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break Jenson

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From QPR to
'Crashgate':
Flav lets rip!

SIR JACK BRABHAM

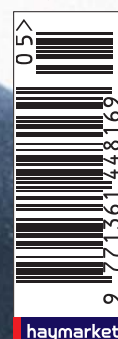
"I used to love
beating Ferrari.
Just loved it"

Multi-21?
Is that
Mark's
vitamin pill?

THE DARK SIDE OF VETTEL

First Senna, then Schumacher...
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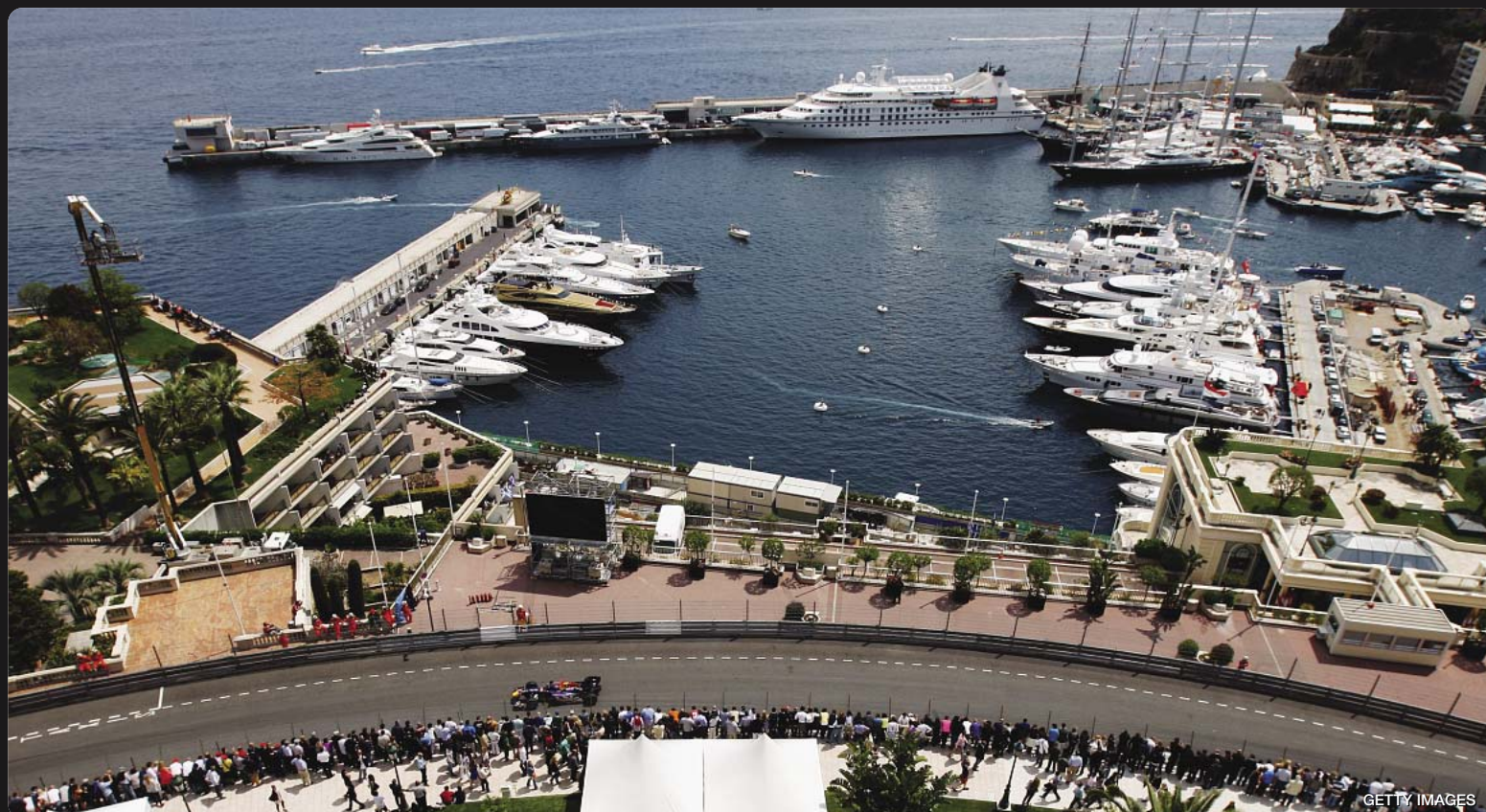
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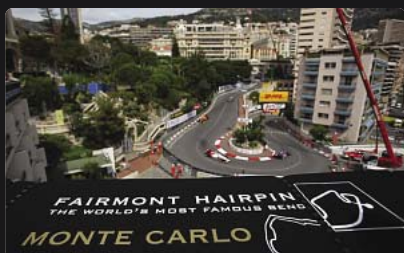


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92 We meet Jack Brabham: ferocious competitor and, at 87, Formula 1's oldest living world champion



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Ignition / Anthony Rowlinson / 05.13

Why Multi-21 could prove to be a multi-catastrophe

The only surprising thing about Sebastian Vettel's skewering of Mark Webber in Malaysia is that anyone is at all surprised it happened. *Of course* Vettel was going to make the pass for the win and he can be reasonably thankful Mark Webber allowed him to make it stick: even such paragons of clean driving as Alain Prost, who we interview in this issue on page 100, haven't been beyond driving their nemesis off the track (although Prost's attempt to end Ayrton Senna's race at Suzuka in 1989 was almost laughably half-hearted).

Still, the full public exposure of what we had long suspected – that Vettel has the kind of ruthless streak to rival those of Senna and Schumacher – was a long time coming and it's too early, yet, to assess the extent of the damage to Red Bull or the drivers themselves.

One immediate casualty was Vettel's public image, as Andrew Benson discusses on page 38. F1 has a new pantomime villain who will forever be viewed through the prism of Malaysia 2013 ("Remember Sepang," writes Peter Windsor in his biting assessment of events on page 28). Casualty number two may well be Mark Webber, for whom the allure of a new motorsport challenge will never have seemed more attractive. The third is the smooth running of the Red Bull winning machine. Is it any coincidence that in the race following 'Multi-21-gate', Red Bull's Chinese GP was littered with uncharacteristic errors? From the 'non-compete' order for Vettel in Q3, to Webber's underfilled fuel tank and

the failure of his right-rear-wheel in the race, this was not the crack Red Bull squad we have grown so used to seeing at work since 2009. Disharmony is disruptive to any organisation, let alone a finely tuned top F1 team.

The rancour at Red Bull has been thrown into sharp relief by the relative ease of business evident at F1's two other early-season winning squads: Lotus and Ferrari. What a contrast in approach from the black 'n' gold and red teams – both built around a clear number-one and both presenting strong contenders for the drivers' title in the forms of Messrs Räikkönen and Alonso. There's a long way to go, but once again we seem to have at least a three-way fight on our hands for top honours this year.

One man unfortunately absent from that tussle is Jenson Button, whose early efforts have been hampered by a tardy McLaren MP4-28. Not that he'll be *too* downcast: as you can read on page 44, a blip in car performance isn't enough to grind down a competitor who has pretty much endured it all in F1, since 2000.

The same could be written in spades about another grand old competitor, Sir Jack Brabham, who granted *F1 Racing* an exclusive interview just before the Australian GP. A racer hewn from granite, it's hard to imagine him having any truck with a team-mate who'd duped him. "I'd still fancy my chances against this lot, if I were younger," he tells us, on p92. Maybe this Aussie legend might have a tip or two for his modern heir...

Anthony Rowlinson, editor

Contributors



Steven Tee

Edging closer to 500 GPs and not looking a day older

A man of many talents, not only is Steven a director of picture agency LAT and an ace lensman himself, he even sets up stories – such as our exclusive with Flay on p80



Matt Youson

Putting the nuts into F1's nuts and bolts

Matt knows his widgets from his grommets, so when it came to interviewing top Sauber techie, Matt Morris, there was no-one better qualified, as you'll see on p72



Thomas Butler

He makes 'em laugh, he makes 'em cry...

There's an art to being a great portrait photographer, and that's capturing the essence of your subject. See how Tom fared with Monisha Kaltenborn on p74



Matt Dungate

Helping make our mag look mega, month-in, month-out

Matt Dungate, or 'Redgate' as he's affectionately known by his co-workers, is one of the two-man art team who craft *F1 Racing* every month. Check out 'Go Figure' on p78



Thanks to Fareed Albahra, Matt Bishop, Lady Margaret Brabham, Hanspeter Brack, Danielle Breen, Steve Cooper, Russell Day, Sophie Eden, Lucy Genon, Ross Gregory, Joanne Grove, Richard Goddard, Will Hings, Silvia Hoffer, Anthony Peacock, Alexandra Schieren, Patrizia Spinelli, Tom Webb, Sadie Wigglesworth, Alex Wurz

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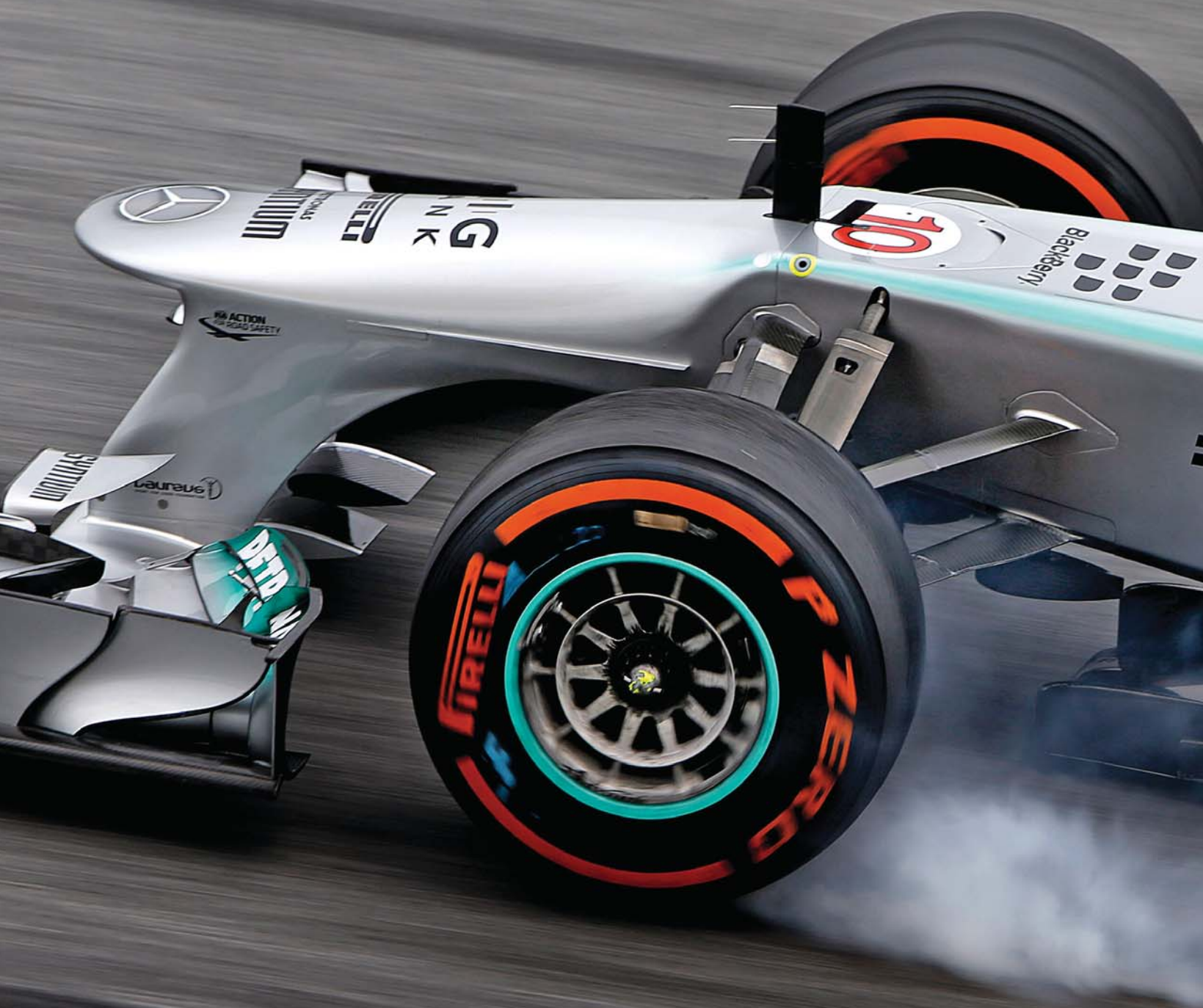
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Parade

No smoke without ire It wasn't just the Red Bulls that were embroiled in a team-orders row in Malaysia. With Lewis Hamilton running low on fuel, Nico Rosberg is ordered not to pass his team-mate. He obeys, albeit reluctantly, thereby handing Lewis his first podium for Mercedes

Where Sepang, Malaysia **When** 2.15pm, Friday 22 March 2013

Photographer Glenn Dunbar/LAT

Details Canon EOS-1DX, 600mm lens, 1/250th at F8



BlackBerry

PETRONAS
PRIMAX





Parade

Lights-to-flag victory In the closing laps of the Chinese GP, Alonso's race engineer Andrea Stella comes on the radio and tells the Spaniard to cool his pace. "I'm not pushing," replies a super-relaxed Fernando. It speaks volumes about his dominant performance and vaults him into the world title fight

Where Shanghai, China **When** 4.45pm, Sunday 14 April 2013

Photographer Glenn Dunbar/LAT

Details Canon EOS-1DX, 100mm lens, 1/400th at F4





Parade

The highs and the lows After a sensational start to the new season, Kimi Räikkönen's joy at winning in Melbourne quickly evaporates in the heat and humidity of Malaysia. The Finn is given a three-place grid penalty for blocking Nico Rosberg and can only manage a seventh-place finish

Where Sepang, Malaysia **When** 1.54pm, Saturday 23 March 2013

Photographer Glenn Dunbar/LAT

Details Canon EOS-1DX, 50mm lens, 1/30th at F13







INSIGHT

Red Bull at war

Sebastian Vettel's act of defiance in Malaysia could have huge ramifications for his team

The uncomfortable truce between Sebastian Vettel and Mark Webber at Red Bull has been shattered by the world champion's decision to ignore team orders not to pass Webber and win the Malaysian GP.

The relationship between the two drivers has been cool for quite some time, with both emphasising they are not friends but colleagues who work together for the team.

Now it remains to be seen whether that fragile situation can

be restored after Vettel's betrayal of Webber in Malaysia. The team have made it clear that Vettel's actions were unacceptable, with even the German's biggest champion, motorsport advisor Dr Helmut Marko, saying the situation had got "out of control".

Red Bull have since come in for heavy criticism of their handling of the situation, and for allowing a situation to develop whereby Vettel effectively felt he could do as he pleased.

Former Renault boss – and Webber's manager – Flavio Briatore said: "There's no relationship [between the drivers] any more. I don't think the relationship can be fixed."

Briatore said either Webber or Vettel would have to leave Red Bull at the end of the year, and slammed team boss Christian Horner, citing his decision to send design chief Adrian Newey up onto the podium as an example of supposed weakness.

"It was proof that no one is in charge at Red Bull. Vettel is the boss there. You can't have a team manager also doing the driving," said Briatore.

"If there was a manager with balls, he would have had them switch positions again."

Red Bull responded to Briatore's accusations – which echoed those raised elsewhere – in a surprisingly fulsome way.

They emphasised that there had been "spells of on-track

Team orders furore at Red Bull post-Malaysia / F1 snakes and ladders



Red Bull team boss Christian Horner is answering accusations of 'weakness'

rivalry" between Vettel and Webber over the past three years and that "both drivers have ignored team orders at different times. The team has managed the situation each time in its own way behind closed doors."

They insist any suggestion that Webber would leave was "speculation" and that his "contract has been renewed for the past few years on an annual basis. He has continually chosen to drive for the team each year and the team has similarly wanted to continue working with him, as he is an excellent driver and a competitive racer."

They refuted Briatore's suggestion that Horner was weak, saying: "A 'weak' team principal would be unable to steer a team to three consecutive world championships and oversee and manage the extensive teamwork that goes into this achievement – while managing two talented racers. This feat has only ever been achieved by four teams in the entire history of the sport."

Nevertheless, the situation does raise questions about the sustainability of the relationship,

particularly given that Vettel is understood to have a contract that lasts until at least 2015. Webber, currently the oldest driver on the grid, is on a rolling one-year deal and will turn 37 this summer.

Dr Helmut Marko has claimed the situation is "settled" and there will clearly be no public revelation

of any disciplinary process against Vettel – if one has even taken place.

And despite Vettel's rather unconvincing apology after the race, Bernie Ecclestone – who is close to the German – made it clear he felt Sebastian was right to ignore team orders so early on in the season.

It remains to be seen what effect the fall-out from Malaysia will have on Red Bull's 2013 title campaign. In a similar situation, neither man is likely to trust the other again. Webber is likely to continue to race Vettel, and vice versa, and may even be motivated to exact some sort of revenge.

With tyres as delicate as they are this season, that could eventually cost Red Bull a race.



"It was proof that no one is in charge at Red Bull"

Flavio Briatore

WINNERS + SPINNERS

UPS AND DOWNS ON THE F1 ROLLER COASTER

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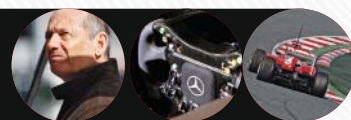
When McLaren boss Martin Whitmarsh was grilled by Fleet Street over his team's poor start to 2013, one hack wondered why there had been so many calls to have Ron Dennis reinstated as team principal. Whitmarsh replied: "Because he's a warm and cuddly sort of individual..."

Re-inventing the wheel

Lewis Hamilton's arrival at Mercedes has necessitated a redesign of the steering wheel on his car. Hamilton felt Schumi's was too complicated and has removed at least six different switches and dials, as well as requesting that more systems work through switchable default buttons.

Test venues

It looks like Ferrari have been granted their wish for more testing, as F1 considers an extra fourth test – perhaps next January – to allow more track time on account of installation worries over the new 1.5-litre V6 engines.



The travel-weary

Members of the Williams team, including Pastor Maldonado, twice had to disembark their plane as they tried to fly home from the Malaysian GP. The A380 they were booked on developed a fault and spent 17 hours grounded at Kuala Lumpur. Nearby hotels were all full, so the team finally had to switch flights to get home.

Team-order T-shirts

Red Bull's 'Multi 21' team order won't be forgotten any time soon. Like Ferrari's infamous "Fernando is faster than you" it's been immortalised on a range of T-shirts that bear the line: 'What part of Multi 21 don't you understand?'

Track cleaners

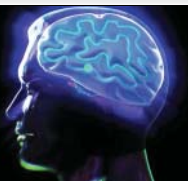
The owners of Nürburgring were forced to close the adjoining Nordschleife in early April after a very large phallic symbol was daubed onto the track surface. Stop that sniggering at the back...



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F1 Mastermind

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- 1 Which driver rolled his car at Monaco after Takuma Sato's engine blew up in 2004?
- 2 Who made his F1 debut at the 1981 San Marino GP for Tyrrell?
- 3 Which was the first Californian circuit to host a round of the F1 world championship?
- 4 Which eponymous team owner was born in Auckland in 1937?
- 5 Which F1 team is situated on Reynard Park Road?
- 6 What was the designation of the Williams chassis that was used during the 1995 season?
- 7 Which Dutch driver (below left) started 2007 with Spyker?
- 8 Who did McLaren send onto the podium with Jenson Button after his Montréal win in 2011?
- 9 In 1986 who (below) partnered Jonathan Palmer at Zakspeed?
- 10 What are Jenson Button's two middle names?



THIS BOY CAN DRIVE

Keeping an eye out for the stars of tomorrow



Fabio Leimer Who is he?

Leimer is a 24-year-old Swiss driver, who is competing for the Racing Engineering team in this year's GP2 Series.

How good is he?

Leimer took the spoils in the opening GP2 race of the season, which supported the Malaysian Grand Prix back in March. His victory came in the longer feature race after he started fourth on the grid. If he continues to display the pace he had in Malaysia then he could be one of the favourites to fight for the title this year.

Anything else we need to know about him?

Leimer was Formula Master champion with Jenzer Motorsport in 2009 and has been plying his trade in GP2 ever since. He's only had a handful of wins, but did get an F1 run-out with BMW Sauber in 2011, putting in 67 laps at the Abu Dhabi Young Driver test.

F1 chances

After four years in GP2, this has to be the year that Leimer proves he's capable of winning otherwise it could be too late. Then again, winning in GP2 still doesn't guarantee an F1 drive...

ANALYSIS

As Nick Fry departs Merc, is Ross Brawn next?

The staff manoeuvrings continue at Mercedes as Toto Wolff and Niki Lauda work to reshape the management structure



Nick Fry left his role as Mercedes CEO at the start of April, in the latest of a series of management changes.

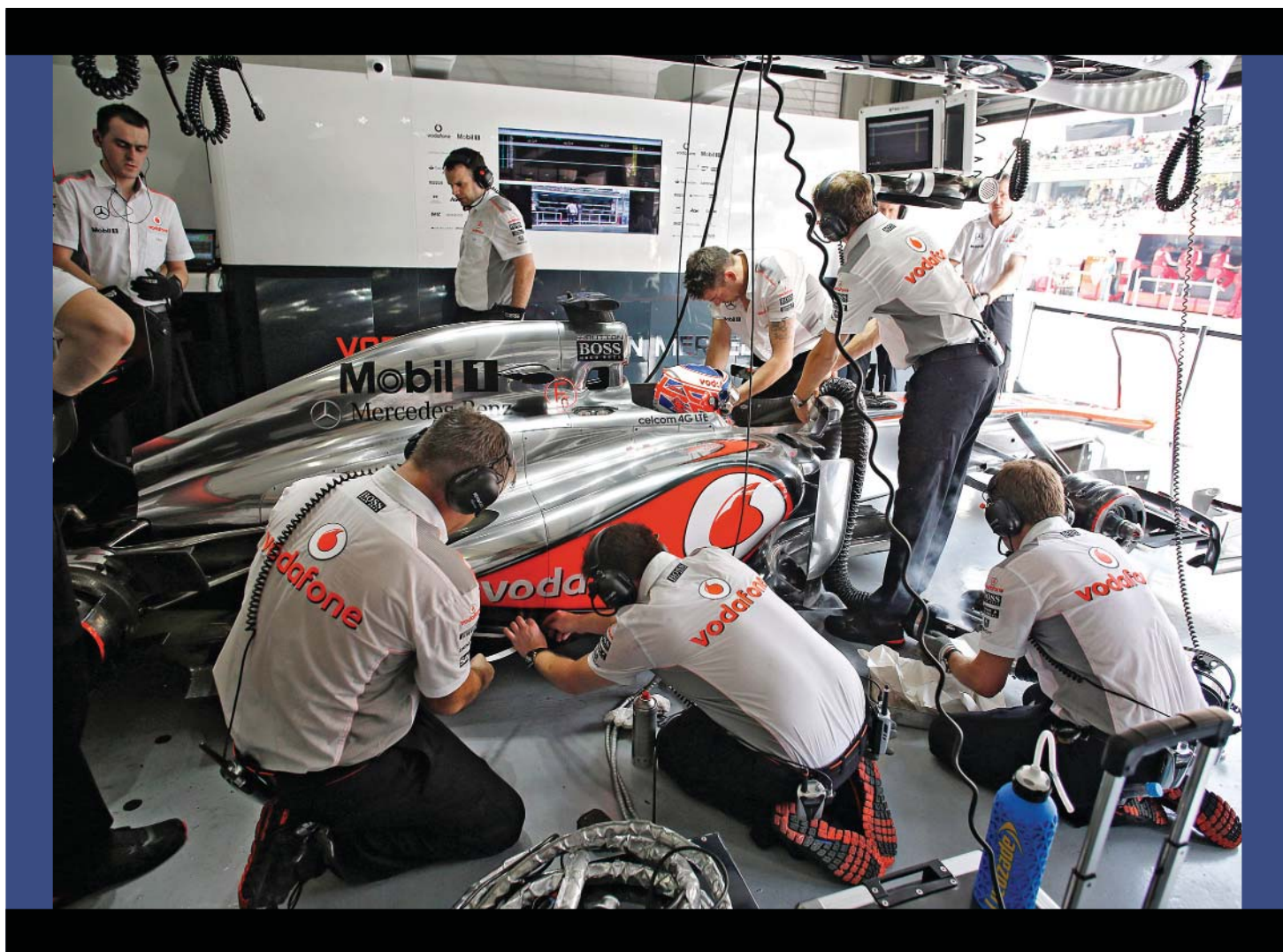
Fry's departure follows on from the appointment of Niki Lauda as non-executive chairman and the ousting of Norbert Haug as Mercedes' motorsport boss and his replacement by Toto Wolff. He will remain as a consultant until the end of 2014.

Lauda and Wolff have also recruited former McLaren technical director Paddy Lowe, who is on 'gardening leave' from his current team until the end of the year. Lowe will join Mercedes from the start of 2014, and has been recruited to run the sporting and technical aspects of Mercedes GP – which is effectively what team principal Ross Brawn does now.

Brawn's future remains unclear. He is not expected to keep his current role into 2014, although he will not necessarily leave the team altogether. *F1 Racing* understands he could be offered a position running Mercedes' engine department at Brixworth should he want to stay involved.

As to why Brawn will be replaced, one source close to Mercedes remarked: "Have you ever heard of a new management team keeping the old one in place when it takes over?"

Lowe is not expected to be given the title of team principal when he starts work at Mercedes. But he will effectively run the team in tandem with Wolff, whose involvement has grown steadily since his appointment, and who is re-making the team in his and Lauda's image.



NEWS

McLaren mystified by car's lack of pace

Jenson Button admits the team don't fully understand how they have slipped so far back from the sharp end of the grid

How do you go from having the fastest car at the end of one season to one of the slowest come the start of the next? That's the question everyone has been asking of mighty McLaren – including the team themselves.

When they turned up in Australia and found themselves two seconds off the pace, they were as surprised as anyone. It was clear from the final test in Spain that they were struggling – but not to that extent.

