanwhile, was last on the calendar in 2008.

Provisional 2016 calendar (ur	nconfirmed)		
🛅 Australia	3 April		
🚾 China	10 April		
🔳 Bahrain	24 April		
🚘 Russia	1 May		
💶 Spain	15 May		
Monaco	29 May		
🕒 Canada	12 June		
🚟 Britain	26 June		
💳 Austria	3 July		
🛄 Europe (Azerbaijan)	17 July		
💳 Germany (Hockenheim)	31 July		
🚍 Hungary	7 August		
🚺 Belgium	28 August		
🚺 Italy	4 September		
E Singapore	18 September		
🎫 Malaysia	25 September		
💽 Japan	9 October		
🛄 USA	23 October		
🖪 Mexico	30 October		
🙋 Brazil	13 November		
⊑ Abu Dhabi	27 November		



F1 Racing to launch global fan survey

The future of F1 has become a huge talking point in recent years, sparking frequent debate about on-track action, regulations, the race calendar, TV contracts and financial structure. Many have expressed opinions about how to widen the appeal of F1, but few have thought to ask the fans. That's why *F1 Racing* magazine is launching a new global fan survey. We want to know what you love and hate about F1, along with your views on the current rules and cars.

The survey will be launched through our Global Fan Community. We'll publish the full results later this year, and we'll ensure your opinions are heard by the F1 paddock. To ensure that you can take part and have your voice heard, visit www.flracing.co.uk and sign

up for the Global Fan Community. You can also scan this code with your smart phone.







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INSIDER

NEWS

McLaren: we can run at the front this season

Both Ron Dennis and Eric Boullier have high hopes of delivering a third title for Alonso, despite the team's poor showing so far

McLaren will be competing at the front of the field by the end of this season, according to the team's racing director Eric Boullier.

"We can become competitive this year," Boullier told *The New York Times*. "We will be regularly competitive next year. I think that before the end of next year, we will be there."

This is echoed by McLaren chairman Ron Dennis, who insists the team will deliver a third world title for Fernando Alonso as they "dominate" in the future. It is a claim he first made at the launch of the 2015 team and driver line-up in December 2014, and one he repeated in an interview with the official F1 website before the Spanish GP. "We'll win again, we'll dominate again, and we'll do that together, with Fernando front and central," Dennis was quoted as saying.

"It'll be a wonderful culmination to his glittering career, and all at McLaren and all at Honda are utterly dedicated to the task of working with him, with Jenson [Button] and with everyone else, to help him achieve it." Dennis reiterated that Alonso "has a straight three-year contract with us, with no options. It's as simple as that. That's what we wanted to offer him, and that's what he wanted to sign".

Boullier insists that the changes he has made to McLaren since joining at the start of 2014 have borne fruit. "The chassis is much better than that of last year," Boullier said. "So we have progressed enormously." However, they admit it is no match for the Mercedes or Ferrari and their major weakness is still the Honda engine, which is more than 100bhp shy of the best.

McLaren were five seconds off the pace in Australia and have made steady progress since. In Australia, their fastest qualifying lap was 105.9 per cent of pole; in China it was 103.6 per cent; and in Bahrain it was 102.7 per cent. Both drivers predicted another leap forward in Spain. On the surface they appeared to have made one, with both making it into second qualifying for the first time this year, but in fact their fastest time was 103.7 per cent off pole.



NEWS IN BRIEF

HAMILTON TO EXTEND MERC CONTRACT

Lewis Hamilton is finally set to sign his muchdelayed contract extension with Mercedes. Sources insist recent rumours that he could have a last-minute change of heart and switch to Ferrari are wide of the mark. Hamilton's deal with Mercedes is likely to be worth £20million (plus bonuses) and will last for three years, with an option to extend again.

SMEDLEY TO HOST CHARITY GALA

Williams' head of performance engineering, Rob Smedley, will host a gala evening in aid of Zoë's Place Baby Hospice. The event will be held on 1 August at Wynyard Hall Country House Hotel in Billingham, Cleveland, and will include a charity auction. Tickets cost £130. More details from elaine@zoes-place.org.uk.



HÜLKENBERG MAKES PORSCHE DEBUT Force India racer Nico Hülkenberg finished in sixth place on his FIA World Endurance Championship debut at Spa recently, after a troubled run for the works Porsche 919 Hybrid he shared with Nick Tandy and Earl Bamber. The car lost time after Tandy was involved in an early collision, and then ran experimental tyre strategies to aid the other cars. Hülkenberg's next outing for Porsche will be at the Le Mans 24 Hours in June.

NEW LOOK FOR McLAREN

McLaren ditched the chrome elements of their livery at the Spanish Grand Prix in a bid to improve how the car appears in all conditions. The livery reduces reflection in bright sunshine and under floodlights. The team introduced a 'granite grey' colour, which a spokesperson said gave the car a "dynamic, predatory" appearance.

NEW MOSS MEMOIR

Sir Stirling Moss marked the 50th anniversary of his victory in the Mille Miglia by launching a new book, *Stirling Moss: My Racing Life*. The memoir charts his entire career, using 320 photographs. For further details visit evropublishing.co.uk.

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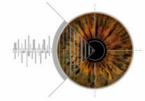




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INSIDER



Pat Symonds explains THE SCIENCE BEHIND... **Technical penalties**

F1 TECH

Penalties don't seem a particularly technical subject. Are they of concern to engineers? In general, the race engineers control most aspects of how a car is run over a race weekend. So not only are they responsible for the physical legality of the car, but they also influence some of the sporting aspects of legality. For example, the most common penalty awarded is for speeding in the pitlane. Sometimes this is caused by the driver forgetting to turn on the speed limiter or misjudging his entry to the pitlane, but it can also occur when the control engineer seeks the absolute limit when setting up the pitlane speed limiter and maybe goes a step too far.

What offences incur penalties?

There are multiple offences that carry penalties, but they can broadly be categorised into two groups. First are the sporting penalties. These range from driving errors that lead to collisions, to occasions when a driver might leave the track and gain an advantage over a rival.

Of more concern to the engineers are penalties that arise from a technical contravention. These can carry very high penalties, particularly if the stewards decide the infringement is more than an unintentional oversight. I am not referring to deliberate cheating, but more to the stretching of the rules beyond the point that the regulator finds acceptable.

Imagine, for example, that the scrutineers decide that a particular section of bodywork is too flexible. Some areas of the car have defined limits of flexibility and if the deflections exceed this, a penalty will be applied immediately. Other areas are not so clear-cut, and if in the subjective opinion of the FIA you have items that they deem too flexible you may well be asked to attend to them for the next event. However, if you were discovered to have used a mechanism or device that deliberately disguised a flexible apparatus, then you would quite rightly have the book thrown at you.

With such a huge rulebook how do you avoid technical penalties?

We avoid penalties by understanding the rules and knowing the limits to which we can push things. This is easy if there are numeric limits. For example, the maximum rear wing width is 750mm. There is no interpretation either applied or needed for this dimension: if a rear wing is wider than this it is illegal, and if it is not then it is legal. These rules are simple. Many of the rules are less clear, particularly the sporting regulations. For example, Article 16.1 of the sporting regulations covers 'incidents' and, among other things, allows a driver to be penalised if he causes a collision. In a competitive environment, collisions are bound to occur but the number of opinions as to whose fault it was will be directly proportional to the number of cars involved. There is little the



engineer can do here other than to use recorded data to support his driver's point of view.

Surely most of the driving infringements are a matter of opinion. Does technology assist in determining the truth?

It does and these days a stewards' enquiry resembles a forensic investigation. The rules allow the stewards to use any video or electronic means to assist them in reaching a decision, and of course the engineers will produce data recorded on the car to press home their opinions. In recent years, cars have carried GPS and a sophisticated system called TLC (Team Location Carlos Sainz was caught exceeding the pitlane speed limits in Melbourne (right). Scrutineers check for technical infringements in the garage at Spa (left)

Cameras), which links to the cars' GPS and sends a video feed from fixed cameras around the circuit to the teams' pitwall stands. This feed will always have the teams' cars in view and has on many occasions been used to settle a dispute as to where blame should be apportioned.

Are there any basic principles applied to the awarding of penalties by the stewards?

The stewards follow guidelines, but a basic principle is that any infringement that brings competitive advantage to a team should be punished with a sporting penalty that more than negates any advantage that may have been



gained. So pitlane speeding during practice when no competitive advantage is to be had will be punished with a fine, but the same offence in a race, where track position could be gained, will be punished with a drive-through penalty, thereby removing, and indeed exceeding, the advantage that may have been had.

Does the FIA earn a lot of money from fines?

Not really. In 2014 the total fines awarded were €50,700, of which €20,700 came from pitlane speeding offences. The biggest single fine was €30,000, which Toro Rosso had to pay for an unsafe release from a pitstop.

What regulations are most often transgressed? There were 35 instances of pitlane speeding last year, making it the most common offence. This was followed by penalties applied for using more than the permitted number of power unit components or changing a gearbox before the required five races were over. There were 24 penalties applied for that, plus 20 contraventions of Article 16.1, which concerns driving standards.

With different stewards at each race, how do the FIA ensure the penalties are applied fairly?

After each race a document is issued to all the teams detailing all the penalties that have been

handed out since the start of the season. This guides the stewards and also offers transparency to the teams to ensure fair play is applied.

How can the stewards apportion blame for a driving infringement if they have never experienced the difficulties a driver faces? At grand prix weekends, one of the three stewards is always a former driver. This means that not only do they understand the complexities of racing, but also that they are fully aware of the multitude of excuses that drivers can present – having probably used those very same excuses in their own careers. **(2)**

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DIETER RENCKEN

POWER PLAY

The stories F1's bigwigs would rather you didn't know...

By the time you read this F1 may well be devising a new engine formula, less than 18 months after introducing the most expensive and complex engines in its 60-year history.

It gets worse, for there could be not one but two engine formulae in future: one aimed at manufacturers (and wealthier) teams, based on downgraded versions of the current units; the other for upgraded V8s of the type permitted under the 2006-12 formula, which had its roots in the 20th century.

There, in a nutshell, you have it: take the most sophisticated automotive units ever designed, then downgrade them to compete on "equal" terms with antique V8s, with performance on both sides regulated by a formula devised to peg back manufacturer teams – all in the name of 'sport'.

The collective costs incurred to date by the four manufacturers (Mercedes, Renault, Ferrari and Honda), plus their respective supplier networks – many of whom developed solutions specifically for the cutting-edge technologies demanded by V6 engines with specific outputs of more than 500bhp per litre while consuming just two-thirds the amount of fossil fuel burnt by the V8s – is estimated to run to more than a billion dollars.

Is it time for a new engine formula?

So why is F1 contemplating chucking a billion bucks down the drain, and planning to discard full-on progress for half-baked regression? The official reason: save money!

The refrain has been led by Formula One Management, headed by Bernie Ecclestone, who is clearly concerned that the costs will force the teams to turn to FOM for increased hand-outs, simultaneously maintaining that the quieter engines have reduced fan interest.

Do teams care if engine manufacturers, who in the main have no say in framing the regulations, are forced to write off such vast amounts through whatever whim? Of course not, for it is not team money, so fair game in a sport that thrives on politicking and jockeying for short-term advantage. But such tactics could scare suppliers away from the sport: just ask Renault...

One criticism of the current formula is that team engine bills have more than doubled and that this factor forced teams into administration. Perhaps the engine costs contributed, but the two teams who entered administration (Caterham and Marussia) last year were hanging on by a thread in any event.

But there is some truth to the assertions: the V8s came in at around £8m per season, including KERS, whereas the eco-friendly units cost around 250 per cent more, with Renault's (underperforming) unit said to be the costliest at £20m per two-car team for a season.

Ecclestone is worried that engine costs will force teams to look to FOM for increased hand-outs



"One criticism of the current formula is that team engine bills have more than doubled" That said, the old-iron V8s had been amortised over seven years, with many of their components carried over from the even older three-litre V10s from which they were derived. Any wonder they were cheap as chips? That is not the full story, either, for in 2007, at the height of the cost-cap arguments, the manufacturers agreed to supply cut-price engines to independents to keep the FIA sweet.

So, true, the hybrid power units *may* have doubled in price, but only in comparison with ancient technology that was costed off artificially low bases devised almost a decade ago, whereas the latest engines are cutting edge, and in tune with the times.

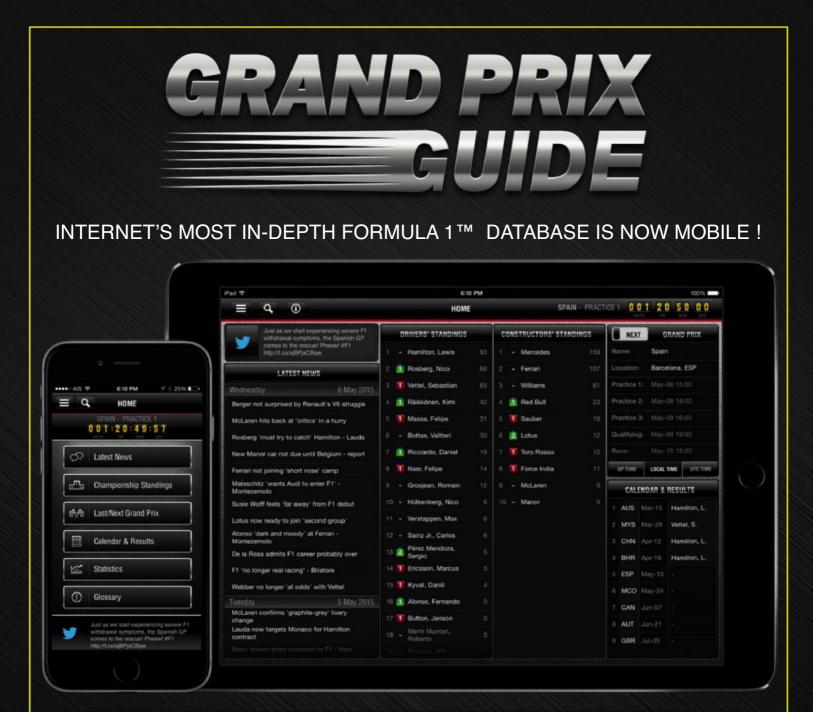
That said, is it not strange that those who have gold-standard engines – Mercedes- and Ferrari-powered outfits – argue to retain the current units, while those currently labouring under Renault are pushing for change?

Is it not equally strange that teams spend upwards of £200m per annum on staging two cars on 20 Sundays per season – blowing half of that on chassis development over the course of a year – yet they object when asked to cough up just ten per cent of their budgets on arguably the most important component in the performance mix: engines?

True, that percentage increases as budgets diminish, but the overall thrust is that F1 is never cheap – nor should it be – and engines form as much of an intrinsic part of the whole as do chassis or drivers, and should be budgeted for accordingly.

To impose equivalence formulae on the pinnacle of motorsport did not work in the seventies – when 1,500cc turbos were rated the equal of 3,000cc naturally aspirated units – nor in the eighties, when the FIA promoted two distinctly separate championships (for turbo and non-turbo cars). So then why should equivalence work 30 years on?

But, here's a fact to contemplate: the amount of money FOM – majority-owned by venture fund CVC Capital Partners – annually syphons out of F1 amounts to around £300m, or the combined engine bills of 12 teams. If FOM really are that worried, perhaps they should reduce their cut rather than expecting car companies to take a billion-buck hit. **2**



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DAMON HILL KING OFHILL THE HILL

Cockpit savvy from the 1996 world champ, exclusively in *F1R*

We have to come up with another name for them. 'Mates' is decidedly not what they are. Let me think...

The most dangerous man to a racing driver is his 'team-mate'. For it is by him that he will be judged as a possible candidate for the coveted title of world champion. Whatever the public impression crafted, every racing driver is a slayer of 'mates'. If they put a rope around the garage and called each session a 'round', you would have a good substitute for boxing. Close second is still last place for a team-mate, no matter what the grid position. Take Nico Rosberg in China this year: a sliver of time – 0.042s – was the gap in qualifying to pole man (and 'team-mate') Lewis Hamilton, but it didn't put him any closer on the grid. Clearly it's close between them... but no cigar.

Unlike a boxer, though, an outclassed teammate has a few chances to recover himself. The fight will go 19 rounds, even if the hapless soul is effectively down and out before the final bell. If he's not outstayed his welcome, he may get a few more seasons as a sparring partner for the heavyweight champ, to keep him trim before he goes head to head with a more worthy foe.

The safety net for the 'second' driver is that he is part of 'The Team' – a good egg, a team % f(x)=0

Why team-mates can never be friends

player, a contributor to the overall effort. Give him a car and put him in the corner with a few friendly mechanics and he might not be too much of a drain on resources. Just hope he doesn't get all sulky and disgruntled, because no one likes a bad loser. It makes crushing victories less enjoyable if you have to find the words to feel sorry for the other guy. No one wants to be 'the other guy'.

Gore Vidal once remarked that: "Whenever a friend succeeds, a little something in me dies." Being so brutally honest is perhaps not what humans are best at. We prefer to give the impression of sportsmanship. But who cannot sympathise even a tiny bit with that unpalatable truth, for every time you are

beaten by your team-mate, the myth of invincibility loses a few microns of chrome-plating like, say, Carlos Sainz, outqualifying Max Verstappen in Bahrain. Unless the 'other guy' happens to be a demi-god himself, of course, as with Senna-Prost; Prost-Lauda; Mansell-Piquet; Fangio-Moss; Clark-Hill; or Andretti-Peterson.

As pairings go, for pure fire and intensity, they don't get much better than the Senna-Prost rivalry. Now that *was* a grudge match. I'm not sure who won, either. They cemented themselves permanently into a combative relationship as the epitome of intra-team and inter-driver rivalry.

Doncha just love this sport? It has a team competition and an individual competition going on at the same time – in the same team! It can only end in tears. You don't expect Nadal and Federer to love each other, do you? Respect? Yes, yes, yes. But that's for when they are in their 90s. Look at cycling, too. No love lost between team-mates there, either. Why do we have to put these guys through the demeaning charade of 'being in this together'. The fans aren't daft. They want a fight!

"Whatever the public impression crafted, every racing driver is a slayer of 'mates'" Teams have an agenda. They like the team image – 'we're such a happy family, taking on the challenge together', and so on. It sells stuff. But drivers have only one shot at a career. They have to beat 'the other guy'. Or die. This can lead to some rather unedifying situations, visà-vis man's (in)humanity to man.

Leaving aside Senna's 'assassination' of Prost at Suzuka 1990, look at the relatively tame Jones-Reutemann tussle at Williams in 1981. When Carlos suggested they could "bury the hatchet now", Jones's choice retort was: "Yeah, mate! Right in yer bloody back!" Nice.

But things can spiral tragically out of control, too. The Pironi-Villeneuve battle at Ferrari in 1982 has been cited as contributing



"For pure fire and intensity, they don't get much better than the Senna-prost rivalry. Now that was a grudge match"

to the death of Gilles. Betrayal is nothing to be proud of, but expecting loyalty from a team-mate is perhaps to fail to understand the frailty of some drivers when faced with the extraordinary temptation of a title. Not everyone can adhere to the highest standards of sportsmanship. It is just as well to prepare for disappointment in your team-mate as an insurance against disillusionment.

It is equally a pleasant surprise when you have a good relationship with your team-mate, as I did with Gilles' son, Jacques, during our time together at Williams in 1996. I guess we were lucky to have parents who drummed sportsmanship and integrity into us. Even so, I seem to remember his wheel came adrift somewhere at a crucial moment. Ha!

I've thought of a name now: 'nemesists'. ወ

PETER WINDSOR

RACER'S EDGE

Authority, wit and intelligence from the voice of *F1 Racing*

hat time has come again. It's now 50 years since Jim Clark achieved the seemingly impossible by winning the Indianapolis 500 and the Formula 1 world championship in the same year. It bears recounting because Jim Clark was as pure a racing driver as ever walked this earth.

Here's the context: in early December 1964, Jim slipped a disc during a snowball fight in Cortina, Italy. He was in agony. The nonchampionship Rand Grand Prix at Kyalami was but a few days away.

Jim missed that race, thereby giving Jackie Stewart the chance to make his F1 debut. A few days later, however, Jim flew to South Africa for the opening round of the 1965 championship on New Year's Day in East London. Despite his injury, he won with ease from pole.

There was no time for physio or rehab. Jim quickly boarded a turboprop Lockheed Electra for the lengthy flight to Australia and then on to New Zealand. A week later, at Pukekohe, near Auckland, he was beginning the first round of the eight-week whirlwind that was the Tasman Series. He drove the one-off Lotus 32B, but he was also a part-time mechanic, helping his mate Ray Parsons wherever possible. He was away from his girlfriend,

Jim Clark's golden year of motor racing

Sally, and (apart from the New Zealand GP) he was away from Colin Chapman, too. It was just Jim and Ray, loading and unloading the car, doing the tyre pressures, changing the roll-bars, swapping the springs and sometimes swapping the Climax engine. Jim won at Levin, Wigram, Teretonga, Warwick Farm and Lakeside (the non-championship Tasman race).

A week after his epic duel with Frank Matich at Lakeside, Jim was racing at Brands Hatch at the Race of Champions. In the chill of the early English spring he wore the fawn cardigan that Sally had given him for Christmas over his blue Dunlop overalls. He won the first heat in the gorgeous, Dunlop-shod Lotus 33, but crashed heavily in the second when he spent too much time looking in his mirrors at Dan Gurney's Goodyear-tyred Brabham. He was shaken but in the main unhurt. In between the two heats he thrilled the Brands Hatch crowd by three-wheeling a Cortina Lotus into immortality... before stopping out on the circuit with a loose wheel. Even Jim Clark needed at least three wheels on a race car.