Initially McLaren themselves did not know what was wrong – sporting director Sam Michael admitted they were “looking at all



Button: don't tell me the car's so slow...

of their car, as much as by just how far back they were compared to front-running teams.

Jenson Button said: “A few midfield teams who would normally be behind us are also

fronts, really” in their attempt to work out why the car was so slow.

But he did make one interesting admission: namely that McLaren were not so much surprised by where they were in terms of the pace

surprised by how quick some of the cars are. And that has surprised us just as much, as we're not getting the performance we thought we had. We have a reasonable understanding of what we need to do, but not 100 per cent.”

There has been a fair bit of focus on the remarkable information that Button's pace at the first pre-season test was down to a suspension component being fitted the wrong way around. But it's fair to say that it's clear where the problems lie.

“There's only one reason why F1 cars are fast or slow,” said a leading engineer from a rival team. “Aerodynamics.”

McLaren insist that their new car is quicker than the old one – or at least has the potential to be – but for that to be the case they need to work out what is going wrong somewhere among the changes they have made for 2013.

Given that they changed the nose height, the sidepods, the coke-bottle area at the rear and the bodywork around the gearbox – in effect pretty much every aerodynamic surface – that is unlikely to be the work of a moment.

NEWS

Finance is key to Lotus's title quest

Lotus started 2013 with triumph, but could find they lack the budget to maintain season-long development



Kimi started the season well – but is it sustainable?

Kimi Räikkönen's victory at the season-opening Australian Grand Prix and his continuing strong form suggest Lotus have a car that is capable of mounting a title challenge this season.

Räikkönen finished third behind Sebastian Vettel and Fernando Alonso in 2012, although that was down to his remarkable consistency – and the lack thereof of Lewis Hamilton's McLaren and

Mark Webber's Red Bull – more than it was down to his absolute competitive pace.

Lotus's roaring start to this season suggests Räikkönen could be a threat in both respects. But the big question for Lotus is whether they can keep up with the breakneck development speed of the big teams up at the front of the field.

Räikkönen's team operate on a budget of not much more than half Red Bull's. The

most recently published figures – from 2011 – show that Red Bull's budget was £211.1million (and they are believed to have spent even more last season) compared to Lotus's budget of £134million. So it would be a big ask for Lotus to improve their car at the same rate. In fact no team can match Red Bull when it comes to turning up at each race with crates full of new parts.

There have been constant rumours over the past three years that Lotus are in financial trouble. And around the time of the Indian and Abu Dhabi races last year, mechanics threatened to down tools if their already overdue salaries were not paid – which they then were.

But Lotus insist that they have not only a full budget for 2013, but also the technical wherewithal to consistently compete at the front. And they have now appointed property investor Andrew Ruhan to their board. He was employed for his business acumen, according to team boss Eric Boullier, who added that millionaire Ruhan, was not financially backing the team.



RUBBER

Pirelli withstand pressure from disgruntled teams

There's been a clamour for more durable rubber to help exploit cars' advantages – and Red Bull are leading the charge

Just as it was in 2011 and 2012, one subject has been dominating conversation in F1 this year (at least until the Red Bull team orders row blew up): tyres.

Pirelli's 2013 range of tyres is even softer than those that came in previous years, which has led to rumblings that the company have now gone too far. And the loudest complaints by far have come from Red Bull, who feel that the need to look after their rubber during races is holding them back and preventing them from showing the full performance of their car because its huge fast-corner downforce overloads the tyres.

Mark Webber made his opinion clear in Malaysia, stating: "The whole category is geared around tyres at the moment – tyres, tyres, tyres, tyres." And team boss Christian Horner added: "What we want to avoid is drivers cruising around under the performance of their car, unable to follow another car closely, otherwise it's not racing."

The disparity between the pace of the Red Bull in qualifying and practice, when its advantage has been huge, and races, when it is beatable, suggests they are right. Whether that is acceptable depends on your point of view. Some argue that tyres are creating



Hembery: holding fast

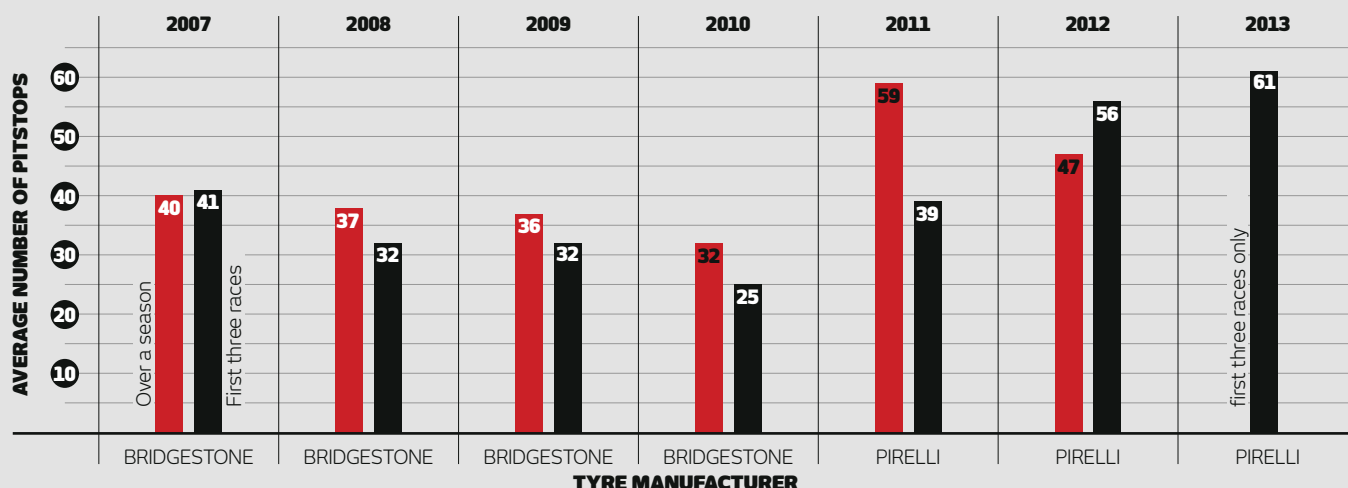
a facsimile of F1 – where competition is artificially being made closer than it looks. Others say part of the game has always been to operate within the limits of the tyres, and that it is impossible to separate their performance from that of the car.

Red Bull are pressuring Pirelli to make harder tyres as they did towards the end of 2012, by making choices most teams felt were too conservative. But Pirelli motorsport boss Paul Hembery refuses to bow to the pressure, insisting the situation now is no different to the previous two years and that teams will be on top of the tyres within seven races.

STATS

How pitstops have risen in the Pirelli era

Since the two-compounds-per-race rule was introduced in Formula 1, the average number of pitstops in each grand prix and over the first three races of the year, has steadily increased



NEWS

Claire Williams takes on senior role in father's team

Sir Frank's daughter becomes the team's deputy team principal and likely long-term successor



Sir Frank Williams has anointed his daughter Claire as his long-term successor as team principal at the squad he founded in the early 1970s. Claire Williams is now deputy team principal, filling a leadership vacuum that has developed over the past few months.

Last year, Williams shareholder Toto Wolff was heavily involved in the day-to-day running of the team and had been developing a long-term plan for former McLaren technical director Paddy Lowe to come on board as Williams team principal.

But when Wolff became motorsport boss at Mercedes, he took Lowe with him, leaving Williams with a number of senior positions to fill. The situation was exacerbated by the departure of chief operations engineer Mark Gillan, who left the team at the end of 2012.

Claire Williams' appointment was agreed before the start of this season, but the death of Sir Frank's wife and Claire's mother Ginny, meant that the announcement was delayed and that Claire did not travel to Australia.

This left technical director Mike Coughlan as the only senior figure and *de facto* team boss at the race track. However, Xevi Pujolar has since been promoted to the new role of chief race engineer, so replacing Gillan.

Claire Williams' inbox will now be looking pretty full. She not only has to finalise a new structure in what has become a very leadership-light outfit, but she also has to make plans to secure the long-term sponsorship platform of the team.

On that front, questions about the long-term position of Pastor Maldonado and the £30million worth of Venezuelan oil sponsorship he brings with him every year have been raised following the death of his great supporter, the country's President Hugo Chavez last month.

NEWS

Force India strengthen their ties with Mercedes

From 2014, Merc will supply Force India with a new powertrain, including engines and gearboxes

Force India have made a strong start to the year and their growing stature has been underlined by the strengthening of their links with Mercedes.

The German manufacturer has signed a new deal with Force India that means they will supply their powertrains – engine, gearbox and energy recovery systems – from 2014. This will officially end Force India's technology partnership with McLaren, who have supplied their gearboxes since 2009.

Meanwhile, McLaren's decision to switch to Honda engines from 2015 – a deal that has been struck, yet not officially confirmed by either of them – effectively means Force India will become Mercedes' B-team from 2014.

The deal was expected following the signing of Adrian Sutil, as *F1 Racing* reported last month. Mercedes were instrumental in securing a place for Sutil in the team, despite competition from Jules Bianchi, who is a member of the Ferrari Driver Academy, and



whom Ferrari were pushing with the offer of a deal on their engine for 2014.

It means an uncomfortable 2014 for McLaren, who will use Mercedes' new turbo engine following the change in rules next year but will switch to Honda in 2015. Merc motorsport boss Toto Wolff said: "It is essential to ensure there is no transfer of IP [intellectual property]. We are all professionals and it is about having the right contracts and safeguarding technology transfer."



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Pat Symonds

FITPASS TECH

Explaining the hidden brilliance that drives Formula 1 forward

THE SCIENCE BEHIND...

Car development

What happens when a new car appears in testing and doesn't correlate with what you expected?

For the past 20 years, teams have placed increasing value on simulation to determine how their cars should behave. The most well-known form of simulation is windtunnel testing, which dates back even further. Sophisticated stress-analysis programmes are also capable of avoiding many of the failures that were a common part of testing years ago.

The advent of active suspension in the early 1990s spurred a lot of activity in vehicle modelling. Initially this used relatively simple mathematical models to describe the various motions of the car by a number of equations which, once solved, would print out results of how the car may behave in a dynamic fashion. These required a lot of interpretation, so a desire grew for 'driver in the loop' simulation to solve the equations while generating various outputs

that physically drove the simulator. Similar methods are used to train airline pilots.

All this has helped considerably in interpreting the results, since simulators now offer a level of realism that lets drivers feel how the car will handle, while providing a quantitative measure of the design by way of a virtual lap time. So teams now go to the first test with a much better idea of how the car should behave, and their first task is to acquire data from the early running and compare that with the predicted results.

Generally speaking, the stress-analysis results will already have been backed up by physical testing in the team's laboratories, but there will still be occasional surprises. The aerodynamic characteristics are perhaps the most carefully assessed, since these have the greatest bearing on performance, while the driver's comments on handling will be noted and gauged against the behaviour of the tyres, which can often mask the subtleties of car balance.

How do you go about finding out what the problem is?

If there is a structural problem, it should be pretty obvious, but you need to understand why the failure wasn't predicted. It may be that there was a manufacturing or material fault, but in order to ensure safety, the problem must be analysed until there is reasonable certainty as to both the cause and the remedy.

If aerodynamic performance is off-key, the search for a solution is more complex. An F1 car's aerodynamics are so critical that even the smallest deviation of an important surface can dramatically affect the car's performance. I have seen cases of a slightly loose floor skid block totally destroying diffuser performance.

What if the problem is so bad you have to build a new monocoque? How long will that take?

I don't think anyone has ever suffered this level of misfortune (or incompetence!) but it is not uncommon for some components to need minor redesign after running. Even when Lotus had a problem with the front suspension mounting in the monocoque last year, it did not appear



After such a poor start to 2013, McLaren will be ramping up development of the underachieving MP4-28



HOW MUCH SPEED CAN BE FOUND OVER A SEASON?

The difference between a car's performance in the last race of the year in Brazil and the first one in Melbourne really depends whereabouts you are on the grid.

Backmarkers like Marussia will find more speed over the course of a season than the frontrunners

Because the rules have been relatively stable for a few years, the gains are hard to find up front. Unless a big breakthrough is found, I would expect the top teams to find between half a second and a second's worth of speed over the course of 2013.

Further back, there is much more speed to find. At Marussia, we found around two seconds from the different avenues we explored over the year. It is a shame we never get the chance to really find out these days other than in the simulators.

difficult to fix. One of the biggest problems with hurried redesigns is that they always end up heavier than you would like them to be.

What if you bring a car to the track, only to find a few at the front of the field have found a brilliant tweak?

We have all been in that position and the normal form these days is to whinge like hell, stir up lots of trouble and, in the meantime, get on with your own interpretation of it. The double diffuser in 2009, when I was at Renault, was a perfect example of this. To my mind, the semantics involved in forming an interpretation of the rules that permitted such a device were contorted to say the least and so we, like other teams, protested the legality of the cars running these diffusers at the first race. At the same time, in the firm knowledge that we might lose the case, we worked flat-out on our own solution, which we managed to debut at the third race.

When you're starting to design the following year's car, how do you manage resources while still developing the current car?

The switch of resource from one year to another is constantly difficult. It is always necessary to keep some people sorting out the inevitable problems that occur on every car during a race weekend, but how many additional staff are kept working on development is largely a function of strategic decisions. When a team are fighting hard for significant positions during the year it naturally means that they need to keep developing their car or risk losing their standing in the championship – and hence money.

If the problems are only minor, what is the natural course of developing a car throughout a season?

The most fruitful area of development is aerodynamics, and during the year numerous variations of wings, bodywork and diffusers will be seen. However, that is not to say that suspension and other mechanical items are ignored. Simulators allow these to be tested to some level before they are introduced and so



The 2009 Brawn stirred things up with its innovative but controversial double diffuser

teams will bring cautious upgrades to the car during the year. Sometimes these might even be aimed at the following year and Friday practice lets teams pursue a design avenue for the coming season with more confidence.

Development isn't always physical, however, and engineers will always be working on engine mapping within the limits allowed by the regulations to improve performance. This type of development also applies to areas such as starts and improved gearbox and differential mapping.

Why do so many teams turn up in Australia with such a large update without having tested it first?

It is a measure of the confidence in simulation. You always want to allow the designers and aerodynamicists as long as possible to develop their ideas and this sometimes means that the final details are only seen at the first race. Of course, with no in-season testing this is no different to the situation at other times in the year when much bigger upgrades are tried without having first run in testing.

Do you have points in the season when you prefer to bring updates?

There was a time when updates were grouped together and introduced just a few times a year. Typically this would be at the start of the European season, mid-season, then for the final fly-away races. Today the arms race is such that upgrades are brought to every single race – although there is still perhaps a similar temporal focus for more major changes.

Are all the updates aero-based?

Mostly, yes. Updates result from painstaking research into all aspects of performance and reliability, and most performance is found in the aerodynamics. But as simulator technology matures, we could see more suspension-based development undertaken. Even before circuit testing was limited, it was hard to make changes to the suspension and really know if you'd made the car faster or not. With simulators it is easier to evaluate this type of change.

Can you find yourselves moving backwards in a season after you've gone the wrong way with setup?

It is unlikely now that you will put parts on the car that actually detract from performance because the level of modelling and measurement are so sophisticated, but there have been cases in the not-too-distant past when this has happened. We've all heard of teams who feel that the correlation between their windtunnel results and the measured performance on the track is inadequate. Sometimes a team are unable to deliver the performance upgrades that their competitors are achieving, and it can certainly seem as if their performance is going backwards.

In the development race, which is easier: staying at the front or chasing the leaders?

Neither is easy. Formula 1 does nothing to diminish the truth of the well-known saying that 'it's tough at the top', but perhaps it should add that: 'it's even tougher at the bottom!' **F1**



Peter Windsor RACER'S EDGE

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

**■ WAS
MALAYSIA
2013 THE
BEGINNING
OF THE END
FOR RED
BULL? OR A
NEW DAWN?
OUR MAN
REFLECTS
ON AN
AFTERNOON
THAT
CHANGED
EVERYTHING**

Webber leads Vettel at
Sepang. But not for long...



Okay. Sepang is now confined to history, along with Imola '82, the Munich Agreement and Turkey 2010. Let's look on the bright side...

Mark:

Although Aussie Grit has never trusted that louse Vettel, the chances are that Vettel has, in the past, always tended to trust Mark. Forget that. Regardless of what is said back at Milton Keynes, in hotel lobbies anywhere in the world, in team debriefs or garage huddles, Vettel will never again be able to trust Aussie Grit. And he knows that. A 2013 title decider in Brazil, with Vettel needing to win in order to take his fourth? You think that Mark, out in front, is going to step aside? Right. And a Rhodesian Ridgeback is going to sidle up to an Aylesbury duck just to say "hi". And that's kind of nice. From now on, Vettel will not know where he stands. To be on any sort of solid ground, he's going to have to assume that Aussie Grit is just another competitor, a guy about as likely to help him on track as Fernando Alonso.

The pressure's off. "Remember Sepang" will become the new password. There'll be no need any more to hang around that tacky Red Bull barge on the Monaco harbour, or those delightful RB poseur-magnets that front as motorhomes in the F1 paddocks: "Where's Mark? Why isn't he out front, talking to our guests?" "He's in the garage, chatting with his guys." *Remember Sepang.*

"Interview time, Mark. We've said 'No' to a record 5,297 journalists over the past week, so can you give 25 of them three minutes now?"

"Been there. Done that. Spoken to my mates. No need to talk to anyone else." *Remember Sepang.*

"Need you to stand in for Seb at a roadshow in Korea, Mark. Sorry, but we'd really appreciate it and of course it'll be reflected in your bonus."

"Sorry mate. Washing the Porsche that day." *Remember Sepang.*

"Photoshoot, Mark. We need you outside the garage in ten minutes. Don't forget those leather boots, the stretch jeans and the spangle T-shirt." "Cheers mate. I'll be there in me Quicksilvers." *Remember Sepang.*

Seb:

He was genuinely sorry after the race. Genuinely. There was no excuse, no coherent explanation. He was, though, absolutely full of regret. He wronged Mark, he disobeyed team orders. So here, if he can do it, is a chance for him to grow. Maybe he does listen too much to all that Red Bull stuff. Maybe he does need to spend a bit more time just being Seb Vettel. Three years ago, he could never have imagined he'd do what he did in Sepang. Not in a team like Red Bull – not with Christian and Adrian on the pitwall and Kenny and the boys in the garage, believing in him all the way.

So a new challenge lies ahead – and that is to be the racing driver who wins, but also to be a man who learns from Sepang. No one's perfect. He made a big mistake and some people now respect him less. The task is to recover – and the way to recover is to respect people *more*. To respect his team-mate more. To respect *the team* more. To remind himself that, yes, he played his part but, no, he couldn't have won three titles and 27 races (pre-China) without Dietrich, Adrian, Christian and Helmut. There is an order of things and he is but a part of it. He doesn't lead it.

He knows this; he knew this. It was the adrenaline of the race that changed everything. It was somehow as if a switch had been flicked in his brain, muting

"The mistake was in asking a three-time world champion on softer and newer tyres to finish behind his 'team-mate'"

the radio. Winning the race was the only thing that mattered to him at the time. At least he can recognise this. At least he can act upon it for the future. There may be opportunities, physically, to redress the balance – to give Mark a win. That's unlikely, though. What are the chances, in a year like this, of the same situation happening in reverse? It's more important



All happy with that one-two then? Er... no

to learn and to become a more pure athlete as a result. That is achievable.

No more, then, the raised single digit in parc fermé? Instead a Kimi-like wave to the team? That, perhaps, would be a start.

Christian:

Well, at least he won't have to come out with any more of that "we just want our two guys to race one other without jeopardising the cars"-type nonsense that has kept the press so contained for the past two or three years. From now on, the job is less foggy: to wit, to keep

Mark and Seb as far apart as possible. But how to do that and still finish one-two?

Simple. Rely on Seb's consistently good starts and Mark's consistently bad ones. Whenever Mark qualifies near or alongside Seb he usually blows it off the line. Strange that. And yet when they've got a car or two between them on the grid, Mark shoots away like a scalded Weimaraner.

Sepang? The mistake, in retrospect, was probably in asking Seb to finish second. A three-time world champion, on softer and newer tyres being told to finish second behind

his 'team-mate'? What on earth did we think would happen?

We were thinking, naively, that Seb was still the racing driver he used to be – still the young guy who would follow advice and comply with instructions. We were forgetting, of course, that he's spent four years living in a bubble, believing what most people have been telling him. We were forgetting that with all that stuff around him, he would, in the heat of battle, listen only to the voice in his heart.

Adrian:

This is what we were thinking: we were thinking, 'How do we know Rosberg isn't going to pass Hamilton and put us under pressure? How do we know that the tyres aren't going to fall off the cliff in the last three laps?'

And: 'Mark's done a great job today. He deserves the win. A one-two is a rare and brilliant thing and you don't play around with it when it comes your way.'

The good news is, Seb realises his mistake and hopefully won't do the same thing again.

Mark? He's big enough to take this and to come back fighting. He knows he's a winner. And he knows that he can still win with us. **F1**

A tense podium at Imola in 1982 after Pironi passes Ferrari team-mate Villeneuve, allegedly against team orders



Read Peter Windsor's interview with Adrian Sutil on page 60 →




[illegible]

There's more to F1® in Abu Dhabi

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A collage of images related to the Abu Dhabi F1 Grand Prix. The central focus is a red and green Ferrari Formula 1 car on a track. Above it, a large checkered flag is draped. Surrounding these are various smaller images: a crowd of fans cheering, a race in progress with multiple cars, the Yas Viceroy Hotel, a sailboat, a deer, and a horse. The background is a blue sky with a large, stylized 'F1' logo.

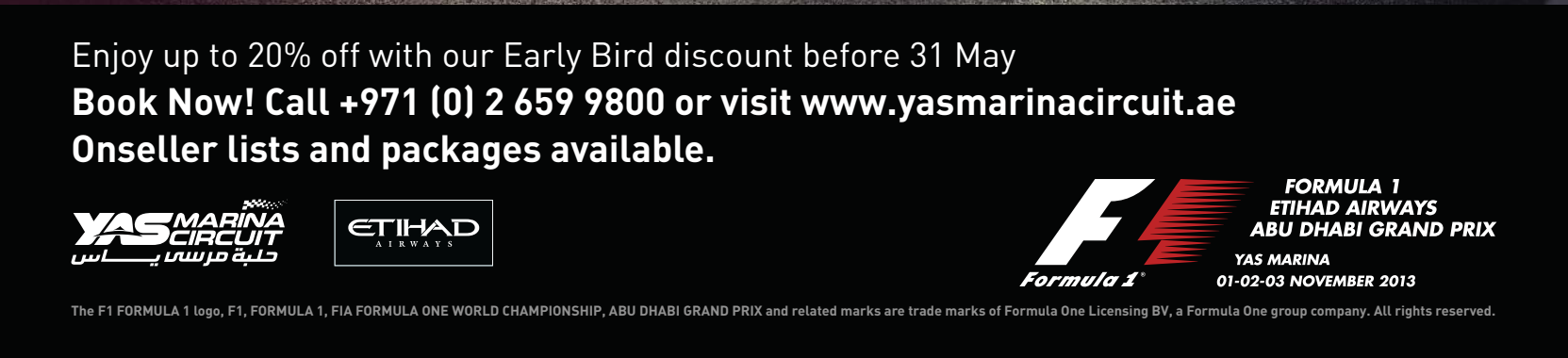
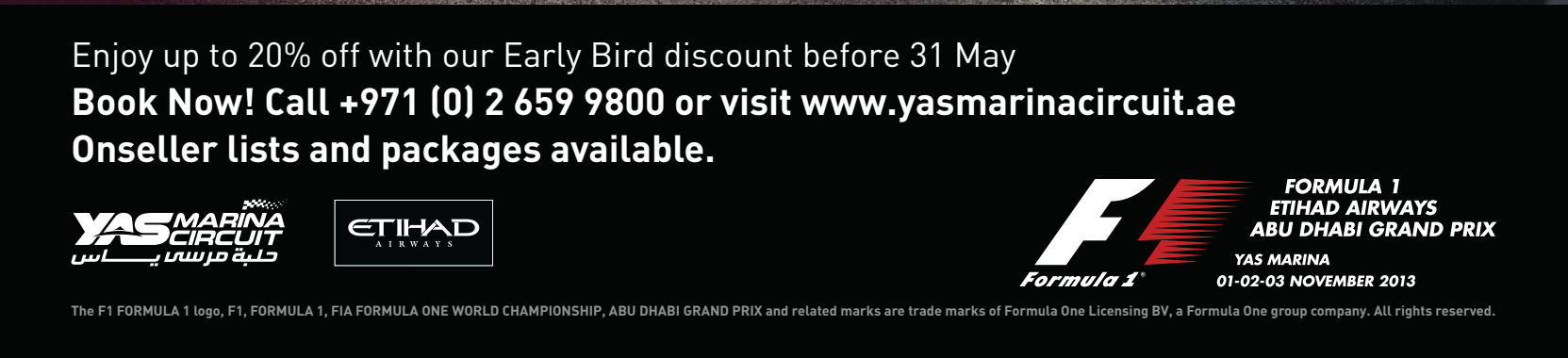
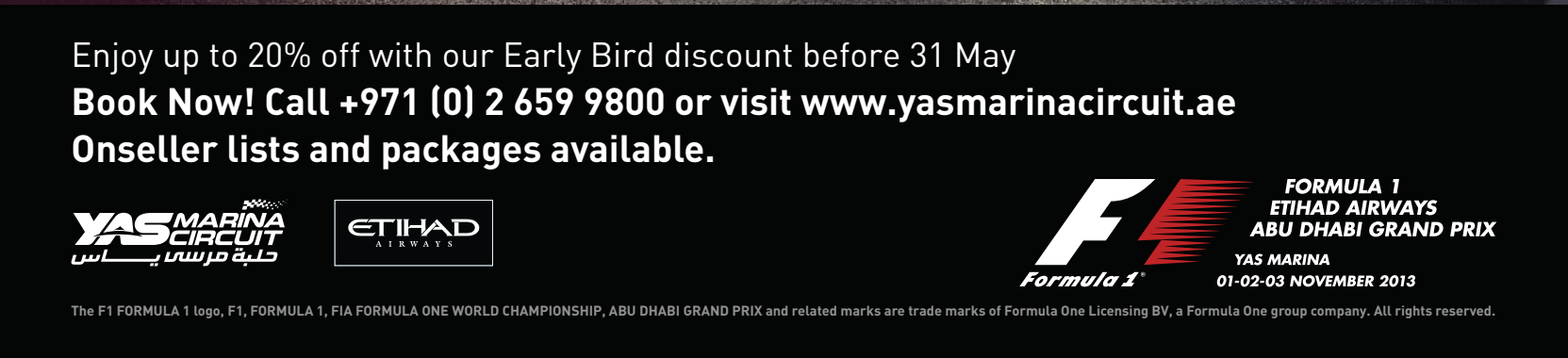
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Dieter Rencken

POWERPLAY

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

IS THREE FOR THE PRICE OF TWO THE ANSWER TO F1'S SUCCESSION QUESTION?