There was no rest. He was at Silverstone the following weekend, racing the new Mk 2 version of the difficult Lotus 30 sportscar. He took pole against strong opposition that included both John Surtees and Bruce McLaren and won a rain-shortened race, thankful that the 30's chassis flex on this occasion could be put to good use. He flicked the car from puddle to puddle, putting on a masterclass for the rain-sodden crowd.

He headed immediately for London – this time to board a Miami-bound Boeing 707. This may have been the big Sebring 12 Hour weekend, but Jim Clark, F1 champion, was entered in a Ford of America Cortina Lotus in the 250-mile support race. He won with ease but had no time to spare: he was racing the following weekend in Syracuse, Italy, in the non-championship F1 event.

"At Goodwood 1965 Jim won in every event, bringing his win tally for the year to 18. It was but mid-April"

He had no base; his life was but his suitcase, his black leather briefcase and his Les Leston Track Pack. Jackie Stewart, who shared a room with Jim in Sir John Whitmore's Balfour Place apartment in Mayfair, remembers Jim at this point of the year being: "absolutely shattered. I'd never seen him so exhausted. He was rushing all over the place, from one continent to another, racing every weekend. He'd come back to the flat, get the washing done, then disappear again."

Jim won Syracuse – despite a sick Climax engine – and returned quickly to the UK to race the following weekend at Snetterton. At the wheel of the Lotus 35 (entered and prepared by Ron Harris), Jim raced wheelto-wheel with Graham Hill (Brabham) before slowing with an off-song engine. He was also out again in the Cortina, this time rubbing bodywork with team-mate Jack Sears.

Next weekend at Goodwood, Colin Chapman entered three cars for Jim – the 5.3-litre Lotus 30, the Cortina and the F1 Lotus 33. In front of a huge crowd, amid sunshine, blizzards and sleet, Jim won in every event, bringing his win tally for the year to 18. It was but mid-April.

Still the relentless pace. Jim flew two days later in a light aircraft with Colin to Pau, France. There he won his second F2 race of the year. Then it was back to England again and up to Oulton Park to race the Lotus 30 in the Tourist Trophy. He qualified the difficult car only fifth, drove the skin off it, led the race, felt something strange with the handling, came in for a check, rejoined, set fastest lap and finished 16th. Jim was easily leading heat two when the gearbox failed.

Then, finally, it was time for Indy. Jim had won 19 races in four months. Now came the big one. There was no question of also racing at Monaco, as he had done in '63 and '64. In 1965 the date clash was absolute: it was one race or the other. Sally joined Jim at Indy. Despite the hoopla, and the grind of constant, daily testing, it was actually a kind of break.

Jim was able to focus on every aspect of the race. On correct tyre selection; on qualifying (he started second, sandwiched between polesitter, AJ Foyt, and his friend, Dan Gurney, who also missed Monaco); and on

Jim Clark made history when in 1965 he won both the Indianapolis 500 (left and below left) and the Formula 1 world championship (pictured below at Silverstone, having taken the third of his six grand prix wins that year)



winning. The Wood Brothers stock car team helped Team Lotus polish their pitstops – and the little green-and-yellow Lotus 38, number 82, stopped only twice (thanks to Jim running the full race on the same set of Firestones). No 'foreigner' had won at Indy since Dario Resta in 1916; no rear-engined car had won at Indy before; and no car had won the race at an average speed of more than 150mph.

The Lotus crew expected the chequered flag to be waved even as a USAC official prepared the white (one-lap-to-go) flag. Then suddenly the official switched hands and waved the chequer. Jim Clark had made history.

I spoke to Hugh Dibley a few weeks ago. Hugh was racing sportscars in 1965 as well as flying for BOAC. He was a friend of Jim's. After that Indy win, Jim bought a new Piper Twin Comanche in the States and arranged for it to be flown to the UK from Boston.

"Jim mentioned this to me at the Mosport sportscar race the week after Indy," said Hugh. "He suggested that we should both fly it back and I was all for it. It would have been a lot of fun. Then my schedules changed and I had to bow out. Jim flew back to England commercially and asked the Piper factory to deliver it with their own pilots."

Jim's Comanche never made it to the UK. It disappeared over the Atlantic.

Under this cloud, the life of Jim Clark forged on: he would win 29 races in 1965, including the F1 world championship (with subsequent wins at Spa, Zandvoort, Clermont, Silverstone and the Nürburgring), the Indy 500, the F2 series, the Tasman Cup and numerous sports and saloon car events.

It was one of those years – one of those golden, unforgettable years. And it'll live on in F1 folklore. Now and forever more. ⁽¹⁾

Now that was a car

No. 39 The BRM P180 Brave-but-flawed beast that introduced Marlboro to Formula 1



Bar a few spikes in competitiveness – including the world championship for Graham Hill in 1962 – the BRM story is one of promise largely unfulfilled. 'Largely', it must be said, due to them making the same mistakes over and over again: taking too many engineering risks, and diluting resources by getting involved in other projects. With a little more focus, or at least a little less chaos, the technically ambitious P180 *could* have been honed into a serial winner, possibly even championship material.

At the centre of the maelstrom was the corpulent and imposing figure of Louis Stanley, brother-in-law of Sir Alfred Owen, the industrial magnate whose businesses propped up the team through lean times. Stanley *was* BRM. His aristocratic affectations led some to refer to him as 'Lord Louis', and a recent book by his stepdaughter claimed that he was the illegitimate son of British Prime Minister Herbert Asquith, as well as alleging sexual abuse. Stanley did much to promote safety in F1 and was the honorary secretary of the original Grand Prix Drivers' Association. His is a complex legacy to decode.

"Louis Stanley is an extraordinary man," Sir Jackie Stewart is quoted as saying in *F1 Racing* contributor David Tremayne's obituary of Stanley in 2004. "He has many talents and some failings, not all of which are obvious to him."

By 1972, BRM were on their way back up after one of their periodic troughs. They had suffered tragedies, losing drivers Pedro Rodríguez (in a sportscar race) and Jo Siffert, but Peter Gethin had won the 1971 Italian GP in designer Tony Southgate's P160, with team-mate Howden Ganley in fifth just 0.61secs behind. Southgate then set about the P180, not an evolution of the P160 but a huge step change, with the radiators relocated from the nose to behind the rear axle line. The idea was to move the centre of gravity rearward to optimise traction on the massive rear tyres that were *de rigueur* in early-1970s F1.

Together with a wider track and a much flatter, wind-cheating profile, the P180 was a promising package – but chaos was lurking around the corner. Having secured sponsorship from Marlboro, Stanley decided to double down and run five cars in 1972 to rake in more prize money and sponsorship from pay drivers. The team, which was still running in sportscars as well as building its own engines and gearboxes, just didn't have the time or resources to cope.

Thus nobody wanted to take responsibility for developing the initially troublesome P180, which was pressed into service too quickly, and there was an unseemly tussle for the available P160 chassis. Ganley found himself in a P180 in Monaco and, having nudged the barrier in the wet, found that the damage actually cured the car's inherent understeer. But this useful nugget of data was lost amid the excitement of Jean-Pierre Beltoise winning in a P160.

Southgate later said moving the radiators ahead of the rear axle line would have sorted the P180's handling. But it was not to be: he left for Shadow and, in a fit of pique, Stanley ordered the P180s to be parked permanently. BRM never won again.



YOU ASK THE QUESTIONS

Bernie Ecclestone

Batten down the hatches! Man the barricades! *F1 Racing* has secured an exclusive one-toone with Bernie Ecclestone – and my oh my he certainly hasn't held back. You'd be kind of disappointed if he did, right...?

WORDS NORMAN HOWELL PORTRAIT: VLADIMIR RYS/GETTY IMAGES

Bernie Ecclestone rarely gives sit-down interviews: the quick-fire paddock soundbite is his preferred way. But *F1 Racing* has been granted a rare one-on-one audience with Mr E.

He is standing behind a large desk, immaculate, as always, in a white shirt and dark-grey trousers. A handshake.

"How are you Bernie?" we ask, by way of internationally approved opening gambit.

"Busy. Busier every day. If you want it done, you've got to do it yourself."

He points to one of the two chairs across from his desk. He sits down. "Let's start." When interviewing Bernie Ecclestone, small talk is not on the agenda.

Time, as always, is money.

When are you going to retire?

Richard Bateman, UK

No idea. When I feel I can't do the job properly.

What is the biggest regret you have from your time running F1?

Chris Grabham, UK

[Quick as a flash] Probably giving all the shares in my company to my wife [his second wife, Slavica], and she put them in a trust. And now I can't get hold of them. That is my biggest regret. [Mr E is not exactly tense, but his words come out fast and harsh. This truly is a great regret.]

What is the strategy to attract new fans to the sport?

Kristian Soderberg, Finland

I don't know. Maybe someone else should answer that. What is it that attracted fans to this sport 30 or 40 years ago, and what's changed? That is the bottom line. Maybe other forms of entertainment, because of television, have taken away a big chunk of people, who would have watched F1 and are now watching something else. These other things are now accessible; before, they weren't. Football is big, big, big. Thousands of games. We have 20 'games' per year. Just think of the number of football games in each country that people can watch. And sponsors – they come to us if they want to position their product in F1. We can offer them 20 different variations of where they can go and how they can appear, but with football... think of how many games they play on a weekend, in every country. The world has changed.

What is the driving force that makes you do what you do?

Staffan Karlsson, Sweden

I suppose it is no different than if I were a racing driver. You want to win. And I don't know whether I am winning or losing until the end of the year. If Formula 1 is successful, then I think I am winning. \rightarrow



YOU ASK THE QUESTIONS

Do you think you are immortal?

Ondrej Sembera, Czech Republic [Looks puzzled] I am lucky that I have been doing this for 40 years. I think I've been lucky.

What advice would you offer to your eventual successor?

Ricardo Ouinonez. USA

Well, I don't think there will be one person. There will be a group of people all doing different things. Maybe that's better. Maybe that is a better way. [His eyes smile behind his widerimmed glasses: he knows that he will be the hardest act to follow.]

What are the chances of V10 or V8 engines coming back?

Adam Morilla, UK

I wish I knew how to answer that honestly. I'd like to see it happen. We should never have got rid of them. People should understand that when this engine was thought about, nobody realised it would turn into what it is. It's a powerplant, not an engine. It has nothing to do with cars, it will never be used in cars. We do need a KERS, which cars now have, and it works, but this system would never be commercially usable. And I think that more important than that, it is not really F1. It's not what attracts people to F1, the noise and so forth. Think of it like this: if tonight you were to go to see a ballet and you saw the girls in running shoes, well, you'd be surprised. It's not what you were expecting.

If you could bring one former venue back to the Formula 1 calendar, what race would it be and why?

Gianni Fasulo, UK

Argentina was always a good race. The people were great – they loved motor racing in that part of the world. Otherwise, I don't know which I would bring back. Can't think of any races we've lost that I'd want to bring back. It would be nice to race in France, if it worked properly. That would be good for historical reasons. But, after all, we are a world championship. We used to be a European championship. It's as simple as that.

Have you been seeing Michael Schumacher since his skiing accident? Jorgen Walli, Sweden

No. [There's a long pause before Ecclestone continues...] I don't want to see Michael like that. I remember Michael as he was. That is how



"I remember Michael as he was. That is how I want to see Michael. If he comes back, that is how I want Michael to be" I want to see Michael. If he comes back, that is how I want Michael to be.

Being a former racing driver, if you could drive any car from F1 history what would it be and why?

Richard Ginn, UK

I could not afford to own the Maserati 250F, that's the car I would have loved to drive. [Intrigued, *F1R* later Googles '250F auction' and comes across a 1956 car, chassis number 2525, raced by Stirling Moss to victory at that year's Italian GP. It sold for \$4,620,000 at the 2014 Pebble Beach Concours d'Elegance.]

What more could be done to encourage female F1 drivers to the sport?

Paul Byron, UK

Well, they are always going to have a problem. Because maybe they can bring a sponsor in, but I don't think they will ever be taken on because of their talent in the right team. It would be nice to see one of these people in a proper car. It's good to see Susie Wolff, if she gets a proper drive, in the Williams team, but not just for a one-off. But whether she would get the job done or not, I don't know. It's easier today than it has ever been in F1 for a driver. Cars are lighter for a start. Everything is easier.

Why did the Brabham team close? Alex Bassi, USA

I have no idea why Brabham closed [Ecclestone owned and ran the team from 1971-1988]. The people who bought it decided to close it. That's it. I ran the team for 18 years, properly, either using my money or that of the sponsors. Whatever – it worked. But these other people... it didn't work, and they had to close. [Brabham continued in F1 under different ownership until 1992.]

Why not let teams enter one, two or three cars, as they are financially able? Would this not create a basis for smaller teams to compete and mean that we get more cars on the grid?

Kenneth Shipway, UK

Correct. I'd be happy to do that. In fact, I proposed it.

How much money does one person need? Mark Appleby, UK

It's not what they actually need... People who have a lot of money don't spend it, you know [there's a glint in the Ecclestone eye as he imparts this pearl]. Unless you are a very extravagant person, people don't need a lot of money: you need somewhere to live and to buy some food and some clothes, that's all. I don't



Who is your favourite driver of all time?

Pawel Rozwadowski, Poland

As I was closely associated with one or two different drivers, I would have to look at those. Jochen Rindt and I were close [Ecclestone was Rindt's manager], so I would have to say Jochen. He was as good as it gets. The guy who does not get the credit, and he really should, is Alain Prost. People never talk about him. Obviously we know Ayrton Senna was super, super, super, and Michael. But people forget Alain.

need a lot of money – I'm cheap to keep, very cheap to keep. [His smile illuminates his face – it is rare to see him smile so openly. Mr E likes his own jokes.]

Who would you say has been the biggest influence in your life?

John Conroy, USA

[Ecclestone exhales. It's a long, reflective sigh...] Tell you what, I was a big admirer of Mr Ferrari in the old days, though in the newspapers it never looked like it. He was always very helpful to me. Pity he didn't speak English and I didn't speak Italian, but we got through it, in the end. We could do business on a handshake. [For years Mr E used to keep a black-and-white photo of Enzo Ferrari in his office.]

Who has been your fiercest backgammon competitor?

Richard Sheitoyan, Canada

I'll tell you the guy who plays, very, *very* well – and I can honestly say that I have never come up ahead of him – that's Mr Todt [Jean Todt, president of the FIA].

What is the best road car you have ever driven or owned?

Josh Bates, UK

I am not that interested in road cars – I just drive them. They serve a purpose.

Ecclestone was a close friend and manager to Jochen Rindt, who became F1's only posthumous champion in 1970

What has been your proudest moment so far?

Severine Covens, UK

I can't really think about that. I've been lucky enough for a lot of good things to happen. Some things I have made happen. I don't really look at these things, you know. Yesterday was history.

Why did the grand prix in New Jersey fail to get off the ground?

Brad Purvis, USA

It wasn't financed correctly. The guy went into it thinking he could raise a lot of money. He thought it was a purely a commercial thing. Which is correct, but it just did not happen. \rightarrow

YOU ASK THE QUESTIONS



RUTRONAS

:181:

If you could take any two drivers and place them in any era of Formula 1 in your race team, who would they be and why? Samuel McCarthy, UK

[This particular question prompts a chuckle from Ecclestone]. The cars and teams are completely different today from the cars of 20 years ago. You couldn't really say ... I mean, if it was today and I was told 'just pick who you want', then - provided they were intelligent enough not to cause trouble - I would pick Lewis and Sebastian. I get on well with both of them, I also think they would get on well with each other. Neither of them has a big ego, and they get on with the job. I never had any problem with the people we had, with Nelson Piquet and what's

Who, in terms of promoting the sport off the track, has been the best world champion? Alex Cooper, UK

Lewis Hamilton. [Ecclestone pauses to consider his answer, before continuing...] Yeah, because he gets to all the different types of public. He is by far the best guy we've had as champion. The others have been good in their way, but he has got to a different sector.

the other guy... the Austrian guy, very famous... [Ecclestone looks at F1 Racing by way of enquiry]... Niki... Niki Lauda... [Then he laughs, seemingly wondering why we hadn't jumped in to help him.]

Niki and Nelson [Piquet - both Brabham drivers at the same time under Ecclestone in 1979] got on well together, but it was a good team all around them.

F1R: Didn't Nelson have a reputation for being a bit difficult?

BE: [Sharply] I never had a problem with Nelson. It's all about how you handle these people. Those two guys were as good as gold. F1R: Niki can be quite opinionated, too ... BE: Niki was alright [firm voice and a stare].

Aside from F1, what others sports do you enjoy watching?

James Finan, UK

Others sports... well... I used to dislike football, as I don't particularly like team sports, but I can understand why the public is attracted to football. I like to watch good matches. Otherwise I like to watch one-on-one sport, like tennis and even – funny thing – snooker. Two guys up against it, and it's all in the mind. And boxing? Not really.

What do you think of Sebastian Vettel's move to Ferrari?

Albert Hofman, Netherlands It was the right thing for him to do, at the time.

What did you think of the alterations made to your 'Think before you drive' sign in Germany, to: 'Bernie says think before you bribe'?

Andrew Gannon, UK

I think it's quite right. I have never bribed anybody, so I don't know. But it is the sort of thing that some people need to think about.

Do you believe grand prix racing should be an all-electric affair like Formula E? *Anthony Crawford, Australia* No.

Why are you so reluctant to embrace modern media technology, like Facebook, YouTube and Twitter?

David Price, UK

I am not reluctant at all. What I have said is that I don't believe that it will attract younger generations to watch Formula 1 – despite what people tell me. What attracted today's 40-yearolds 30 years ago? We didn't have social media then. And I've been looking at social media lately and I don't see anything there that would attract younger people.

Is it true that you have a plane that you use to fly from one side of your ranch in Brazil to the other?

Rob McAlees, UK

[Ecclestone looks surprised, then laughs.] No. Not at all.

Have you ever done anything illegal? Paul Cox, UK

I probably have, but have not known it. *F1R*: You once told us that in your business you have to walk a bit of tightrope...

BE: What you have to think about... [Ecclestone pauses briefly to assemble his thoughts]... There are things that people do that probably are illegal



"A lot of people have massive egos. There is no need to have bloody great big motorhomes... They don't run their businesses as businesses"

to the letter of the law, but don't hurt anybody, or make anybody poorer or richer. If I'm travelling at 40mph in a 30mph zone and I've not hurt anybody, for example. But I could have an accident at 20mph. I'm not saying people should drive quickly, just that there are different circumstances. And what is illegal today may not be in five years' time. Laws change. You have to walk around every day with a lawyer. [Laughs.]

Do you enjoy the company of FIA president Jean Todt?

Liam Humphreys, UK

Jean and I are very different. I run things so that you can do whatever you want to do, as long as you do it my way [laughter from Ecclestone]. He prefers to get consent from everybody, to make everybody happy. We have both done very well and both systems work.

Would you agree that Formula 1 is currently in a crisis? The smaller teams are living a hand-to-mouth existence, while one big team is dominating and ruining the spectacle.

George Landais, UK

As I have been around, some people would say, too long, I have seen so many different things happen. When I had a race team, things didn't change. Frank Williams used to come to me, to borrow a bit of money, borrow an engine. People would borrow engines and gearboxes from each other and it was a completely different society. This used to happen all the time. It doesn't happen today: firstly, the amount of money needed is too much, and secondly I think we have a lot of people involved who have massive egos, who wish they had enough money to compete with the people who are winning. There is no need to have bloody great big motorhomes... I don't think they really run their businesses as businesses. It's very simple: you would not run a business spending more than you knew you were going to get out, but that's what these people do.

And I think a lot of them, perhaps, do not need as much as they cry out for in the hope they may get some more.

[Ecclestone picks up a printout of a website article on one financially troubled F1 team and rails against their failure to organise their cashflow properly.]

Would you like to see your friend Flavio Briatore back in F1?

George Gaskin, UK

I would. Absolutely. He still has a lot to offer to Formula 1. ¹



Want to put a question to a big name in Formula 1? Visit www.flracing.co.uk and join our Global Fan Community, where you'll get to do just that. We'll let you know which interviews are coming up.

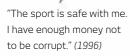


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The states of the second secon

When presented with a microphone, Formula 1's ringmaster is never lost for words. We've rounded up some of his most colourful – and controversial –quotes

COMPILED BY JAMES ATTWOOD



...ON /

BERNIE

"I have a temper. I get upset with stupid people and I will explode. But then I will apologise and, after five minutes, I'll have forgotten." (2001)

"I mustn't tell you. My wife will go mad."

Asked what his next dream is (September 2008)

"My reputation is worth more to me than money. I'd like to be remembered as the 'handshake guy', the one who did it all on a handshake."

Asked about his reputation (September 2008)

"Don't eat breakfast. Small espresso. Can't afford a big breakfast."

Asked by Fl Racing what he has for breakfast (September 2009)





"What these guys don't think about is that today Jackie Stewart is still making quite a bit of money and he hasn't been in a car for quite a few years. It works because he's looked after his image and he still does a good job. Perhaps these guys think when they stop 'that'll be it."

On how the current crop of F1 drivers handle their image (March 2015)



"I thought that if I was going into grand prix racing, then I was going in properly. The idea of simply buying a car, or doing a renta deal with another manufacturer, didn't interest me in the slightest. It's just not my idea of what F1 should be."

On why he continued as a constructor in his first year as Brabham owner (October 1972)

"It was definitely a gentleman's sport back then. Now it's just a sport." Reflecting on his early

days in F1 (October 2001)







"If you have a look at a democracy it hasn't done a lot of good for many countries – including this one. I like people who make up their minds. We did a terrible thing when we supported the idea of getting rid of Saddam Hussein. He was the only one who could control that country." (July 2009)

"In a lot of ways, terrible to say this I suppose, but apart from the fact that Hitler got taken away and persuaded to do things that I have no idea whether he wanted to do or not, he was in the way that he could command a lot of people able to get things done." (July 2009)

"I'm just sorry that I was an idiot. I sincerely, genuinely apologise. I never supported Hitler." - Apologising to The Jewish Chronicle for his Hitler comments (July 2009)

"Somebody goes into hospital because they're sick and a surgeon might say that they've got to have their arm cut off – and they do it, and that's it. They don't have a meeting about it. We have meetings."

- On the frustrations of ruling by committee (March 2015)

NOMEN

"In all likelihood they will never get the opportunity because no one will ever take them seriously. Therefore they're never ever going to get into a competitive race car." (March 2000)

"You know, I've got one of these wonderful ideas that women should all be dressed in white like all the other domestic appliances." - Discussing Danica Patrick's F1 prospects after her fourth place finish in the Indianapolis 500 (lune 2005)



..ON HAPPINESS

"I am smiling. You should see me when I'm grumpy." After being asked to smile for an F1 Racing photoshoot (November 2000)



"I am not sure what happiness is. What do those feelings mean? I have experienced satisfaction when I have planned something and it has come off. But happiness? I am not sure." (June 2013)



"Buy cheap, sell dear and keep your costs down." – on his business approach (October 2001)

"I suppose it would depend on whether I was hungry." - Asked how he would spend his final £20 (March 2014)



"If I get sent to jail I will have to deal with it. I don't think I will like it very much, but you have to get on with things." (June 2013)

"I was never bothered about the jail sentence because I was sure it wouldn't happen. The system in law is pretty fair. I know most people say the prisons are full of innocent people, but I wonder if that's true." - Asked whether he was afraid of going to prison (August 2014)





"I said to those clown's: if someone puts me up against the wall with a machine gun, I will not confirm or deny anything about the donation. They said: 'Okay, okay, we will do the same.' The next thing that happened is that Blair has started talking." On his donation to the Labour party (March 2000)

" To be absolutely honest, I've only ever voted once, and that was in the '97 election. But I voted Conservative, as it happens."

- Asked about politics by F1 Racing (November 2000)





"The only way my job in Formula 1 will come to an end, unless somebody with the power decrees it, is when they are carrying me away in my coffin. And then they'd better make sure the lid is nailed down." (November 2014)



"I tried to find out [about social media] but I'm too old fashioned... I say to some of these people who start this nonsense about social media, look at what tobacco companies tried to do – get people smoking their brand early on because then people continue smoking their brand forever."

On why social media doesn't appeal (November 2014)

"I don't know why people want to get to the so called 'young generation'. Why do they want to do that? Is it to sell them something? Most of these kids haven't got any money. I'd rather get to the 70 year old guy who's got plenty of cash."

On engaging with young F1 fans (November 2014)





"We could do with another James Hunt. I was pretty close to James and I have lots of great memories of him. I never partied with him because I'm not a party guy, but he was terrific for the sport." (June 2013)

"Look at the people in the Hockenheim grandstand. All they had to look at from F1 on the Sunday morning was the drivers' parade. Twenty idiots on the lorry chatting among themselves and not even acknowledging the crowd. They didn't bother to wave or anything." On unengaged drivers (August 2003)

"What bothers me about motorsport is all this nonsense with silly drivers having people telling them what to do and say. All this business is a joke when they get out of the car and thank their grandmother, their aunt, their tyre company, the fuel company, the sponsor, my uncle, where he went to school. It's all crap. They don't want to thank anybody." (October 2003)

"Kimi is a strange guy and I like him the way he is. But when you win the title you must make an effort and open yourself up more." On Kimi Räikkönen (October 2008)



...ON CATÉRHAM AND MARUSSI

"Nobody will miss the two teams because they're not front running teams; they've only got a name that people would know because of the problem they're in. If you want to get recognised you've got to do something. This poor guy in South Africa [Oscar Pistorius], for instance, has got more interest because of what happened with him than when he was winning gold medals."

After Caterham and Marussia missed the final races of 2014 (November 2014)





"[Silverstone] is basically still run like a big club race. They've built new grandstands, at last, but in general it still looks a bit tired and Battle of Britain. I could run it at Biggin Hill if I wanted that."

After signing a deal to move the British GP to Brands Hatch (May 1999)

"It's been a tip for far too long. I have raced there myself, and as an Englishman I have been very embarrassed by it all." (December 2001)

"A country fair masquerading as a world event." After the 2002 British GP (July 2002)

"It's embarrassing for me when somebody wants a new circuit and they say 'We're coming to England to look at Silverstone.' I say 'Don't do that whatever you do. If you want to come and look at what we don't want, go up to Silverstone.'" (June 2003)

"I wouldn't consider buying Silverstone. I wouldn't consider taking it if they wanted to give it to me." (July 2003)

"This will ensure that Great Britain will remain on the Formula 1 calendar for many years... the team at Silverstone knows how to organise a good event."

After signing a 17 year deal to run the British GP at Silverstone (December 2009)

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- Asked by Fl Racing whether Fl should ban tobacco advertising (March 2004)

"Ask the teams. I don't smoke. And I don't get any sponsorship. They rely on the tobacco sponsorship."

Asked why F1 wouldn't drop tobacco advertising (May 2004)



"I had woken up four or five times in hospital. I realised that I didn't want to risk lying in bed for the rest of my life looking up at the ceiling."

On giving up his race driving career (July 1997)

"It's difficult for me to use a computer, so I don't think I could drive a Formula 1 car any more."

Asked if technology was making F1 cars too easy to drive (March 2003)



"Nobody watches 125cc motorcycle racing where they overtake 50 times a lap, so Formula 1's still Formula 1 and people that understand Formula 1 appreciate how it's run."

- Asked whether F1 was boring (October 2002)

"No, no. I say no, then I stop for a bit because I don't know."

- Asked whether the newfor 2014 rules would improve the racing (March 2014)

"Entertainment is what people want. If you asked me tonight to go to the ballet and said it's fantastic, I would say it's not for me... Maybe if I tried it, I'd love ballet. I just can't understand the reason why they have these girls dancing on their toes. Why don't they get taller girls? It would be so much easier."

on why Formula 1 doesn't appeal to everyone (November 2014)

"There's not as much noise from these cars as there used to be, so people are complaining. The good old days were actually the best. But that's how people are. Women in particular like to criticise."

On the lack of noise from the 2014 engines (November 2014)







"There wasn't enough money on that train; I could have done something better than that."

– On rumours he was involved in the robbery (April 2005)



"There are businesses going bankrupt every day through bad management. Race circuits are simply businesses – and some people are simply not capable of running them." – On FOCA helping to promote F1 races in the early 1980s (September 1981)

"I cannot imagine the championship without the oldest and most prestigious race on the calendar."

Asked about the future of the French Grand Prix (August 2001)

"We are Monaco and Monaco is us. We will never leave here. Never. I wouldn't say that about any other venues around the world but about Monaco, yes. Absolutely." (June 2003)

"We'll probably lose races in Europe. I suspect Europe will have a third world economy within the next decade, anyhow." (July 2003)

"It does not matter to Formula 1 if there is no Grand Prix in the US. What do we get from America? Aggravation, that's about all. If you say 'good morning' over there and it's five past twelve, you end up with a lawsuit."

On the future of the US Grand Prix (June 2006)

"This is the best venue in the world. I guarantee F1 will race in Istanbul until 2021." On Istanbul Park (April 2007)

"When the army moves in, I suppose."

Asked when escalating tension between North and South Korea might threaten the Korean GP (May 2010) **3**

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VETTEL'S





The stunning Ferrari SF15-T doesn't just look good – it's got Mercedes-beating pace. So how did the Scuderia bounce back from their 2014 struggles to score that Malaysian Grand Prix victory?

WORDS MATT YOUSON PICTURES LORENZO BELLANCA

In the absence of seismic rule changes, movement up and down the order in Formula 1 tends to happen slowly. Bound within an increasingly rigid set of regulations, constrained by limits on windtunnel time and testing mileage, it's all too easy to stagnate. It makes Ferrari's rise up the ranks to the top of the podium this season worthy of praise: the Scuderia have put in a good shift. →



errari's improvement this year is more than a move from fourth to second in the pecking order: in a competitive field, a couple of tenths relative to your rivals can effect that sort of change. This is something more. For perspective, consider that in qualifying for the final four races of Ferrari's win-free 2014 campaign, the F14-T Hybrid's were around 1.5secs off pole. On average, they finished those races around 1min 20secs behind the leader – even when that leader was cruising.

Fast forward to the first four races of 2015. The average pole deficit has come down to an even second – although individual performances have been closer. More impressive is the race pace. Ferrari's worst performance in the opening four races was in Australia, when Sebastian Vettel trailed home 30secs behind the Mercedes. Following Vettel's victory at Sepang – Ferrari's first win since the Spanish Grand Prix in May 2013 – the races in China and Bahrain both saw Mercedes' Lewis Hamilton winning with a red car looming large in his mirrors. And this against a Mercedes team widely believed to have upped their game for 2015. So, how did it happen? Most fingers point to the Ferrari 059/4 power unit – with Exhibit B being the equally impressive rise through the ranks of Sauber, the only other team with the 2015-spec Ferrari engine. Maranello appear to have delivered a power unit with more raw power, improved energy harvesting and better drivability – and all of that with more efficient heat rejection.

"Architecturally, the power unit is similar to 2014 – timescales forbade significant change here," says technical director James Allison. "The hybrid system was always a strong part of the car, it's just that the 2014 power unit did not have much energy to harvest. The PU guys have worked miracles to deliver a large step in horsepower and energy recovery in a very short time while being constrained by the same basic layout."

Increased power and energy recovery seem to be the logical underpinning of Ferrari's regeneration, but there's more to it. Extra horsepower alone does not deliver a car that's kind to its tyres, nor one the drivers don't have to fight. Allison confirms this, stating: "The performance step is divided equally between the power unit and the chassis."

Santander Santander

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His comments are echoed by Kimi Räikkönen. When asked what the differences are between 2014's F14-T Hybrid and the SF15-T, Räikkönen says: "A big chunk of the improvement is the engine – but you cannot give all the credit to the engine department. The car has improved: it has more downforce and is handling better because of that. The key is that all areas have improved, plus people have been working more closely – as one team – putting it together more nicely."

His comments are a rebuke to the way Ferrari have operated of late. This car is the product of a very different management and engineering team to the one that built the first car of the new hybrid era. Plugging Vettel into an Alonso-shaped hole is of less significance than changes in the backroom, and looking at the differences between 2014 and now, it's impossible to view the changes at Maranello as a simple shuffling of the pack.

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MANAGEMENT CHANGES

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While the headline departures are those of a president and two team principals, the technical departments have undergone equally significant change: Luca Marmorini, Nikolas Tombazis, Pat Fry and Hirohide Hamashima, respectively director of the engine and electronics department, chief designer chassis, director of engineering, and tyre analysis supremo, have all left. The overall impression is that the field has been cleared for technical director James Allison to exert greater influence.

Where a team as old and as venerable as Ferrari is concerned, it's tempting to draw parallels with events from F1 history, and one of the more entertaining subplots this year is the idea that Allison has been cast in the role of Ross Brawn, the ideal foil for

The key is that all areas have improved quite a bit, plus people have been working more closely – as one team – putting it together more nicely

Vettel's Michael Schumacher. Allison brushes that aside with a greater degree of humility than is typical of technical directors – but he acknowledges a desire to emulate Brawn's management style. Having followed Brawn from Benetton to Ferrari in the mid-1990s and participated in their successes in the early 2000s (before returning to Enstone and enjoying further success with Renault), he has first-hand experience to draw upon.

"I was lucky enough to spend a fair amount of time working for Ross," concedes Allison. "I saw in him a technical manager who didn't try to involve himself in the minutiae but was very skilful at picking people for key roles, for allocating the resources that the team had in a way that was likely to bring most performance for the least spend, and was good about leaving people space to work in and not micromanaging them – but equally ready to step in if he saw things going wrong.

"That was a tremendous lesson, working under a guy like that. I try to make my own pale reflection of the way I saw him work – but honestly, whether a team is good or not depends massively more than on who the technical director is. The team have to have strong people across the board – from the team principal and the board right the way down to the machinists who are making the parts. There are so many components of a Formula 1 team, and you can have no weak link otherwise nothing works."

A big difference between Brawn and Allison is that the latter is sufficiently blunt in his public utterances to make the former appear positively diplomatic. In describing progress made with this year's Ferrari, Allison is forthright about the failings of the 2014 machine. "The main weaknesses were: not enough downforce; not enough ballast; not enough horsepower; not enough recovered energy; and suspension kinematics that were rough on the tyres," he says. "We still miss a little horsepower and downforce – but the gap is now much smaller and is something we hope to close further during the season."

DESIGN TRAITS

A glance at the SF15-T suggests a car with the same design principles of its predecessor, tidied and tucked as you'd expect from a second-generation vehicle designed under stable regulations. That would, however, miss the many developments that make this car a more competitive package.

"It would not have been possible to deliver a significant performance step just by tidying up the previous design," says Allison. "Viewed from a distance – or by my mum – that statement would apply equally to every car on the grid, with the exception of the McLaren. However, if you were to look closer than the TV cameras are capable of doing, you'd see that both aerodynamically and mechanically these two cars are very different."

The front end of the SF15-T is a case in point. Behind Ferrari's all-new front wing, the pick-up points for the top suspension elements have been lowered, creating geometry that decreases lateral loads on the tyres and allows for softer springs and bars, thus creating something easier to drive and less likely to induce rapid tyre degradation.

Impressive tyre life is a key factor in Ferrari's early-season success. It has led to the 'Red Lotus' moniker being attached to the SF15-T, due to its ability to extend tyre stints without suffering a drop in pace and occasionally profit from a stop less than its competitors. Allison's viewpoint – as was the case at Lotus – is that good tyre life is a consequence derived from many factors.

"The engineers at Ferrari are talented in every department; that the car is good on its tyres is a credit to them and to the fact that our drivers have sensitive feet," he says. "It is not possible for a car to use its tyres well without good downforce. Furthermore, a power unit without good drivability will wreck the tyres in a very short while. If vehicle dynamicists do not specify suspension kinematics and stiffness targets correctly, the tyres will scrub themselves to death. Finally, if the race engineers and tyre engineers don't set up and manage the car effectively through the race weekend, all the work put in by the chief designer to channel the input of all the other groups will be for nothing. It's safe to say that when a car is good on its tyres it is not down to just one person's work."

The question is whether Ferrari are capable of doing more this year than merely keeping Mercedes honest. Balancing optimism with pragmatism, Allison doesn't say his team *can't* catch up – just that they haven't done yet. "I'm confident we'll deliver a lot of performance to the car during the year. But Mercedes will be doing likewise and only time will tell whether our development rate will erode their lead. They have a bit more horsepower than us and a bit more downforce and until we've closed those two gaps it's not realistic to talk about title challenges."

It's an honest answer, though perhaps not the one anybody wishes to hear... with the possible exception of Mercedes.

It is pretty safe to say that when a car is good on its tyres it is not down to just one person's Work James Allison

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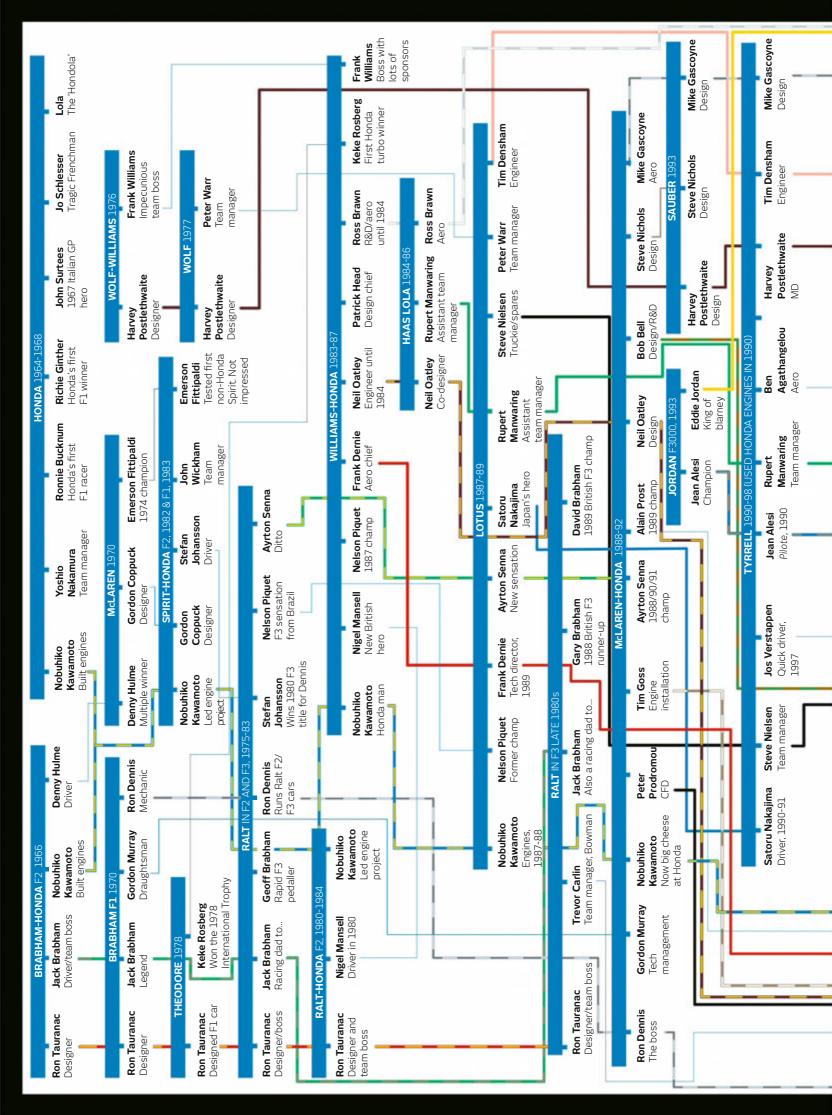
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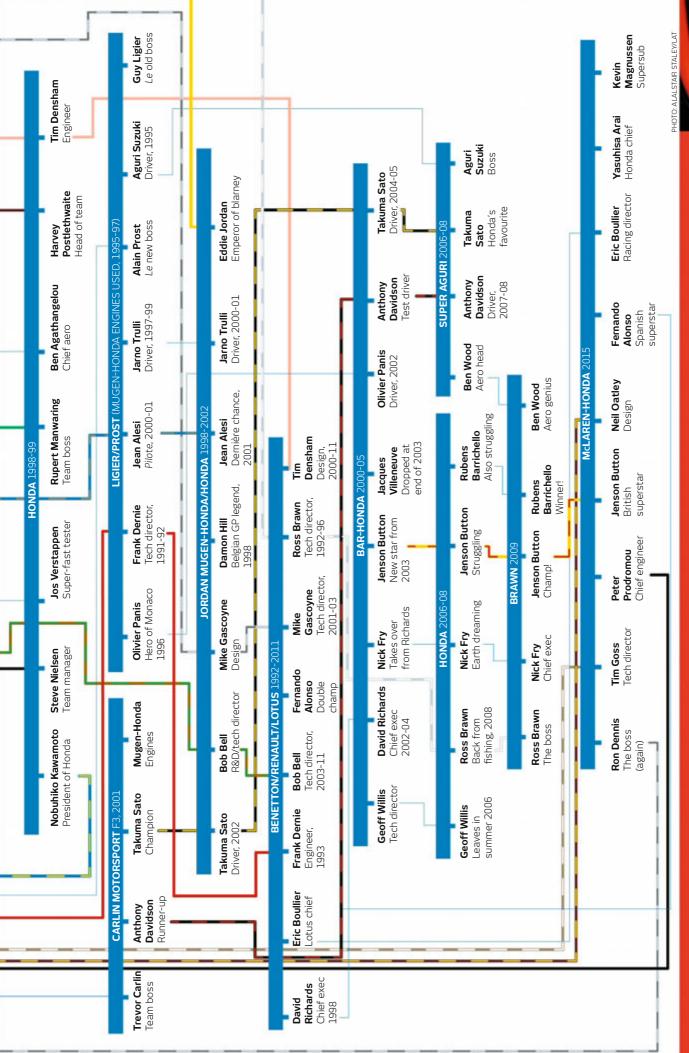
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F1 Racing June 2015





MCLARENHOR

He's near the back of the grid, his car is slow and unreliable and the team he just quit is winning races again...

...SO WHY IS FERNANDO ALONSO SO HAPPY?

WORDS

If Fernando Alonso is acting, it is at a Pacino-

ANDREW BENSON esque level. Since he started his new career at McLaren-Honda, despite the lamentable performance of his new car, Alonso has oozed only positivity about the team, about their potential to succeed, and about his decision to leave Ferrari. And it appears he is genuine.

In news conferences, he has given long, considered, good-humoured answers, brushed off difficult questions, and focused only on his belief that, sooner or later, McLaren-Honda *will* succeed. Even enquiries into how it felt to see Sebastian Vettel win in Malaysia, in what would have been Alonso's Ferrari, have been met with equanimity.

McLaren insiders say this is not just a face he has been putting on for public consumption. Behind the scenes, Alonso has apparently been happy, enthusiastic, supportive, making jokes – the consummate professional. Not even being outqualified by team-mate Jenson Button in his first two races disturbed him.

Inevitably, this amiable, mellow Alonso has been met with cynicism. People wonder how a man so ambitious and driven to win can be happy just to be qualifying and racing at the back.