"For more than a decade, speculation about who could replace Ecclestone has been rife. One name that keeps cropping up is that of Justin King, currently CEO of Sainsbury's"

If anyone were to express doubts about Bernie Ecclestone's pivotal role in F1's ongoing growth, direct them to page 37 of the preliminary prospectus that was released ahead of the sport's proposed flotation on the Singapore Stock Exchange last year. It's there in black and white: *"Our commercial success is dependent to a considerable extent on the efforts, abilities and reputation of our management, especially Mr Ecclestone."*

Although the listing of Formula 1 plc was aborted due to the global economic crisis, the 498-page prospectus provides full disclosure – as required by stock exchange regulations – so offers a fascinating insight into the business of F1 and its future direction. CVC Capital Partners, the majority controllers of F1's commercial rights, originally leased by the FIA to Ecclestone for a period of 114 years, are still keen to drive the flotation when market conditions are right.

The document also states, "Our success to date has depended to a significant extent on Mr Ecclestone, our chief executive officer, who is currently 81 years old and has been responsible for the growth and strategic development of Formula 1." It then states a succession plan is in place, but, "the loss of Mr Ecclestone could disrupt our operations and have a material adverse effect on our business and results of operation."

CVC are wise to have a succession plan in place. Now 82 and facing legal action from both sides of the Atlantic, Ecclestone faces many pressures in his role as CEO of a global entity turning over a billion pounds per year. CVC must also be concerned about his health: in 1999 he underwent a triple heart bypass.

Within the paddock, too, life after Bernie is a regular theme of discussion, although most people joke that F1's tsar has no intention of passing on until

he can find a way of avoiding the truism that "you can't take it with you". The fact of the matter, though, is that the laws of nature and averages are squarely against him. "Within the paddock he can control all things, but beyond the turnstiles it's another matter," said one team boss recently. Significantly he refused to elaborate on the record...

For more than a decade now, speculation about who could eventually replace Ecclestone has been rife. A year ago, CVC charged an international

recruitment agency with shortlisting potential candidates. Some suggest it would take three senior executives – with specialisms in the sporting, marketing/media and commercial/logistics spheres – to fill the void when the inevitable eventually occurs.

There is also the possibility of promoting from within. Some two years ago, Ecclestone alluded to a woman running F1's commercial rights "probably three to five years from now." He has some capable candidates in his organisation, including lawyer and former Australian GP CEO Judith Griggs, who controls F1's money-spinning Paddock Club.

Then there is group general counsel and executive director Sacha Woodward-Hill, whose 16 years alongside Ecclestone provide a massive foot up, particularly since she has seldom been far from the action despite keeping the lowest of low profiles. A formidable operator, say F1 folk who have been on the other side of the table during negotiations – and one not afraid to put Ecclestone straight when necessary.

One other name keeps cropping up: that of 51-year-old motor racing fanatic Justin King, currently CEO of Sainsbury's. A self-confessed petrolhead, King, whose Business Administration studies at Bath University were sponsored by automotive component manufacturer Lucas, recently swapped his Maserati for a hybrid Lexus (neatly mirroring F1's switch to recoverable energy propulsion). As the successful head of a British listed company, he is au fait with stock exchange reporting procedures, while his late 1980s spell in the Middle East could also serve him well.

But the question must be asked: is a 'pile 'em high, stack 'em wide' greengrocer equipped to lead this global spectacle into its next growth phase and meet its ongoing challenges? And those challenges are many: F1 is migrating ever eastwards, embracing new technologies, shifting to new media platforms, and positioning itself as an elite pastime targeted at well-heeled consumers able to afford satellite subscriptions and eye-watering ticket prices. You could also factor in the increasing irrelevance of automobiles to F1's future market, the millennial generation for whom car ownership is an expensive proposition.

F1 requires a visionary, regardless of gender or background – one able to connect with fans, teams, the FIA, circuit promoters and broadcasters while putting the sport ahead of the cash demands of CVC and its fund investors. Truly a tall order...




PHOTO: SAINSBURY'S

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VALTTERI BOTTAS ROOKIE YEAR

The Williams racer reveals all about his first season in F1

FINALLY, I MAKE MY FIRST EVER F1 RACE START

"My heart started racing – then the lights went out and away we went! You need to be super sharp for the first corner..."

After a long winter we finally got to Australia, where I became the eighth* driver from Finland to start a Formula 1 grand prix in the 62 years of the world championship. Our first weekend was tough, definitely, because we are not where we wanted to be, but we all believe there is a lot of potential in the car that we just need to unlock.

I flew out to Melbourne on the Friday night before the race and arrived on Sunday morning to give myself the best chance of acclimatising to the nine-hour time difference. The trick was staying awake for the first leg of the flight to Singapore, where I watched a couple of films, including *Life of Pi* – if you haven't watched it you must: it's worth seeing. Then I slept on the second leg to Melbourne to try to beat the jet lag. It still takes two or three nights to completely get over it, and I would wake up at 2am every day, feeling wide awake.

Each morning I would go for a run and do some training. On my first day I explored Melbourne and even went to

the zoo to look at the kangaroos and koalas they have there. There were actually more functions to attend the following week in Malaysia; there I had a Renault event to go to and also an F1 gala in the city of Kuala Lumpur where I met the Malaysian royal family and the country's supreme ruler, Abdul Halim of Kedah.

One of the things I'm going to have to get used to during my rookie year is the number of PR events – and of course there is a sharp increase in the amount of media work compared with what I've previously done. It's very easy to say something you shouldn't, particularly when you've just jumped out of the car and the adrenaline is pumping: that's when you need to be most careful about what you say.

Having driven so many practice sessions last year, I was familiar with the first part of the weekend, but of course in Melbourne we had the problem with the rain and qualifying was split – finishing on Sunday morning. I was very pleased with my performance. You wouldn't think it, but I slept really well on the Saturday night before the race. I didn't have any nerves at all and got nine and a half hours straight; sleeping has never

"You wouldn't think it, but I slept really well on the Saturday night before the race. I didn't have any nerves and got nine and a half hours straight"

been a problem for me. And despite it being the day of my first grand prix start I was able to keep quite calm when it came to keeping my emotions in check.

A real highlight for me came on Sunday afternoon when I took part in my first ever drivers' parade. That was really cool as I saw so many Finnish flags and fans who were calling out my name – that was a great experience and it felt like a truly special moment.

A couple of hours later I was leaving the pitlane to head around to the grid for my first ever F1 race start. It was really important at that time to focus on all of the procedures. Once on the grid I jumped out of the car, took my helmet off, spoke with my engineer and then, before I knew it, it was time to get strapped back into the cockpit, ensure the radio to my engineer was working – he told me the latest information about which tyres the cars around me were starting the race on – and then it was time for the formation lap.

Coming around to the grid for the start my heart started racing a little – then the lights went out and away we went. You then need to be super sharp for the first corner, all the time aiming to avoid possible incidents between cars, and that was it – my Formula 1 race career had begun.

**A ninth driver, Michael Kozarowitzky, failed to qualify for two Formula 1 grands prix in 1977*



PHOTO: ALASTAIR STALEY/LAT



STAR LETTER



Mercedes team orders kept Nico behind Lewis in Malaysia. It was a different story at Red Bull...

Team orders spoil the show

I feel compelled to comment about the end of the Malaysian Grand Prix and give a huge thumbs down to Red Bull and Mercedes. Are they trying to lead us back to the old Ferrari 'proconsular' style of motor racing? Do we really want this level of 'race fixing' and interference?

We have become used to rain and some degree of mayhem at Malaysia – we didn't get that this year, so thank you very much to Sebastian for giving true racing enthusiasts the most exciting few minutes of the race.

It's not as if Mark passed Seb on the track – he was gifted the lead by the pitstop strategies. Could we really expect a triple world champion not to want to remedy this? Would we want a world champion who calmly complied? I can't imagine Schumacher or Senna doing so. It also suggests that Red Bull have no confidence in their drivers' skill, ability and intelligence in being able to race without taking each other out.

Come on Red Bull and Mercedes – let's not go back to the dark years.

Marilyn Strawn

South Yorkshire, UK



STAR PRIZE

Marilyn Strawn wins a pair of three-day admission tickets to the 2013 British GP at Silverstone. For more details, call the hotline on 0844 372 8300 or visit www.silverstone.co.uk



Seb: do as you're told!

Sebastian Vettel did not simply deprive team-mate Mark Webber of a deserved win in Malaysia.

By ignoring team orders, he also displayed a wanton disregard for the entire Red Bull squad and revealed himself to be motivated by a ruthless pursuit of personal glory.

Although he's still young, it's not too early for Vettel to consider what sort of legacy he will leave the sport. He needs to reflect on his actions, learn from his mistake and act like the champion and sportsman that he has heretofore demonstrated himself to be.

Michael Buccioni

Ontario, Canada

What else could Seb do?

I may be in a minority, but I certainly haven't lost any respect for Vettel following his move on Webber in Malaysia.

He knew Alonso would play a big role in a tight championship this year, and on a day when Alonso was a DNF the extra points he gained for winning instead of coming second were crucial. It may have been selfish, but it demonstrated why Seb has three world titles and Mark has yet to win one – and as a fan, it was great to watch.

Kelli Francis

Essex, UK

A nasty trick indeed

It had to happen didn't it? The golden boy, the modern racing driver who united fans from all around the world, fell from grace.

Vettel's 'misunderstanding', which saw him disobey team orders and overtake team-mate and race leader Mark Webber in Malaysia was a nasty trick indeed.

Tim Woodall

Cambridge, UK

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JUNE ISSUE ON SALE 23 MAY

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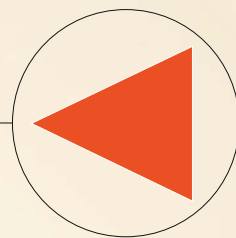
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Now that was a car



No 15: The Brabham BT20

A scoring machine in Brabham's 1966-'67 glory years

Jack Brabham had stolen a march on his rivals in 1966, when Formula 1 became a 3-litre formula. While other teams wasted time lobbying against the new regs, Jack packed his bags for his native Australia and tied up a deal with the spare parts company Repco.

The Repco V8 was a mish-mash of parts – an aluminium Oldsmobile engine block originally designed for road-car use, Daimler conrods and Alfa Romeo cam followers – but it worked. The chassis to which Brabham fitted it, the BT19, had been sitting in the workshop for over a year, having originally been designed to accommodate the Climax flat-16 engine that never saw production.

For Brabham, a stopgap chassis worked just fine – pretty much everyone else was running stopgap engines. And when the first BT20 was ready – an evolution of the BT19, but longer in the wheelbase, more stiff in torsion and with beefier brakes – Brabham decided to stick with his 'Old Nail' because he felt it was lighter.

For both cars, designer Ron Tauranac had favoured stiffness over aerodynamics. While Lotus used rocker arms to actuate their internally mounted springs and dampers, so as to keep them out of the air flow, Tauranac stuck with a double-wishbone setup because it was rigid and offered better geometry.

Brabham's team finished assembling the first BT20 on the Thursday night before the French GP at Reims, the third championship race of the year. And that's when Jack made

his decision to stick with the BT19. He qualified fourth but inherited the lead when Lorenzo Bandini's throttle cable broke. He held on to it to become the first person to win a grand prix in a car bearing their own name. Hulme was third in the BT20, even though he had to stop and lift it by the nose to sort out a fuel-feed problem.

After tying up the drivers' title at Monza, Brabham took on the BT20 for the last two races of the season, setting pole at Watkins Glen before engine failure forced him out, and finishing second to John Surtees in Mexico. His title defence in 1967 got off to a bad start at Kyalami though, when he made a mistake and spun after starting from pole. He finished sixth with Hulme in fourth. Next time out, at Monaco, Brabham was on pole again but his engine blew at the start. Hulme won from fourth in the BT20-2. At the third race of the season Lotus wheeled their new car, the 49, out of the truck with the new Ford-Cosworth V8 engine in the back. The game had moved on.

While Repco's engine was outclassed by the new Cosworth in all the performance benchmarks, it was initially more reliable. Jim Clark won in the Lotus 49 on his first outing, but too often failed to finish races after being the quickest. Hulme notched up another podium position in the BT20 before taking over the new BT24, and scored consistently throughout the rest of the season to clinch the title ahead of Brabham at the final race of the year.

• Turn to page 92 for our exclusive interview with Sir Jack Brabham



WORDS STUART CODLING PICTURES JAMES MANN

BRABHAM BT20 TECH SPEC

Engine	3-litre Repco 620
Layout	V8 (90 degrees)
Power	311bhp
Transmission	5-speed Hewland
Wheelbase	2,375mm
Weight	560kg
Fuel and oil	Esso
Fuel tank	145 litres/32 gallons
Tyres	Goodyear
Notable drivers	Jack Brabham Denny Hulme





THE DARK SIDE OF VETTEL

Rancour continues to brew at Red Bull and the happy-go-lucky image of triple world champion Sebastian Vettel has given way to something rather less appealing. But do the team have only themselves to blame?

WORDS ANDREW BENSON

IMAGE ANDREW FERRARO/LAT
& PETER CROWTHER

At the Red Bull launch in February this year, Sebastian Vettel's quick and disarmingly charming sense of humour provided an amusing distraction, as it so often does in such situations.

"What are your plans for world domination this year?" he was asked in the news conference.

"I'm German but I didn't say that," he replied with a smile. "I have no moustache."

A little later, compere Martin Brundle indicated that it was time for the conference to switch over to German for the benefit of the television crews from Vettel's home country.

"We are making our secret plans," Vettel said, quick as a flash, raising his little finger to his mouth in the manner of the Dr Evil character from the *Austin Powers* films.

It's ironic, then, that less than two months later, Vettel finds himself cast as a real-life villain, with laughs in very short supply, following his flagrant disregard of team orders not to pass Mark Webber to win the Malaysian GP. →

Vettel's behaviour created a huge outcry, but the biggest surprise is that so many people *are* surprised. Brilliant though the 25-year-old may be, his outstanding talent behind the wheel of an F1 car has long been paired with an overarching ruthlessness and determination to pursue success at all costs. It may have been lost to some in the blizzard of success and index-finger salutes that have saturated F1 over the past few years, but Vettel's engaging personality and effective wit have always disguised a darker reality.

The first signs emerged in Turkey 2010. Webber was leading Vettel, with the McLarens of Lewis Hamilton and Jenson Button bearing down on them. In an echo of Malaysia 2013, Vettel felt Webber was holding him up and wanted the team to order Webber to let him past. Vettel went for the inside on the final chicane, while Webber defended robustly as usual; the two collided and Vettel was out. As Webber finished third, Vettel walked to the pits, doing the internationally recognised 'nutter' sign – making circles with his forefinger at his temple.

What really made an impact, though, was that both Red Bull motorsport chief Helmut Marko and team boss Christian Horner made it clear in remarks after the race that they felt blame for the accident lay largely at Webber's door for failing to give Vettel enough room. Impartial observers had almost unanimously pointed the finger at Vettel for swerving into his team-mate.

To most, that was as clear an indication of Red Bull's preference for Vettel as it was possible

"Brilliant though Vettel is, his talent is paired with overarching ruthlessness and determination to pursue success at all costs"

to get. Whatever the rights and wrongs of Turkey 2010, it was undoubtedly the start of the spiral that led directly to Malaysia 2013.

The very next race was Canada, where Webber was ordered not to pass Vettel, who was protecting a damaged gearbox. Given that the team had gone into the Montréal weekend saying that the two drivers would be allowed to fight, Webber was understandably not impressed.

Two races later, at Silverstone, Red Bull were trying a new front wing in final practice. There were only two wings available and the one on

Malaysia 2013:
public opinion of
Vettel shifts as he
defies team orders
to pass Webber
and 'steal' the win





Vettel's car broke. Just before qualifying, the team decided to take the wing off Webber's car and give it to Vettel, the justification being that he was ahead in the championship and had expressed a stronger preference for it than Webber. This decision, when it was revealed, caused widespread disbelief up and down the pitlane. Webber was furious and determined to have his revenge. Come race day he beat Vettel off the line, and while Vettel tried to sit it out around the outside of Copse corner, he got a puncture and could only fight back to seventh place.

As that remarkable season unfolded, with both drivers fully in contention for the title, bad feeling was created that has never gone away. In Japan, the team called off the race when Webber felt he could challenge Vettel. A week later in Korea, Webber crashed while needlessly trying to keep pace with Vettel in the soaking early laps. Vettel's subsequent retirement from the lead with engine failure handed victory to Fernando Alonso, putting the Spaniard ahead in the title chase with only two races to go. Webber was second, 11 points behind, with Vettel 25 adrift.

Most teams would, in that situation, have asked Vettel to back Webber's challenge, but Red Bull refused to give up on Vettel. He delivered in the end – albeit thanks to an inexplicable strategy error by Ferrari at the final race in Abu Dhabi – but the wounds of that decision have yet to heal.

Fast forward to the championship climax in Brazil 2012...

Vettel was again going for the title against Alonso, but this time Webber was out of contention. Pre-race, Red Bull asked Webber to forget about his own hopes that day and help Vettel beat Alonso. At the start, Webber squeezed Vettel towards the inside, triggering the chain of events that led to him colliding with Bruno Senna's Williams at Turn 4 – which could so easily have put him out of the race. Shortly afterwards Webber appeared to let Alonso by easily, and then later in the race when Vettel came up to him he started to race his team-mate. Delight at Vettel's third title did not diminish the anger felt by Marko and Horner at this conduct.

At São Paulo airport that night I bumped into Webber and tried to make a joke about the afternoon and his tussles with Vettel. He was not amused. "Yeah, well," he said, "they didn't exactly lay it on a plate for me in 2010, did they?"

I've dwelt on 2010 because the events of that year are so critical to understanding what has come since – they form the backdrop to and have shaped everything that has subsequently happened between Red Bull and their drivers. They solidified in Vettel's mind the belief that he was Red Bull's chosen one – a notion strengthened by the fact that, on pure pace, he more often than not has the better of Webber. Of all the situations where the two have been racing over the past few years and where there has either been an overt team order to stop fighting, or Webber has suspected something has gone on to keep him away from his team-mate, the majority have favoured Vettel.

On the rare occasion that Webber has refused to back off – think Silverstone 2011 – he has never actually succeeded in passing his team-mate. It is a moot point how much of that is due to the fact he believes, deep down, that Red Bull favour Vettel and therefore knows he would incur the wrath of the team by doing so.

Meanwhile, Vettel has grown in strength. He has seen the team back him over his team-mate in nearly every situation where it has mattered. And his innate sense of superiority – present in all great drivers – has been bolstered by his three world titles, no matter that two of them should have been won by Alonso, in a slower car. →

But while Vettel's three years of success have revealed his competitiveness, they have also laid bare a rather less appealing characteristic – his sense of entitlement. It's difficult to know if the team's support, whether overt or implied, has heightened that trait – but, whatever its foundation, there is no doubt it exists.

So when Vettel ended his own race by pulling across too early when lapping an HRT in Malaysia in 2012 and clipping the cumbersome white car, he blamed the hapless driver, calling

despite the introduction of a rule the previous winter requiring drivers to leave one car's width when defending a position. Alonso did have to take to the grass to avoid the cars touching and Vettel was given a penalty. The rivalry between Alonso and Vettel is just as powerful and just as revealing as that between Vettel and Webber. It's just that they have – so far – hidden it better.

In Japan 2012, Alonso was smarting after qualifying because Vettel had held him up at the chicane on his one and only flying lap – but

Vettel escaped penalty on the grounds that he probably did not know Alonso was there. This was despite Toro Rosso's Jean-Eric Vergne being penalised the same day although the same was true when he held up Williams' Bruno Senna.

And at the start in Malaysia this year, Alonso felt Vettel had been unusually slow at the apex of Turn 2, where the Ferrari broke its front wing on the back of the Red Bull, almost as if Vettel had deliberately backed off. When questioned about it in China, however, Alonso admitted that the error had been his.

Of course, the greatest drivers are rarely angels – and two closely matched, intensely competitive team-mates such as Vettel and Webber will never make a happy mix. Just think of Carlos Reutemann ignoring Williams team orders to let Alan Jones by in Brazil in 1981; think Ayrton Senna and Alain Prost; think, indeed, of Alonso and Hamilton.

The latter combination simmered all through their year as team-mates in 2007 until it finally

Narain Karthikeyan an "idiot". And when Lewis Hamilton unlapped himself in Germany in 2012, Vettel was apoplectic on the radio about it, even though the Englishman had done nothing wrong. When later in that same race at Hockenheim Vettel wanted to pass Button, he felt it was okay to go beyond the boundaries of the track – despite it being only a week since the drivers were explicitly told they were not to gain advantage by doing so.

He has also shown a willingness to push the boundaries of acceptable behaviour beyond breaking point, a trait that – until race day in Malaysia this year – had been most apparent in his battles with Alonso. At Monza in 2011, Vettel passed Alonso for the lead with two wheels off the track at 180mph around the outside of Curva Grande. Afterwards, he was clearly unimpressed by Alonso's behaviour. He made pointed reference to it in the news conference afterwards, and several times more over the succeeding months if ever both were in the same room when the subject of driving standards came up.

The thing was, Alonso had done nothing wrong. Yes, he was brutally hard, but he had left Vettel just enough room to stay on the track. Vettel hadn't *had* to go off to avoid hitting him; he just happened to have done so.

Exactly 12 months later, Vettel saw his chance to gain revenge for what he had considered a wrong. This time, it was Alonso trying to pass Vettel around the outside of Curva Grande and Vettel squeezing him. But, unlike Alonso the year before, Vettel did not leave enough room –



Turkey 2010: Vettel suffers a tyre-shredding exit after tangling with Webber – then lays the blame on his team-mate



Italy 2012: Breaking new rules, Vettel squeezes Alonso onto the grass. And then goes on to blame Alonso...



Malaysia 2013: Vettel is struck from behind by Alonso at Turn 2, although Alonso later insisted the mistake had been his





Hamstrung by Helmut

The presence of a highly influential adviser means there are practical limits to team principal Christian Horner's authority

It's hard not to feel some sympathy for Red Bull team boss Christian Horner post-Sepang. He's led the team with enviable calm since '05, but Vettel's harpooning of Webber in Malaysia gave rise to accusations of 'weak leadership' as controversy clouded the success of the past four seasons.

Consider Horner's invidious position. While his team have a competitive budget and a technical staff led by Adrian Newey (lured from McLaren by Horner himself, it should not be forgotten), Horner's position remains... nuanced.

Why so? Look no further than Dr Helmut Marko. The former racer seen so often at the back of the garage on Vettel's side is the personal adviser, on motorsport, to Red Bull owner Dietrich Mateschitz and thus Horner's worst nightmare: a hugely influential minister without portfolio placed where the team owner wants him. While day-to-day running of the team is down to Horner, the influence of Marko is beyond his control.

It's in this light that Vettel's defiance of team orders, in such a public manner, should be seen: yes he followed his

racer's instinct, but he's the product of a culture hard-wired to promote his success. He grew with Red Bull backing since his teens and now feels empowered to act as he likes, safe in the knowledge that ultimate authority does not rest with Horner.

So forget talk of disciplining Vettel. His move at Sepang was as much the product of cool calculation as it was of red mist. Back in Austria, Red Bull's overlord will be loving it. Mateschitz's genius, after all, is as a marketeer... And nothing sells cans like column inches.

Anthony Rowlinson



exploded in Hungary. Once there, Hamilton reneged on an agreement to let Alonso by as they were doing their 'fuel-burning laps' at the start of qualifying (which sounds trivial, but effectively robbed him of the chance to compete for pole on equal terms) and then Alonso retaliated by holding Hamilton in the pits just long enough to stop him completing a final qualifying lap.

That situation was created by McLaren trying to manage matters between their drivers, rather than accepting they could not control them and letting them get on with it as if they were two drivers from opposing teams who just happened to be competing from the same garage. For a team, it's an understandable approach but, just as it was with Hamilton and Alonso, Vettel and Webber are proving how hard it is to sustain.

To some, Vettel's ruthlessness, the lengths to which he is prepared to go to pursue success, and the internal situation at Red Bull that has facilitated it, have been obvious for some time. Now, they are clear to the world. After Malaysia Vettel can joke all he likes, but his sunny public image has been replaced by an altogether darker air. Changing it back again will not be so easy. **F1**

• Andrew Benson is BBC Sport's chief F1 writer



BULLETPROOF





BUTTON

The slings and arrows of F1 fortune have hit Jenson Button harder and sharper than almost any of his peers. Yet entering his 14th season, he's standing stronger than ever.

JB chatted to *F1 Racing* about life, lycra, and being McLaren's out-and-out number one

WORDS

ANTHONY ROWLINSON

PORTRAITS

ANDREW FERRARO

"WHY do we fall, sir?" asks Michael Caine's Alfred of Christian Bale's Bruce Wayne in *Batman Begins*.

"So that we can learn to pick ourselves up."