Worse, from the outside it seems that he has left Ferrari just as they are finally in a position to challenge at the front. Even those who have worked with him in the past and have the highest regard for him say this looks like a catastrophic miscalculation. \rightarrow

Alonso, however, does not see it that way.

"It is a question I expected, obviously," he says, "because with Ferrari winning in the second race of the season and me out of Q1, it is the perfect moment to ask.

"But I have been five years in Ferrari and second three times. I did not want to finish second a fourth time. If they win the championship at the end of the year, maybe I will have a different opinion. But I am happy with the decision. There have been years when we started very well – Ferrari winning in China in 2013, for example. But when it counts is November and when it was November we never won. I want to win in November."

If Alonso has looked back at his margin over Kimi Räikkönen for much of 2014, compared it with how close the Finn has been to Vettel and considered that were he in the Ferrari he might actually be beating Mercedes, he is not saying.

Alonso chose to leave Ferrari despite the arrival at Maranello of technical director James Allison, whose abilities he is well aware of. Not only has Alonso worked with Allison before – Allison was at Renault when Alonso won both his world titles – but Alonso has confided to friends that he feels he would have won the championship in either of the two Lotus cars on which Allison led the design in 2012 and 2013.

Did Allison not try to persuade him to stay? "They tried for five years, so it was difficult to keep the trust," Alonso says. "And not only the trust but there are many other factors that make McLaren-Honda more attractive for me now."

That last answer hints at the roots of his frustrations with Ferrari, why he felt he just had to leave, despite knowing full well that the Italian team would, in the short term, undoubtedly be a more competitive proposition than McLaren.

He ran out of patience because there had been too many broken promises. Ferrari promised him Adrian Newey and failed. They promised him Pat Symonds and changed their minds. They promised him Mercedes engine boss Andy Cowell... and failed again.

And so it went on. Five years of frustration and failure, despite Alonso driving at a level few have ever achieved, challenging for championships – missing out in the most agonising of fashions – in cars clearly not as competitive as the Red Bulls being driven by the man who *did* win all those titles, and who is now at Ferrari. Equally, while Vettel did win in Malaysia (which was only his second race in a Ferrari) for now, Alonso sees only a pattern he experienced himself several times. Ferrari beat Mercedes fair and square that day, but it was because a set of circumstances came together to help them.

On pure pace, the Ferrari remains a fair chunk away from the Mercedes – an average of 0.705 seconds in qualifying over the first four races of the season. Some of that margin may be in Lewis Hamilton's driving but, for now, Vettel's Malaysia win this year can be viewed as not so very different from the ones Alonso scored in China and Spain in 2013 – races where differing tyre usage brought Ferrari into play, and hampered the best car of the time, an illusion rather than an indication of the absolute competitiveness of the car.

Only time will tell whether the revamped Ferrari team really *can* mount a serious challenge to Mercedes but, for now, the fact that they are still a little off in terms of absolute pace is almost certainly one of the reasons for the sang-froid and peace of mind Alonso has demonstrated both publicly and behind the scenes with his new team.

I have been five years in Ferrari and second three times. I did not want to finish second a fourth time"

The unbearable lightness of being

Alonso has a reputation as a brooding,

intense, awkward character, an impression summed up in an interview Mercedes nonexecutive chairman Niki Lauda gave to an Italian newspaper earlier this year. Lauda described Alonso as "egocentric, dark and grumpy", saying he mishandled Ferrari by being too critical in public and adding: "He made the wrong decision. He pushed himself into the abyss."

McLaren know the reputation. They even have their own experience of the dark side of Alonso, from their tumultuous 2007 season together. But there has been no sign of it at his new home.

"It's not a face he's putting on," says one insider. "He has been as good behind the scenes as you have seen him in public. He makes jokes, he's professional, happy and totally committed."

An example. In China, between first and second practice, racing director Eric Boullier was holding a lunch for the Spanish media. Alonso was made aware of the event and it was gently suggested to him that it might be helpful if he popped over and said a few words.

This was the sort of request at which many - if not most - grand prix drivers would have \rightarrow



bridled, even if it had only meant walking down some stairs in a motorhome. But it didn't. The two McLaren buildings were a good five-minute walk apart in Shanghai's labyrinthine paddock.

Some drivers would have needed persuading or – depending on their status – *ordering* to go along. Others would have understood the importance of it straight away, but still rolled their eyes at the imposition and inconvenience.

Alonso? He didn't say a word. No reaction, no apparent resentment. He simply got up and went over straight away – and spent ten minutes chatting to the table as they had their lunch.

Whatever your view of the man, voluntarily sacrificing 20 minutes of his lunch break for a relatively unimportant PR exercise does not appear to be the action of someone going through the motions and paying lip service to his new employers.

So why is Alonso so happy at McLaren-Honda, despite their abysmal performances? Again, he has provided the answer himself – he believes that McLaren-Honda will get there, and give him the chance to win that longed-for third title.

"I am enjoying this process," he says. "It is weird to hear that, probably, but this progress and the job the team is doing every week, every race is amazing. Every session or meeting we do, I hear the programme and steps we will do in the next coming races. Unfortunately, we are not at the level we want. I am sure we will be soon but it is time to enjoy growing up together. In a few months, we will look at each other and be proud of each other.



It is time to enjoy growing up together. In a few months we will look at each other and be proud" "I have been racing 14 years in F1. In recent years it was even more frustrating because we were fighting for championships and we didn't get them. It is another new project and I am much more optimistic.

"I needed new motivation and this is it. It is time to work harder than before and hopefully we will be competitive soon."

Honda's 'new Senna'

If McLaren-Honda don't up their game,

Alonso's patience will be tested. But perhaps his lightness of heart is not so hard to understand.

The relationship with Ferrari had run its course; leaving is a weight off his shoulders. Moving to McLaren-Honda at the start of their new partnership gives him the chance to build something himself, to feel part of it, in much the same way as Lewis Hamilton does at Mercedes.

Already impossibly wealthy, Alonso is earning a fortune at McLaren: £26.4m a year, half funded by Honda and half by McLaren. He has to make it work – because where else would he go?

Red Bull don't want him, and Renault are in a mess anyway. Rightly or wrongly, he's given up on Ferrari. And Mercedes are about to sign Hamilton to a new deal at least until the end of 2017, which is coincidentally when Alonso's McLaren-Honda contract runs out.

And, for now, there are genuine reasons to be optimistic. McLaren are a way behind, but at the time of writing, after Bahrain, they had made tangible chunks of progress at each race.

It seems likely that the majority of the deficit lies with the engine. In China, McLaren were 3.5 seconds a lap slower than Mercedes in qualifying. One bhp equates to about 0.016 seconds a lap. So 3.5 seconds is the equivalent of just under 220bhp. Honda's power deficit to Mercedes in China was said to be 180bhp. Which would suggest the McLaren chassis is about 0.6-0.7secs slower than the Mercedes – in other words, not far away from the Ferrari.

Considering that last year McLaren were at least two seconds off in chassis terms, that the 2015 McLaren is a new-to-the-team aerodynamic concept carried over largely from Red Bull thanks to new chief engineer Peter Prodromou, and that development on the car has been stymied so far by having to fix so many problems with the engine, that bodes reasonably well.

The Honda, meanwhile, is lagging in all areas - particularly in terms of its hybrid system, \rightarrow



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Smoke and mirrors over Alonso's Barcelona crash...

McLaren's new relationship with Fernando Alonso almost fell apart before he had even raced the car

After 2007, when Alonso fell out with team boss Ron Dennis and left one year into a threeyear contract, people have been looking for fault lines between driver and team - and they did not have to wait long for them to emerge.

The news vacuum in the aftermath of the pre-season testing crash that left Alonso in hospital for three days was filled by intense speculation about what might have happened to him. Was it some kind of seizure? Did he black out? Did he suffer an electric shock?

McLaren's only contribution to this - other than an ill-informed and misleading news conference by Dennis four days after the crash - was to say that they had conducted an extensive investigation and could find no evidence of any failure on the car.

So when Alonso turned up in Malaysia, sat in the official press conference on the Thursday and point-blank blamed a steering problem, saying he remembered everything about the crash and that the steering had "locked" as he went through Turn 3, the effect was explosive.

Had McLaren handled it badly, the chances are Alonso would already be heading for the exit. They could have said his statements were not backed up by their evidence. Worse, they could have implied he was lying, hinting that he had to say something because if nothing was found to be wrong with the car, then something had been wrong with Alonso. They did not. Because that way lay Armageddon.

McLaren simply refused to respond, hoping that after a media storm of 48 hours or so, it would all go away. Which is what happened. And it is what will continue to happen unless new evidence comes to light - unlikely, since the FIA accepted McLaren's version of events and its medical team found nothing wrong with Alonso or a similar incident happens again.



HOTOS: STEVEN TEE/LAT; SUTTON IMAGES

but in the engine as well. The onus is on Honda to up their game. And because the engine project is so new, the potential for gains is huge.

In this, Alonso is a powerful tool - simply because he is Alonso. Honda desperately wanted him to drive for them, and Alonso has made it clear that a major factor in his decision was the potential he saw in Honda at their headquarters in Japan. Honda, he believes, are the only engine company capable of beating Mercedes.

The decision to join McLaren-Honda was also an emotional one. When he was three years old, his father made him a kart painted to look like the 1988 McLaren-Honda. Ayrton Senna was his childhood hero. And just as Senna had a strong link with Honda, the same is now true of Alonso.

For all Button's class, his views simply don't have the same weight as Alonso's with Honda. If Alonso goes to Honda and says words to the effect of: "I came here because it was my childhood dream to win the title with McLaren-Honda. I left Ferrari to join you and be successful. This engine is not good enough. We must do better," they will listen to him as they will to no other. And he knows it.

To beat Mercedes you need to take risks and that is what I decided last year to do"

"To beat Mercedes you need to take risks and that is what I decided last year to do," Alonso says. "I finished second three out of five years with Ferrari. I could continue two more years maybe finishing second again two more years. But that was not enough. I prefer to risk.

"We start quite far behind but I have so much trust and confidence in this team. Now I am out in Q1, and it is time maybe for many to enjoy this moment. It's time to enjoy for the others and hopefully soon it will be time to enjoy for me." ወ

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CHASING SHADOWS IN THE SICILIAN SUN

The Targa Florio remains one of the most daunting and dangerous racing events ever created. But **Daniel Ricciardo** didn't hesitate when given a chance to follow in the wheel tracks of the sport's greats in a stunning Alfa Romeo

WORDS ROBERT HOLMES PICTURES RED BULL CONTENT POOL Spring has not yet sprung, but still the Instagram sky of Sicily beckons alluringly. It's four decades since the roar of racing engines echoed around the hills and narrow streets of the villages in the

north of the island but, today, a man and a car are here on a mission to reconnect with their own personal histories: Daniel Ricciardo, whose father emigrated to Australia from Sicily at the age of six; and a squat, red sports-prototype with a sawn-off tail – the Alfa Romeo T/33/TT in which Red Bull driver advisor Helmut Marko set the lap record at the 1972 Targa Florio.

Having been warmed up, and now cooling down, the Alfa is ticking menacingly as it sits in the shadow of the old pit complex in Cerda, nicknamed 'Floriopolis'. Here, the long-abandoned buildings quietly decay, surrounded by a miasma of fading memories. The Targa Florio came about shortly after the turn of the last century thanks to the racing passion of the first man in Sicily to own a motor vehicle, Vincenzo Florio. He came from a wealthy family, went travelling in Europe as many young aristocrats did, and returned with a De Dion motor tricycle that he'd bought in France. Having failed to also bring fuel, Florio took longer than he had expected to hit the roads in his new toy. But when he did, he soon developed an urge to try it in competition. In the absence of any other motorised vehicle on the island, he arranged a handicap race between himself, a cyclist and a man on a horse. Humiliatingly, the tricycle overheated, while the cyclist – no Fausto Coppi, he – withdrew after developing a cramp. The horseman cantered to victory.

Undaunted, Florio acquired more and better motor vehicles and even raced on the mainland before setting up the Targa Florio, an international invitational road race. From Cerda the 92-mile lap ran south at first, into the jagged slopes and variable climate of the Madonie \rightarrow





hills, reaching an altitude of 600 metres as it turned back on itself anticlockwise and then plummeting back down to sea level for a blast along the coastal road.

Only a third of the 30 cars entered for the inaugural 1906 Targa Florio made the start, thanks to striking dockers in Genoa, and only six finished the race, each completing three laps. Vincenzo Lancia was among the DNFs. The winner, Alessandro Cagno, completed the course in nine-and-a-half hours at an average speed of 29mph. Tame by the standards of today, but in the machinery of the time – on roads not built for cars, and littered with free-roaming animals – it must have been a terrifying test of skill and endurance.

As the race grew in stature the layout changed, briefly becoming a single lap of the entire island before slimming down to the 45-mile tour used between 1951 and 1977. Speeds crept up, too: by the late 1960s the cars were topping 170mph along the coastal road. But some things didn't change much, if at all: the indifferently surfaced roads, the precipitous drops that awaited careless drivers in the hills, and donkeys in the road. The race organisers would send out leaflets in the runup to the race, suggesting that residents "lock up children and animals". Few paid attention to the diktat.

"Some things didn't change much, if at all: the indifferently surfaced roads, the precipitous drops, and donkeys in the road" "The first few laps were a shock," says Marko. "During practice, Toine Hezemans collided with a donkey, rider and all. Nino Vaccarella and his car disappeared under a truck."

Browse YouTube for footage of classic Targa Florio action and you'll get a taste of the enthusiasm the locals had for the race. Far from locking themselves into their houses, they took to the streets in droves, parting like a school of fish in the path of a shark as the cars came roaring through. There was a lighttouch approach to policing, too, if drivers wanted to get some practice in beforehand, in a road car or their actual race car.

"Sometimes the *carabinieri* would stop you, reach into the car and hand you a ticket they'd already filled out," laughs Marko. "We handed them in at the garage. There must have been hundreds of them. I'm guessing they were thrown away."

Snapped firmly to attention by the presence of a camera crew and the distant but unmissable snarl of a racing V8, the denizens of Cerda are out and ready as the red Alfa and its beaming driver roll into town. The car's as low as a roller skate, and Ricciardo – clad in white overalls and a retro open-face helmet – seems to be sitting *on* rather than in it, protruding almost absurdly from the cockpit with the steering wheel between his knees (and, unknown to the casual viewer, an enormous fuel tank pressed close against each hip).

Attention is divided almost equally between the car – *bella machina!* – and its pilot.

"They recognised the car straight away," says Ricciardo. "And a few recognised me as well. They said, 'You'll be world champion one day... with Ferrari!"



The F-word is repeated in every village the Red Bull posse stops in. When, folk enquire, will Daniel drive for Ferrari? "Let's wait and see," is his tactful reply.

Even at a less committed pace than the Alfa would have been driven at in period, the challenge of this legendary circuit makes itself known as the route leads out into the hills. Here a motoring writer would not even need to consult their book of the trade's clichés to describe the road as a twisting, undulating ribbon of asphalt. It is that, but scabbily surfaced for the most part and bounded by terrifyingly steep drops.

"Just look at the road," says Ricciardo. "It's cracked and there's sand all over it. This race would have scared me a bit.

"It's the first time I've driven a historic racing car and it's cool. You feel everything through the steering wheel, the pedals are stiff – you know the car's old. But to drive it's unbelievable – it's a beast!"

There are Alfa Romeo Tipo 33s and then there are Alfa Romeo Tipo 33s, because this moniker garlanded very different cars over the course of a decade as Alfa wrestled with the task of beating Ford, Porsche and Ferrari at the top level of sportscar racing. Designed under the auspices of former Ferrari engineer Carlo Chiti – one of the infamous 'gang of five' who left Ferrari in 1961 after becoming fed up with Enzo's wife – at Alfa's competitions department Autodelta, the first car to bear the 33 label arrived in 1967 and was based on a tube-frame chassis. Chiti later dropped that in favour of a monocoque, but having watched Porsche lay the sportscar racing field to waste in the early 1970s with the spaceframe



917 prototype, he returned to the tube-frame concept when the rules changed ahead of the 1972 sportscar racing season.

The engines also changed over the years, partly prompted by rule revisons but mostly, as you may have inferred from Chiti's various stabs at creating a competitive chassis, because Alfa's sports-racers weren't always very successful. By 1972, though, the technology was mature, and the FIA's ban on fivelitre cars played neatly to the strengths of Alfa's three-litre V8. Chiti, however, wanted a flat-12 and designed the new T/33/ TT (the initials standing for *Telaio Tubolare*, tubular frame) to suit. But the engine wasn't finished in time, so the V8 went in instead. Outwardly the car was almost identical to the previous 33 but, beneath the skin, as well as the spaceframe chassis, it also had an all-new five-speed gearbox.

Ferrari had a new car – the 312PB – all ready, and duly left Alfa to eat their dust for most of the 1972 season – except at the Targa Florio. Having already won the Le Mans 24 Hours for Porsche it was here, more than in the nine world championship Formula 1 grands prix that he contested in sundry BRMs without scoring a single point, that Helmut Marko etched his name in racing history. →

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From the Targa Florio to F1

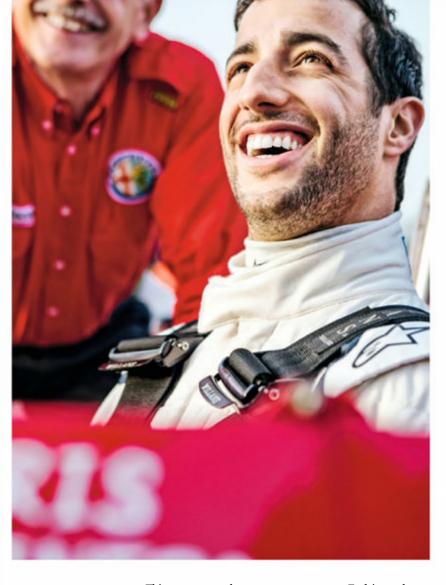
Numerous drivers who have competed in Formula 1 have also tackled the Targa Florio over the years. But only nine men who have won the sportscar classic have also enjoyed a race victory in F1...

Diese Teauffi	
Piero Taruffi Targa Florio win:	1954 Lancia D24, solo
F1 wins:	1
Stirling Moss	
Targa Florio win:	1955 Mercedes Benz 300 SLR,
	with Peter Collins
F1 wins:	16
Peter Collins	
Targa Florio win:	1955 Mercedes Benz 300 SLR,
	with Stirling Moss
F1 wins:	3
Luigi Musso	
Targa Florio win:	1958 Ferrari 250 TR,
	with Olivier Gendebien
F1 wins:	1
Jo Bonnier	
Targa Florio wins:	1960 Porsche RS60,
	with Graham Hill and Hans Hermann
	1963 Porsche 718 GTR,
	with Carlo Maria Abate
F1 wins:	1
	ā.
Graham Hill	
Targa Florio win:	1960 Porsche RS60,
laiga Hono wiii.	with Jo Bonnier and Hans Hermann
F1 wins:	14
TI WIIIS.	14
Wolfgang von Trie	c
Wolfgang von Trip Targa Florio win:	1961 Ferrari Dino 246 SP,
Targa Fiorio Will.	with Olivier Gendebien
F1 wins:	
FI WIIIS.	2
Lorenzo Bandini	
	1005 Formeri 275 D2
Targa Florio win:	1965 Ferrari 275 P2,
El universit	with Nino Vaccarella
F1 wins:	1
Jo Siffert	
Targa Florio win:	1970 Porsche 908/3,

with Brian Redman

2

F1 wins:



Helmut Marko on his way to setting hap record of Bamins 41secs at he Targa Florio in 1972. It still stands This was an age when many contemporary F1 drivers also raced in sportscars, lending that category something beyond the niche status it enjoys today. In 1972 Alfa fielded four cars at the Targa Florio, fully expecting to win: they had a nifty short-wheelbase package and the likes of Marko, Hezemans, Vaccarella, Vic Elford, Gijs van Lennep and Rolf Stommelen to drive it. A late solo entry from Ferrari, driven by Arturo Merzario and Sandro Munari, provided the spoiler.

Alfa lost two cars to breakdowns but Marko took the lead on the fifth lap, only to lose it when co-driver Nanni Galli



overshot a corner just before the final driver change. That left Marko running two minutes behind with one lap left to go. Driving like a man possessed, he destroyed the lap record – his 33min 41sec benchmark stands to this day – but came up 16 tantalising seconds short of victory. After various accidents the following year the Targa lost

its status as a world championship race, limping on as a national event until 1977, after which it was cancelled on safety grounds. The name lives on as a national rally.

Ricciardo has visited Sicily just once before, on a dimly remembered family holiday in his youth. And the island's iconic road race seldom figured in chats about motor racing ("Dad," he recalls, "raved more about F1 and Mario Andretti"). Today, though, he has made a connection with the jagged hills and Saharan sand, and with the red racing car that trembles and shakes with the violence of its V8 engine on every stab of the throttle.

"I must finally get round to asking my dad," he muses, "why my grandparents left Sicily for Australia." 0

Alfa Romeo Ferrari

Womarques, one passion

The appearance of an Alfa Romeo logo on the side of this year's Ferrari is the latest link between two firms with entwined histories – and a shared love of racing

WORDS PINO ALLIEVI PICTURES LAT ARCHIVE,

LAT ARCHIVE, LORENZO BELLANCA & SUTTON IMAGES When Ferrari launched the SF15-T in January this year, one of its most noticeable features was the prominent Alfa Romeo branding behind the cockpit, in a space formerly occupied by the Fiat logo.