It's 3 March 2001 and a slender, still baby-faced Jenson Button has qualified his lame Benetton-Renault B201 in P16, ahead only of his team-mate Giancarlo Fisichella and the likes of Enrique Bernoldi in an Arrows, Gaston Mazzacane in a Prost and Jaguar's Luciano Burti (glossing over future champ Alonso, marooned in 18th on his F1 debut with backmarkers Minardi).

This is a shock. Big time. Button had glided through 2000 as a highly impressive rookie, often embarrassing his far more experienced team-mate, Ralf Schumacher, and at races such as the German GP demonstrating his sublime wet-dry touch to finish fourth, his best result of the year. A coming man, then, with so much time on his side.

But the slumps – following the highs – would recur.

During two awkward seasons at Benetton, Button's talent and application were questioned by team boss Flavio Briatore, who dismissed Jenson as a driver who would never win a world championship, before releasing him without ceremony for 2003 to BAR.

Then came 2004, which promised to be Button's breakthrough season, bringing with it ten podiums and a pole. But 2005 was blighted by BAR's illegal fuel tank scandal.

One year on, a flawless first win in Hungary should have opened the floodgates; instead it opened the gates to hell, as Honda took full control of BAR and proceeded to conjure two of the most abject F1 campaigns on record. Jenson's tally? Six →



"I've pushed myself through things that I never thought I would. And I've been through pain that I never thought I would"

points in '07, just three in '08. There were many at the time who wondered if the careers of Button and team-mate Rubens Barrichello were about to fizzle out with a whimper, Jenson crystallised as the wonderkid who never fulfilled his promise; Rubens as the respectable number two who would always be judged by his Ferrari years alongside Michael Schumacher.

Then came the killer blow: Honda's withdrawal in the depths of the 2008-2009 off-season, leaving Button not only without a drive, but also uncoveted, after two such joyless championship seasons.

Did he let the bad times get him down? No, he continued to do the only thing racing drivers can do when the magic carpet is

pulled from beneath their feet: stay sharp, stay focused, stay in touch with the team (Ross Brawn, Nick Fry) who were putting the broken pieces back together. And away from the calamitous headlines, Jenson held fast to what he believed in: a new-found love of triathlons helped keep his mind clear of morbid introspection; his close-knit 'Team Button' (among them his dad, John, manager Richard Goddard and PA Jules Gough) provided counsel and foundation.

The Brawn GP fairy tale that followed went straight to number one in the chart of F1 fables, helped by the hunger for success gnawing at the pit of the stomach of the team's lead driver after the fallow years that had gone before. Indeed, it was Button's

dogged pursuit of the 2009 drivers' title at the Brazilian GP (a fighting 14th to fifth to bag the crown) that prompted McLaren team boss Martin Whitmarsh to approach Jenson with a view to recruiting him

alongside Lewis Hamilton for 2010.

"It was the Monday morning after that drive in Brazil, yes," Whitmarsh recalls. "I was massively impressed by how he closed out the championship in a tricky race and in a car whose advantage was slipping away.

"I know from being around people in the same situation the pressure and tensions that go with it, and I thought: 'That was bloody good.' He kept cool and did it."

Whitmarsh had seen something more than just a driver sensing and seizing an opportunity, however: he'd spotted discord between driver and team, arising from disputed cash and bonus payments related to the title win. Sensing an opportunity of his own, Whitmarsh reasoned that despite the superficial harmony, this was the moment to poach F1's newest champion: "I thought 'Let's give it a go,' and when I

landed at Heathrow on the Monday after the race I made a call as I was stood at the carousel. That's how it started."

And lo, for the first time in his F1 career, Jenson was afforded the stability and security that can only come with a drive for one of the sport's grandee teams.

It suits him. Sitting opposite *F1 Racing* as we talk ahead of the Australian GP, Button is the very picture of success: a perfectly groomed product of the McLaren image machine, but also a self-made sportsman who has learned from his youthful mistakes to emerge stronger, more determined and – to a staggering degree – fitter.

His near-obsessive interest in triathlon seems almost as important to him, these days, as Formula 1 and we get talking about the masochistic appeal of endurance sport.

"The main reason is for F1," he explains, "but I really got into it when times were tough in racing. It's the competitive edge."

So it provided the kick that couldn't be found driving a sluggardly Honda? "Yeah, especially the '07-'08 years. Then I just hung on to it and really enjoyed the competition. It's about doing a better job yourself, it's not about competing against other people. Now I've managed to get to a position where I can fight for podiums and stuff. It's quite fun."

The transformation from skinny youth to hardened triathlete over the past decade is one that continues to amaze, as much for the evident physical results as for the fact that it's driven solely by Button's own desire. Being fit enough to drive in F1 is one thing. Developing from there into a podium-chasing triathlete with designs on pro-standards, quite another. No one but Button is making that happen.

"It's very similar to F1," he offers, by way of explanation. "It's the clock the whole time. When you look at the swim, bike, run and the transitions, it's all about being as quick as you can on each of them. But there's also the mental side of it. I've pushed myself through things that I never thought I



INSET: WIP PHOTOGRAPHY

would. And I've been through pain that I never thought I would."

The evidence is in the results, both on-track and off. Over three seasons alongside Lewis Hamilton, Button edged his mega-quick team-mate by 672 points to 657, while in his downtime he's running winter half-marathons in 1hr 19mins. That's seriously fast. It's also largely irrelevant to the day job of a racing driver, unless... unless it helps that driver stay as strong mentally as he is physically and ensures that whenever the next fall comes, he can pick himself up.

"I've done triathlons in the Philippines at 38°C with high humidity and a half-marathon in Cannes when it was zero degrees and raining," says Button. "Those things hurt like hell and being mentally strong enough to fight through them really helps when I go racing. And leading up to a race it takes you away from all the bullshit and lets you relax with your mates and really make sure you're in the zone and focused on the weekend. That really helps me."

On early-season evidence, Button's going to need to draw on that mental fortitude, as McLaren wrestle with the tardiness of this year's MP4-28.














"Melbourne confirmed suspicions we already had," says sporting director Sam Michael, "as we saw from winter testing we had an issue and we were not where we needed to be. You don't intentionally design a car that's not there to win, especially in our position as McLaren, and we're in the middle of that analysis now, to make sure we understand what to do next."

A technical slump such as this, particularly from a team who finished last season so strongly, can be hard for a driver to stomach. All the more so when, for the first time in his career, he's the unequivocal number one (however many pains are taken to stress the parity of equipment offered to Button and Sergio Pérez).

But while he's disappointed at the lack of early-season pace, Button is far from →

Friends or rivals?

How Jensen's stacked up against his closest competition over the years – his team-mates

		Wins	Poles	Fastest laps	Other podiums	Qualifying	Points
	2000						
	Jenson Button	0	0	0	0	6	12
	Ralf Schumacher	0	0	0	3	11	24
	2001						
	Jenson Button	0	0	0	0	4	2
	Giancarlo Fisichella	0	0	0	1	13	8
	2002						
	Jenson Button	0	0	0	0	5	14
	Jarno Trulli	0	0	0	0	12	9
	2003						
	Jenson Button	0	0	0	0	9	17
	Jacques Villeneuve/ Takuma Sato	0 0	0 0	0 0	0 0	6 0	6 3
	2004						
	Jenson Button	0	1	0	10	10	85
	Takuma Sato	0	0	0	1	8	34
	2005						
	Jenson Button	0	1	0	2	16	37
	Takuma Sato/ Anthony Davidson	0 0	0 0	0 0	0 0	1 0	1 0
	2006						
	Jenson Button	1	1	0	2	10	56
	Rubens Barrichello	0	0	0	0	8	30
	2007						
	Jenson Button	0	0	0	0	10	6
	Rubens Barrichello	0	0	0	0	7	0
	2008						
	Jenson Button	0	0	0	0	8	3
	Rubens Barrichello	0	0	0	1	10	11
	2009 - CHAMPION						
	Jenson Button	6	4	2	3	7	95
	Rubens Barrichello	2	1	2	4	10	77
	2010						
	Jenson Button	2	0	1	5	6	214
	Lewis Hamilton	3	1	5	6	13	240
	2011						
	Jenson Button	3	0	3	9	7	270
	Lewis Hamilton	3	1	3	3	12	227
	2012						
	Jenson Button	3	1	2	3	5	188
	Lewis Hamilton	4	7	1	3	15	190

"I know how important my feedback is.
I enjoy knowing that my comments
about the car will really be listened to"



dispirited. Indeed, taking a leaf from the Fernando Alonso Team Talisman Handbook, he stresses he's up for the challenge: "The idea behind the car in terms of changing its geometry and the way that the aerodynamics work should help us throughout the season. And our development curve should be very good compared to other teams' – that was always our idea. It meant winter testing was always going to be a bit tough, as I don't think many teams have really done what we have."

All commendably loyal, but Jenson's sentiments aren't entirely sugar-coated. With a roll of the eyes he confesses: "We'd still expect to have a good car at race one. We don't expect to be slower than the rest and it's about learning from mistakes, which obviously as a team we made quite a few of last year. So we need to improve in those areas, and if we can there's every chance we can fight for this world championship."

A title shot would have been Button's minimum expectation heading into 2013 ("with this team you always feel you'll go into the season and fight for the world championship," he says) after McLaren spent much of 2012 with the fastest car. Their seven wins (Jenson three, Lewis four) were equalled only by title-winning Red Bull, and McLaren victories book-ended the season. They proved not just the early-season competitiveness of the MP4-27, but

also the team's ever-impressive ability to squeeze more speed from a chassis. And with Hamilton departed for the other silver team, never has Button entered a season with his all his ducks so neatly aligned (2009 apart, which none predicted would be so stellar). So it's a shame the MP4-28 didn't read the script and came on stage lacking downforce, with stubborn understeer, a poor ride and heavy tyre degradation.

Form, however, is temporary, and right now Button's happier to focus on McLaren's class, proven over years of F1 success: "I love that driving for a team like McLaren was always my dream as a kid," he says. "Watching Ayrton and Alain fight it out here... as a kid you never think it's going to happen but to actually be here and be the experienced driver with the team, in my fourth year, it really does mean a lot."

Team Button certainly *look* happy in the McLaren team environs, as if they were always destined to be there. A bit like Alonso at Ferrari, and Kimi at Lotus, JB-McLaren have synergy to the extent that it's hard to imagine him driving anywhere else.

Certainly, that's how Martin Whitmarsh sees it: "When you sit here and have a cup of tea with Jenson, he's disarming," he says. "You don't realise the focused competitiveness he has. He's extraordinary. Most people who have that level of competitiveness, well, many of them are

uninteresting; they're one-dimensional, they're not particularly pleasant. We don't employ our drivers to be pleasant, we employ them to win, so it's pretty nice and satisfying when they're competitive and also just pleasant loyal team players."

Whitmarsh draws parallels with a McLaren champion of the recent past, Mika Häkkinen, who became so enmeshed within the team that he never drove for another. Both, Whitmarsh says, were consummate team players, whose commitment to the cause and low-maintenance work ethic gelled the race team around them.

The burden of leadership, if that's what it is, rests squarely on Button's shoulders now, for in McLaren's post-Hamilton era, eyes will turn to the youthful veteran in car number five to spearhead whatever championship challenge can be mounted. "It's a great feeling," Jenson enthuses, "because I know how important my feedback is. People ask 'is it a lot more pressure?' and maybe it is. But I enjoy that. I enjoy knowing that my comments about the feeling of the car will really be listened to by the team."

They'll need to, because right now McLaren have a star driver faster than his machine. But they also have a man in the cockpit able to tell them from his own experience – sometimes bitter, sometimes sublime – that only by falling do you learn how to pick yourself up. **F1**



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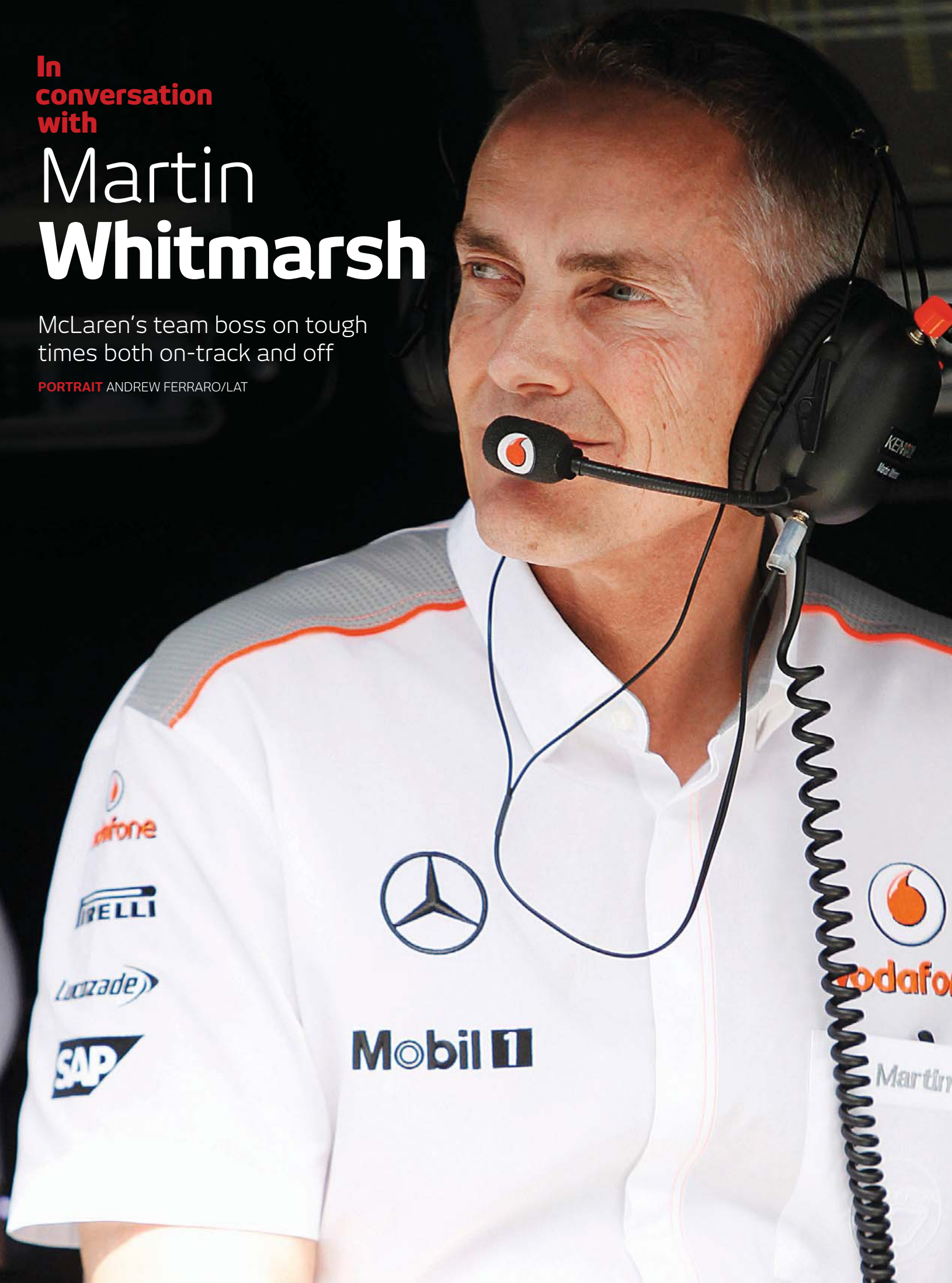


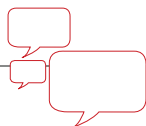
In
conversation
with

Martin Whitmarsh

McLaren's team boss on tough
times both on-track and off

PORTRAIT ANDREW FERRARO/LAT





How hard has the start to the season been?

Well, Friday in Australia was one of the hardest days I can ever recall. The car lacked overall grip and consistency, and it had understeer and a poor ride. So that was a very difficult day and one where we didn't move forward. But we have a lot of data now and the team will be working long and hard. The car should be a base on which we can improve. No doubt about it though, it was disappointing and tough.

McLaren have been able to develop bad cars in the past, but you wouldn't have wanted to start from such a low base...

No, but it's a long season. We made a lot of changes to the car going into this season and, at the moment, we don't fully understand how to get the best out of it. But that's a choice you make. The season lasts until the end of November and we will race throughout that period of time, developing the car as we go. That's what we set out to do. Of course it's much more comfortable to start competitively and fight from there, but we've done both in our time. We're a strong team and we'll just have to find a way through.

Was the departure of technical director Paddy Lowe responsible for the poor early-season performance of the MP4-28?

Paddy was with us through until the launch of the car, so I don't think his decision had an impact. We made a judgement over the course of 2012 and inevitably when you do that there is some risk involved. But that was the judgement we made. We still believe we've got a platform we can develop [the MP4-28], but it's a platform we don't know as well as the one we left [the MP4-27 of 2012].

Would you be quicker if you took last year's car and just concentrated on that?

Today, yes, I think we would. But would it have the development potential during the year? We'll see over the course of the season whether we're right or wrong, but it was our judgement that we needed to make some changes, which is what we did.

Is your life easier, not having to manage two world champions?

Any team wants the strongest driver line-up. There have been a couple of times when we've had two world champions and those have usually been interesting and good phases because you have two good drivers.

It's not a real challenge managerially. Occasionally you have a situation where both drivers are near the front and they're competing with one another and then, if you're in the middle of the pitwall, you know that if it goes wrong the heat will come on you. It can give you some uncomfortable moments but, overall, it's not such a bad position to be in.

Are you worried about the decline in audience figures connected with the move to pay-per-view TV? Does that damage F1's sponsorship and marketing potential?

The world is changing and media is changing, so clearly pay-per-view has reduced the classic audience size and that's got to be a concern to us all. All we can do in Formula 1 is put on the most entertaining show we possibly can. We also have to work hard on all the other platforms because fewer people are watching television in the traditional sense. They are watching it in deferred modes, through mobile devices, laptops, tablets, etc. So we have to look at the complete picture of how people view their entertainment – how they actually use entertainment.

The whole model is in transition, but maybe to a better model that's going to increase the potential revenue streams. But as I said before, it's just a very tough market at the moment.

Your long-time title sponsors, Vodafone, are pulling out at the end of the year. Is the ongoing global financial crisis harming your ability to pull in sponsors?

There are still a lot of companies out there who do find Formula 1 very attractive but, inevitably, if they're going through a tough time, they're hesitant to come in. We all come across a lot of businesses that would like to enter the sport, but perhaps on a rate card that some of the top teams wouldn't support. We've got to be very conscious of that and to make sure we build the show and work very hard at it. The world economy certainly hasn't made things any easier, although we are starting to see some positive signs in the market at the moment. Teams are starting to see better interest in the commodity of Formula 1 than we have in the past two or three years when people just didn't have confidence at all.

Does Formula 1 spend too much money?

If you look at the budget to put two cars on the grid 19 times this year, then by most people's domestic economics it seems very excessive indeed. But it's driven by the value of success in Formula 1 because, as we've mentioned already, it's a world sport, it has this great coverage and none of the investors today in Formula 1 are there because of any altruistic motivation. They're there because it makes sense and they get a return on that investment.

Formula 1 is not a natural environment in which to try to control costs because we're all competitive people and we're always trying to find a way forward, to find performance, to find a way to spend more money. But I do think there is much more discussion about money in F1 than there needs to be; I don't know how much it interests the audience incidentally... perhaps we talk about it too much? **F1**

Factfile

Date of birth

**29 April
1958**

Birthplace

**Chobham,
England**

Team

McLaren

Role

**Team
principal**

1980

Graduates from Portsmouth Polytechnic with a degree in mechanical engineering and secures a job with British Aerospace as a structural analysis engineer

as operations director

1997

Moves up to become managing director of McLaren Racing

2004

Becomes chief operating officer of the McLaren Group in addition to his McLaren Racing role

1988

Promoted to manufacturing director of British Aerospace's Hamble-le-Rice-based subsidiary, Aerostructures Hamble

2009

Replaces Ron Dennis in the team principal role at McLaren and becomes the chief executive officer of the McLaren Group

1989

Joins McLaren International



INSETS: STEVEN TEE/LAT; CLIVE MASON/GETTY IMAGES

WHEN TECH GOES BAD



McLAREN MP4-28

You wouldn't expect to see a McLaren battling for position with a Marussia. But then 2013 hasn't exactly been their greatest start to a season



McLaren are by no means the first team to slide from the front of the grid to the midfield almost overnight. *F1 Racing* remembers other sorry examples of top-team tech-tastrophe

WORDS ROBERT HOLMES PICTURES LAT ARCHIVE

McLaren had a fast car last season: the MP4-27. It won seven races, four for Lewis, three for Jenson, and Button's came at the first and last grands prix of the year. So not only was it fast, it was pretty consistent and responsive to development – all the necessary components for a championship challenger.

Nevertheless, some time around the middle of 2012, a decision was taken to pursue a different technical direction for this year's MP4-28 instead of further developing the 27. The new car features pullrod front suspension and rear bodywork aggressively committed to maximising rear-end downforce.

Thus far, however, the gambit looks to have fallen into the 'heroic failure' category – although that's not to say that a team of McLaren's formidable engineering prowess won't quickly get to grips with the rear airflow attachment issues that bedevil the 28, and turn it into a winner.

Meantime, McLaren's boffins can take comfort in the knowledge that they're not the first to be skewered by their technical ambition... →



BRM H16



Lotus 63



March 721X

Tech timeline

BRM H16, 1966

Constructors' championship:

4th (22 points)

Previous season:

2nd (45 points)

After a miserable time throughout most of the 1950s, BRM finally achieved success in the 1.5-litre formula of the early 1960s thanks to a small, neat V8 and the skills of Graham Hill and, latterly, Jackie Stewart. They won the constructors' championship in 1962 and were runners-up from 1963-1965. But with the 3-litre formula of 1966 looming, the team repeated errors from earlier on in their history, opting for 16 cylinders of complexity, weight and trouble.

The 1.5-litre V8 was flattened out to make a flat-8 and another was mounted on top to make a 3-litre H16. Designed by Tony Rudd, the original concept involved six camshafts between the four cylinder heads with the two crankshafts being directly linked. Think that sounds bad? It got worse. It ended up having eight camshafts and a chain to link the two cranks. The castings were thicker than intended, too – and it weighed in at around 250kg for not much more than 400bhp.

Even Jackie Stewart could do little with it, although the engine did score a GP win in the back of Jim Clark's Lotus at Watkins Glen in late 1966. The following year, Lotus switched to the new Ford Cosworth V8 – 405bhp from just 167kg and way less fuel required, leaving the H16 looking utterly ridiculous.

Lotus 63, 1969

Constructors' championship:

3rd (47 points)

Previous season:

1st (62 points)

Four-wheel drive was going to be where it was all at in F1. Just as we once assumed we would one day all have jet packs, it was the past's idea of what the future would look like. Four-wheel-drive would surely be necessary to fully exploit the enormous horsepower that was on its way – by 1968 there was crazy talk of 500 horsepower soon being achievable.

The Lotus 63 was born right in the middle of 1969's 4WD fever. It featured an about-face Cosworth DFV driving a gearbox in the centre of the car and a differential that diverted around 25 per cent of the torque to the front wheels. The fuel tank was at the back, where the gearbox would normally be. Mercurial team boss Colin Chapman was so convinced of the concept's future that on the eve of the British GP he sold the team's conventional – and super-quick – 49 models.

A couple of races earlier, Jochen Rindt had refused to drive the Lotus 63 and this was Chapman's solution to that problem. But Rindt again refused at Silverstone and after Graham Hill had proved just how much slower it was than the 49, Chapman had to borrow back the cars he had just sold. Wings and tyre development had nullified the traction advantages of 4WD, leaving just the downsides of weight and poor drivability.

March 721X, 1972

Constructors' championship:

6th (15 points)

Previous season:

4th (33 points)

Stung by criticism from various quarters that the original 1970 March 701 was just too conservative, designer Robin Herd (along with Geoff Ferris and aerodynamicist Frank Costin) tried a more radical approach with the tea-tray-front-winged 711. It made Ronnie Peterson runner-up in the world championship.

For 1972, Herd was even more extreme and the 721X was conceived around the concept of minimising the 'polar moment of inertia' – reducing the dumbbell effect of changing direction. Centring the car's mass was the key to this, so a transverse gearbox was placed before the rear axle line, which moved the engine forward from the rear wheels, butting it up against the cockpit. Up front was a brutal stub nose, which, in theory, would make the car fantastically responsive to direction change. Instead, the forward weight distribution created by the mechanical layout totally overwhelmed the standard issue front Goodyear tyres and produce chronic understeer. To compound that problem, when the front tyres eventually *did* grip, the car would respond very suddenly, inducing horribly unexpected oversteer.

Peterson – rated as the world's fastest driver – felt the car was good. His team-mate, a pay-driver novice called Niki Lauda, insisted it was hopeless. Herd soon realised Lauda was right.



Lotus 80



Brabham BT55

Lotus 80, 1979

Constructors' championship:

5th (39 points)

Previous season:

1st (86 points)

After changing the face of F1 downforce with ground effects en route to championship glory in 1978, Lotus planned to move the whole game on another massive step. A step too far, as it turned out. The Lotus 80 was conceived to derive all its downforce from the underbody, with no need for wings. Skirts ran the full length of the car, the sidepods (which housed the ground-effect-generating venturi tubes) were extended and the wings banished.

It looked gorgeous – but it didn't work. The concept required the entire underbody to be enclosed, which meant that the sidepods were curved in plan view so they didn't simply stop ahead of the rear wheels. The skirts could not cope with the curvature and kept



sticking. But the real limitation was that the huge underbody downforce could not be properly harnessed due to 'porpoising' – a violent bouncing action as the airflow got out of phase with the bumps on the track and the car's springing.

When the car finally *did* race, it did so equipped with conventional front and rear wings. Lotus and Mario Andretti persevered with it for a few races, but since it was unable to run in its intended wingless form and with much of its potential downforce unusable, it was simply a heavier, less agile 79 and was duly abandoned.