And so, just under two months later when Sebastian Vettel drove his victorious machine into parc fermé after the Malaysian GP, the watching world also connected with the Alfa logo. It was a magisterial piece of marketing, typical of Fiat Group CEO Sergio Marchionne's new era. After performing a miracle on Maserati (going from 6,600 cars produced in 2009 to 36,500 in 2014), Marchionne intends to do the same with Alfa Romeo thanks to a hefty investment of €5bn. The cash is designed to reinvigorate a brand that, like Ferrari and Maserati, has always been at the cutting edge of technology, performance and quintessentially Italian elegance. The appearance <u>of the Alfa logo is quite different</u>

to the business model adopted by a number of F1 teams, who have struck promotional deals with manufacturers (such as Red Bull/Infiniti and Force India/Tata). There is a real partnership between Ferrari and Alfa within the Fiat Group, and a shared history that inextricably links them.

It's a complex story that began last century, when Enzo Ferrari was in charge of a team that ran Alfa Romeos in a wide variety of international races, launching the careers of drivers who would become legends: from Tazio Nuvolari to Achille Varzi, not to mention Jean-Pierre Wimille, Guy Moll,

Fangio's Alfa Romeo 159 leads José Froilan Gonzalez's Ferrari 375 at Silverstone in 1951. This would turn out to be Ferrari's maiden Formula 1 victory



"Alfa Romeo officially entered motorsport in 1938, creating Alfa Corse and nominating Enzo Ferrari as director. In this role, he was paradoxically forced to buy the Alfa Romeo 58 design from himself: it started winning immediately"

Rudi Caracciola and many others. Ferrari originally started as a client of Alfa Romeo, and is now an ally with extended powers.

Given that Alfa Romeo have a few financial problems and cannot be seen to be spending money on racing, it's Ferrari who have taken

105th birthday – when Alfa will launch a midsize saloon car, provisionally called the Giulia.

This will be the start of a new direction for a company whose enduring charisma remains unaltered, despite being the victims of state control until Fiat took over in 1986. Even during



on the financial burden of running a successful competitions department, linked with the group but managed separately. The Prancing Horse of Ferrari (a brilliant marketing operation, back in the days before marketing existed) appeared on an Alfa Romeo P3 for the first time in a race at the 1932 Spa 24 Hours, and the die was cast. Things have come full circle: the story started with Alfa Romeo 'hosting' Ferrari and helping to build their brand. Now, 83 years later, the opposite is true. The Alfa sticker on the SF15-T presages Alfa's resurrection, with a relaunch planned for 24 June this year - the company's

Ferrari started out as a client of Alfa Romeo, and here an Alfa Romeo P3 is shown hosting the **Prancing Horse logo** at Reims in 1934 in an attempt to help build Ferrari's brand

the Fiat era, Alfa Romeo was often managed badly, yet it still retained a fascination that passed from generation to generation, thanks to the industrial and sporting glories of the past.

Alfa Romeo became a legend because it has always spent too much chasing a dream, striving to come up with the ultimate car that will achieve sporting glory on the track and fame on the road.

The company's first financial saviour came in the unlikely form of Benito Mussolini in 1933, after the Alfa P1, P2 and P3 machines designed by Vittorio Jano dominated races with Antonio Ascari, Giuseppe Campari and Tazio Nuvolari.

Mussolini, conscious of the fact that Alfa Romeo cars were a true symbol of Italy, and therefore of the fascist utopia he was trying to create, brought Alfa into the IRI entity: a statecontrolled financial and industrial company.

As usual, Mussolini abused his power: he entered his personal chauffeur, Ercole Boratto, into the Mille Miglia, driving for Scuderia Ferrari. Il Duce's pride in his acquisition swelled further in 1935, when Tazio Nuvolari established a world speed record over one kilometre, averaging 321.400kph on a section of the Firenze-Mare highway (now the Autostrada A11). Nuvolari was driving an Alfa Romeo Bimotore created in Modena at Scuderia Ferrari's workshops. It was a fine piece of propaganda for Italy, and a blow to the German supremacy within the automotive world of which Adolf Hitler was extremely proud - a fact that would not have been lost on Mussolini.

On the nose of this record-breaking car was not the Alfa logo but the Prancing Horse of Scuderia Ferrari. It was the first time it had appeared as a stand-alone brand, although few noticed at the time.

The Ferrari/Alfa links are also seen in the Alfa Romeo 158, which Giuseppe Farina and Juan Manuel Fangio used to claim the first two F1 world championships, in 1950 and 1951. The car was a pure product of Modena, designed by Gioacchino Colombo and owned by Ferrari; the project was originally funded with Enzo Ferrari's money in 1937. One year on, Alfa Romeo officially entered motorsport, creating Alfa Corse and nominating Enzo Ferrari as director.

In this role, Ferrari was paradoxically forced to buy the 158 design from himself. It started winning immediately: the first success came at Montenero with Emilio Villoresi (Gigi's younger brother). Emilio later died in the car at a test in Monza because of a problem with the steering.

That marriage soon turned sour; Enzo was no fan of the cost restrictions Alfa imposed, and the increasing autonomy and profile that Ferrari was

Giuseppe Farina wins the inaugural F1 world championship grand prix at Silverstone in 1950 - the start of two years of domination by Alfa Romeo





creating irritated Alfa Romeo, who put alongside him a Spanish engineer called Wilfredo Ricart as a technical supervisor and policeman. Unsurprisingly, this created resentment on Enzo's part when he realised he no longer had the full confidence of his employers.

Ferrari requested a meeting with Alfa chief Ugo Gobbato, during which a frank exchange of views took place. The outcome was a letter from Gobbato dated 6 September 1939, in which Ferrari was fired. There was a golden goodbye, equivalent to €14million today. Ferrari used part of the settlement to buy his mansion, Largo Garibaldi in Modena, where he lived until his death. With the rest of the money he bought land in Maranello, on which he built a factory.

How about the 158, created all those years before? That remained tucked away in Alfa's workshops in Milan throughout the war years. When the war was finally over, it was wheeled out, comprehensively updated, and wasted no time getting back to winning ways.

Alfa Romeo in F1

Manufacturer	Engine Supplier
Years active	Years active
1950 51,	1961 63,
1979 85	1965,
Races	1970 71,
112	1976 79,
Wins	1983 88
10	Races
Other podium	215
finishes	Wins
16	2
Pole positions	Other podium
12	finishes
Fastest laps	12
14	Pole positions
Championships	3
2	Fastest laps
Nino Farina, 1950; Juan	6
Manuel Fangio, 1951	Championships
	0

No doubt about it, the Alfa Romeo 158/159 that claimed the first two F1 championships was a pure Ferrari, in all but name. Which is why, when José Froilan Gonzalez beat the Alfas in a Ferrari 375 at the British GP on 14 July 1951, Enzo said: "It's like I've just killed my mother ... "

That moment marked the definitive separation of the destinies of Ferrari and Alfa Romeo. Ferrari began to sell their expensive and exclusive sportscars across the world, complete with competition pedigree. Alfa left competition behind and concentrated on more popular cars with vaguely sporting pretensions such as the 1900, the Giulietta and the beautiful 2000. These cars enjoyed colossal commercial success, with record sales and expansion - Alfas were also produced or assembled in Asia, Australia, North America, Brazil and South Africa.

Ferraris were the choice of rich motorists who wanted to show off their wealth, and for whom automotive passion was in some cases a secondary consideration. Alfas, by contrast, \rightarrow



were for solid middle-class people who appreciated quality and refinement.

Riding the crest of this industrial wave, with Alfa's finances finally sorted, the desire for competition returned to the company. In 1963 Alfa bought Autodelta, a private team based in Udine, presided over by engineer Carlo Chiti. The Italian had worked at Alfa from 1952 to 1956 before joining Ferrari to head the competitions department. His cars and engines were responsible for the titles won by Mike Hawthorn in 1958 and Phil Hill in 1961. He also collaborated with Giotto Bizzarrini to produce Carlo Chiti was the engineering genius behind the dominant Alfa Romeo GTAs and 33s, and the iconic Ferrari GT0

the most emblematic Ferrari in the world: the GTO. Chiti fell out with Ferrari over what he saw as the meddling of Enzo's wife, Laura Garello, in the company. He left to join ATS, a small firm from Bologna, which tried F1 without success.

Chiti was an aeronautical engineer by trade, so had an in-depth knowledge of aerodynamics. He was the first to add a flap to the Ferrari 330SP to create more grip, a forerunner of what would become standard in motorsport 20 years later.

He was a genial extrovert, who loved good food as much as good design and had a passion for fine art: he took the entire Alfa Romeo team to the

Rembrandt Museum in Amsterdam prior to the 1980 Dutch GP. "You can't just talk about cars, you need at least a bit of culture behind you," was his explanation to anyone who objected.

Chiti was disorganised and uncontrollable: behind his desk in his small office, there were invariably two or three stray dogs he had picked up. "When Chiti left us," recounted Enzo Ferrari later, "he forgot to pick up his last five or six months of salary, not to mention his entire final severance payment. I had to call his wife to come and get the money. That's just how Chiti was, but he was a good person: clean, passionate, full of ideas, with a perfect grasp of every theory."

The early 1970s were boom years for the Italian economy generally and for Alfa Romeo specifically. In 1973, the Milanese company produced 200,000 cars, whereas BMW produced 182,000. In 2014, Alfa sold 70,000 cars while BMW sold 1,811,719. These figures expose the different directions each company took, having started on a level playing field 40 years before.

Chiti was a powerhouse for Alfa Romeo. He made the GTA compete and win, then plunged himself into the 33 project in its various guises, which picked up world sportscar championships in 1975 and 1977. Alfa Romeo began to make headlines again and Italian public opinion started to push for a return to F1. The biggest obstacle was the Italian state, which would have been required to invest in the programme.

Chiti found a compromise, launching a collaboration with Bernie Ecclestone's Brabham team in 1976, sponsored by Martini & Rossi. The drivers were Carlos Pace and Carlos Reutemann. Pace qualified on the second row in Monza and the following year John Watson – who could do no wrong at Autodelta – took pole in Monaco and came second in Dijon. In 1978 Niki Lauda replaced Hans Stuck and won in Sweden with the Brabham BT46 'fan car', as well as at Monza – on the day that Ronnie Peterson's tragedy unfolded.

As they say in Italy, *l'appetito vien mangiando*: appetite comes through eating. Chiti now longed for an F1 car that was entirely Alfa Romeo. He built it secretly, in a corner of Autodelta's workshops on the outskirts of Milan. He told only his bosses at the state-owned IRI Group, on whom Alfa Romeo still depended, when it was about to test for the first time at Balocco with Vittorio Brambilla.

As soon as the news was out, the controversy began, led by Brabham, who rightly figured their

Niki Lauda in the Alfa-Romeo-powered Brabham BT46 'fan car' that won once and was immediately withdrawn from F1

"Taken in by Alfa Romeo's performance in 1980, and in love with all things Italian, Mario Andretti gave in to Carlo Chiti and signed an Alfa Romeo contract for 1981 – but his best finish would be a modest fourth place at Watkins Glen"



star engineer might not have been keeping his eye entirely on the ball. Ecclestone and Chiti got talking though, and each eventually came to understand the other's point of view. Eventually, Niki Lauda was allowed to test the new Alfa Romeo Tipo 177 towards the end of August 1978 on the short track at Le Castellet, judging the car to be "not very competitive".

The divorce from Brabham was put back until the end of 1979, the year in which Alfa returned properly to the Formula 1 dream they had abandoned 28 years before.

The ground-effect 179, with its 540bhp V12 engine, made its debut at Zolder's Belgian GP on 13 May, with Bruno Giacomelli at the wheel: a bitter disappointment for Vittorio Brambilla, who had lovingly developed the car from the outset. Giacomelli qualified on the seventh row, alongside Niki Lauda in the Brabham-Alfa. He made a good start, but collided with Elio de Angelis and had to retire. For the next five races, both drivers were used, with Brambilla returning in what were essentially development events.

Alfa's first proper year back was 1980, with an all-Italian duel swiftly developing against Ferrari. It created plenty of enthusiasm, with ardent fans on both sides. But the car struggled: it was slow and then the team's lead driver, Patrick Depailler, was killed during free practice for the German GP at Hockenheim in August. By the end of the season, things had improved and only a broken coil deprived Giacomelli of what could have been a momentous victory at Watkins Glen. Taken in by that performance, and in love with all things Italian, Mario Andretti gave in to Carlo Chiti's advances and signed an Alfa Romeo contract for 1981 – but his best finish would be a modest fourth place at Watkins Glen. The Alfa Romeo just wasn't quick enough, and lacked decent aerodynamics.

Sadly, 1982 was no better, excepting Andrea de Cesaris's pole position at Long Beach, a race he led for some distance as well. At the end of the year, the plug was pulled. Alfa chairman Ettore Massacesi sold all the equipment, including exclusive use of the new V8 turbo engine (ten units, for the equivalent of €5million each) to Scuderia Euroracing, run by Giampaolo Pavanello. He was a phlegmatic Venetian who had won three European F3 championships with Michele Alboreto, Mauro Baldi and Oscar Larrauri, but lacked F1 experience. The sponsor was Benetton, lending credibility to the programme by giving the cars their corporate green livery and injecting the equivalent of €20m into the budget. It was to little avail: even though the 1984 and 1985 driver line-up of Riccardo Patrese and Eddie Cheever was experienced, there was little to show for their efforts, with zero points scored in year two.

A parting of the ways was inevitable. Luciano Benetton was disappointed, but still captivated by the publicity potential of F1, so he bought Toleman. "We've accumulated experience rather than results: now we know how to run a team ourselves," he said. "Alfa is fantastic when it comes to road cars but as far as competition goes, it didn't give us what we wanted."

These were damning words, spoken by a well-loved Italian businessman who knew how to create a worldwide empire. People took note.

Alfa Romeo dropped back into the abyss, their name never again mentioned in connection with F1 until their logo reappeared on the sidepod of the 2015 Ferrari. Is there any chance of a third return to the pinnacle of world motorsport? This would appear unlikely.

Yet Sergio Marchionne is disingenuous when asked directly. "I think we'll see Alfa Romeo back racing again at some point sooner or later, because competition is in Alfa Romeo's DNA," he replies. "We'll think about it when the time is appropriate and perhaps there will be a surprise in store. But, for now, it's too early to say."

If the regulations in future are favourable, why not a new adventure at the Le Mans 24 Hours, for instance? In the meantime, Alfa Romeo races on as a sticker on the side of the Ferrari. That presence may be small, but it's still big enough for people to take plenty of notice.



The last Alfa Romeo cars to run in F1, from 1980 to 1985. Top row, left to right: Vittorio Brambilla in 1980's 179: Bruno Giacomelli in 1981's 179C; Andrea de Cesaris in 1982's 182. Bottom row. left to right: Mauro Baldi in the 1983 183T: Eddie Cheever in 1984's Benetton Alfa Romeo 184T; and **Riccardo Patrese in** 1985's Benetton Alfa Romeo 185T

Life behind Lewis

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Pascal Wehrlein knows every function on the Mercedes W06 steering wheel just in case he's ever asked to step in. But how did his chance come about?

WORDS JAMES ROBERTS PORTRAIT GLENN DUNBAR/LAT

F1 has always had a Mercedes twist for Pascal Wehrlein, understudy to Lewis Hamilton and Nico Rosberg. For his first grand prix, aged five, Pascal's father drove him 130 miles south from their home near Sigmaringen to Hockenheim, notorious for its flat-out straights that cut deep into the forest. This was the 2000 German GP, a race memorable for being Rubens Barrichello's first F1 victory; a win gifted to him thanks to the timely intervention of a Safety Car.

On one of those flat-out straights, a disgruntled former Mercedes employee had wandered from the spectator areas to the side of the track to vent his spleen. While Robert Sehli's intrusion onto the track was downright dangerous, the ensuing Safety Car messed up strategies and prevented a Mercedes win that day, as Mika Häkkinen's McLaren-Mercedes finished second behind Barrichello's Ferrari.

Fast-forward 15 years, and Pascal Wehrlein is sitting in the Mercedes hospitality unit in Shanghai, casting his mind back to that first grand prix he watched as a child, where he stood on the other side of the chain-link fence.

"I was a big McLaren-Mercedes fan at that time and I always used to watch Formula 1 races with my dad," recalls Pascal. "After I went to that first race in Hockenheim, I kept on telling him that I wanted to be a Formula 1 driver, until eventually he let me start karting at the age of eight."

Wehrlein's family paid for his karting at first, but after a few years he received help from the German motorsport federation, the ADAC. He entered the Deutsche Post Speed Academy that awarded ©100,000 to the best up-andcoming talent and was chosen by a jury that included former Mercedes boss Norbert Haug. Wehrlein's success meant he could continue his career into single-seaters.

The Mücke team he raced for in Formel Masters also has squads in Formula 3 and the German DTM touring car championship, so it was a natural progression for Wehrlein to develop with the team. He won the Formel Masters title at the second time of asking and was picked up formally by Mercedes-Benz to become part of their young driver programme. As British racers Jamie Green, Gary Paffett and Paul Di Resta have found, the Mercedes-Benz route takes drivers through F3 and then into DTM.

"Racing in the DTM is very difficult as it's really different to what you are used to," says Wehrlein. "The cars are so big and heavy, you can't see your tyres and the competition is very close. Just 0.2secs or 0.3secs is ten places off the



Name: Pascal Wehrlein Born: Sigmaringen, Germany Date of birth: 18 October 1994

2015 Two F1 test days at Barcelona for Mercedes and Force India; races in the DTM

2014 Eighth in the DTM, one win, with Mercedes. Enters the F1 Young Driver Test in Abu Dhabi for Mercedes

2013 Competes in both the DTM for Mercedes and FIA European F3 for Mücke where he takes one win

2012 Fourth in FIA European F3 with Mücke – one win

2011 Champion in ADAC Formel Masters with Mücke – eight wins

2010 Sixth in Formel Masters with Mücke – one win

Pre-2010 Karting



Pascal Wehrlein takes his turn in F1, after unexpectedly being asked to stand in for Lewis Hamilton in pre-season testing: "I was so surprised"

My first time in the F1 car I was familiar with everything. Nothing was new. The simulator is really helpful"

front. In my first DTM season in 2013, they cancelled Fridays, so on Saturday there was just one free practice session before we went into qualifying. That was really hard in my first season as I didn't have any experience of the cars and had circuits to learn. It was really difficult."

Even so, Wehrlein was still hoping to follow in the footsteps of former series champions Christijan Albers and Paul Di Resta by graduating to F1 via DTM.

"I was always dreaming of Formula 1 but I knew I had to get the results in DTM to get a chance in F1. Over the past few years it's been hard as we were struggling with the car. So many times I was one of the quickest DTM drivers, but I was never on the podium. At the end of last season we improved the car quite a lot and then I won my first race."

Still under the wing of Mercedes-Benz, now headed up by Toto Wolff following Haug's departure, Wehrlein got his first chance in an F1 car, at the Portuguese circuit of Portimão testing a 2012 Merc before he ran at the Young Driver Test in Abu Dhabi last November. He did one day and 96 laps, comfortably setting the fastest time and immediately proving adept behind the wheel.

"Yes, my first time in the F1 car I was familiar with everything," says Wehrlein. "I was used to all of the buttons on the steering wheel and all the procedures, so nothing was new. The simulator is really helpful." Helpful, indeed, when you've done 40 simulator days over the past 12 months...

In pre-season testing this year, Wehrlein, 20, was given the chance to run with Force India (Wolff paid the Mercedes-powered team to help with their bank balance), before that was curtailed mid-morning when he was suddenly drafted into the Mercedes W06 Hybrid.

"That was a strange day," he recalls. "I was so focused with the Force India and I was running about 30 or 40 laps. I was thinking about setup, how to improve, my driving style and what we could change – then I was told to go to the Mercedes garage to check the seat and pedals as they wanted to me drive the W06. I was so surprised."

He was drafted in because Hamilton was unwell – a situation he must secretly be hoping will happen during a grand prix weekend, since at most races he'll be in attendance, quietly in the background with his overalls and helmet at the ready. Just in case.

"When I come to the F1 races I don't think I'll be racing," says Wehrlein, who will continue in the DTM this year. "I'm always ready to drive, but I don't think I'll be driving. I think the chances are low. I don't want to drive one race and be out again, I want to drive the whole season..."

Mercedes will hope he doesn't become another former disgruntled employee. The signs are he's quite handy and, who knows, one day he might just get his chance. 2



"The Bianchi commission was ultimately, an investigation into how the FIA operated a race, which meant it had to be independent Heading up a commission means you can't work for the FIA. I *don't* work for the FIA"

Having helped Colin Chapman pioneer ground effect, and now working as an advisor to the FIA, **Peter Wright** has many insights into the workings of F1

PORTRAITS DREW GIBSON

eter Wright is in the rare position of having influenced F1's past and having a hand in its future. He was largely responsible for discovering the 'ground effect' phenomenon Mario Andretti used to win the 1978 title with the Lotus 79. It was one of the greatest breakthroughs in the history of F1. Think double diffuser, blown exhaust; add them together and multiply by ten.

A Cambridge graduate of Mechanical Sciences, Wright lives on a Welsh hillside, just across the border from where we met in the Herefordshire village of Leintwardine. His house is 'off the grid', meaning he has embraced solar and wind power to make a restored barn his home. Such forward thinking is indicative, not just of a pioneering past, but also consultancy roles specialising in technology and safety for the FIA.

A long lunch in the delightful Lion pub allows barely enough time to scratch the surface. **Maurice Hamilton:** In the late 1960s, when you were with BRM, aerodynamics had, ostensibly, yet to appear on the F1 radar. But were you into it at this stage?