Brabham BT55, 1986

Constructors' championship:

9th (2 points)

Previous season:

5th (26 points)

Brabham were one of F1's sharpest squads in the early 1980s, with star driver Nelson Piquet taking the 1981 and 1983 drivers' titles and the team winning races into 1985. But by 1986, with engine supplier BMW falling behind in the technology stakes and Brabham team boss Bernie Ecclestone starting to lose interest, the 'roller skate' BT55 was a case of designer Gordon Murray gambling the house on red.

Positioned radically lower than any other car, even its predecessor towered over



it, and its seat reclined at an angle of more than 30°. The low-drag dimensions were made possible by canting over the four-cylinder engine at 72°, meaning the crankshaft lay to one side of the central axis and a trick transverse gearbox had to be devised. The traction problems the car suffered could probably have been cured, but the biggest limitation was the

engine's breathing problems. Oil could not circulate properly, costing both power and reliability, and the old BT54 was exhumed before the season got too old.

Brabham never really recovered as the car failed to reignite Bernie's interest in the team. But Murray was later vindicated when he used much the same dimensions on the McLaren MP4/4 – which won all but one race in 1988. →



Ferrari F92A



McLaren MP4-18

Ferrari F92A, 1992

Constructors' championship:

4th (21 points)

Previous season:

3rd (55.5 points)

Frenchman Jean-Claude Migeot is a brilliant aerodynamicist who came up with the modern high-nose concept on the Tyrrell 019 at pretty much the same time that Adrian Newey was doing something very similar over at Leyton House. Despite the fact that the 019 collected just nine points over the course of 1990, Migeot subsequently landed a job at Ferrari as their chief of aerodynamics.



For the 1992 season, Migeot devised the 'twin-floor' Ferrari F92A, a machine featuring tall, narrow sidepods that were raised up from the floor to form a channel running between the floor and the underside of the pods. The airflow would accelerate back from the front wing along this channel and then over the top of the full-width diffuser. The faster the

airflow was sucked over the front wing, the more downforce would be created at the front. And the faster the airflow sped over the diffuser, the greater the difference in pressure between the underfloor and the upper body, thereby increasing underbody downforce as well.

This theory was perfectly sound when considered in aerodynamic isolation, but the increase in the centre of gravity height from raising the sidepods – and the radiators within them – in a car that was already far too heavy, turned out to be disastrous. To untangle such a complex problem, the team really needed to have a very technically astute lead driver on board. But Ferrari had Jean Alesi (driving alongside Ivan Capelli)... so the Scuderia's slump from championship-challenging form in 1990 continued.

McLaren MP4-18, 2003

Constructors' championship:

3rd (142 points) with the MP4-17D.

The MP4-18 never raced

Previous season: 3rd (65 points)

McLaren's 2003 machine was all set to take construction to new levels with its no-compromise approach to weight-saving and aero perfection. The brainchild of Adrian Newey, its construction was so extreme that to make key setup changes, the car had to be taken apart and have new carbon-fibre sections bonded in. Unfortunately, it had a tendency to shake itself to pieces, as proved by test driver Alex Wurz's huge accident at the Paul Ricard circuit. In addition, engine cooling proved marginal due to the super-narrow sidepods.

Progress on the MP4-18 was delayed after it failed several crash tests, so McLaren started the season with a D-spec update of the old MP4-17, with the 18 set to appear during the European part of the season. That debut never materialised, as the 18 continued to destroy itself in testing. A Monza debut was then mooted because of the summer testing ban. This date also came and went, by which point Kimi Räikkönen was fighting a convincing title campaign with the 17D. He entered



the final round showdown still in the old car and the MP4-18 – and its update, the 18B – never raced.

So far ahead of its time was the MP4-18 that it didn't race until 2005, by which time it

had been properly developed as the MP4-20. In that incarnation it was clearly F1's fastest car, kept from the title only as a result of an unreliable engine and the combined talents of Renault and Fernando Alonso. **F1**



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Back to the

light

Adrian Sutil fell out of F1 after being convicted of GBH. Now back with Force India, he tells Peter Windsor how a year on the sidelines has changed his entire outlook on life

WORDS PETER WINDSOR

PORTRAITS ANDREW FERRARO/LAT

The image was compelling, and I caught it as we were boarding the flight to Malaysia: Ricky Ponting, former Australian cricket captain, wearing a black eye and a face of contrition. “I have to admit to myself that I have a problem with alcohol at times and I intend to overcome this problem... I apologise for my actions,” he was saying on ABC TV. “I am seeking counselling and I’ve already gone ahead and arranged that...”

The documentary was looking back over Ponting’s career and the incident in question happened in 1999. Most Australians had forgotten all about it, and those who did remember were able to laugh it off. Ponting went on to give 100 per cent for his country. He moved on to greatness.

In spite of – or because of – that black eye? Did that hardship, at that stage of his career, add to his grit, to his self-discipline thereafter?

Adrian Sutil’s story is different, but not massively so. The F1 world, for the usual reasons associated with money, ego, power, the lure of materialism and a fear of non-conformity – has been considerably less forgiving of Adrian than was the entire Australian nation of Ricky Ponting. One minute Adrian was another fast German; the next, following that incident in a nightclub in Shanghai, he was F1’s shame. The money – and therefore the →







comfort zone – stood with the injured party (Eric Lux, a director of Lotus F1 and their holding company, Genii Capital). In Formula 1, Sutil was but a driver – Lux a major player.

I remember watching Adrian jogging alongside the river in Canada in 2011, by which point his future was beginning to look fragile. He looked a little ungainly; he wasn't your triathletic Jenson. He gazed into the middle distance, his face drawn, his body language restricted. I distinctly remember thinking: 'This guy is *lost*. It's a wonder he can even drive the car, let alone wring its neck.'

Adrian continued, though, to extract the maximum from his Force India. A court case loomed; his career continued to spiral downwards; and yet still he drove superbly – something that culminated in a sixth place in Brazil. The key here is his natural feel. As I mentioned in my column last month, Adrian, to my eye, has always been a vee-driver, by which I mean a driver who makes the corners as short as possible by extending the straights both in and out of the rotation point – making the corner a 'vee', in other words. To do this well – to do this up there with Kimi and Lewis – you need a sublime touch for the brakes, steering and throttle. The perfect moment of rotation varies with every corner, every lap. It is all to do with the right amount of initial brake-pedal pressure, initial steering input, the right release of the brake-pedal pressure, the correct increase in steering load relative to brake release, and then to the correct loading of the outside rear. Done well, it is why Kimi or Lewis rarely look to be out of line. Its counterpoint is Romain Grosjean or Sergio Pérez, out there on the traditional racing line, magically correcting their own mistakes. Lovely to watch, but ultimately not as quick.

Even at their best, though, Adrian's inputs left him more prone to locking inside fronts, more prone to braking a tad more harshly than, say, Lewis. Nothing, to my eye, has ever been massively wrong with Adrian's handwork; it was his footwork that became increasingly frantic as 2010 gave way to 2011.

Adrian was dropped by Force India at the end of 2011. The court case was looming. He was found guilty of grievous bodily harm in early 2012 and sentenced to an 18-month suspended jail term; in addition, he was required to donate €200,000 to various charities. The F1 world moves quickly: Nico Hülkenberg replaced Adrian and the new season began. No Ricky-Ponting-like second chance.

"When I had my court case it was a very difficult time, but also I learned a lot," says Adrian now. "You have to go through hard times to get better. It's all about experience in life. If you never make mistakes, you never grow. So I just took it rationally. I tried to control my emotions. I thought, 'Okay. I got my penalty for it and now I move on and I show everyone that it's still possible to have a future in Formula 1. I never give up. There are so many different ways, if you really want to achieve something. If you have the will to do it, you can do anything. I could be a successful

businessman if I really wanted to; I could be successful in another sport. It's just here, in the brain, that you have to be well sorted."

So what did he do in 2012? How did he live his life? How did he come to terms with what had happened?

"I can say I enjoyed my life in 2012," he says. The glint in his eyes tells you he's genuine. "I really enjoyed my life. I live in a beautiful country – Switzerland – and until then I had never had time to enjoy it. It was hard at the start of the year, when I had no drive, and I had to ask myself: 'Why?' But no one can answer all the questions. I think everything happens for a reason and I tried to understand my situation. I forgot about the negatives and I just took the positives out of it. And the positives were that it was nice to have a normal life and to be able to spend time with my friends. And to appreciate that life isn't just about Formula 1. It's not the whole life. I have a real life at home. I know now where it is and I now see F1 as my job. *It's a job*. It's not my life.

"And I think it's important to know that, because it makes you stronger.

Life goes on without racing. You can perform here, in F1; no problem. But if you can't do anything else in life except race then you put yourself under so much pressure to perform."

He did the things you can never do if you're constantly on the move, racing in F1. He read books ("business studies, art"), he stayed fit ("but not too fit: I'm a race driver, not a runner or a cyclist or a marathoner") and, when it looked as if one of the regular drivers might be under pressure, he upped his game a little ("just to be ready!"). For the most part, though, he

renewed friendships and strengthened his "network".

"I came out of this much stronger, much more with my life in perspective," he says. "Yes. I made a mistake. I apologised. I paid a penalty. And from that I grew..."

Were there any feelings of bitterness or resentment? "Not really. As I said, if you want to be successful you have to control your emotions and here in F1 it's important to do that by dividing your private life from the racing. People ask me about my relationship now with Lewis. It's a little bit different, the relationship, but I wasn't the one who changed the phone numbers. *I can't do anything*. If he wants to talk he can come over to me. He hasn't done that so far, but then this is my private life anyway."

By the time Adrian received the phone call inviting him to test in Barcelona 2013, he was ready for anything. "I did everything to get the seat, but when we got to that point I was able to say to myself: 'It's the last available seat. I've done everything. If this doesn't work I can do sports cars or DTM, and if I don't get a drive *anywhere* I can always do something else. I'd earn my money another way."

As it happened, Adrian slotted right back into the Force India with barely a glitch. "It took just a few laps to get back into the car," he recalls. "I went into it as if it was just another test day. Of course you feel it a bit in the neck here and there, but I was amazed, actually, how quickly I was →

"I now see
F1 as my job.
*It's a job. It's
not my life*"

able to get back into it. It was as if I had never been away from the sport.” He knew he’d got the drive about an hour before the news went public.

“You know, sometimes you push harder and actually you get slower. Being away for a year has made me more relaxed in the car. You drive as you *should* – by not pushing too much. At the perfect level. I think I had finished on a high level at the end of 2011, but at that point I was probably at the limit of my possibilities. I didn’t know how to improve more. Now I am re-starting at that pace but I know how to improve. So it’s definitely a big advantage.”


The footwork, in other words, has become more supple, more adept. A more relaxed mind has taken away the frenetic late-braking; high minimum speeds are no longer a priority.

“It’s the energy, I think,” says Adrian. “I got a lot of energy last year. I had to look within myself – that’s what happens when you go through hard times. And if you’re going through a hard time and you solve it, you can move up to a higher level. The alternative is just to run away from problems, but they will get you in the end.

“Then you take a step back and you take two steps to the front. Normally when you try something really hard, and you don’t succeed, you wake up the next morning and you try it again. And, first try, it works. So you learn.”

Adrian drove beautifully in his return race. He left a logical margin in the wet but he was right there in the dry, driving without error into the heart of the race, maximising his P12 grid slot and his Pirelli mediums. “When I found myself up there with Vettel, then, yes, I had to smile. It was what it – the year away – had been all about. This was how I had changed. I am a better driver. I enjoy F1 more. I have a new perspective on life.”

F1 quickly forgot about Adrian Sutil; indeed, some observers, even after he was picked to race for Force India, decried the choice. Now, Formula 1 is, for the most part, welcoming Adrian’s return. “I know how to take this sort of stuff now,” he says. “I put it into perspective. It’s my job. It’s a *nice* job, and I want to be successful. But it’s not my *life*. It’s not *the only thing*.”

Black-eye-wise, you can read ‘Adrian Sutil’ for Ricky Ponting – with that one major difference: Ricky didn’t lose his slot in his team. Adrian effectively did. And still he’s fighting back... 

“I am a better driver. I enjoy F1 more. I have a new perspective”



INSETS: LAT ARCHIVE

F1's comeback kings (and clowns)

Formula 1's first world champion set the benchmark for successful comebacks at motorsport's top level: Giuseppe Farina had been number two to Tazio Nuvolari in the 1930s and then, like many drivers of his generation, lost the golden years of his career to World War II. He won three world championship races in 1950 with Alfa Romeo (whose cars were making a comeback of their own, having escaped being melted down for munitions during the war) to claim the very first drivers' title shortly before his 44th birthday.



(L-R) Returners Farina, Andretti, Jones and Lauda

Since then it's been rare for a returning driver to recreate their peak after time out. In the 1980s, Mario Andretti and Alan Jones, champions both, made brief returns with mixed results: after a one-off drive with Williams at Long Beach in 1982, Andretti drove the last two races of the season for Ferrari and started from pole at Monza, finishing third. Jones retired at the end of 1981 but returned full-time in 1985 for two unproductive seasons.

When Niki Lauda returned to the fray with McLaren in '82 he was quick enough to add another title ('84) to his portfolio. Alain Prost, whose speed hastened Lauda's second retirement, claimed the title in 1993 with Williams after a year's sabbatical, albeit with a demonstrably superior car to everyone else bar his team-mate.

Not all drivers get to come back to a winning car – and some didn't have competitive machinery before entering the wilderness: the likes of Bruno Giacomelli, Jan Lammers and Yannick Dalmas were on a hiding to nothing. And of the second comings of Nigel Mansell (1995) and Michael Schumacher (2010-2012), let us not utter another word.

Stuart Codling



Swiss movement, English heart



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Sideways to victory

Wondering why Nico Hülkenberg *really* transferred from Force India to Sauber for 2013? The answer is written in red...

WORDS TOM CLARKSON

PICTURES ANDREW FERRARO/LAT

Think about it from Ferrari's

point of view. There were flashes of the old Felipe Massa towards the end of last year, but no firm guarantees that he was about to recapture the form he showed regularly before *that* accident at the Hungaroring in 2009. Come contract-renewal time, though, who else was available to replace him?

Ferrari held talks with Mark Webber, but failed to agree terms, and none of the young guns in their Driver Academy was deemed ready – not even Sergio Pérez. That's why Massa was contracted to an eighth year with the Scuderia – and why the team widened their net as they sought some young but suitably experienced talent for the future.

Enter Nico Hülkenberg. The 25-year-old German has impressed during his two seasons of F1 to date, first with Williams in 2010, then with Force India in 2012, and his junior CV is second to none. He won every series he contested en route to F1; karting, Formula BMW, Formula 3, A1 Grand Prix and GP2 – and he was the standout young driver towards the end of last year.

Given a half-decent car in the VJM05, Nico was faster than team-mate Paul Di Resta and more consistent than his peers Romain Grosjean, Pastor Maldonado, Jean-Eric Vergne and Daniel Ricciardo. He was exactly the kind of driver that the biggest team in F1 needed to have on their books, which was why he switched from mid-grid Force India to mid-grid Sauber over the winter.

On paper it was an inconsequential move sideways – or even a step backwards if the form book at the end of last year was to be taken literally. Hülkenberg led more laps than anyone else at the season-closing Brazilian Grand Prix en route to fifth place, while only one Sauber driver came home in the points – Kobayashi in ninth. But Hülkenberg's new team leaves him in a stronger position going forward, because he's gone from

Force India-Mercedes to Sauber-Ferrari, with a direct line into Maranello. Not that official confirmation is forthcoming just yet...

"For sure Nico is a good driver," says Ferrari team principal Stefano Domenicali. "He's one of the good ones, but our focus is on getting the maximum out of the drivers we have. Fernando and Felipe are both very strong."

It's a predictable sidestep from Domenicali, but sources confirm that Ferrari and Hülkenberg have an 'understanding'. The Hulk will drive a red car alongside Fernando Alonso if Massa doesn't deliver this year. That's why Ferrari helped place him at Sauber as a replacement for pay-driver Kamui Kobayashi.

Publicly, Nico won't be drawn on the Ferrari association. He claims it was the lure of podiums rather than mere points finishes that made Sauber more attractive than Force India, but that argument doesn't stack up in reality. Force India had the faster car during the second half of last year, and the team have carried that momentum into 2013.

"There are factors involved in the move that I'm not going to go into now," says Nico. "But Sauber are a good team, with good facilities and a good car. I raced Pérez and Kobayashi closely last year and I could see how good their cars were. I wanted to drive one if I possibly could."

"We're not yet where we want to be this year, but I know what developments are coming and I think we can still achieve a lot. The C32 has a very good balance; it's very good through fast corners and when we've improved it through the slower stuff we'll be more competitive. It would be good to get on the podium, but the most important thing for me is constant improvement."

Ferrari will be looking for similar improvement from Nico because he's still relatively inexperienced. He first tested an F1 car in 2007, but has had only two full seasons of F1 since then. He raced for Williams in 2010, →



FROM SAUBER TO GLORIOUSNESS

KIMI RÄIKÖNEN

Plucked from Formula Renault by Peter Sauber, the 21-year-old Finn bagged a couple of fourth places during his debut F1 season in 2001 and was duly snapped up by McLaren. Race wins followed, and he claimed the world title with Ferrari in 2007.

FELIPE MASSA

Finished in the points in his second race for Sauber in 2002 and joined Ferrari as their test driver the following season. Three years on, he was racing for the Scuderia alongside Michael Schumacher.

SERGIO PÉREZ

Second place for Sauber in last season's Italian Grand Prix, just four seconds behind the race winner Lewis Hamilton, was enough to cement McLaren's interest in hiring Checo to replace the Mercedes-bound Hamilton.

HEINZ-HARALD FRENTZEN

Had a long association with Sauber in sportscars even before Formula 1, then caught the attention of Williams for 1997. Finished third in the world championship for Jordan in 1999.



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Look out Felipe: on his first race outing with Sauber in Malaysia, Nico jumped seven places in the first six laps



FROM SAUBER TO INGLORIOUSNESS

NICK HEIDFELD

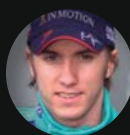
Seven years racing for Sauber in both independent and BMW-owned guise did little for 'Quick Nick.' He clocked up 183 starts in his F1 career but never won a race, despite having some rather competitive machinery at his disposal.

JOHNNY HERBERT

Took two wins at Benetton before switching to Sauber for three years in the mid-'90s and bagging a couple of podiums. Won one further race for Stewart GP but this was against the run of form, and he scored no points for Jaguar in his final season (2000).

KAMUI KOBAYASHI

Finished 12th in all three of his years with Sauber (2010-2012), but while former team-mate Pérez used the Sauber experience to secure a McLaren drive, Kamui slipped off the back of the grid into sportscars.



but was let go at the season's end to make way for Pastor Maldonado's PDVSA millions, and he sat out 2011 as Force India's third driver before racing for the team in 2012.

The knocks have taught Hülkenberg to make the most of every opportunity. At his first F1 test for Williams, he was immediately faster than Kazuki Nakajima and only 0.4secs slower than Nico Rosberg. At the 2010 Australian Grand Prix he was just 0.1 seconds shy of team-mate Rubens Barrichello around the tricky Albert Park circuit in Q1 – and then came his first trip to Interlagos at the tail end of 2010.

Track conditions were awful at the start of qualifying, but a dry line appeared during Q3 and Nico maximised the available grip on slick tyres. He set seven consecutive fastest sectors and qualified on pole by more than a second from Sebastian Vettel.

"He did a phenomenal job that day," says Barrichello. "But he was impressive all year, to be honest; he's definitely quick."

Hülkenberg's incredible feel is highlighted whenever conditions are wet or changeable – the start of this year's Malaysian Grand Prix being another example. Since he failed to make the grid in Melbourne a week earlier, you'd have forgiven Nico for being cautious in the early stages at Sepang. But he used the slippery conditions in his favour and leapfrogged seven places in the opening six laps.

"The driver is one of the best sensors in the car," says Tom McCullough, Sauber's head of track engineering, "and Nico is certainly a very good one. He's incredibly sensitive and seems to find grip where others can't. He also gives very good information about track conditions, which helps a lot when you're trying to decide when to change tyres."

McCullough knows Hülkenberg better than most, having also been his race engineer at Williams. But there's nothing unusual in a driver forming a close relationship with an engineer: it's happened many times before. Colin Chapman and Jim Clark were inseparable; ditto Alf Francis and Stirling Moss, Ross Brawn and Michael Schumacher, Mark Slade and Kimi Räikkönen, and Rob Smedley and Felipe Massa. But familiarity doesn't necessarily make the relationship easy.

"Nico isn't always easy to work with," says McCullough. "He pushes everyone and wants to understand the big picture, rather than simply relying on what his engineers say. He likes to play devil's advocate; he constantly questions what you're doing and why you're doing it. I used to find that quite hard, but I've got used to it now and I respect the fact that he wants to know exactly what's going on."

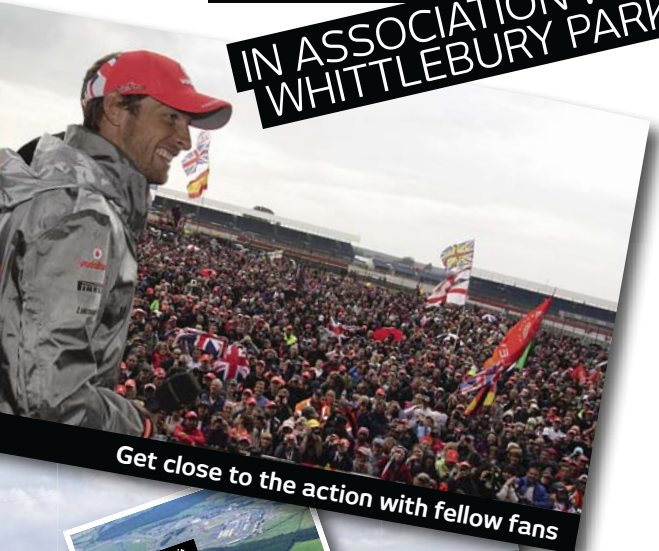
Such independence in thought is reflected in the way Hülkenberg does business around the F1 paddock. He split with his manager Willi Weber at the start of 2011 – "It wasn't working the way I wanted it to" – and has flown solo ever since. He has an advisor in Werner Heinz, who used to work with Nick Heidfeld, but Nico makes his own phone calls and he negotiates his own deals. In these days of mega-sponsorship endorsements and complex pay structures, that's highly unusual.

"I don't understand why you need a manager," says Nico. "You need people who know the paddock and who can tell you what's going on, but that's it. I like to do the rest because that way you know exactly what's been said and what's going on."

Watch out, Felipe; he's heard it straight from the (prancing) horse's mouth. **F1**

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TIMELINE

MATT MORRIS

- 1997** Mechanical engineering degree from Coventry University
- 1997–1998** Cosworth – graduate training programme
- 1998–1999** Cosworth – design and development engineer, F1 engines
- 1999** Cosworth – design and development engineer, WRC
- 1999–2002** Cosworth – race and test engineer, WRC
- 2002–2003** Cosworth – senior design engineer, WRC
- 2003–2006** Williams – senior systems engineer, race team
- 2006–2011** Williams – head of design for transmissions & power transfer
- April 2011** Sauber – head of mechanical design
- July 2011–** Sauber – chief designer

Sauber's chief designer, Matt Morris, explains his team's strategy of putting engineering before politics

WORDS MATT YOUSON

PORTRAITS ANDREW FERRARO/LAT

To the shock of absolutely no one, Sauber have started the season with yet another good car. It's been the pattern for two decades: other small teams flounder while Sauber sail smoothly by. The little team that can, always scoring points and occasionally nipping in to embarrass the big boys.

Peter Sauber always spoke of running his team with solid engineering foundations and a ruthless lack of romanticism. A succession of technical directors from Leo Ress through Willy Rampf to James Key adhered to his blueprint, and while the post of technical director is no more, there's still an awful lot of continuity at Hinwil. It is, says chief designer Matt Morris, an operation largely devoid of politics and high drama.

"I'm not naive enough to think that Formula 1 isn't a political game," he says. "Of course it is, but one of the many things I like about working here is that we don't have any of it. We just make the right decisions based on the engineering."

Morris, 39, has become the public face of the Sauber technical department. In a sport where the English language dominates media output, his comfortable East Midlands burble hits international ears more accessibly than the Swiss-Germanic accents of his colleagues. He's proved to be a natural, patiently breaking down the complexities of racing and car design into easily digestible concepts for the masses: his presentation of Sauber's cutaway car has accumulated over 1.6million YouTube hits to date.

"I really wasn't expecting that," he recalls in the Sepang paddock on Sunday morning. "One of the marketing guys asked if I had a few minutes to do a bit of filming with the half-car. When I got over there, there was a full film crew and a girl started putting make-up on me. It does make you wonder what you're letting yourself in for."

"I thought it would go up on our website and that would be the end of it, but suddenly I was getting emails and texts from all over. That was quite unusual. Obviously all of my mates were ringing to take the piss – but there were also guys such as Charlie Whiting and Patrick Head phoning to say what a good thing it was for Sauber to do."

Morris made the switch to racing after considerable success in rallying, which, in turn, followed a migration from the specialist world of engine

development. His first job after a mechanical engineering degree was at Cosworth, working on customer F1 projects for the likes of Tyrrell and Minardi. At the same time, outside work, he became captivated by rallying; first he twiddled spanners for a friend and then he bought his own rally car. "I scraped all my savings together – and some of my wife's – and bought an old 205 GTI Challenge-spec car. I was only doing single-venue stuff but it was really enjoyable. And I surprised myself by being okay at it, too."

Business and pleasure mixed when Ford acquired the racing department of Cosworth and set up a WRC programme. Morris was first in line to join the team and spent three years in an endless loop of WRC events and tests as engine technician for Colin McRae, mixed in with design and development at the factory.

"The experience of being with a race team was invaluable," he says. "A lot of people who spend their careers at the factory really don't understand how critical some things can be if a design doesn't fit right or it takes a little bit longer to change. All these things I learnt from the rallying; you learn the tricks of packaging and making things easy to work on. It's helped a huge amount in my F1 career."

Morris moved to Williams when Ford's interest in WRC first appeared to wane. He worked in systems engineering before leading Williams' gearbox design group. Like many Williams alumni in today's F1 paddock, he offers unstinting praise for his former team's approach to engineering, giving particular credit to Patrick Head.

"I think the reason senior engineers have spread from Williams throughout the sport is that they've been taught the right way. And I put that down to Patrick. He created the engineering side of Williams and the philosophies and procedures come straight from him. That's why it's a proper engineering-led company and a great place for a young engineer to learn his trade."

After eight years at Williams in what Morris confesses was "a very comfortable space", itchy feet finally got the better of him and he moved to Sauber as head of mechanical design. "Deep down I must have wanted a new challenge," he muses. "I never really discussed it with myself – but I think it was there."

Moving to Switzerland in 2011 and promoted to chief designer after a few months, Morris has fitted into the mould very neatly, slipping into that slightly incongruous Sauber mindset of taking a relaxed approach to being ferociously competitive. He's been a major player in the creation of the C31 and C32: two cars built to score solidly and, on their day, make F1's big guns very nervous. And that's Sauber to the core. **F1**

F1'S FIRST LADY

It's tough being at the top of Formula 1 – but tougher, arguably, to stay in the game when you're just outside the winners' circle. Sauber team principal Monisha Kaltenborn talks exclusively to *F1 Racing* about what it takes to run at the head of the midfield

WORDS STUART CODLING

PORTRAIT THOMAS BUTLER

We thought we'd like to photograph Monisha Kaltenborn at her desk. Occupying the seat of power in a team that has only ever known one person's name above the door, give or take a few years in which a certain road-car manufacturer shuffled its own badge alongside. Surely there would be something a little grand about it? Like the curved glass eyrie from which Ron Dennis surveys the operation of the McLaren Technology Centre? Like the office overlooking the courtyard in Maranello, from where Enzo Ferrari could – with disdainful hauteur – personally ratify every coming and going through the gates, should the urge take him? Er, no, actually.

"It's just a functional space, really," said our Sauber contact, apologetically. "Not much different from any other office. You'd probably think it looks a little boring..."

Unflashy pragmatism is the keyword at Sauber. Just over a decade ago, Peter Sauber negotiated a substantial financial windfall from McLaren-Mercedes in exchange for releasing Kimi Räikkönen from his contract. That money helped expedite the construction of a second facility on the team's Hinwil site, including a 60 per cent windtunnel. It's an elegant, modern building, but not one that screams its purpose. You could drive right past and not know you'd missed the home of a team that has, in the past, built a grand prix-winning car. And you suspect, somehow, that they quite like it that way.

Monisha Kaltenborn, a lawyer by trade, born in India and educated in Austria, has slipped seamlessly into the team principal role willingly vacated by Peter Sauber, who founded his eponymous team over 40 years ago. This in a sport where, with the possible exception of Jean Todt, no team principal in recent memory has relinquished their role without an unedifying public struggle. Even Ron Dennis, who spoke often of a planned succession at McLaren in which he would "step aside", was ousted by external forces, having left Martin Whitmarsh in the waiting room rather longer than the younger man expected. There's growing into a role, you might say, and then there's growing old waiting for a role. With Kaltenborn, who had no motorsport background before she became associated with Sauber, it was definitely the former. →





"Actually it was a coincidence," she says of her entry into racing. "I got a job offer from an asset management business in Liechtenstein [the Fritz Kaiser Group] and it just so happened that the owner of that business was a co-owner of this F1 team with a lot of involvement in commercial affairs, so I got involved in all the legal things – which fundamentally reached into every area the team works in. When that partnership ended, I was asked by the team to join them in Hinwil."

From heading up the legal department she took up a seat on the management board in 2001, and became CEO in 2010 after Peter Sauber bought back the team from BMW, who had owned it since 2005. Sauber himself transferred 33 per cent of his equity in the team to her in October 2011, a year before slipping quietly away from the pitwall. It was both a strong incentive for Kaltenborn to stay, and a public acknowledgement of the role she had played in rebuilding the team after they came so perilously close to losing their entry when BMW pulled out of the sport in 2009. But, as you'd expect, she is thoroughly pragmatic about the aftermath of the fire sale, especially the largely sponsorless, virgin white-and-grey car they were forced to unveil for the 2010 season.

"For me, it was not that devastating a moment," she says. "We knew what we were getting into and we had a very clear philosophy, that we had a certain system of sponsorship with values to it that we would not give up. So

even if that meant we had to have a white car, we would go that way and remain very consistent with that principle."

From that, you can quite clearly infer that Sauber had made the shrewd – if brave at the time – decision not to cut their rate card and offer sponsorship real estate on the car at a knock-down price. For that is the commercial slippery slope: once you have reduced your perceived value, it's very hard to build it back up.

"We had a few moments in 2010 when the car didn't make it – one time I think we didn't even get to the grid because the engine blew up. And they were very frustrating because we were trying to make the two ends meet, and when the performance isn't there it really gets to you."

Running a Formula 1 team is an unusual challenge because it's both a phenomenally complex business in terms of technical management, but also, in the grand scheme of things, quite a small one. Even McLaren would describe themselves as a small-to-medium enterprise. Kaltenborn herself acknowledges that it's a balancing act.

"In many ways, when you talk about managing a team it's not much different to managing any other company of a similar size," she says. "You have to make sure there is stability and continuity within the organisation and that, in general, the parameters are set within which you can follow your activity. The big difference is that our sport is so fast in every



After some 21 years in Formula 1, team owner Peter Sauber announced at the 2012 Korean GP that he was handing over the reins as team principal to his trusted CEO Monisha Kaltenborn



"Our sport is so fast in every respect... you need flexibility within the team to react to this kind of volatility"

respect. You can't work to a five-year plan; you have to be more reactive, whether that is to a rule change or to something that your competition is doing. You need flexibility within the team to react to this kind of volatility, and that requires good communication – very short paths – and a lot of efficiency."

As a team who were much bigger prior to a forcible downsizing, Sauber are an interesting case. Over the past three seasons – very much against expectations given the prevailing economic climate – they have developed their sponsorship portfolio and executed something of a competitive turnaround from the lows of 2009-2010. They now field a pair of cars that are more extensively garlanded in recognisable and high-value brands, and that regularly finish in the points. Having drivers that bring a stipend – Sergio Pérez over the past two years, Esteban Gutiérrez in 2013 – helps keep the machine running, but F1 teams need continuous investment. Sauber's windtunnel is nearly a decade old and their vaunted supercomputer, Albert2, which was cutting edge when it entered service in 2006, has now been dismantled.

"We had the windtunnel before we became a manufacturer-owned team, and then with BMW coming in, a lot of investment was made into the facility here," says Kaltenborn. "I still feel it's at a very high level, and of course we've also been investing – and entering into technical partnerships. You can't compare it with a

manufacturer-owned team, but I think, looking at where we were last year, what kind of results we could show, we are at a good level. But we're still in a position to move up; if we get more funding we can utilise it more and that straight away shows in performance. Apart from maybe a simulator, which we don't have, we don't really need to invest in that much more, so we can focus on performance development."

In an environment where both McLaren and Ferrari have been using Toyota's windtunnel because it can deliver more data within the tight operating hours dictated by F1 regulations, you have to wonder if looking for more use out of an existing – and ageing – facility is the right answer. One of Sauber's growing revenue streams is in the deployment of their F1 know-how to other industries (similar to the work McLaren Applied Technologies undertake) and Chelsea Football Club is a prominent partner. That aside, where is the investment coming from? It would be interesting to know what proportion of the names on the car are actual paying sponsors and how many of them are quid pro quo arrangements but, understandably, Sauber's team principal won't go there.

"It's very difficult to quantify that because it's difficult to assign a value to certain services in kind," she says. "I think we have quite a good network of companies, quite a lot for our size. Clearly where we want to improve more is on the sponsor side. I'm confident, given the state of

negotiations at the moment, that you'll see changes in that area."

Given her position as F1's first – and so far only – female team principal, no interview with Monisha Kaltenborn is complete without the obvious gender reference. Should this be such a big issue? While the sport's public-facing management has traditionally consisted of wealthy old men, it's no secret that almost all of Bernie Ecclestone's most senior and trusted lieutenants in Formula One Management – the people who manage his empire in detail on his behalf – are women. So perhaps it's best to leave this one until last.

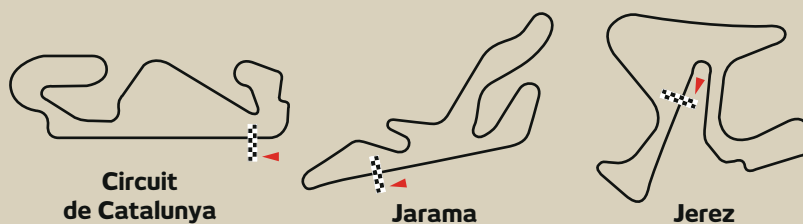
"I'm a *little* surprised it's considered such a big issue," says Kaltenborn with a nod, "but then again, it's because as a team principal you're closer to the sporting side of F1 rather than the business, closer to the team and everything involved in it. That still surprises some people. Racing as an area of interest is still male-dominated. Women are coming along out there, but you probably have more men watching and engaging with it. And, historically, there are more men involved in the sport. But there are many areas like this – banking and finance, for instance – look at the CEOs and you'll see more men than women. It's about giving women the opportunity. Women today have the education, the confidence and certainly the competence. It really boils down to finding the opportunities to show what they can do." **F1**



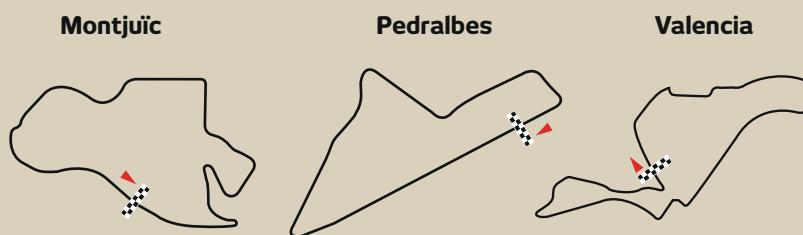
INSET: GLENN DUNBAR/LAT. SAUBER

GO FIGURE

As F1 returns to Europe,
we've got Spain's F1 number...

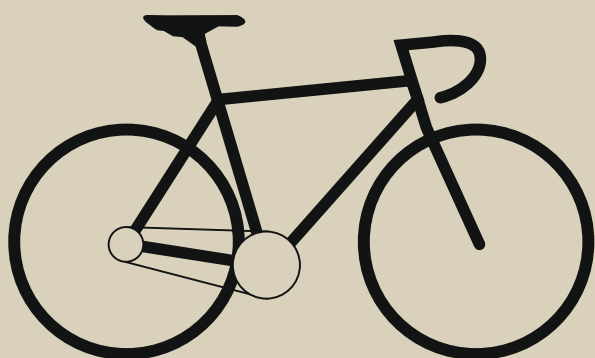


6 | The number of Spanish
| circuits to have hosted
| championship F1 races



1992

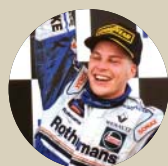
The year the **Circuit de Catalunya**
acted as **an Olympic** venue,
serving as start and finish for the
road team time trial event, which
was **won by Germany**



The percentage
of Spanish
F1 wins (30)
achieved by
the same man:
Fernando
Alonso



...raced on the
**Valencia Street
Circuit** to date, over
the five F1 grands prix
it has hosted so far



**Jacques
Villeneuve**
1997

15 YEARS

between Williams' past two
Spanish Grand Prix victories



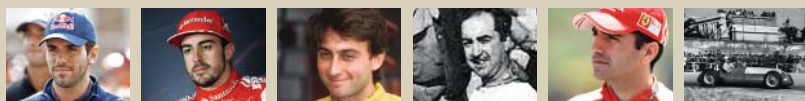
**Pastor
Maldonado**
2012

 x 107,000

is the capacity of the Circuit de Catalunya, which is just over

 x 8000

more than that of Barcelona's other sporting shrine, the Camp Nou



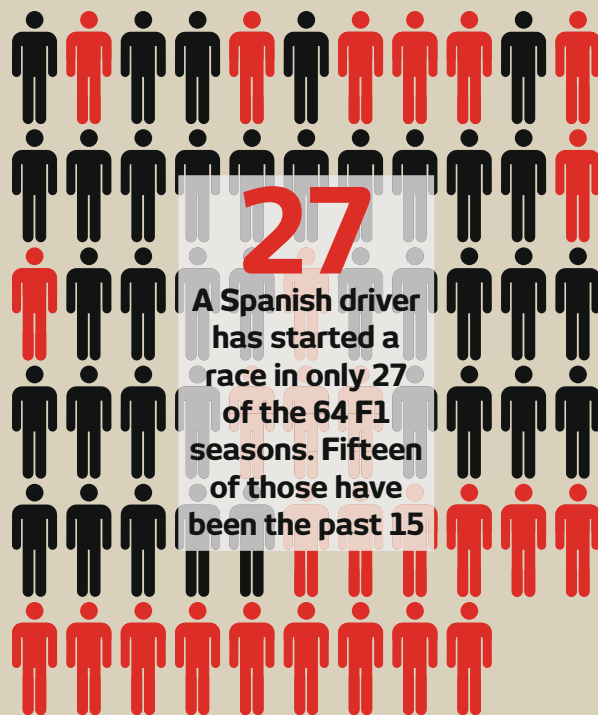
Jaime Alguersuari Fernando Alonso Adrian Campos Antonio Creus Marc Gené Francisco Godia



Luis Pérez-Sala Alfonso de Portago Pedro de la Rosa Alejandro Soler-Roig Emilio de Villota

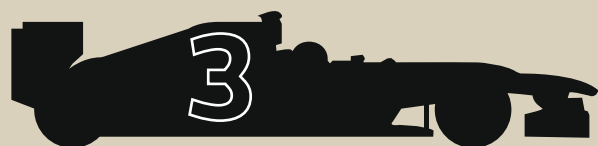
11 Spaniards have raced in F1

Attempts at the Grand National horse race by Spanish F1 driver **Alfonso de Portago**. He was also a **bobsleigh runner** at the **1956 Winter Olympics**



1

Fernando Alonso has **won** the **Spanish GP** only **once**, in **2006**. But he **also won** the **European Grand Prix** in **Valencia last year**



Names for **Spain's** only (and now defunct) **F1 team**: **Campos Meta 1**, **Hispania Racing** and **HRT**

13



F1 wins for Ferrari in Spain:

11



Spanish and

2



European GPs

0

wet Spanish GPs over the past ten seasons

"If what people claimed about Singapore was true, why did I fire Piquet? I had Fernando back and, for me, the second driver was not important"

Flamboyant marketer of knitwear, coach-firing owner of QPR and team principal of two title-winning F1 teams, **Flavio Briatore**, Italy's answer to Alan Sugar, fails to mince his words on a variety of subjects including pay drivers, Schumi's 'comeback', budget capping... and 'Crashgate'

PORTRAITS STEVEN TEE/LAT

Although I have returned to Monaco for this interview, the venue is a complete contrast to last month's lunch with Mika Häkkinen. We have moved from one side of the Principality to the other: from pub grub to haute cuisine; from Rascasse to Portier; from a quiet and modest man with winning ways to an extrovert character with form of a different kind. Both have claimed world championships in the best possible way. But for Flavio Briatore, track history has been trumpeted and tainted in equal measure.

Briatore has won double championships with Michael Schumacher at Benetton and Fernando Alonso at Renault, marking each victory with the flamboyance to be expected of a hugely successful knitwear marketing man finding himself in the very different world of Formula 1 pomp and finery.

But his reputation was later tarnished by 'Crashgate', the scandal that emerged after Renault's Nelson Piquet Jr crashed his car at the 2008 Singapore Grand Prix to allow team-mate Fernando Alonso to win the race. In the furore



that followed, Briatore was banned from F1 for life by the FIA, a penalty that was subsequently overturned on appeal by the Tribunal de Grand Instance in France. The FIA threatened to appeal but an out-of-court agreement was reached.

Briatore has not spoken about this nor, indeed, very much else motorsport-related over the past three years. Yet he has agreed to talk to *F1 Racing*, suggesting we meet in Cipriani, his high-end restaurant on Avenue Princess Grace.

The immaculate interior of Cipriani has a nautical theme. Yet far from sinking without trace, Briatore is swimming as strongly as ever – and is certainly not averse to making waves.

Maurice Hamilton: I hear you're a TV star now, doing *The Apprentice* in Italy. How's it going?

Flavio Briatore: Very well. We're doing another series in September. You can lose grip with the new generation very easily because you are talking always with the old guys. So this has been a fantastic experience for me.

MH: Is this the first time *The Apprentice* has been run in Italy?

FB: Yes. When we started, no one knew what it was but, after about two or three weeks, we suddenly had an audience of more than five million. The success of the show depends very much on the quality of the people, and that worked very well for us.

MH: When I watched the British series with Lord Sugar, I was often amazed at how stupid some of the contestants were. Did you find that?

FB: Yes. But you fire them as soon as possible. The people in the end were very strong, very competitive, very good people. The winner is working with us here in Monaco. He's a nice guy.

MH: How does it work? Do you think up the tests that the contestants have to complete? →



CIPRIANI
MONTE CARLO



who pays to race. We've talked about this many times and the problem is same: the cost of running a team is astronomical. Whatever money the team takes from Bernie, they spend. I think it is split 60 per cent for the team and 40 per cent to FOM but, whichever way you split it, it makes no difference; the money is spent. And if the driver is paying, I'm not sure you end up with the best drivers in F1.

FB: No, we are not involved so much in that. It's when we get to the boardroom that we [Briatore points to his long-suffering assistant, Patrizia Spinelli] really get going. It's just like normal business. This was the really interesting part because the right people were coming through. When we fired someone, it was not because the television people asked me to. The TV people wanted more girls, but we fired the girls immediately because they were no good at all. In the end it was very close. Everyone was trying to guess who would win. It was very popular in Italy. People were having dinner parties and inviting friends to come and watch the show.

MH: So it was good for your profile?

FB: Very good, yes. We got nominated for the Oscars of Italian TV – and came second. The winner was a comedian who has been doing this for 20 years. Sky cancelled most of their shows and all that's left is *MasterChef*, *X Factor* and *The Apprentice*. I enjoyed it, but in the end it was tiring because we were filming all day.

MH: So, what else are you doing?

FB: Cipriani [restaurant], Billionaire [night clubs] and Billionaire clothing. We have 25 stores for Billionaire clothing. In the next six months that will go up to 35. The turnover is around €60million. The shops are very successful. But only the clients decide if you are successful. We have two shops in London, in Sloane Street and Harrods. We are in Rome Airport, Dubai, Abu Dhabi, Russia, St Moritz, Saint-Tropez, and Las Vegas.

MH: When you are doing all this, do you get time to keep in touch with F1?

FB: Yes, I am speaking to Bernie a lot. Every day I am talking to somebody from F1. I keep in contact all the time; I never miss anything.

MH: Did you find last year exciting? I know we've had discussions in the past about how you feel F1 should entertain above all else.

FB: Exciting, yes. But I think the problem F1 has at this moment is that three or four teams pay for their drivers and, with the rest, it is the driver

MH: But the way things are now, Formula 1 is just so incredibly competitive that the driver with money has to be quick as well.

FB: I know – but, I have never seen a pay driver who is *really* quick. For the majority of the field, the driver is part of the budget. It never happened like this before. We paid our drivers at Benetton, maybe not so much, but we paid them. A team like Jordan paid at least one driver. Now it is very different.

MH: But do you not think that is due more to the global economic climate these days?

FB: Okay, it is a big crisis worldwide, but I don't think F1 ever really felt that. Or they forgot there is a crisis. From what I understand, a lot of teams are struggling: a lot of teams. To have a healthy F1, you need to have healthy teams. During my time at Benetton, we produced a profit every year. And we invested that profit in the factory and the team. There was a waiting list of teams trying to get into F1; we had pre-qualifying at six o'clock in the morning; it was a business.



Monza 1997: Briatore in Benetton get-up with old friend and future QPR co-owner Bernie-Ecclestone



Michael takes his first title for Flavio's Benetton team in 1994: "I prefer to remember Schumi as a winner"

To develop anything in your business, you need to make a profit. The bigger the team, the bigger the profit. The team need to run with the money from the promoter and from Bernie. The sponsor is the plus; the sponsor brings the profit. This is why the driver is now part of the budget. In our budget, the driver was a cost. Now, excluding the top four teams, he is the income.

MH: I know you have always been keen on cutting costs. So what is your view on the change of engine formula next year which, initially anyway, is hugely expensive?

FB: I was fighting for ages to have the frozen engine spec. It was my idea: I pushed for it with Max Mosley and it went through. It was an incredible saving for everybody. I do not understand what is wrong with the present engine. F1 is incredibly close and competitive now. Why do we need to change the engine?

MH: The argument is that F1 needs to be seen to relate to road cars because of the need to show green credentials. Do you think motor racing should be doing that?

FB: If you watch DTM, you recognise the Audi from the Mercedes and so on. If you paint all the

F1 cars black, you can't tell the McLaren from the Ferrari or the Force India. F1 is an event; a race. If you want to talk about the engine when marketing F1, maybe it is possible to do something. But, to be honest, I don't see why the engine in F1 should be linked to the road car.

Spectators don't care about road cars. They care about the drivers and the fighting between them. Whatever engine you have, I believe that of 99.9 per cent of the spectators – excluding some old journalists like you, Maurizio.

Actually, there used to be about six or seven of the old British journalists and now everyone's gone; there just seems to be you!

MH: Yeah, thanks for that Flav...

FB: No, is good to have you here! But the point is, nobody cares. When we won a championship, nobody asked how many cylinders we had. All they wanted to talk about was the race. If it costs a team

\$50,000 or \$100million, the spectator doesn't care. If Ferrari spend \$200,000million, do you think the people care? For me, changing the engine is completely mad. There is nothing wrong with the engine we have now.

MH: I take it you feel as strongly as ever about the costs then, even though there is supposed to be a restriction on spending?

FB: You have Ferrari, Red Bull, McLaren and Mercedes with very important budgets. Then a few times last year you saw Lotus, with a very small budget, beat the big teams. And sometimes Sauber and Force India were in among the top four teams as well. I don't understand how engineers with a budget of \$200million must feel when a team with \$90million is faster. They should be devastated. That was the story with Benetton; we won the championship with much less money than other top teams.

MH: So you would be in favour of a budget cap?

FB: Of course. Why is it not possible to have a cap? The top teams already have an incredible amount of money. And then they talk about 170 people doing aerodynamics. It's not the drivers' world championship; it's the windtunnel world

championship. Okay, a team's income is very important. But however much money you get, you spend. It makes no difference. The worst word you can put in Formula 1 is 'budget'. The moment you tell people your budget is ten, the next day it's already spent.

MH: People complain that CVC Capital Partners take too much money out of the sport. Are you saying that should not be the argument because the teams get enough in any case?

FB: Absolutely. FOTA put some discipline into windtunnel use. So, if you do 300 hours or 50 hours in the windtunnel, what's the difference if it's the same for everybody? You are saving a lot of money. Nobody in Formula 1 thinks about the spectator; nobody cares about the people watching television.

MH: I remember when you first came into F1, you were amazed to find the teams were building cars just for qualifying...

FB: It was completely mad. When I arrived in Formula 1, I had come from the business world; I had not served an apprenticeship in racing and looked at F1 in a different way. Everyone was building a qualifying car, so there was no performance advantage any more. So, what was the point? Then, when we brought in parc fermé, people were saying: 'Ah, you ruin it!' But it was fantastic for the mechanics. Everything we did was orientated towards what the spectator and the show didn't need. Do you remember, teams started to put screens across the front of the garages? That has to be the stupidest thing I ever saw in F1. You come to see racing cars – and we put a screen in front of the car. All this changed with FOTA.

MH: Talking about FOTA: do you remember in 2009, there was a meeting at Enstone...

FB: Two o'clock in the morning.

MH: Yes, and FOTA suddenly looked incredibly strong and there was talk of a breakaway series. How close did that come to happening?

FB: Very close. But we did not want to split with Bernie because we didn't have any problems with him; no problems with the commercial side. There was a lot of confusion. At the time we were complaining more about Max because we wanted more say in the running of the teams. We wanted to be part of the rule-making and not to be told: 'This is the rule, take it or leave it.' I think FOTA did an amazing job. It was the first time we had controlled the costs, and it was unanimous.

MH: Why do you think it didn't work out for FOTA? What happened? →

Briatore in his own rather swanky Monaco restaurant, Cipriani (main); and celebrating Renault's rather dodgy win in Singapore 2008 (below)



FB: For me it was Singapore ['Crashgate', which bridged 2008 and 2009] and for Luca [di Montezemolo], it was when he resigned. And then Ron Dennis was gone. All the strong characters had moved on and the FIA and Bernie were back in charge. There was no problem with the commercial side because we had a contract. The problem was more with Max and the FIA because we wanted to be part of our own destiny; we wanted to be part of the rule-making. This was the reason we had the big fight with Max.

The worst was when he said we had to enter the next year's world championship – normally you have until November – before or after Silverstone. Nobody applied and this was when Max made up an entry with strange team names. This made F1 look completely crazy. It was a pity because we had been working closely with Max on cost-cutting and, as I said, we had no problems with Bernie commercially. But because of the interference of the FIA, teams such as BMW and Toyota stopped. We could have done a lot of good in F1, especially with the costs.

MH: Do we need to bring more manufacturers back into the sport, such as Honda?

FB: Yes, but only if the cost of F1 is sensible. For me, that is about €120-150million a year for a big team. F1 has been improving the show, making races more spectacular and entertaining. So, there is a good chance constructors will come back if the business is profitable – like it was when Benetton bought Toleman and you could do business. Why spend £60-£70m just to finish last all the time? You do stuff like that only if you are completely nuts. If there is no chance to be a top team or to win, the only certainty you will have is that you will have the worst drivers.

MH: You mentioned Singapore 2008. The Tribunal de Grande Instance in Paris in early 2010 rejected the lifetime ban from Formula 1 that was imposed upon you by the FIA. How do you look back on all that?