Peter Wright: We were. We started a windtunnel programme at Imperial College,



which led to Tony Rudd [BRM chief engineer]
saying: 'I don't like wings. Find another way.'
That set me thinking about making the whole car do the job. We started to build a wing-shaped car.
MH: Really? I wasn't aware of that.
PW: Had it had skirts, it would've been a ground-effect car. We had wing-shaped side pods.
MH: Similar to those on the March 701?
PW: Yes, I'd shown a picture of the BRM with its pods to [March designer] Robin Herd and he said he would have some of that. We had been doing a wing-shaped car in 1969 – myself and three other guys – in a secret workshop in Bourne [BRM headquarters], which is why it's not really well known.

Then John Surtees arrived and started to dominate BRM. Tony left and Surtees stopped the project. He probably wasn't wrong, because it was immature technology. But that was the start of ground effect.

MH: You then had a period at Specialised Mouldings, a company that seemed to do the bodywork for any respectable racing car at the time. What did you learn from that? PW: We built a windtunnel there and I got involved in composites and aerodynamics. I had four great years at Specialised Mouldings but, after that, I wasn't quite sure where I was going. I applied for a job at the University of Mauritius as head of mechanical engineering. But when Tony Rudd heard about this, he was at Lotus and I was recruited to become managing director of Technocraft, which was the composite research part of Colin Chapman's boat empire. It was exciting because we got Chapman for eight hours a day. I'd turn up in the morning and he'd be in the workshop. I got to know him extremely well. MH: So you saw all sides of the mercurial genius? PW: I got fired - twice! Once, he took me outside, threw his hat on the ground and jumped up and down on it. I explained what had happened and 🦂



that I didn't need firing. He said: "Oh, okay," picked up his hat, dusted it off, put it back on his head and carried on. Chapman could act; he really could. I lost half a stone in the first six months I worked there. But it was fantastic. Absolutely full on.

Tony had set up a group at Ketteringham Hall and picked a bunch of people from Team Lotus. He said: "You can come and do the aerodynamics in your spare time, working with Ralph Bellamy." some card skirts on – and boom! We had to do it about four times before we believed what we were seeing. That was the eureka moment.
MH: Ground effect! That led to the Lotus 78, which initially had brushes along the bottom of the sidepods. I guess you were seeing how far you could go with the regulations?
PW: Yes, the problem was sealing the sides of the car legally. Brushes were the first step, which



wearing them out. That led to putting ceramic strips along the bottom, which meant the skirts would seal – and then the car really came alive.

The first time we ran ceramics on a suckeddown skirt was at Snetterton. The car went a second a lap quicker. Chapman said: "Let's have more of that!" The Lotus 79 was the result. **MH:** It must have been great working with Chapman. He'd just go for it, whatever it took?



"Colin Chapman loved new things; he was really fired up. His attitude was: 'Some is good, more is better'"

So off we went, back to the Imperial College windtunnel, by which time they had fitted a moving road. I wanted to do some fundamental work on ground effects. This was 1975.

We looked at how we could produce downforce at the front of the car, using the ground to help us. When we discussed where the radiators should go, it seemed a good idea to put them on the car's side, in an aerofoil-shaped pod because that did nothing and wouldn't do any harm.

At first, we were getting very inconsistent results. The sidepods on the model, which we kept modifying, were collapsing under the loads when we turned the wind on. When we changed the gap between the bottom edge of the sidepod and the road, we noticed a difference. So, the next question was: 'If we control that gap, what happens?' We used wires to hold it all up, put didn't do anything. And this is where Chapman and other people in the team came in – because I wasn't actually part of Team Lotus then.

They went off to South Africa testing and we had put some polypropylene strips on the inside, below the car. They were inconsistent; there wasn't anything very good about them. But there was a dip in the track at Kyalami and when Mario Andretti went through there, he felt the car suck down. When he told Chapman about this, Colin sent someone off to an ironmongers to buy some aluminium extrusion, which he bolted along the skirt. Andretti went out, came back and said: "Bloody hell!" Or, something like that.

I ended up at Lotus at Ketteringham Hall, where I started work on skirts during 1977. Normally the skirts would suck up and I was looking at ways to make them stay down without **PW:** He loved new things; he was really fired up. His attitude was: "Some is good, more is better." The trouble was, after the 79 we had the 80 in which 'more' was too much. So the next question was: 'How do we make the "too much" work?'

Plan A was the Type 88, the twin-chassis car because, when Stephen South drove the 80 at Paul Ricard at the end of the year, we put 2,000psi springs on it. He said: 'Yeah, that starts to work now - but I can't keep my feet on the pedals.' That's when we realised we needed two chassis with different suspension systems. **MH:** And off you go again. Another pioneering development. Did budget ever come into it? **PW:** Budget never bothered me. In a funny way, I don't think that ground effect hugely increased the budget. The research into it was peanuts; a couple of weeks in a windtunnel. So, when it came to the Lotus 88, myself and Martin Ogilvie were put in a room upstairs at Ketteringham Hall, more or less with the door locked. **MH:** This was such a complex car. How did you test stuff in those days?

PW: We hung a skirt rig out the back of a Renault 4 van. We'd drive round while I hung out the back watching the skirts. Very scientific! I said we needed to measure things because



I didn't know what was going on. We started a programme with the flight instrumentation division of Cranfield to put a data system on the car. We were looking at suspension deflection, G-loads and so on. This was when motor racing went from gut instinct to science.

MH: You tried to race the Lotus 88 - and it was banned. I remember reading Chapman's statement at Long Beach and, from watching him, he struck me as being deeply upset. His heart and soul had gone into it.

PW: He was very, very upset by the ban. He basically gave up motor racing after that. He said: "We're going to go and watch the launch of the space shuttle." We never did, but that was the parting shot because the space shuttle represented pioneering thinking.

MH: He was clearly convinced the 88 was legal. **PW:** Well, it was. That was why, having discovered it, we had no choice but to run it. There was such a potential advantage. Ferrari got the rules changed at the last minute, but they'd got the wrong end of the stick. They thought we were building a car with no suspension, so they got the rule changed to say that the car must have a suspension system. And we said: "That's alright. We've got two suspension systems!"

MH: To a layman, it was a very complex car. PW: It added complexity. If you took the outer body off, it was just an F1 car without a body; there was nothing funny about it. You then had to wrap it in a shell, which ended up a little bit too big because the bit inside had to move. Instead of wrapping up a car as tightly as you can, you have to take a car and ask how much it is going to move, and then wrap up the envelope of its motion. So, yes, it was quite complicated. MH: Given what you've said about Colin and his love of something new, do you think that, if he were still involved in F1, he'd find it too constricted, as Adrian Newey says? **PW:** Well, his argument over the 88 was that they'd taken away his right to innovate. He said the only reason he was going to continue was because he had a commitment to the sponsors. MH: Was he like a bear with a sore head at times? **PW:** No, in fact he was quite human. He was kind of sad. It got to the very core of what he was about, which is having the right to do better than other people because you're smarter. He was so good at driving things through. He knew the difference between incompetence and a proper technical barrier. If there was a proper technical barrier, he'd put the whole of the organisation

behind pushing the idea through. That was why he was magic to work for.

MH: He never saw the active car run, did he? **PW:** He died the day we first ran it [16 December 1982]. Plan B was active suspension, which came out of the data system development at Cranfield. It had sparked Colin's interest, but computers were something he never understood. He could appreciate the value of them, but he never got to grips with them.

MH: Lotus raced the active car through 1987, by which time [Ayrton] Senna was driving for you. How did you find working with him?

PW: Steve Hallam was his race engineer. I set up the active suspension and worked closely with Ayrton. He was so smart. He sussed out before anyone that the active looked after the tyres, so he didn't bother with qualifying and worked entirely on getting the car right for the race. And the two races he won - Monaco and Detroit were tracks where the tyres were marginal.

If you weren't giving 115 per cent, Ayrton would let you know. When he was leaving to go to McLaren, Peter Warr [Lotus team boss] did a bit of a presentation to him at the last race of with signatures of the team. Peter did his usual \rightarrow





"Ayrton left Lotus and said: 'You had me, you had Honda, you had Camel... you blew it because you weren't committed"

thing; big speech, saying what a wonderful experience it was working with Ayrton, all this sort of stuff. When Ayrton took his turn to speak, he said: "I wish I could say it had been good, but actually you blew it. You had me, you had Honda, you had Camel – and you didn't do anything with it. You just blew it because you weren't committed." It was pure Ayrton – and a lot of people knew it was true. Team Lotus hadn't invested in technology at a time when Williams and McLaren were doing just that.

MH: The active programme gets dropped, you move to Lotus Engineering and then come back to racing, trying to save, with Peter Collins, a declining Team Lotus. That's probably not something you want to dwell on too much.
PW: We did a deal with the Chapman family and then, in 1991, the oil crisis hit. I don't know how we managed to keep it going for four years.

MH: What did you do after Team Lotus went into administration?

PW: I realised I didn't want to work in front-line motor racing any more, so the options became quite narrow. I had a word with Charlie Whiting, and the next thing I knew I was working as technical adviser to the FIA, which is a very general term. I was co-opted onto Professor Sid Watkins' expert advisory group, which was formed in the aftermath of the Senna accident.

I've always been interested in safety. One of my first jobs at Team Lotus was an analysis of Ronnie Peterson's car from Monza [Peterson died in hospital on the night of his crash just after the start of the 1978 Italian GP]. I had to report to Chapman on the wreckage; that was when my interest in forensic safety really started.

In the FIA, I did whatever Max Mosley, FIA president, needed doing, which was regulatory

Victory for Ayrton Senna at the 1987 Monaco Grand Prix in the active-suspnsion Lotus 99T

issues and safety. I was also involved in some of the road car stuff he was doing. Max is a fantastic person to work for; very straightforward; you know exactly what you're meant to be doing.

I said we didn't know what had happened to Senna because there was no accident data recorded on the car. I wrote a spec and got an accident data recorder built and put onto the cars. I personally did the analysis of all the accidents in F1 for two or three years and then handed it over to somebody else. That was very interesting; right up my street.

I became slowly involved in F1 regulations: the first thing was drawing up regulations for KERS. That ultimately that led to drawing up what is now more or less the current F1 regulations. The one thing we were pushing at that time, and didn't get taken up, was movable aerodynamics, which would have taken fuel consumption saving from about 30 per cent to about 50 per cent. **MH:** How would that have worked? **PW:** All the fuel goes into the turbulence behind



the car. So, basically, free up the drag and allow wings to be moved and cooling to be active – effectively, to open and close the ducts. Cooling is set around low and medium to average speed. At high speed you've got more cooling, and therefore drag, than you want. Also, you would flatten off the rear wing and then flatten off the front wing to balance it.

MH: What was the objection to that?

PW: F1 writes its own rules and the FIA accepts or declines them. It didn't stop Max trying to put things forward, but the technical working group had to accept it. Movable aerodynamics was more than they wanted.

MH: Could you see the importance of F1 giving a lead to the road industry?

PW: Yes, I could. Bernie Ecclestone says it's entertainment. And I hear that. But my feeling is that motor racing has always caught people's

imagination because they get a vision of what's coming in cars. Okay, performance had to be trimmed and stabilised for safety and practical reasons. So, you're not in awe of the performance because it basically doesn't change year to year.

Take what's happening at the moment. Motor racing should be doing a fantastic job by saying: 'If you buy a hybrid, you're not a tree hugger. Lewis Hamilton's got one – and look what he does with it.' I think the chance to get that across has been missed. But F1 must entertain. You can't deliver a message if you haven't got people's attention; it's as simple as that.

MH: Where do you sit with the cost argument? These power units are not cheap and F1 is allegedly trying to cut costs.

PW: I was involved when Max got very interested in cost. He actually gave me a job, which was to find out where the money was being spent. I went round all the teams and was told a lot of different things, about half of which I believed!

We found a huge amount of money was being spent on engine development. The cost benefit in terms of lap time was a tenth of what you spent on aero. There was enormous expenditure and R&D on looking at incremental changes in valve angle, building a cylinder head every time you changed the valve angle, and then testing it. It was being done in Munich, Maranello, England – duplicated work that was not very relevant to anything. It was costing something like half a billion plus a year. Max said it was ridiculous. That's what led to the engine freeze.

MH: Towards the end of last year, you were involved in this very sad business of investigating Jules Bianchi's accident. How did your association with this come about?

PW: Max had made me president of the Safety Commission, which is the sort of nominal official safety role within the FIA. When Sid Watkins stood down, I also chaired the research groups within the FIA Institute. The formation of the FIA Institute, funded by the FIA Foundation, set that research programme going and, not me, but other people have done some fantastic work. The only thing I can claim credit for is that I got involved in helping sort out the HANS device by bringing the right people together. The HANS device has helped solve the major safety problem in side impacts and base of the skull fractures.

I was a little surprised to be asked to chair the Bianchi investigation but, thinking about it, they needed somebody who was up to speed enough to pull it together. I was extremely lucky that Ross Brawn and Stefano Domenicali were both available; two guys with such experience and wisdom. We put together a good group of people.

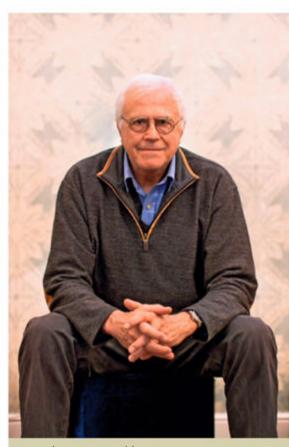
One of the first things we did was to establish terms of reference, one of which very specifically didn't include apportioning blame on the basis that we were not qualified to do so. That's a judicial issue, and ours was not a judicial panel. If you're going to do judicial things, you have to gather evidence and cross-examine it. The timescale didn't allow that. This was more like a coroner's inquest, to establish facts and recommend how to protect society from such an event happening again.

It was also, ultimately, an investigation into how the FIA operated a F1 race, which meant it had to have a high degree of independence. It was different from trying to see, for example, whether a helmet was strong enough or not. It was actually about FIA procedures. We were completely independent in that we were not managed in any way by Jean Todt or anyone else. He drove the idea forward and then stood back. He took the proposals and accepted them.

One thing about heading up a commission is that you can't work for the FIA. I *don't* work for the FIA. The problem is that some people simply did not, or would not, see that the panel was completely independent. 'Ah, Ross Brawn – he's a friend of Jean Todt. Stefano Domenicali? He's the same.' Never mind the facts.

The only thing that really frustrates me is that we were very, very careful about the conclusions and yet a number of people reported it as laying blame in certain areas. It didn't. People came to their own conclusion about who was to blame, based on the facts presented. I would like to have avoided that happening.

MH: I don't think you can, because the very nature of reporting on anything such is this is predicated on blame. It's like the editor says to the reporter: "There's got to be a reason for this; go and find out what it is. The public needs to know." Unfortunately, that drives everything. PW: Exactly. My son sums it up very well when he says a typical headline would be: 'Gerbil eats cat. Who's to blame?' But I think Jean Todt was absolutely right in having this done - and done quickly. There are measures at the World Council to deal with everything that the report has raised. It's very important to have a good hard look occasionally at how you're doing things. MH: What are your thoughts about Formula 1



Timeline

2014	neads up the accident panel that
	investigated Jules Bianchi's Japanese
	Grand Prix crash
1995	Becomes a technical advisor to the FIA,
	with his role expanding to include work
	across a number of FIA commissions
1988	Named managing director of Lotus
	Engineering
1983	Heads up the Lotus active suspension
	programme
1974	Becomes general manager of Colin
	Chapman owned boat company
	Technocraft, with responsibility for
	Lotus windtunnel programme
1969	Joins Specialised Moulding Ltd,
	designing racing car bodies

1967 Graduates from Trinity College, Cambridge with a degree in Main Mechanical Sciences and joins BRM



PW: We did an analysis of the potential. In that particular case, it wouldn't have helped Bianchi because if a car hits an object that's virtually immovable, the car stops, but the driver doesn't.

An enclosed cockpit is technically possible. We've demonstrated what you need to do to keep out of the cockpit a wheel that's coming at you at 125mph. We've run a programme; we know what's needed. But, aesthetically, how do you do it? F1 is an open-cockpit, open-wheel formula, and to solve the problem of loose wheels hitting drivers, you make it a closed-cockpit, closedwheel formula and call it something else. So yes, it's doable. The aesthetic solutions are still being looked at; it hasn't been dropped.

There are practical things to be considered, too. If you use a bubble cockpit, you need a demister and a windscreen wiper, and you've got to make sure you've got an explosive cord to blow it open. We very quickly rejected that aspect and looked at structures that might help.



Also, you've got to try to deal with a small object. We did a big survey of accidents where loose objects had hurt drivers. There was one incident where the car ahead threw out a spark plug, which hit the top of the steering wheel of the car behind and the driver lost a finger. Each case is different and you've got to be careful you don't block off one path and then the next accident is something different.

MH: How was it to work with Professor Watkins? PW: Well, he wasn't your typical doctor! He was an inspiration. He was pretty fearless – if something needed doing, he'd be straight in there with the people that mattered and got it done. Sid deserves a lot of credit for the progress that was made, medically up until Imola 1994, and beyond medical post-Imola. That's when he said we would base safety on science. That was the key. We figured out the science of what was happening – and got good people to do it. The Motorsport Safety Group around the world is ten people. We all know each other, we all co-operate and share. There's no protectionism; no politics.



"Closed cockpits wouldn't have helped Bianchi. If a car hits an immovable object, the car stops, but the driver doesn't"

MH: Talking about sharing stuff - I want to mention the Österreichring in 1980. I was watching practice on approach to the Bosch Kurve. Quick coming in, over a crest, down a gear and then powering through the long right. Nigel Mansell was making his F1 debut with the Lotus 81 and it was terrifying. The back would step out of line as soon as he started to turn in. I saw him afterwards and commented on it. Next thing, he drags me in to see you - and tells me to repeat what I said. I felt such an idiot. You were good; you nodded politely while I rambled on. PW: [Laughs]. Nigel had good cause. The 81 was a 79 chassis, one of the last aluminium chassis. When ground effect first came along there were 300lb springs but now there were up to 1,500lb springs and the structure wouldn't take it. With the 79, they took the chassis apart at the end of the year and the steel insert brackets for the suspension were cracked. The torsional stiffness of the 79 at the end of the year was less than a lettuce leaf! With the 81, we were trying to deal with loads that were going up and up. Not long

after that, they were pulling 4-5G, so the car would flex and move around. But that's where Nigel was fantastic; he'd simply wring the car's neck, no matter what condition it was in. **MH:** You had quite a contrast, didn't you, with Elio de Angelis in the other car?

PW: They were chalk and cheese. You could put Elio in the car first thing in the morning during testing and he wouldn't be awake. Yet he would go out and set the fastest lap he would do all day. Then he'd wake up and go slower. He was totally instinctive, whereas Nigel really worked at it. **MH:** Elio, by all accounts, was a gentleman.

PW: A lovely guy. Elio and Alex Zanardi were delights. Both Italian – although Elio would insist: "I'm not Italian; I'm a Roman!", which seems to be an important subtlety of Italian society – but Elio was not hard, whereas Alex was because he was so determined. A really exceptional character.

MH: You've met a few in your time, Peter.Thanks for telling us about them.PW: Not at all; it's been very enjoyable.



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THE GRAND PRIX **NO ONE WON**

Ten years ago this month, F1 staged the most ludicrous race in its rich history: **the 2005 US GP.** And those who were there will never forget it



WORDS ANTHONY ROWLINSON

It was branded a farce; an insult to fans and to the American sporting public. At that most hallowed shrine of motorsport – the Indianapolis Motor Speedway – F1 committed the cardinal sin of forgetting its audience and left paying punters angered and spoiling for a fight. Only six cars raced, following the withdrawal of the Michelintyre-supplied teams amid safety concerns. The 'spectacle' – such as it was – was laughable. Some threw beer bottles onto the track. Others held up protest banners swiftly daubed with messages too offensive for reproduction here.

This was the 2005 US Grand Prix, an event that immediately passed into the annals of sporting notoriety on account of the lunatic events that preceded its risible six-car start.

Why so few? 'The few' were the Bridgestone teams: Ferrari, Jordan and Minardi, for this was an era of Bridgestone vs Michelin tyre competition. Michelin, otherwise supreme that year, had supplied a tyre too fragile to meet the demands of Indy's F1 circuit, with its banked, high-stress Turn 13. In Friday practice, when Ralf Schumacher's Toyota hit the wall after a leftrear tyre failure, it was clear something was up.

Michelin's men, Pierre Dupasquier and Nick Shorrock, were forced to admit that the tyres supplied were not fit for the event and offered to fly in a batch of fresh rubber overnight.

No good. Michelin realised these were similarly flawed and amid high FIA-Ferrari politics, they were forced, with the utmost embarrassment, to issue a statement conceding that they could not guarantee the safety of their rubber for more than ten laps. Arguments blew up: could a chicane be installed at T13, to reduce the strain for Michelin? No, said FIA president Max Mosley – that would have rendered the circuit 'unhomologated' and might therefore leave the FIA liable for any ensuing accident.

Perhaps the Michelin teams could proceed along the pitlane each lap, rather than blasting away down the main straight? No one fancied that, so F1 went to the grid with only a handful of people knowing what was about to happen.

Jarno Trulli lined up on pole for Toyota, and away they went on their warm-up tour. But as 20 cars rounded T13, 14 of them, all Michelin runners, peeled into the pits.

I was covering the event for sister title *Autosport* and I'll never forget Red Bull team principal Christian Horner confiding: "We're coming in after one lap, all of us, all the Michelin cars." I texted the news back to the office, then, dumbfounded, watched events unfold.

Michael Schumacher and Rubens Barrichello lined up de facto one-two, having qualified their Ferraris five-seven; then came Tiago Monteiro (Jordan), starting third from P17; Christijan Albers (Minardi), fourth from P18; Narain Karthikeyan (Jordan), fifth from P19, and Patrick Friesacher (Minardi), sixth from P20.