FB: I feel the same. The court in Paris was very clear; I was not involved at all. That is what the letter said.

MH: Did they actually say that? Did they put those words into writing?

FB: Yes, it's official. There was no proof that I was involved in Singapore. Which is the reason I won in court. I've nothing more to say; I say it already at the time. If what people claimed about Singapore was true, then why did I fire Piquet in the middle of the next season? Why take that risk? Why not renew the contract because it

would be 30 or 40 per cent less money and there would be no trouble if all this was true. I had Fernando back and, for me, the second driver was not important.

I respect what was said in the court. After that, I have an agreement with Jean Todt that the FIA will not appeal. I stay away with no problem at all. I had the moral responsibility because I was in charge of the team. But now it is gone.

MH: Was that a very difficult time for you?

FB: Yes, but this was the time when I wanted to stop anyway. The year before I had wanted to stop but Fernando came back from McLaren, so it would not have been right for me to finish then. But I was happy to stop. F1 was finished for me at the time. For sure, it was hard because people treat you like a criminal. It was unfair.

In the FIA investigation, they had this Witness X, but nobody knows who he was. Mr X was the proof, basically, but he never signed the statement. The FIA signed the statement – but he didn't.

for different businesses, different investments, different situations, both here and over in America; I'm very happy. This restaurant, for example, is the most popular in Monte Carlo.

I was in Formula 1 for 20 years, won seven championships with two different teams; discovered the two big stars after Ayrton Senna; Schumi and Fernando. I know everything that's going on and I know to have a team at this moment makes no sense financially. So, there is no reason for me to come back to F1.

MH: I take it you watch the races in television?

FB: I still enjoy watching F1 and I think Sky have done an amazing job. But my belief is that we're losing a lot of viewers.

MH: Why do you think that is?

FB: Because when you had free-to-air RAI or BBC, then I think the BBC had about six million viewers and Sky has a lot less. I think Bernie is doing the best he can under the circumstances because pay-TV has the money and the others don't. Bernie is doing a fantastic job because the

MH: But people will argue that F1 shouldn't be about everyone having the same car...

FB: But the chassis is not performance, so why not let everyone have the same chassis? Why are they spending a fortune channelling the air up and down, and this and that? Okay, if you want to play around, you play around with the wings – like in our time. Now you have telemetry from the factory. This is ridiculous. You need to have 30 people in the factory supporting the race. Completely mad!

MH: I have to say I agree with that. Particularly as F1 is supposed to be containing costs.

FB: But it's not. Some teams are spending lots of money and, as I said, you have Kimi Räikkönen in a Lotus winning a race. Actually, I believe last year Lotus had the best car in F1.

MH: You may be right. Speaking of Räikkönen, do you think that Michael should have come back in 2010?

FB: No. Everyone was very excited in the beginning but I never felt that it was right. The world has changed from when, say Alain Prost came back in 1993. He had a very strong car [Williams] but when Michael came back it was very difficult because you had Fernando, you had Hamilton, you had Jenson. And the Mercedes was not the best. I prefer to remember Schumi as a winner – not struggling to qualify and finishing ninth. It was not the image of somebody exceptional like Michael.

MH: When Fernando left Renault to go to McLaren in 2007, did that upset you? Was it a surprise?

FB: Yes, because he didn't tell me immediately. I was disappointed because Fernando started with me from the beginning. I supported him always, through the difficult times, like when I put him in the car in place of Jenson. You guys thought I was mad. Jenson was an exceptional driver but, at the time, I believed Fernando was more special. I had nothing against the British or anyone else. This was the fact at the time. People said I did it because I was managing Fernando, but my job was to find the best available for Renault. It was the same with all the teams I had.

MH: Mention of that reminds me of the late Tom Walkinshaw, who ran the Ligier team for you. You were also together at Benetton, of course. What's your memory of Tom?

FB: We were partners for a long time in various ways over many years. He was a very tough guy but at no time did I have a problem with Tom. Never. He was always correct; a super guy. →

“Why spend £60-£70million to finish last all the time? You do stuff like that only if you are nuts”

For me it was easier to say I respect exactly what the appeal court says and leave it at that.

These things make you stronger. I had a fantastic time in F1. Now I have a fantastic time with my family. I'm very lucky because I have very good health. I'm not jealous. I don't have a vendetta with anyone; there is no drama. I enjoy myself and this is the most important thing.

MH: You certainly seem happy. I know you had cancer a few years ago. How is your health now?

FB: It's good because the cancer is gone.

MH: Did that change your view on life and what is important?

FB: For one week! It's human that you move on and forget. When you are in the hospital and before you go to surgery, you don't care about anything else; you just think you're going to die. Then after the recovery, one week everything changes and you go back to the way you were.

MH: So, would you like to come back to F1?

FB: No, I don't think so. Now I have a son, three years old; I'm working 20 hours a day

income is good when the financial circumstances worldwide are not so good. Look at America: he did an incredible job there. And now we have India, Abu Dhabi – a new world.

MH: But at the expense of traditional races.

FB: Yes, fewer races in Europe; that is not good.

MH: Agreed, but these race promoters can't afford the high F1 costs.

FB: Yes, but if the teams spent less, then they would need less and the promoter would not have to pay so much. Then the promoter would have more money to actually promote the race; remember, these are difficult times for the promoters as well. It's simple; if the teams are spending 40 per cent less, everything else goes down by 40 per cent. Plus, the more similar the cars, the better the racing.

Look, we call it the drivers' world championship. If you took ten cars from GP2, painted them all yellow and put in the top ten drivers, you would have an amazing race and you would see who is the best driver.

"At QPR there were too many people... if you don't fire these coaches, you never go up"

And he wanted to win; a guy from the same era as Ron Dennis, Frank Williams and Ken Tyrrell. If you are like them, you want to win.

MH: The first memory I have of you and Tom working together is when you took Michael Schumacher away from Eddie Jordan after Schumi made his F1 debut at Spa in 1991. What exactly happened there?

FB: We knew about Michael already because a friend of mine had been telling me about three drivers who were very quick: Karl Wendlinger, Heinz-Harald Frentzen and Schumacher. At the time, it looked like Frentzen was the quickest. So, why did I pick Schumi? Because, you will remember, Bertrand Gachot was put in jail and Eddie was looking for a driver for Belgium and he chose Schumacher. I was very interested to see if this guy was as good as my friend believed. After qualifying at Spa [Schumacher was P7 on the grid] I spoke to his manager, Willi Weber;

he was very happy to talk with Benetton because Michael was on the way up. He told me Eddie wanted – I don't remember how much money – for the next race (Italian GP). His sponsor was Tic-Tac. I said: 'Don't worry. If Tic-Tac don't pay, you can race with me – for no money.' The day the money did not arrive from Tic-Tac, we signed the deal. We did not 'steal' anybody. We just signed a contract with a driver who was free to sign. There was a lot of bullshit in the newspapers. I signed the contract and had it been wrong I would have been taken to court.

This was important for Benetton, because we did not have the budget to pay top drivers. We thought our car was very good, but if you don't have the right driver you never know. So I had to find somebody young with enormous potential or pay someone like Gerhard Berger or Riccardo Patrese. But if I talk to people like that, they are laughing because they are saying: "You

are Benetton, a T-shirt maker." So, this was the best way because we could have this guy, maybe growing with the team, and it cost me nothing.

MH: Bringing us up to date, tell me about your association with English football and owning Queens Park Rangers. Did you enjoy that?

FB: Not at all! It was a disaster. There was a lot of talk and people writing things that were wrong. We took QPR from the bottom of the championship. There was the four-year plan and we took them into the Premier League. I don't understand the fuss. We did it with not much money. After Bernie and I went away, leaving Mr Lakshmi Mittal and Mr Tony Fernandes to run the show and spend a lot of money, it's funny to see they still have six or seven players who were with us in the championship.

I believe we did it quite well but, I tell you, it was no fun at all. You need to treat football like a full-time job and not like an investor. There were too many people; the manager, the assistant manager and, always, you are dealing with the agents. In the end, we sold it. *Basta!* [Enough].

MH: You had quite a reputation for getting through managers...

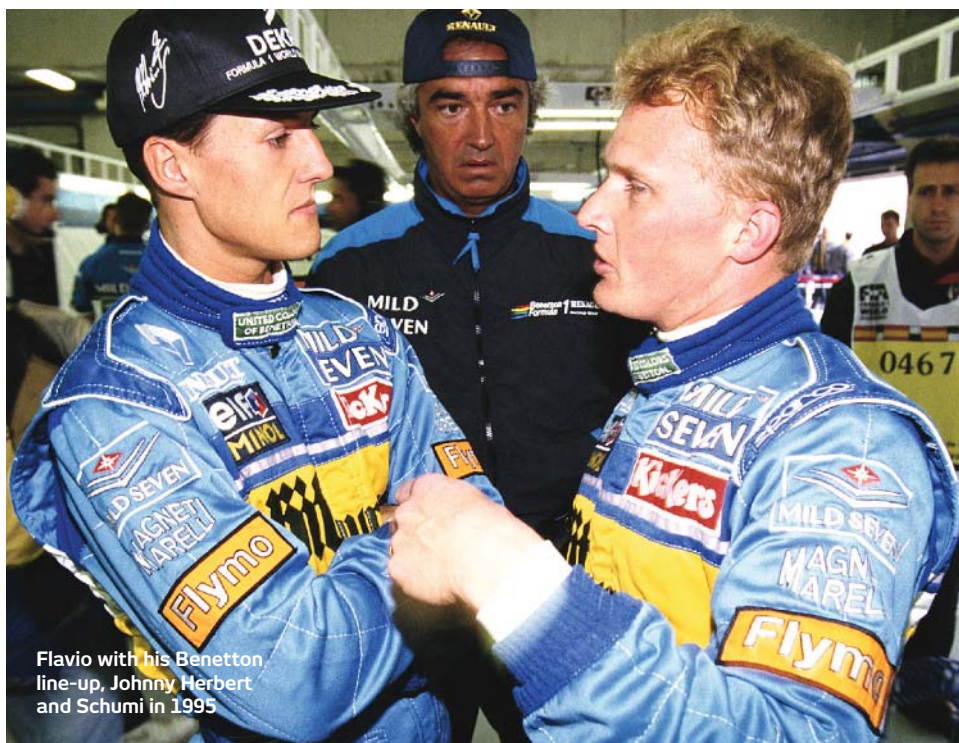
FB: If you don't fire these coaches, you never go up. When you understand someone is not good enough to do the job, it's better you fire them immediately rather than waste another six months. I felt we were going nowhere with these guys. In the end, we made it. The most important thing in sport is the result.

MH: Which brings us full circle. The first time I spoke to you was after you'd fired Johnny Herbert from Benetton in mid-1989 because you felt he couldn't do the job. I rang you to ask why. You said: "Because he's sick!" The British media were indignant, but you were right. And Johnny agrees because he had not recovered properly from terrible ankle and feet injuries [following an F3000 accident in August 1988].

FB: As I said before, I had no experience of motor racing. I see that every driver in F1 has two legs. Johnny has only one... if you know what I mean. So what do I do? Do I keep him? No, because it was a danger for him. It was not a question of being nice or not nice. I maybe saved him from another accident. That's the way it is.

MH: Indeed. You were never one to mince your words, Flavio. Good to see that hasn't changed. Thanks very much for your time. And for a superb dinner.

FB: You're welcome, Maurizio. I like to look after the old guys... **F1**



Flavio with his Benetton line-up, Johnny Herbert and Schumi in 1995

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- Extra nights: single room £57 / person

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- Ticket upgrade: Gold 1 Pit £390 / person
- Ticket upgrade: Gold 2 GP2 £320 / person
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- Ticket upgrade: Gold 6 Chicane £320 / person
- Ticket upgrade: Gold 8 Source £320 sold out

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- Ticket upgrade: Gold 4 Eau Rouge £265 / person
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- Flights or airport transfers

Paul Hembery

Pirelli's main man on 'Indygate', tyre wars – and why softer compounds are a safer way of spicing up the racing than throwing nails on the track...

WORDS JAMES ROBERTS PORTRAITS ANDREW FERRARO/LAT

Pirelli's motorsport boss Paul Hembery is a man in demand. We're due to hook up with him early on the morning of qualifying in the Sepang paddock, but he is delayed by an overrunning meeting with Ferrari's Stefano Domenicali. Immediately after our slot he switches tables to have lunch with Niki Lauda and Helmut Marko.

The previous evening Hembery had a late-night rendezvous with Red Bull, and every time you see him in the hot and sweaty Malaysian paddock he's engaging in lengthy conversations with various team principals and technical directors. The pressure is building from all sides, and that's because the 2013 Pirelli tyres are clearly having such a profound effect on the racing and the relative performance of every team in the pitlane. Time is precious for Hembery but he refuses to rush through the questions you've sent him. Every single one will be thoughtfully answered, starting with the most topical...

Tyres and tyre management are the key factors in Formula 1 now. Do you think they have become too influential on the outcome of grands prix, to the detriment of other factors?

Mark Hession, Italy

Well, it's certainly true that at the start of the season they do create a challenge and all the teams are trying to combine the chassis with the tyre. Having said that, in the past two seasons we've seen that this lasts for between six and eight races and then you start to see a common pattern emerging. Also, the tracks become a little easier as we go through the season – some of the tougher circuits are Malaysia and Bahrain – and as we go to the newer tracks with some of the smoother surfaces, that coincides with the teams knowing what they need to do to maximise their performance. So it will still be a championship where the best driver and the best car will win. Everything will be alright on the night.

Would you welcome a tyre war – and competition – back to Formula 1?

Stephen Higgins, UK

Well, for myself, yes, it would be good fun. I like competition but, in reality, those types of competition don't exist today and there are good reasons for that. One is that it's an element that comes out of the control of the teams. Already we have a situation where what we're doing is a challenge, but if they then have to compete with tyre makers you risk having a championship that is dominated by tyres and not by drivers and cars. Despite the challenges we give the teams, they all have the same products and they all have the same technical challenge. Within certain parameters, they are in control.

The bigger problem is that when you have competition as a tyre maker, you start pushing the technical boundaries and then you can get a situation where you push that too far. You can end up having a race cancelled – or practically cancelled, as in the case of Indianapolis in →



YOU ASK THE QUESTIONS

2005 – and that was as a direct result of tyre competition. And that's not me wanting to have a go at the company involved at the time – it's just something you don't want to see as a tyre maker.

Are you committed to Formula 1?

Steve Bather, UK

We are committed until the end of this year and negotiations are in progress to try to find a new supplier. We've declared an interest in going forward, not at every and any cost, but if the package is feasible, we've said we'll stay in F1.

What happens to the old tyres? I would love to make one into a coffee table provided my wife would let me.

Peter Sim, UK

Well Peter, we recycle them, but some people do have coffee tables made from show tyres and demo tyres – I haven't got one. There are other things that I'd rather have in my house and after seeing tyres every minute of my working day, the last thing I want to see when I get home is a tyre in my lounge – that would finish me off, actually. I'm not so sure about the rubber smell, either.

Although the tyres are the same for all the teams, do they ever complain that the tyre choice for the weekend favours one team over another?

John Gottrell, UK

There is certainly an element of that, as one team gets an advantage and has understood a certain characteristic and another team might start complaining. What I would say is that if you see people complaining, they tend to be suffering; it's the pressure and they're not getting things

they want. Some also use the media to try to put pressure on us to try to get us to make changes, which, of course, we have to avoid – unless all of the teams complain at the same time. In reality, you have to take things with a large pinch of salt and accept that everybody has the same product, somebody's going to win the race, there's going to be one happy driver on top of the podium and two others who are less happy.

Paul, you've changed the chemical compound and structure of the 2013 Pirellis... but actually, I want to know which is your favourite McLaren Vale winery, and would you join me there for a tasting next time you're in Adelaide visiting family?

Martin Castilla, Australia

What a lovely question! I don't need any excuse to go wine tasting in Adelaide. I'm a bit more of a Barossa fan, but Penfolds Grange, which is one of the finest wines in the world, will always find a place on my table when I have the budget. So yes, Martin – game on next year! Fantastic.

Who decides what compounds to bring to a venue; you or a committee?

Tim Gilmartin, USA

It's a committee because it's important to have different perspectives on what we take, so we don't get influenced by someone who's maybe had pressure from a team. Six to eight people get involved, including the technology officer of the entire company. We take it very seriously: we take a map of the circuit, we look at the surface, we mould it and laser-measure it, then we have our own models that simulate an F1 car

going around it and we look at the lateral and longitudinal and braking loads. We see what energy is going into the tyre and then we do a degradation and wear model for each circuit – so a number of people are involved.

How many tyres will Pirelli produce for the 2013 Formula 1 season?

George Oancea, Romania

We produce – between testing, our own testing and racing – around 50,000 tyres, of which race tyres accounted for about 25,000 last year.

Could I get a dissection on the formulation (ie how much natural rubber, what kind of synthetic rubber etc) of one compound, such as the supersofts? Of course, you could leave the proprietary additives if you are not permitted to disclose such things.

Arif Rochmadi, Indonesia

Gosh, Indonesia – there are fans from all over the world here, fantastic! You didn't say which tyre company you work for, Arif – unfortunately, no we can't. Nice try!

Have you ever been mistaken for Ricky Gervais?

Jennifer Lester, UK

[Laughs] That's a great question! This is rather embarrassing but I have a few times. The last time was a few years ago in WH Smith. I was buying a magazine and the girl on the counter said, "Could I have your autograph?" I replied, "Why on earth would you want my autograph?" And she said, "You're Ricky Gervais, aren't you?" I said I wasn't, but she wasn't convinced. By this



"A committee decides what tyres we take to a race, so we don't get influenced by someone who's maybe had pressure from one of the teams"

Can you imagine another 'Indygate' ever happening again?

Don Lugers, Canada

You hope not, you wouldn't wish that on any tyre maker – we all take motorsport seriously, we try and make products that are safe. But sometimes you have circuits that are resurfaced and sometimes teams don't follow the advice you give them: they stretch the boundaries of the operating conditions, and that can create problems.

Our business is an extremely tough one and every year we supply some 720,000 motorsport tyres all around the world to 265 championships. Trying to ensure that they all work every weekend without any faults really is a major challenge for us. You certainly don't want to see any races being cancelled.



point a queue had formed behind me – so I gave her a fake Ricky Gervais autograph just so that I could get my newspapers paid for and get out of the queue. I've never been so embarrassed. Maybe I'll invite Gervais to an F1 event and we could swap jobs – I wouldn't mind his salary.

Do you have a Pirelli calendar in your office?

Paul Andrews, UK

Actually, I don't always, but I do this year – it's very nice, too, and people try to steal it when they come to visit me.

Why not make a reliable tyre that makes racing more fair? Throwing wild cards at the drivers is exciting, but no more so than throwing nails on the track. The tyres should just work.

Greg Reiersen, USA

Well, they are reliable... since we've been in the sport we've had zero failures. Also they're not wild cards as everyone has exactly the same equipment. It's what you do with it that makes them different. And nails on the track would create punctures, so we wouldn't advocate that. If the tyres would 'just work' then what you would have would be processional racing. We are just following instructions and what we had at the end of the season last year were a lot of races where we had no degradation – then tyres were lasting the whole race and we had lots of people

complaining that we had made racing boring again. With processional races, viewing figures go down, so you need unpredictability in sport. If the result is known before the event, that's a sure fire way of turning everyone away from it.

Can you please explain the difference between degradation and wear?

Richard Farmer, UK

Wear is the physical consumption of the tyre. Degradation is the thermal changing of the properties of the tyre so it loses performance. The two are related, but not in a linear way. With high wear you get degradation, but you can have high thermal degradation with low wear. It's a subtle difference.

What would you do to ensure that everyone goes for a time in Q3, rather than opting to save tyres? It needs to change for the fans' sake – how about introducing a qualifying tyre?

Simon Cooke, UK

We agree. We have offered to make bespoke qualifying tyres for the Q3 teams if they want them, so you could see the absolute performance. After talking to former drivers, they said they used to enjoy the challenge of a qualifying tyre where they had to do one timed lap with perfection. It brings out errors: a late brake for one corner and you risk losing a position. But the sport has to decide – it's not our decision.


Describe the 2013 tyres in three words...

Philipp Scheider, Germany

This is not an easy one. Challenging... interesting... stimulating.

How many litres of water per second do your intermediate and wet tyres displace?

Ashley Mason, UK

The intermediate disperses 25 litres per second and the full wet disperses 60 litres per second – if someone threw 60 litres in your face every second, you'd know about it. People ask why teams don't run when it's very wet, but visibility is almost zero – so much water is thrown into the air and the driver is almost driving into a wall. 

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Original Aussie grit

At 87, Sir Jack Brabham is the oldest living F1 world champion. Not only that, but he won the title three times and remains the only man to do so in his own car. We relish a rare chance to interview a grand prix great

WORDS ANTHONY ROWLINSON
PICTURES STEVEN TEE/LAT & LAT ARCHIVE



Before anybody did anything, Jack Brabham did everything.

Bought a car. Built an engine. Raced them. Won. Won some more. Went to Europe. Sold a car. Bought another. Raced it. Won. Won some more. A championship. Another. A pause. Launched a team. Made a car. Bought an engine. A championship. Another. Still some wins. And then... then he quit.

It was 1970 and Black Jack's incredible adventure was over. The 'nut-brown Aussie' was three drivers' titles to the good and his own Brabham team had two constructors' titles to their name. So he decided, reluctantly, that enough was enough. Too many had died that year: Jochen Rindt, Piers Courage and Bruce McLaren all gone in violent accidents. Jack, 44, was still a hardy competitor and a driver fast enough to win grands prix. But in the back of the Brabham team bus after the death of Courage at the Dutch GP, Jack's father, Tom, urged him to stop now, not wait until he had nothing left to offer. Heavy-hearted, Jack allowed his father's will to prevail and he drove his last grand prix that year in Mexico. →



PHOTO: GETTY IMAGES



Brabham takes on and conquers the world for the second year in a row, this time piloting the tiny Cooper T53 of 1960

Black Jack's wins

Round 1

Round 5

1959

Monaco GP, Monte Carlo, 10 May.
Constructor: Cooper-Climax



British GP, Aintree, 18 July.
Pole position.
Constructor: Cooper-Climax

Round 4

1960

Dutch GP, Zandvoort, 6 June.
Constructor: Cooper-Climax





F1 Racing meets Sir Jack Brabham at his home on Australia's Gold Coast

It was a decision that John Arthur Brabham came to regret, for he knew there was still gas in the tank, that his competitive fires raged on. In his final year of F1 he took a win, a pole, three podiums and four fastest laps and, with better luck, might have won a fourth title.

It was a decision, though, that ensured he wouldn't die in an F1 car, as so many of his peers had in that most perilous era. It ensured he would still be with us at 87, still able to receive visitors at his home on the Australian Gold Coast and reflect on a most extraordinary life.

"I thought about going to Europe for a year or two and ended up staying for 30!"

He's a frail man now, on dialysis, his hearing damaged by his insistence for most of his racing career on not wearing ear protection to enable him to pick up early any engine niggles. It's hard, indeed, to equate the elderly gentleman who sits on a sofa in his lounge and asks us to come closer to allow him to hear our questions better, with the hard bastard of the '50s and '60s who'd happily drop a rear off the track to blast rivals behind with road grit. Or deliberately scuff a straw bale to throw up debris into the face of anyone with the temerity to try a pass.

But the memorabilia dotted around his house, such as the glass-cased replica of the Brabham-Repco BT19 in which Sir Jack won drivers' and

constructors' titles in 1966, is reminder enough of past exploits, so you do what local newspaper reporters do when sent to interview war veterans about flying Typhoons as air cover for the D-Day landings: you get talking about the old days, heroic times cut so hard into memory that they sit like diamonds in the grey matter.

"The most important step I took in my career was seven years on the speedway," he says, recalling hardscrabble encounters on scorched Australian dirt ovals in midjet racers. "I learned a hell of a lot – not just racing, but from the engine point of view. We started with a 1,000cc engine, which wasn't big enough, and we stretched it as far as it goes and that wasn't far enough. So we ended up making our own engine.

"We made the cylinder barrels and heads and pistons... virtually every part of the engine, in fact. Stretched it to 1,640cc from 1,000cc, we did. It was a big jump."

So from the first, Jack was using mechanical skills – developed as a mechanic servicing Beaufighter warplanes for the Royal Australian Air Force – to eke out a competitive advantage. This would become a recurrent motif of his career: a hard-as-hell racer on track; a canny engineer off it, whose mechanical intelligence was vital in developing the 1959-1960 rear-engined Coopers to championship success, then later the 1966-1967 Brabham-Repco.

First, though, there was the jump to Europe – a huge undertaking in the 1950s and one he

made almost entirely alone. He downplays this move, leaving first wife Betty, son Geoff (later a notable sportscar champion) and his established racing contacts, reasoning now, as he did then, that "it had to be done to advance [his] career."

"Thing was," he says, "I thought about going for a year or two, to get experience of European racing and I ended up staying for 30!"

Being an Aussie, not a "whinging Pom", he's not about to open up about maybe feeling homesick, or missing his wife and kid, but he will concede that not being able to ship his workshop 10,000 miles north hampered him early on. "The thing I missed most," he says, "was my lathe."

"I did really struggle to get whatever I could, as I didn't know the right people and I made a couple of mistakes in the first year, like buying the wrong car. I had a beautiful Cooper-Bristol that I'd done a lot of work on and it was going really well. Unfortunately I got talked into selling it and buying a new car in England – a Cooper-Alta which was an absolute disaster, an absolute heap of rubbish. It definitely took me a while to learn the ropes. That was half the battle."