Michael and Rubens staged a race of sorts, almost taking each other off before Schumi's inevitable victory – one that sparked conspiracy rumours of Ferrari needing to win at least one 2005 race, whatever the cost. Monteiro scored his only career podium, which also happened to be Jordan's last.

It was unedifying yet unforgettable. And ten years on, *F1 Racing* spoke to some of the key players from the day F1 lost the plot... \rightarrow









TIAGO MONTEIRO JORDAN DRIVER

It was a very strange grand prix. Very early on in the weekend there were doubts about the participation of the Michelin drivers.

We were doing our job. We were there to race. Did I feel sorry for Michelin? Not really. We'd had problems with tyres at other races but we'd got through them. It's up to the supplier to bring tyres to suit the track. They made a mistake, so they chose not to race. It wasn't our problem.

We never imagined there was going to be just six of us out there. There were a lot of scenarios, a lot of gambling going on, and meetings happening just before the race.

Our team boss said: "This is a chance to score some points, because for sure not everybody will race. Just do the best you can and bring it home."

On the installation lap my engineer came on the radio. "Okay, this one is coming in, and this one, and this one - everybody's coming in! Stay in your position and do your race." So that's what I did. All season the Jordans and Minardis were fighting together, the others were a step further, so this was my race. I had to be at the front of it.

I pushed so hard. I made a great start and tried to get away from the others. At half distance I was 30 seconds in front and my engineer told me to slow down. I said, "No way! I'm not going to lose concentration." I didn't want to lose focus.

At the end of the race I had to slow down because of the gearbox temperatures, so the last few laps were nervous. I don't think people realise how hard the smaller teams have to work, because they have fewer resources. I was happy for them - they deserved it.





I wasn't aware of people booing until I saw it on TV. We were asked not to celebrate too much on the podium. Before we went out, Michael and Rubens were laughing and hugging and congratulating me. Then they went out and put on long faces - great actors! I saw lots of people in Jordan yellow, all of them excited, some of them crying. I had to celebrate for them.



We weren't party to everything going on with the Michelin teams, so it was all hearsay and rumours. The first we knew about it was when we were on the grid and they said: "We're going to do one lap and pull in."

As for the race itself, that was boring, because of the lack of competition. But Michael and Rubens going round at the time wasn't boring.



RON DENNIS McLAREN TEAM PRINCIPAL

We discussed a chicane and we could have done that, or the Michelin teams could have raced to self-imposed limits. But then it would have been about who was prepared to follow the recommendations and would have become a race of who would take the biggest risk. It wasn't good for F1 and it wasn't good for Michelin.



STEVE ROBERTSON KIMI RÄIKKÖNEN'S MANAGER

It was pretty shocking for the sport. Kimi kept on saying: "I just want to race". That was Kimi's most dominant car [the McLaren MP4-20, which won ten races in 2005] and he should have been world champion. Obviously there were no points from Indy.

All the Michelin runners pull into the pits following completion of the warm-up lap, after it is decided that it's unsafe for them to race



I WAS FURIOUS THAT F1 WAS SHOOTING ITSELF IN BOTH FEET. TEN YEARS ON WE STILL TALK ABOUT IT"

MARTIN BRUNDLE, COMMENTATOR



JONATHAN WHEATLEY CHIEF MECHANIC, RENAULT F1

I was standing on the grid so close to the fans when the whole atmosphere just changed. We were packing up during the podium ceremony and the booing reached a crescendo. Someone came in to the garage with 100 unbranded T-shirts for us to wear instead of team shirts.



MARTIN BRUNDLE

I remember being so angry on the grid. We saw the whole situation brewing and heard that the Michelin teams were not going to be allowed to race. The obvious solution would have been a chicane and it seemed that sense would prevail. Then we got in on Sunday and heard there wouldn't be a chicane.

I remember DC [David Coulthard] trying very hard to ignore the rules – it took determination from some drivers to actually pull in. It looked as if it could be the most dismal afternoon for several years but it turned out to be a remarkably good race, as the Ferraris had a ding-dong.

I remember speaking to Bernie on the grid and feeling quite furious that Formula 1 was shooting itself in both feet. Ever since I've been in F1 it has been trying to establish itself at the ultimate racing temple of speed and we were not going to put a show on. But here we are ten years on, and we still remember it and talk about it. If you asked me about any of the other races that year, they were probably very good, but I am not sure I would remember them. It was one of those days that seemed terrible at the time, but that we all remember now.



OTMAR SZAFNAUER VICE PRESIDENT OF HONDA RACING DEVELOPMENT

Michelin did the right thing by refunding the fans – the grandstand into T1 was full; F1 was popular and Indy was a good venue. Americans have high expectations of entertainment, so it was the worst place for this to have happened.







NICK SHORROCK MICHELIN HEAD OF F1

I **remember it well.** That was my first year in F1. I was in a handover period with Pierre Dupasquier. The idea was that it was going to be a smooth handover.

From an evaluation of Ralf Schumacher's accident, there was nothing to be seen from the data Toyota had. Then Ricardo Zonta, Toyota's test driver, had an incident. That was a sign that there was more of a problem. It became clear some teams were adjusting their setup and suspension geometry in ways we weren't being made fully aware of.

Saturday came and there was a problem we had not seen before: clearly the cars had been evolving and perhaps not all the information [about what teams were doing with setup] had been shared with us. On the Toyotas, the speeds going through T13 were developing loads we had not seen before, causing tyre failures.

The word from Michelin HQ was that there should be one person to deal with the media. I can still see Pierre Dupasquier turning to me to say: "It's you!" We'd had media training, but it's not the same when you're faced with a situation like that. I remember the scrum outside the door: it was intense – flashbulbs, microphones, Dictaphones. In the 75-100 metres between our team building and the garages I did about ten interviews and all of them had to be accurate. That's how the weekend went on.

By Sunday, the only thing we could see working was trying to slow the cars through T13 with a chicane. Michelin could not put drivers at a safety risk. The team principals tried to convince Bernie and Max (who wasn't there), but the Bridgestone teams were adamant and the outcome was that they were not in agreement.

The first lap was very intense. We didn't know what they were going to do right until they came around and pitted at the end of the warm-up lap. There was a certain amount of relief and a lot of strong emotions. Pierre was in tears.

There was certainly great emotion and great learning for Michelin. I think the Michelin Group did a fantastic job to understand what had gone wrong and to deal with the problem. ⁽¹⁾

FIGURE

We take a numerical look at the Monaco GP as F1 prepares to revisit this starry venue

20.5 miles

of safety barriers are needed to construct the street circuit

The difference between the shortest configuration of the track (1.954 miles: 1955-1972) and the longest (2.094 miles: 2000-2002)



The number of times McLaren have won at Monaco, seven more than nearest rivals Ferrari

27 OF THE 60 RACES

at Monaco have been won from pole. The last time this *didn't* happen was in 2008 when Felipe Massa was on pole but Lewis Hamilton won

> The number of years that the Monaco GP did not feature in the world championship (1951 to 1954)

> > -day break between FP2 and FP3. This happens only at Monaco, and the roads re-open to the public after the GP2 race on Friday



The average time spent in the tunnel every lap

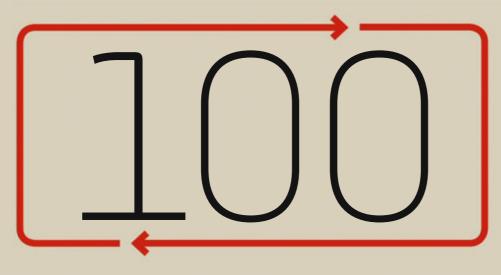
cranes are dotted around the circuit to remove damaged cars



Prince Albert II is the reigning monarch of Monaco and, like his predecessors, always presents the trophies



The number of laps of the Monaco GP that Michael Schumacher has led – 13 more than Ayrton Senna



The first 14 Monaco GPs, which took place between 1950 and 1967, were all of more than 100 laps in duration

SEVEN

The Monaco GP has run as late in the season as race seven on just six occasions: in 1979, 2000-2003 and 2006

The number of starters permitted at the 1975 Monaco GP: the lowest maximum for any GP ever

FIVE

current drivers have set at least one fastest lap at Monaco: Kimi Räikkönen, Sebastian Vettel, Fernando Alonso, Felipe Massa and Sergio Pérez

43,000

Monaco's population density per square mile. This makes it the most densely populated country in the world

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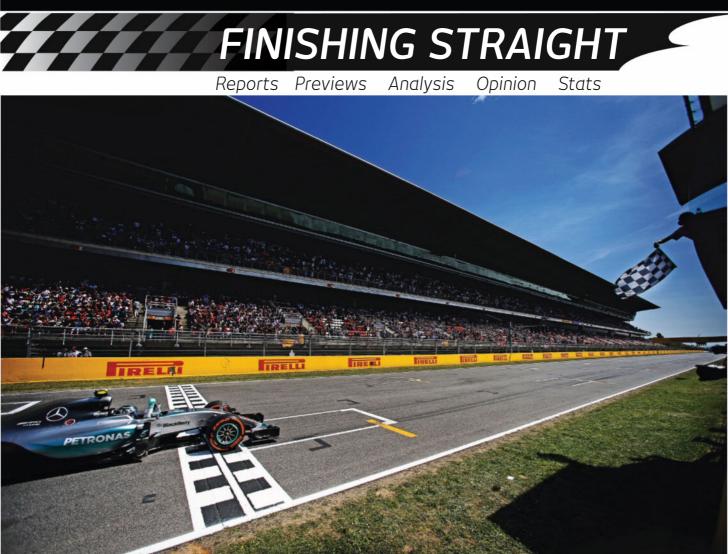
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Nico reigns in Spain

Rosberg finally gets the better of Mercedes team-mate Hamilton, to take his first victory of the season and close Lewis's lead to 20 points

REPORTS



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Räikkönen to take his third win of 2015

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110 CANADIAN GP PREVIEW

The long straights make this a thrilling race where overtaking is guaranteed

MURRAY WAI KER

As some smaller teams struggle to make ends meet, Murray ponders Formula 1's future



FINISHING STRAIGHT

RACE DEBRIEF by Anthony Rowlinson

Bahrain Grand Prix

19.04.2015 / Bahrain International Circuit, Sakhir 🚄



Finland's northern star lights up the night

The laurels went to Lewis, but Kimi brought box-office appeal with an outstanding drive to second

"Kimi is a driver who performs at his best when he is in trouble," observed Ferrari's grithard team boss Maurizio Arrivabene with vulpine relish as he addressed the throng of F1 media in a post-race Bahrain paddock huddle.

That being so, things must have been getting pretty bad for Kimi Räikkönen at Ferrari of late, for his was a stellar drive at the 2015 Bahrain GP. From fourth to second on an aggressive strategy that maximised his famed ability to mollycoddle Pirelli rubber, and flying till the end, closing on the lead, this was a Kimi special to savour.

He didn't win, no - that honour going to the again-immaculate Lewis Hamilton, who seems nailed on already for this year's world title, barring injury or a further surge of competitiveness from Ferrari. But Räikkönen did shut up a few critics, beat his quadruplechampion team-mate and a go a long way towards proving the adage that form (frontlimited by a woeful 2014 Ferrari) is temporary,

while class (able to express itself via a sweethandling SF15-T) is permanent.

The signs have been there since winter testing, and round four of the championship was proof that we're witnessing Räikkönen rebooted this year. Equipped with a James Allison chassis that delivers him the 'feel' that someone of his rare sensitivity needs to drive quickly, Kimi's looking once more like the man who steered Allison's Lotus cars to unlikely victories in 2012-13. And that's a good thing for the sport, for The Iceman remains massively popular with his loyal fanbase.

He is, lest we forget, Ferrari's last world champion, 2007 being the year he pipped a rookie Hamilton to the title, and he's a muchloved component of the Scuderia's architecture (75 races and counting). Nevertheless, his largely anonymous 2014 led naysayers to question the wisdom of his return to Maranello and rendered renewal of his contract for 2016 far from certain. As Arrivabene admitted: "I have said many times to Kimi 'it depends on your performance', so today I would say 'yes' [to contract renewal], but if I do say 'yes' I don't want a driver to fall asleep. The paper at the moment is white, so at some point I have to take the pen and make it black."

When that moment might come, Arrivabene refused to specify, and with Lewis Hamilton's contractual position at Mercedes still unresolved there is a tantalising (if unlikely) possibility of a Hamilton-Seb Vettel 2016 Ferrari pairing. On this showing though, Ferrari have little need to look elsewhere. "We have two drivers again," confirmed Arrivabene. "That is what I wanted."

Kimi's P2, en route to which he became faster as the race progressed, was built on a strategy that differed from that chosen for the other top runners. He ran a soft-medium-soft Pirelli sequence, rather than the default (and victorious) soft-soft-medium. It was an aggressive call and one that proved ideal for the cooling dusk-toevening conditions under which the race was run.

Watching Kimi play counter to the norm and engaging in robust banter with race engineer Dave Greenwood ("Why do you think that the option is better if I can go faster with the prime?" was oh so reminiscent of "Leave me alone I know what I'm doing" from Abu Dhabi 2012) made a Räikkönen win seem a distinct possibility.

Between him and first sight of the chequer, however, was Lewis Hamilton, who has carried over into 2015 the imperious grace with which he concluded '14. The unflustered inevitability of his three-from-four wins this year has so far proved too much for team-mate Nico Rosberg to handle and the Bahrain lead pace also proved a tad hot for Vettel, despite an evident relish for combat.

Only Räikkönen came close to Hamilton's calm authority in Sakhir and if he is back to his best, then Ferrari could emerge as credible rivals to Mercedes. Kimi may even have a drivers' title charge within him, although out-top-dogging the irrepressible Vettel at Ferrari is a tough ask. Still, Dan Ricciardo met that unenviable challenge last year at Red Bull and the prospect of an intrateam Ferrari tussle for supremacy combined with the team's own gathering momentum is titilating.

So much for the future; what else from the day? Rosberg was defeated again, though he'll have taken comfort from the zest of his sparring with both red cars as he chased Hamilton. In Bahrain, he looked more of an instinctive race driver than the F1 automaton he sometimes seems to be, and he'll have allayed the concerns of Toto Wolff after a qualifying drubbing that left Nico in P3, 0.6secs shy of Hamilton's pole time. "We might have to start looking after Nico a little bit," confided Wolff on Saturday. But Rosberg is nothing if not a fighter, and his heads-up approach to race day suggested that while he *is* being beaten, he's far from broken.

Williams honour was upheld by a combative Valtteri Bottas, who held on to fourth in the closing stages of the race despite pressure from an aggressive Seb Vettel, who had dropped out of the Mercedes-Ferrari train following a mini-off on lap 36 that forced a nose change.

Williams tech chief Pat Symonds was effusive in his praise for Bottas, as there was no doubt Vettel had the faster machine. "It was fabulous defensive driving," said Symonds. "He really gave it everything. The way you drive when you're defending is different to the way you drive for the ultimate fastest lap and Valtteri had that nailed."

Sixth went to Ricciardo, despite a major engine blow 200 yards from the flag, meaning a fourth power unit (already!) for the Spanish GP. Then seventh, eighth, ninth, tenth to Romain Grosjean, Sergio Pérez, Daniil Kvyat and Felipe Massa.

A classic race? No, but it was pretty darn good and with Räikkönen promising more speed, who knows – there may be trouble ahead. ②



FINISHING STRAIGHT

2. VETTEL FERRARI 1min 32.982secs Q3

4. RÄIKKÖNEN FFRRARI 1min 33.227secs Q3

6. MASSA

WILLIAMS 1min 33.744secs Q3

8. HÜLKENBERG FORCE INDIA 1min 34.450secs Q3

> 10. GROSJEAN LOTUS

1min 34.484secs Q3

12. NASR

SAUBER

1min 34.737secs Q2

14. ALONSO McLAREN 1min 35.039secs Q2

16. MALDONADO

LOTUS 1min 35.677secs Q1

18. STEVENS MANOR 1min 38.713secs Q1

20. BUTTON

McLAREN

NO TIME IN Q1

Bahrain Grand Prix stats

The lowdown on everything you need to know from the weekend at Sakhir

THE GRID



3. ROSBERG MERCEDES 1min 33.129secs Q3



5. BOTTAS WILLIAMS 1min 33.381secs Q3



7. RICCIARDO RED BULL 1min 33.832secs Q3



9. SAINZ TORO ROSSO 1min 34.462secs Q3



FORCE INDIA 1min 34.704secs Q2

13. ERICSSON SAUBER 1min 35.034secs Q2



15. VERSTAPPEN TORO ROSSO 1min 35.103secs Q2

17. KVYAT RED BULL 1min 35.800secs Q1

19. MERHI MANOR 1min 39.722secs Q1





THE RESULTS (57 LAPS)

INC	RESULIS (S/ LAPS)	
lst	Lewis Hamilton Mercedes	1h35m 05.809s
2nd	Kimi Räikkönen Ferrari	+3.380s
3rd	Nico Rosberg Mercedes	+6.033s
4th	Valtteri Bottas Williams	+42.957s
5th	Sebastian Vettel Ferrari	+43.989s
6th	Daniel Ricciardo Red Bull	+61.751s
7th	Romain Grosjean Lotus	+84.763s
8th	Sergio Pérez Force India	+1 lap
9th	Daniil Kvyat Red Bull	+1 lap
10th	Felipe Massa Williams	+1 lap
llth	Fernando Alonso McLaren	+1 lap
12th	Felipe Nasr Sauber	+1 lap
13th	Nico Hülkenberg Force India	+1 lap
14th	Marcus Ericsson Sauber	+1 lap
15th	Pastor Maldonado Lotus	+1 lap
16th	Will Stevens Manor	+2 laps
17th	Roberto Merhi Manor	+3 laps

Retirements

Carlos Sainz Toro Rosso	34 laps - electrics	
Max Verstappen Toro Rosso	29 laps – wheel	

Did not start

Jenson Button McLaren 0 laps - electrics

THROUGH SPEED TRAP (QUALIFYING)



Fastest: Felipe Massa, 208.66mph



TYRE COMPOUNDS USED







Slowest: Jenson

Intermediate Wet





Kimi Räikkönen, lap 42, 1min 36.311secs



FASTEST PITSTOP

Pastor Maldonado, 24.310secs (entry to exit)

DRIVERS' STANDINGS

lst	Lewis Hamilton Mercedes	93pts
2nd	Nico Rosberg Mercedes	66pts
3rd	Sebastian Vettel Ferrari	65pts
4th	Kimi Räikkönen Ferrari	42pts
5th	Felipe Massa Williams	31pts
6th	Valtteri Bottas Williams	30pts
7th	Daniel Ricciardo Red Bull	19pts
8th	Felipe Nasr Sauber	14pts
9th	Romain Grosjean Lotus	12pts
10th	Nico Hülkenberg Force India	6pts
llth	Max Verstappen Toro Rosso	6pts
12th	Carlos Sainz Toro Rosso	6pts
13th	Sergio Pérez Force India	5pts
14th	Marcus Ericsson Sauber	5pts
15th	Daniil Kvyat Red Bull	4pts
16th	Fernando Alonso McLaren	Opts
17th	Jenson Button McLaren	Opts
<u>18th</u>	Roberto Merhi Manor	Opts
19th	Will Stevens Manor	Opts
20th	Pastor Maldonado Lotus	Opts
21st	Kevin Magnussen McLaren	Opts

CONSTRUCTORS' STANDINGS

lst	Mercedes	159pts	9th McLaren	Opts
2nd	Ferrari	107pts	10th Manor	Opts
3rd	Williams	61pts		
4th	Red Bull	23pts		
5th	Sauber	19pts	FORIX	
6th	Lotus	12pts	For comprehensi	
7th	Toro Rosso	12pts	F1 statistics visit	
8th	Force India	7pts	www.forix.com	



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RACE DEBRIEF by Stuart Codling **Spanish Grand Prix** 10.05.2015 / Cicruit de Barcelona-Catalunya

Rosberg cruises home to a first win of 2015

A bad start meant a frustrated Hamilton had to battle just to salvage second place in Barcelona

Spain's Circuit de Barcelona-Catalunya is perhaps the last race circuit in the world where you would be inclined to expect the unexpected, such are the statistical chances of the person on pole also being the first past the chequered flag (18 times in 24 races, prior to 2015). But that didn't stop the crowd hoping – against all odds – that their home hero, Fernando Alonso, would deliver on his bold pre-race claim that he *could* score McLaren's first points of the 2015 season from 13th on the grid.

FINISHING STRAIGHT

The grip of Alonsomania has slackened a little in recent years, and the grandstands are no longer either full or a sea of the yellow and blue flag of the Asturias. But Saturday's attendance was still claimed to be around 86,700 – despite a few bald spots in the premium-cost seating areas. Fernando continues to dominate the national racing consciousness to the extent that Carlos Sainz, starting from fifth on the grid after a remarkable qualifying performance, received applause in the same polite register as polesitter Nico Rosberg. The crowd reserved its greatest enthusiasm for the passing of the MP4-30 in its new 'predatory' paint scheme.

As Basil Poledouris's pulsating score for Conan the Barbarian rumbled forth from the trackside PA system, F1 Racing braved the midday sun and took up position on the outside of Turn 1, the circuit's prime overtaking spot, with notebook and timing chattels in hand. It was here, on lap 26, that Alonso speared off track as he ran out of brakes, signalling the onset of the failure that would eliminate him from the race (having nearly skittled his pit crew) mere moments later. With Jenson Button already tiptoeing round in damage-limitation mode, barely able to apply foot to throttle without prompting the rear wheels into a scary-looking twitch, this weekend demonstrated that while you cannot polish a turd, you can certainly paint it a different colour.

Damage limitation would prove to be a key theme at the sharp end of the grid as Rosberg parlayed pole position into the lead, but Lewis Hamilton got too much wheelspin and slipped back from the front row to third – and it would have been fourth had he not slammed the door forcefully on the fast-starting Williams of Valtteri Bottas. Now facing the rear wing of Vettel's Ferrari, Lewis was desperately in search of a Plan B; and so, too, was Vettel's team-mate Kimi Räikkönen, having been consigned to seventh on the grid after losing a set of Pirellis to a tyreblanket conflagration during qualifying.

As Rosberg shot away into a lead that quickly exceeded ten seconds, and a frustrated Hamilton began to nip at Vettel's heels, Räikkönen gained two places in the opening melee but then trailed Bottas by a growing margin in his opening stint. Ferrari brought that to a halt on lap 17 and sent him out on the harder of the two Pirelli compounds, rendering his strategy out of sync with the other leaders in a clear bid to have Räikkönen on mediums against Bottas on hards in the final laps.

Plan B became essential for Hamilton when his left-rear tyre was slow to engage at his first stop and he failed to leapfrog Vettel in the pits – emerging, in fact, further behind. Even when he closed to within DRS range he still could not make a pass stick, prompting tetchy radio exchanges with the pitwall in which engineer Peter Bonnington emphasised the need to pass Vettel on track, and Hamilton assured him in a prickly tone that this was not possible: "Find another solution."

That would involve a change to a three-stop strategy and a stint on the hard tyres, of which Hamilton made superb use to clear Vettel when the Ferrari eventually made its final stop – and such was his progress that he even briefly led when Rosberg stopped for the final time. Hamilton then pitted for medium tyres with 15 laps to run, which would have given him the tools to take on Vettel (now on the harder tyre) if he had emerged behind him – but he didn't. With Rosberg over 20 seconds ahead, though, there was little prospect of challenging for the win, even with softer and fresher rubber.

"There was obviously no way to get past Vettel on track," said a muted Hamilton later. "I was grateful, you know, to do damage limitation and get points for the team."

Understandably, Rosberg was somewhat more effusive after the race, having beaten his team-mate for the first time this season. "It was a perfect weekend," he said. "Everything worked out: the car was great, we nailed the setup for the race, for qualifying. Everything came together."

Ferrari's strategic shift with Räikkönen ultimately proved ineffective as he closed in on Bottas over the final laps, but in spite of having medium rubber he was thwarted by his fellow Finn at every turn. Massa was a distant sixth in the second Williams.

Although Toro Rosso's two drivers convincingly outpaced the Red Bulls during qualifying, a look at the long-run times they'd posted during P2 on the Friday suggested that the STR10 cannot access its peak single-lap pace over the course of an entire stint. Thus Carlos Sainz and Max Verstappen went backwards in the race, overhauled by the tenacious Daniel Ricciardo. Daniil Kvyat lost ground at the start, but appeared more comfortable in his second stint, rising to ninth before losing a last-lap tussle with Sainz. Not one of the energy drinks empire's machines finished on the lead lap of the race. Of all the timing accoutrements available to this venerable magazine, an egg timer would be the most useful in measuring their deficit to the leaders right now. ወ



FINISHING STRAIGHT **Spanish Grand Prix stats**

The lowdown on everything you need to know from the weekend at the Circuit de Barcelona-Catalunya

THE GRID







5. SAINZ TORO ROSSO 1min 26.136secs Q3



7. RÄIKKÖNEN FFRRARI 1min 26.414secs Q3



9. MASSA WILLIAMS 1min 26.757secs Q3



13. ALONSO

McLAREN 1min 27.760secs Q2



1min 28.005secs Q2









6. VERSTAPPEN TORO ROSSO 1min 26.249secs Q3



RED BULL 1min 26.629secs Q3



12. MALDONADO



14 BUTTON **McLAREN** 1min 27.854secs Q2

16. ERICSSON SAURER 1min 28.112secs Q1



FORCE INDIA 1min 28.442secs Q1



THE RACE



THE RESULTS (66 LAPS

THE	RESULTS (DO LAPS)	
lst	Lewis Hamilton Mercedes	1h 41m 12.555s
2nd	Nico Rosberg Mercedes	+17.551s
3rd	Sebastian Vettel Ferrari	+45.342s
4th	Valtteri Bottas Williams	+59.217s
5th	Kimi Räikkönen Ferrari	+60.002s
6th	Felipe Massa Williams	+81.314s
7th	Daniel Ricciardo Red Bull	+1 lap
8th	Romain Grosjean Lotus	+1 lap
9th	Carlos Sainz Toro Rosso	+1 lap
10th	Daniil Kvyat Red Bull	+1 lap
llth	Max Verstappen Toro Rosso	+1 lap
12th	Felipe Nasr Sauber	+1 lap
13th	Sergio Pérez Force India	+1 lap
14th	Marcus Ericsson Sauber	+1 lap
15th	Nico Hülkenberg Force India	+1 lap
16th	Jenson Button McLaren	+1 lap
17th	Will Stevens Manor	+3 laps
18th	Roberto Merhi Manor	+4 laps

Retirements

Pastor Maldonado Lotus	45 laps – accident damage
Fernando Alonso McLaren	26 laps – brakes

THROUGH SPEED TRAP (QUALIFYING)



Fastest: Felipe Massa, 207.66mph

TYRE COMPOUNDS USED





Slowest: Roberto

Merhi, 197.53mph

Intermediate Wet

CLIMATE





Lewis Hamilton, lap 54, 1min 28.270secs



FASTEST PITSTOP

Sebastian Vettel, 21.762secs (entry to exit)

DRIVERS' STANDINGS

lst	Lewis Hamilton Mercedes	lllpts
2nd	Nico Rosberg Mercedes	91pts
3rd	Sebastian Vettel Ferrari	80pts
4th	Kimi Räikkönen Ferrari	52pts
5th	Valtteri Bottas Williams	42pts
6th	Felipe Massa Williams	39pts
7th	Daniel Ricciardo Red Bull	25pts
8th	Romain Grosjean Lotus	16pts
9th	Felipe Nasr Sauber	14pts
10th	Carlos Sainz Toro Rosso	8pts
11th	Max Verstappen Toro Rosso	6pts
12th	Nico Hülkenberg Force India	6pts
13th	Sergio Pérez Force India	5pts
14th	Marcus Ericsson Sauber	5pts
15th	Daniil Kvyat Red Bull	5pts
16th	Fernando Alonso McLaren	Opts
17th	Jenson Button McLaren	Opts
18th	Roberto Merhi Manor	Opts
19th	Will Stevens Manor	Opts
20th	Pastor Maldonado Lotus	Opts
21st	Kevin Magnussen McLaren	Opts

CONSTRUCTORS' STANDINGS

lst N	Vercedes	202pts	9th McLaren	Opts
2nd F	Ferrari	132pts	10th Manor	Opts
3rd V	Villiams	81pts		
4th F	Red Bull	30pts		
5th S	Sauber	19pts	FORIX	
6th L	_otus	16pts	For comprehensiv	
7th 1	Toro Rosso	14pts	F1 statistics visit	e
8th F	Force India	llpts	www.forix.com	

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CAPE

FINISHING STRAIGHT

The Monaco GP preview

Round 6 / 21-24 May 2015 / Circuit de Monaco, Monte Carlo



RACE NOTES: THE JEWEL IN F1'S CROWN IS ALSO A TOUGH TEST

The Monaco Grand Prix is a glamorous affair, but the tight, winding circuit makes it a supreme challenge to a driver's ability

There are as many parties crammed into the Monaco GP weekend as there will be yachts jostling for moorings in the Monte Carlo harbour. But for the drivers, it's all about conquering the tight, twisty, bumpy and unforgiving Circuit de Monaco. It's a daunting test – and the race every driver wants to win.

King of the streets is Nico Rosberg, who is aiming to become the fourth driver to take three Monaco wins in a row. The others who have done so are Graham Hill, Alain Prost and Ayrton Senna. That's exclusive company.

Perhaps surprisingly, Lewis Hamilton has won here only once, in 2008. That could be because, despite his renowned form in qualifying, he's never been on pole here: he is the only man in the last 11 years to win the race without starting first.



Nico Rosberg is aiming to take his third win in a row in Monte Carlo this year

MONACO GP RACE DATA

Circuit Name Circuit de Monaco First GP 1950 F1 races held 61 Circuit length 2.075 miles Race distance 161.879 miles (78 laps) Direction Clockwise Winners from pole 28

TV TIMETABLE (UK TIME)

Thursday 21 May

Practice 1 09:00 10:30 Practice 2 13:00 14:30 Saturday 23 May Practice 3 10:00 11:00 Qualifying 13:00 14:00 Sunday 24 May Race 13:00 Live coverage Sky Sports F1 Highlights BBC

PACE NOTES: THE KEYS TO SUCCESS

All about positioning

Overtaking is incredibly hard on this tight circuit, so track position is key. Qualifying is vital: the polesitter has won here ten times in 11 years.

Gently does it

The bumpy streets require a soft suspension setup to keep the tyres in contact with the road. The changing bumps also mean drivers need to tweak their lines from year to year.

Slow speeds, low wear

The slowest circuit of the year is also the least abrasive. Tyre wear is accordingly low, so most teams run one stop strategies.

Key corner

Portier is a tricky downhill double right hander. Getting it right is vital to carrying speed into the tunnel, but there is little run off or room for error.

WHAT HAPPENED IN LAST YEAR'S RACE ...?

Winner Nico Rosberg Margin of victory 9.210s Fastest lap 1m 18.479s, K Räikkönen Safety Cars 2 Race leaders 1 Pitstops 27 Overtakes 7



Nico Rosberg dominated ahead of Merc team-mate Lewis Hamilton, but the drama came in qualifying. Holding provisional pole, Rosberg overshot at Mirabeau – deliberately, according to his team-mate – bringing out yellow flags and forcing Lewis to abort his final lap. Meanwhile, Jules Bianchi's brilliant drive to eighth secured Marussia's first Fl points.



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The Canadian GP preview

Round 7 / 5-7 June 2015 / Circuit Gilles Villeneuve, Montréal



RACE NOTES: SEEMINGLY SIMPLE - ULTIMATELY CHALLENGING

There are no classic corners at the Circuit Gilles Villeneuve, but the long straights and tight hairpins are a recipe for entertainment

This is a fairly simple circuit: it's basically two hairpins linked by some long straights and a few wiggly bits. But it's a layout that really works. You usually get great racing here - there are ample overtaking opportunities and cars are tested to the limit.

The stopping power required for the tight turns at the end of the long straights makes the track tough on brakes, and the frequent acceleration out of slow corners wears rear tyres, especially as they slide around on the low-grip surface.

The limited run-off on the circuit - a legacy of its layout on a man-made island in the St Lawrence River - means the Safety Car makes frequent appearances here. That will have an impact on race strategies, albeit tempered by the fact that overtaking is possible.



Lewis Hamilton is the most successful active driver here, with three victories

PACE NOTES: THE KEYS TO SUCCESS

Finding the speed

Cars will be set up to run with low downforce to ensure they have good top speed and acceleration, with soft suspension to cope with the temporary circuit's many bumps.

Brakes on

Heavy stopping required for the hairpins will test brakes to the limit. The low grip circuit is kind on tyres though, so Pirelli will bring softer compounds.

Hit the kerbs

Monstering the kerbs through the corners is vital to set a good lap time, although doing so punishes the chassis.

Key corner

Turn 10 is a prime overtaking spot. Drivers can also set up a tow on the DRS straight that follows, giving them a second chance at passing.

ILLUSTRATION: ALAN ELDRIDGE. PHOTOS: ANDY HONE/LAT; STEVE ETHERINGTON/LAT

WHAT HAPPENED IN LAST YEAR'S RACE

Winner Daniel Ricciardo Margin of victory 4.236 secs Fastest lap 1m 18.504s, F Massa Safety Cars 2 **Race leaders** 4 Pitstops 33 **Overtakes** 30



Red Bull's Daniel Ricciardo took a shock maiden win after a problem with the ERS hobbled both Mercedes. While Lewis Hamilton retired, Nico Rosberg was able to complete the race, but was powerless to fend off Ricciardo, who had stormed through the field in the closing laps. Felipe Massa and Sergio Pérez crashed heavily battling for fourth.



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The best solution is a mix

year's race in Azerbaijan!

So I don't think F1 should shy

heartland to attract new fans and to

help the sport grow. Hopefully, 20

years from now we'll be watching

a night race in Abuja, Nigeria.

Pick a sport and stick to it

I don't understand why Nico

Hülkenberg is dovetailing his

Force India commitments with

a turn in sportscars (WEC). F1 is

the pinnacle of the sport and he

should be devoting every hour to

his grand prix career. If he isn't

Dennis Mason,

By email

away from leaving its European

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from happening. Once drivers have retired from F1 they have many more years to dedicate to other forms of racing. When they're in F1. they should stick to it. Katie Cooke, By email

McLaren-Honda prevented that

Integration is key

It was interesting to read Toto Wolff's comments on an F1 Junior Championship in the May issue of F1 Racing. It seems a good solution to reduced grid numbers, and a way of adding extra cars without unbalancing the competition in favour of the big teams. But I think a better way already exists.

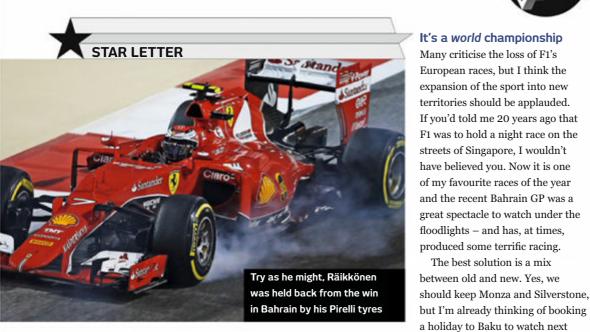
F1 chiefs need to better integrate the GP2 and GP3 Series into the F1 package. Both series race on grand prix weekends, and are covered on Sky Sports F1, but they are treated as separate entities. I know they aren't official FIA championships, but they should be merged and packaged up like MotoGP, Moto2 and Moto3. In bike racing, broadcasters show all three championships, and talk about all three categories during commentary. The GP2 and GP3 races should take place much closer in time to the F1 GP on Sundays, so broadcasters can show all three more easily.

Young drivers would get much more publicity, and will be better known to the public when they reach the top level: F1. It would also encourage the public to turn up early to watch the support races. Tim Crane, By email

Focus on the F1 action

I don't wish ill on your 'Driver's Wife', but it was with some joy that I read she was giving up her column to enter rehab. It has already taken up enough space in your magazine, space that could have been devoted to racing cars - the reason we all follow Formula 1!

Hopefully Adriana's decision to step back from the limelight could prompt the F1 TV directors



It's too hard to make a difference

Despite being a lifelong F1 fan, I am growing disillusioned with F1. I thought this might be because Hamilton vs Rosberg is more of a schoolboy spat than an intense rivalry of Senna/Prost proportions, but Damon Hill's column on driver fallibility in your May 2015 issue struck a chord.

Yet beyond fallibility there is scant opportunity in F1 now for anyone to 'make a difference', as proved in Bahrain where Kimi Räikkönen couldn't quite make the win because of his Pirelli tyres. The days of drivers winning in inferior cars due to brilliant racecraft (Mansell, Hungary 1989); making a different strategy work (Alonso, Japan 2008); or through technical innovation (McLaren's F-duct, 2010) are now long gone.

F1 should start again. A capped budget for every team, which they source themselves, but it's up to them how they spend it. Pay driver or superstar? Genius designer or his protégé? Which engine supplier? A choice of tyre suppliers? This way, we'd see what really makes the difference. Sarah Green,

Bath, UK





Sarah Green wins a pair of three-day general admission tickets to the 2015 Formula 1 Santander British Grand Prix. For more details, visit www.silverstone.co.uk/events. Hotline number: 0844 3728 300



careful, the sport will spit him out and he'll have no choice but to race sportscars full time. I remember when drivers often switched disciplines and Jim Clark would turn up at Brands Hatch to race a Lotus Cortina, but times have

moved on. Today, each category is so intense that 100 per cent commitment is required.

I heard the story that Fernando Alonso was desperate to race at Le Mans this year, but his deal with

GET F1 RACING WHEREVER YOU ARE

to reduce the number of shots of drivers' wives, girlfriends and entourages (along with Lotus development driver Carmen Jorda) that have blighted the TV feed in recent years. Real F1 fans don't want cutaway shots of people standing in the pits – we want to see racing cars on track!

I've read complaints from some people about the lack of coverage given to the smaller teams, with much of the focus on the cars at the front. If the TV directors showed more of the smaller teams instead of 'pit reaction shots' I think everyone would be happier.

Matthew Conlon, By email

Logical planning

The proposed 2016 F1 calendar that is now doing the rounds does, in quite a number of areas, make a lot of sense in terms of certain races being twinned. A later start to next season will probably come as a huge relief to the teams, given that this season won't finish until the end of November. I just wonder whether this later start will result in a similar delay to the start of preseason testing, or if teams will still have to get their cars ready for the beginning of February?

And, if testing *does* still take place in February, will there be any scope for extra days of running at certain circuits? I'm sure the new drivers would appreciate this.

It's not perfect – Canada still sticks out because it doesn't have an American race before or after it, and Baku is a strange one, given that it splits up the Austrian and German GPs. But, on the whole, this schedule does have a better feel to it. There again, I'm not one of the people who have to crisscross the world and set up shop in 21 different countries, so perhaps others see it as a step too far? **Richard Potts**, **By email**

Two shades of grey

At the start of the year, Ron Dennis was asked why McLaren were still running a silver livery for 2015, despite the fact that they are no longer using Mercedes engines. He said that the team would change their livery eventually, but only once they'd landed a big sponsor.

So when I heard the team were introducing a new look for the Spanish GP, I was expecting to hear about their big, new sponsor. But there's no new sponsor and they've just painted the car grey instead of chrome, making it look a bit like a Force India, and quite similar to the old HRT. So what's happened? Surely if McLaren haven't found a new sponsor, they should have been free to come up with something better than grey?

I understand that teams like having stable liveries to reflect corporate identities, but they should remember how excited the fans are about new-look cars. Think of the 'camouflage' Red Bull from testing, or even this year's blue Sauber. **Chris Higgins**, **By email**



McLaren swapped their shiny grey livery for matt grey livery in Spain – and Chris Higgins, for one, thinks they could have tried a bit harder...

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UNLESS I'M VERY WMUCH MISTAKEN...

"Am I enjoying this season? Yes, but my enjoyment of the present is reduced by my fears for the future"

F1 is in a depressing mess and it is hard to see how it can get out of it. Notwithstanding the heartening renaissance of Ferrari and Williams, Mercedes are still ahead, the Renaultpowered teams are in the doldrums, McLaren are in disarray and the financial gap between the well-off teams and those beneath them is enormous. Commercial rights holders, CVC, seem indifferent to the plight of the smaller teams, while the FIA appears to have opted out of its responsibility to lead from the front, as it did when Max Mosley was in charge. It's of little consolation, but F1 is no stranger to in-fighting and bitter struggles over power and money. Way back in 1961, when the rules were changed to require 1.5-litre engines instead of 2.5-litres, the British constructors, who had been ruling the roost with Coventry Climax power, strenuously tried to resist the change – even to the extent of initiating a 'Formula Intercontinental' to maintain the status quo. To no avail. Ferrari had planned ahead and won the 1961 championship while the Brits struggled to catch up – which they eventually did in 1962.



"Most British teams boycotted the San Marino GP at Imola in protest at FISA banning rule-bending water-cooled brakes"

That was a storm in a teacup compared with what happened some 20 years later. For three years, 1980 to 1982, there was a no-holdsbarred, bitter war between the governing body, FISA, and the Formula One Constructors' Association, led by Bernie Ecclestone and Max Mosley, exacerbated by a split between the British teams and FISA-supporting Ferrari, Renault and Alfa Romeo. It was initiated by FISA's attempt to ban downforce-boosting skirts on the cars and the British teams' desire to retain them to compensate for the extra turbopower of their continental rivals - and there were fractious consequences. In Spain 1980, the FISA teams boycotted the race, and in 1981 the sport was torn apart when Bernie and Max initiated a breakaway from FISA control by creating an independent 'World Federation of Motor Sport'.

WALKER

Fortunately a compromise was reached that led to the first Concorde Agreement. But in spite of that, 1982 was no less divisive. There was a drivers' strike in South Africa motivated by their objection to conditions in their superlicences. Subsequently, most British teams boycotted the San Marino GP at Imola in protest at FISA banning rule-bending water-cooled brakes.

Has it been sweetness and light in F1 since then? Certainly not. Remember the spats between Ayrton Senna and FIA president, Jean-Marie Balestre; Michael Schumacher's two-race ban in 1994, his exclusion from the 1997 championship results and his demotion to the back of the grid at Monaco 2006; McLaren's exclusion from the 2007 constructors' championship after 'Spygate'; and Nelson Piquet Jr's deliberate crash in Singapore 2009, to mention but a few recent dramas.

What has all this got to do with us in 2015? Not a lot, except to show that there's nothing new or strange about the fact that F1 today is a cauldron of bickering and indecision. It is all about money, and what worries me is that there appears to be no one who has the power or the will to bang some heads together and lay down the law about which way to go. We can only hope that, as in the past, F1 will muddle its way through to some sort of rapprochement. It always has, so fingers crossed that it will again – but with several of the teams on their uppers, there's not a lot of time for it to happen. "Wellman[®] Skin Technology keeps my skin refreshed, energised and protected."

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