His tribulations with the car did, however, necessitate frequent calls to the Cooper Car Company in Surbiton as he sought advice and speed. And it was here that he built a friendship with team owner John Cooper, which would lead to both men's names being written indelibly into the F1 history books. Having revolutionised accepted F1 car design of the era with the mid-engined T43 of 1958, Cooper entered 1959 with the further-honed T51, sketched by Owen Maddock. Jack Brabham would be lead driver →

Round 5



Belgian GP, Spa-Francorchamps, 19 June.
Pole position. Fastest lap (shared with Phil Hill and Innes Ireland). Constructor: Cooper-Climax

Round 6

French GP, Reims, 3 July. Pole position. Fastest lap.
Constructor: Cooper-Climax



Round 7



British GP, Silverstone, 16 July.
Pole position.
Constructor: Cooper-Climax

of this tiny machine (and its T53 successor in 1960) that took on the world and won. He bagged consecutive drivers' titles with seven wins, four poles and four fastest laps over two years. Cooper were the dominant constructors, with two other wins for team-mate Bruce McLaren, plus two for Stirling Moss in a Rob-Walker-entered car.

It was an incredible achievement that changed the face of F1. Other makes took time to react, although by 1961 Ferrari had copied the concept and outmuscled the Surbiton *garagistes*. The turn of the decade, though, was all Cooper.

"I finished up driving for John for five years and I was lucky that I got in touch with him when I first got there," says Sir Jack. "He really led the way for two to three years and we won the world championship, which was fantastic. And that was in spite of being in England on our own."

Looking back, 50 years on, it sounds almost straightforward: emigrate, make a few contacts, bag a brace of titles... job done. It wasn't, of course, anything like that simple and Brabham reckons the Cooper success story was based at least in part on sheer good fortune.

"In 1959 we had a problem with our gearboxes, because we didn't have one to suit a rear-engined car. Jabby Crombac, the racing journalist, actually got me to go to ERS in France to see if they would sell me a gearbox. When I got there, they said yes, but it would probably take them 18 months to build what I wanted. Luckily I knew something about the foundry and I asked them if I could go for a look before I left. They had about 150 Citroën gearboxes lined up to cast the next day and I got talking to the foreman who

was a motor-racing enthusiast. I talked him into letting me modify gearbox casings so that we had our own castings with our own modifications on them. I modified about 30 gearboxes that evening and they were cast the next day. Those castings finished up on our floor within two weeks. And without those we would never have won the world championship in 1959."

Imagine, today, that on the eve of the 2013 world championship Red Bull discovered they didn't have a suitable gearbox for the season ahead, so relied on a journalist contact of Sebastian Vettel's to tip him off about a manufacturing company in France that might – if they were *really* lucky – be able to make this fundamentally important component. Oh, and Red Bull would be relying on Vettel's engineering knowledge to assess what the firm was making, modify their parts on the spot and oversee the manufacturing process to ensure the correct components emerged from the foundry. That's what Jack Brabham did.

The memory prompts a smile: "It's just a matter sometimes of how luck falls your way. I just happened to be in France at the right time and with the right people and the next thing we've got gearboxes, which is incredible really."

So much for the off-track savvy. On track things were going pretty well, too. Brabham was taking on – and beating – the established European aces of the day, such as Stirling Moss, Jim Clark and Graham Hill. Moss he remembers in particular as being his toughest opponent:

"I probably learned as much from Stirling as anybody. He was a very hard driver and he was on top when I started in Europe. He was a driver to learn from... mainly about race tactics... and determination. He was a very determined driver and that sort of rubbed off. That determination was part of the ego learning curve in the early days of my European racing."

Talk of rivalry leads us in a direction *F1 Racing* had been advised to pursue by none other than Mark Webber. "Ask Jack about Ferrari," Mark suggested. "That'll get him going." We do. It does.

"I was only ever interested in beating Ferrari, not joining them"

"Oh I *loved* beating Ferrari, just loved it. It was the greatest satisfaction. In 1960, they invited me to come to Italy and meet Enzo to talk about driving for him, and I never even went. I wasn't interested. I was only interested in beating them, not joining them. It's one of those things. Ferrari were the opposition and you had to treat them as the opposition. There was great satisfaction in beating them – which we did many times."

Brabham's animated now as he gets close to the source of his competitive instincts. Jabbing his chest with his forefinger he emphasises: "The opposition was really the point that was driving me along and Ferrari *were* the opposition, so we had to beat them. When you feel like that, you

Round 8

1960

Portuguese GP, Oporto, 14 August.
Constructor: Cooper-Climax



Round 3 — Round 4

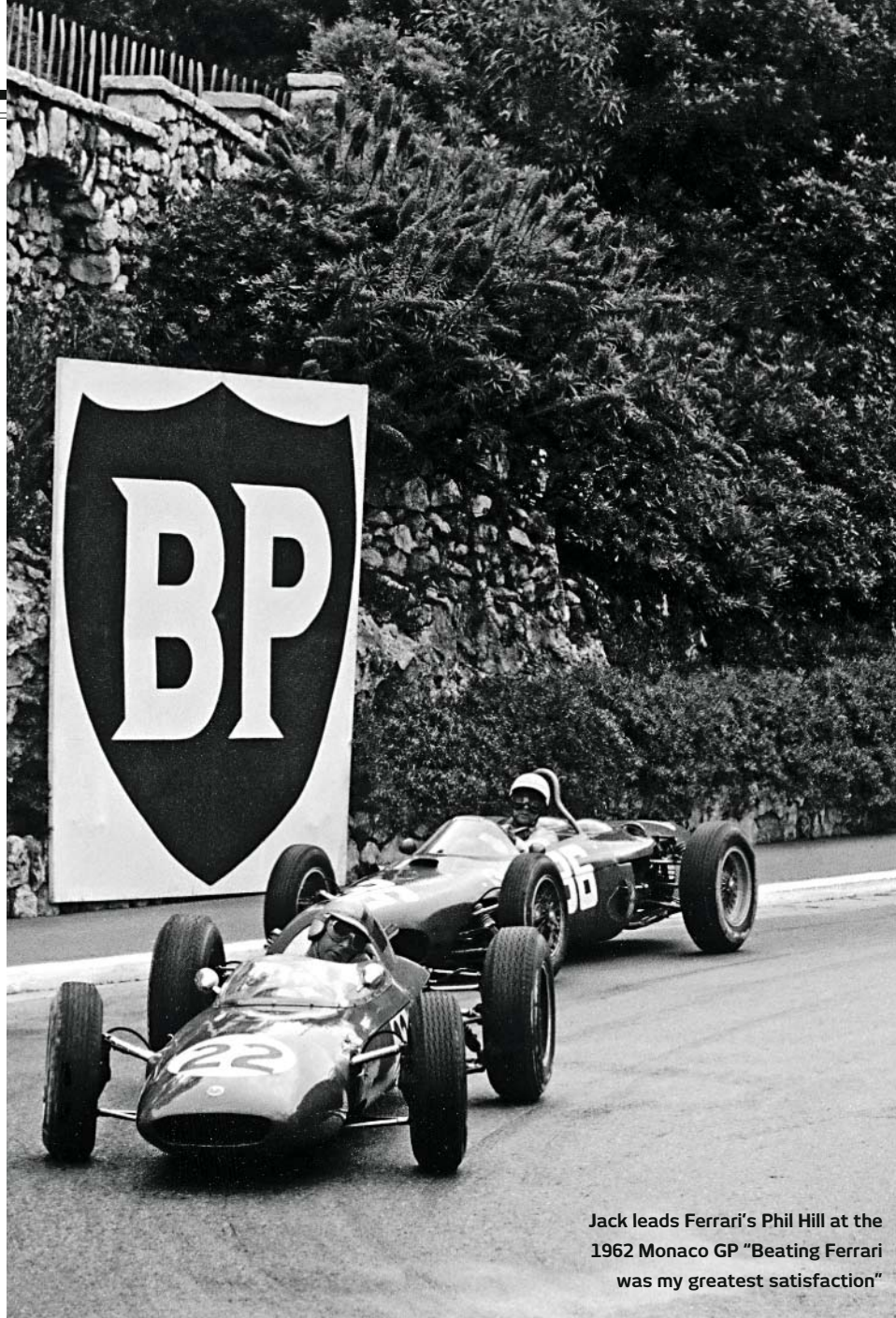
1966

French GP, Reims, 3 July.
Constructor: Brabham-Repco



British GP, Brands Hatch, 16 July.
Pole position. Fastest lap.
Constructor: Brabham-Repco





Jack leads Ferrari's Phil Hill at the 1962 Monaco GP "Beating Ferrari was my greatest satisfaction"

don't go and drive for them." Simple and direct, just like his driving style. Just like his racing cars.

It's no surprise that Sir Jack singles out a Cooper victory over Ferrari as the single most satisfying race of a long and storied career: winning the 1960 French GP at Reims. "That was a fantastic race, it really was. Reims should have been Ferrari's circuit because of the long straights, so to chase down the Ferrari team on that track was really something. It was the most thrilling race I have ever had. It was so close and then to nail them was great satisfaction."

He points to a Michael Turner painting of the race that hangs on a far wall. Brabham, crouched head down in the tight T53 cockpit is edging out Phil Hill to his left, with Wolfgang Von Trips in his slipstream, metres behind. The more powerful Ferraris put Brabham under huge pressure in the early stages of the race, before retiring with transmission trouble soon after half-distance. "That's the one and it felt even closer from the driving seat. We swapped the lead so many times – an incredible race. Just the most exciting thing I've ever done."

It was this victory, in fact, that prompted the call from Maranello. So double satisfaction in beating, then snubbing, Ferrari? "Absolutely."

Enzo's red cars would get their own back a year later as the Tipo 156 with a bespoke 1.5-litre V6 outginted anything Cooper, Brabham, or anyone else, could muster. A fallow period followed, from 1961-1965 and impatient for success, Jack decided in mid-'65 to do what he'd always done best: take matters into his own hands. A call went to Melbourne machine →

Round 5

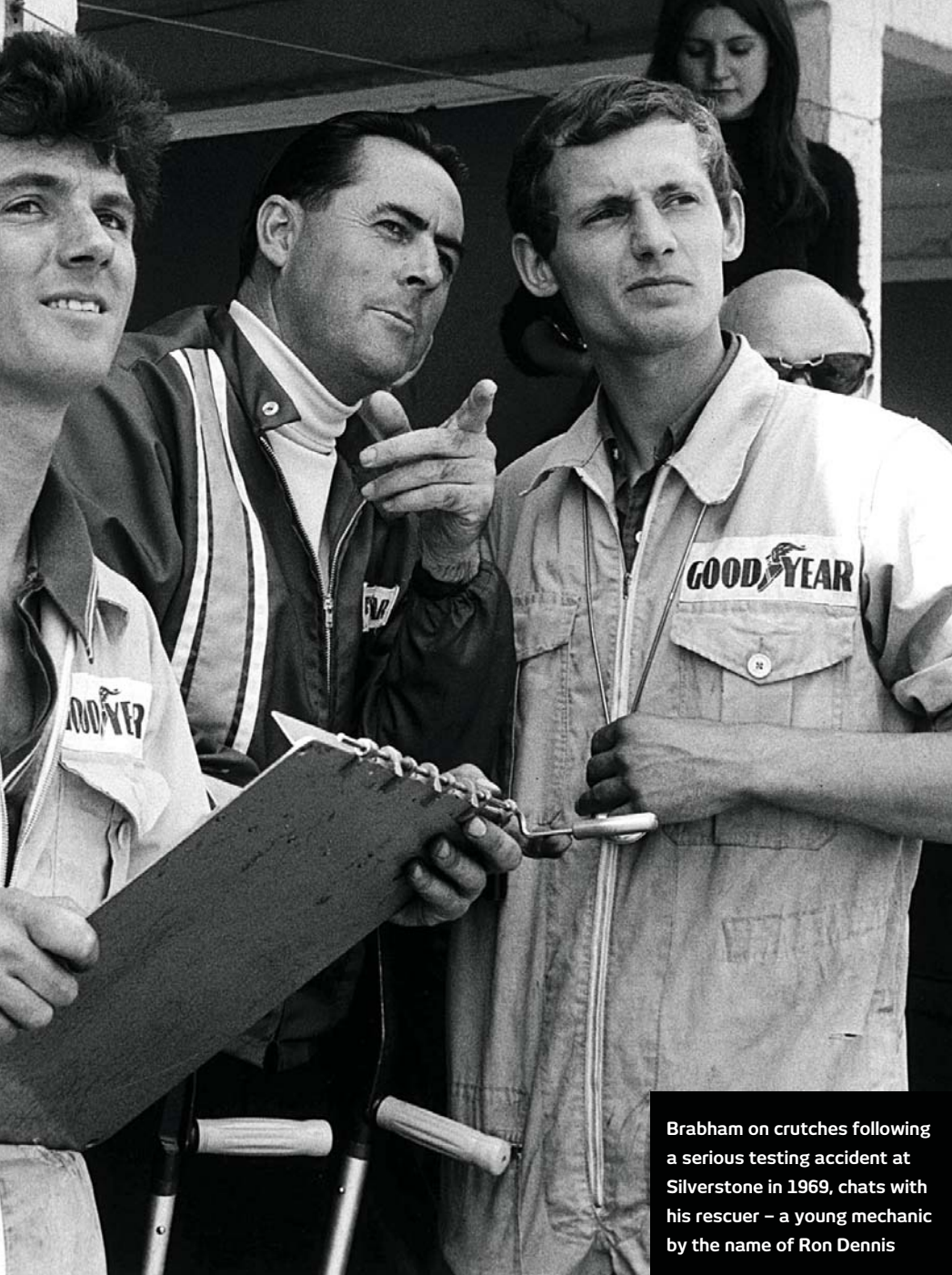


Dutch GP, Zandvoort, 24 July. Pole position. Constructor: Brabham-Repco

Round 6

German GP, Nürburgring, 7 August.
Constructor: Brabham-Repco





Brabham on crutches following a serious testing accident at Silverstone in 1969, chats with his rescuer – a young mechanic by the name of Ron Dennis

makers Repco, with whom Brabham was still in contact from his airforce days, when they'd been his first-choice supplier for valves, springs and pistons. Repco's meticulous methods had always impressed Brabham – they'd need to again for his latest request: "Build me an F1 engine."

A 3.0-litre aluminium V8, developed from a stock US Oldsmobile block, was ready in time for the start of '66 and it proved robust and powerful enough to shove first Sir Jack, then team-mate Denny Hulme, to consecutive titles, each time with a constructors' title to boot for the Ron Tauranac-designed BT19 and 20. Not that racing cars with engines built in and shipped from Melbourne was straightforward. More than once, Repcos would just disappear en route to the UK.

"Oh yeah... that made racing difficult. Twice we lost engines on planes. The first time we had an engine on an aeroplane that we desperately needed, but the plane developed mechanical trouble and only got as far as Cairo before turning back. We eventually got it three weeks later. Another time, we got our own people in Australia to make sure that the engine physically got on the plane and I got confirmation of that. But when it got to England they couldn't find it. Unbelievable! How could you lose an engine just like that? Turns out that when the plane arrived with the engine on it, that was the first thing off and the forklift driver took it round the side of the hangar out of the way. It was still there three weeks later, getting nice and wet in the rain..."

Mishaps like this seem scarcely imaginable from the perspective of precision-focused contemporary Formula 1, yet they weren't

Round 1 —

1970

South African GP, Kyalami, 7 March. Fastest lap (shared with John Surtees). Constructor: Brabham-Ford



Round 5

Round 8

1967



French GP, Le Mans, 2 July.
Constructor: Brabham-Repco

Canadian GP, Mosport Park, 27 August.
Constructor: Brabham-Repco



enough to stop Jack Brabham becoming the only man to win races, and a title, in his own car. Giddy though the success of 1959-'60 had been, that glorious '66 remains Sir Jack's finest hour and his most cherished memory. "Winning titles for Cooper back-to-back was a great era for me," he confirms, "but winning our own title was the pinnacle. It was a great achievement."

The Motor Racing Developments company Brabham had founded with Ron Tauranac to build race cars were briefly on top of the world, selling chassis to customers as well as campaigning them to title-winning success. Not bad for a young man who'd arrived in Britain a decade or so earlier with no ambitions beyond gaining some racing nous to take back home.

Perhaps Brabham's greatest achievement, however, was that of simply staying alive at a time when grand prix racing was at its most lethal. Sir Jack suffered only one serious accident in his racing career, testing at Silverstone in 1969, and his account of it in his autobiography *The Jack Brabham Story* leaves no doubt as to the dangers Brabham and his peers faced:

"I'd got as far as Club Corner where we used to blast through at 115mph and three-quarters of the way through, as I leaned on the left-front tyre, it popped off the rim and deflated... The car understeered into a bank [and] the impact smashed the left-front wheel into the side of the cockpit where it crushed the frame inwards, into my legs. The throttle was jammed wide open and behind me the engine was absolutely shrieking. The pain in my twisted legs and feet was unbelievable... There was a terrible stench

"In 1970 I was at the top of my form. I could have gone on a few more years. But..."

of fuel. Looking over the cockpit side I could see a spreading lake of petrol and I knew if it ignited I'd stand no chance."

Brabham managed to silence the engine by hitting the kill switch, which had been twisted beyond easy reach on impact, and triggering the fire extinguisher. But he remained trapped in the car until released by one Ron Dennis, senior mechanic, who oversaw the rescue.

Five years before, Brabham emerged singed but unscathed after driving through a fireball at the Indy 500 – a crash that claimed the lives of Eddie Sachs and Dave MacDonald. "The closest I've come to being written off," he reckons.


He was lucky and he'll admit as much, but survival wasn't *just* luck. He cites being "in the right car at the right time" as the cornerstone of his success (not to mention building his own, when the right machinery wasn't commercially available) and echoing contemporary Jackie Stewart's 'mind management' mantra, he talks of the importance of "self-control".

"Having self-control was the important part," he says. "I think that was my success really, that part of it and it was a great satisfaction, because I lost so many friends over the years and in spite of that I had to keep going myself."

Even this notoriously thick-skinned competitor wasn't immune to the human cost of Formula 1 in the late 1960s and early '70s. The death of Rindt, in particular, hit him hard as the grizzled veteran and dazzlingly charismatic young charger had become close as team-mates in 1968. "Rindt became a close friend," Brabham recalls. "He drove for me for a year but Colin Chapman offered him more money to drive for Lotus than I could come up with for 1969 and that killed him a year later at Monza when the car broke. It was a very tragic death. Losing a close friend like that wasn't easy... it was just one of those things in motor racing you had to live with because it used to happen on a pretty regular basis."

Brabham was still racing hard, in the Tauranac BT33. He won in South Africa but lost the 1970 Monaco GP on the last corner of the last lap, to Rindt. In his own estimation he was still driving "extremely well and safely", but the deaths of so many of his peers coupled with family pressure forced his withdrawal and, soon afterwards, a return home. "I was at the top of my form," he says, "and I'm sure I could have gone on a few more years. But..."

Jack Brabham's racing days are now long over, although he continued to compete into his 70s, when invited, with a notable spikiness. At the 2000 Goodwood Revival, going hard, he shunted and put himself in hospital overnight for the first time in his racing career, with concussion, cracked ribs and bruised lungs.

And it's reassuring to learn that the spirit of this grand old man of motor racing, living colour from a black-and-white age, is still grittily intact. If he could turn back the clock, would he fancy his chances, I wonder, against the current generation? There's a moment's reflection, then he fixes me eye to eye and replies with absolute conviction: "Yeah. Yeah I bloody would." 



Aussies on Brabham



TIM SCHENKEN

Clerk of the Course for the Australian GP. Finished third for Brabham at the 1971 Austrian GP

"Jack has been so important for Australian motorsport. His success alerted us all to grand prix racing. The media coverage he got was minimal compared to what we have today, but it was there and I recall going to the movies and seeing Pathé News and it wasn't unusual to see Jack winning a race. For all of us aspiring racing drivers, he was an icon. He was very much a pioneer and very important to us all."



ALAN JONES

1980 world champion

"Sir Jack was the first to go to Europe and as a youngster I used to watch him race and he was inspirational. You looked at him and you could see that it was the way ahead: he was a true pioneer and to this day he's still the only man to have won a race and a title in a car carrying his own name."



MARK WEBBER

Red Bull racer

"The Brabham family has always been fantastic towards me, and particularly Jack. I remember him telling me 15 years ago that he had always found it great to come to the other side of the world and beat the Europeans, and I've tried to continue that trend as best I can."

INSET: ANDY HONE/LAT





FAST MASTER

We take a performance driving
lesson with F1's king of smooth

WORDS STUART CODLING
PICTURES ANDREW FERRARO/LAT



Think Alain Prost, think silky smoothness.

Fifty-one grand prix wins and four world championships wrapped up with impeccable finesse. A driver who, above all, made the car work for *him* and not the other way around. To Prost, a racing car was something from which you coaxed the best performance, rather than wrestling it to the floor and putting it in a headlock.

And yet, as our own Peter Windsor wrote last month: “My mother is a smooth driver. She isn’t particularly quick, however.” There is more to Prost’s canon than smoothness alone. In the 20 years that have elapsed since he last claimed the drivers’ title, we’ve perhaps forgotten that he was also capable of devastating speed – enough to chalk up 33 pole positions and 41 fastest laps, and to prompt no less a rival than Niki Lauda to exclaim, “Shit! How does he *do* that?”

Fortunately, Prost is happy to explain – and, later, to demonstrate – how. In his role as a Renault ambassador, he’s joined us at the Guadix circuit in southern Spain, in the foothills of the Sierra Nevada, for the launch of the Renaultsport Clio 200 Turbo and its more track-focused Cup stablemate. Before we snatch the key (well, in this age of keyless entry, it’s more like a credit card) Prost sits down with

F1 Racing and outlines the essence of his style. It’s more of a philosophy, actually, and it traces its roots back to the beginning of his career:

“If you talk about the approach – the style – it’s a natural thing from the start. Some drivers are quite... brusque and some are lighter. The way you drive is relative to your approach... to your character. When you put on the helmet and drop the visor you may feel you’re a different person, but most of it comes from your fundamental character.

“I was always fascinated by the technical aspects, very curious about everything. I wanted to learn. When I was racing in karts, right at the beginning, after a year I told the people who were building the chassis and engines that I wanted to buy some components and prepare everything myself, because I wanted to know exactly what I was doing. I did the same thing in Formula Renault: I had a budget from the Winfield school when I won the Volant Elf competition and I managed my own team. This was 1976.

“Sometimes you realise you need to change your approach. In Formula Renault, everybody had the same car. When everyone has the same chassis, the same engine, the same tyres, you may think, ‘I’m the best, I’m going to kill them all’



– that’s one approach, you know? – but the better tactic is to make the best of the car, because if you do that you will be better. You will not always be obliged to push at 100 per cent. Racing cars then were much less reliable. I took a lot of time to understand everything on the car, even visiting the factory.

“Knowing the car, being curious – all of these things helped me to understand the car’s behaviour while I was out on the track driving it. That meant pushing when necessary at 100 per cent sometimes, but not very often, and always having a margin, because when you have a margin you are able to think, to understand what you need to do when you stop in the pits to make adjustments.

“Do this year after year and you build your confidence, your own approach. Your style on track comes about because of it.

“It’s difficult to explain precisely how to do it. Every time you go out on the track you have to understand every corner, everything you need to do at each point. We are talking about very small things here, one or two tenths at a time: knowing how much force you are going to put on the tyres, the precise flow you are going to take from one corner to the next.”

Musing on this download, I’m shown to one of the pearlescent yellow Clio RS200 Cups ticking over quietly in the

pitlane. I’m at the front of the queue with a racy-looking Italian journo behind me – so racy, in fact, that he spends the entire ‘familiarisation lap’ behind the Safety Car either half a centimetre off my rear bumper or actually trying to overtake. Well, when the going gets tough, the tough... leave racy Italian scribblers standing. It’s the only way to be sure. As we’re released one by one, I stand on the throttle, activate the Clio’s launch control, and set off in a roar of impressive-looking but actually computer-controlled thrust. The Renault’s systems balance the front wheels on the very edge of slippage, with just a touch of tyre screech as the turbo comes on song.

The red mist has come down. At every corner I just stamp on the brakes – the braking points are handily marked with cones for the hard-of-thinking – then release, steer, and feed as much power back on as the steering angle will allow. It’s a motorcycling habit, breaking the phases of a corner into separate pieces, and it’s clearly become ingrained. The Clio, thankfully, is tolerant of this and eager to please. Its double-clutch gearbox swaps ratios almost seamlessly and when the four-pot 1.6 turbo’s power asks for more traction than the front wheels can deliver mid-bend, the car serves notice with a gentle slide wide. The hot-hatch cognoscenti are by all accounts up in arms that this latest Renault pocket-rocket has five doors and a semi-automatic gearbox; it’s certainly more grown-up than its predecessors, more finessed.

It’s mission accomplished in terms of keeping racy fellow scribblers out of the rear-view mirror, but every lap was scrappy. The timer on the dash says the fastest was 1min 45secs. Let’s see what Prost has to say about my, er... ‘style’.

“That is difficult to educate,” he says diplomatically,

“Make the best of the car and you will be better”

“because if you start with that approach in karting, the longer you go on, the harder it is to change. But sometimes it doesn’t make so much difference. If you’re on the track with

someone in a different car and they’re pushing like ’ell, you can be beaten and you just have to accept that. In the long term the sympathetic approach is better, and you only have to look at how racing is going – there is still room for the show, but everything is now coming towards efficiency. For sure you can have two different styles and be very close in lap time, but especially in Formula 1 you have to manage the car – manage the tyres, gearbox, brakes and fuel consumption. You have to think all the time because the resources are limited.”

“Whether you are in a Formula 1 car or one of these, your line is going to be similar, but the approach, the braking, the gear change, the steering, the way you accelerate – all of those will be different. You have to take the feel of the car. You may take a different approach depending on the corner – there isn’t only one line. You could brake quite late and go into the corner under braking, or you could separate them – brake, steer, accelerate. It depends on the grip, how your car is balanced, and how it makes its power.

“If you have a large hairpin, for instance, you could gain lap time by braking deeply and going like this,” – he mimics a kind of soft-vee approach to the apex – “rather than making a straight line and then steering. You can gain some distance →

Prost's perfect lap...



1a Turn 2

At Turn 2, Prost brakes from 80mph while moving the car ever so gently towards the apex *before* the cone marking the turn-in point, in effect looking to make a vee-shaped trajectory around this long corner



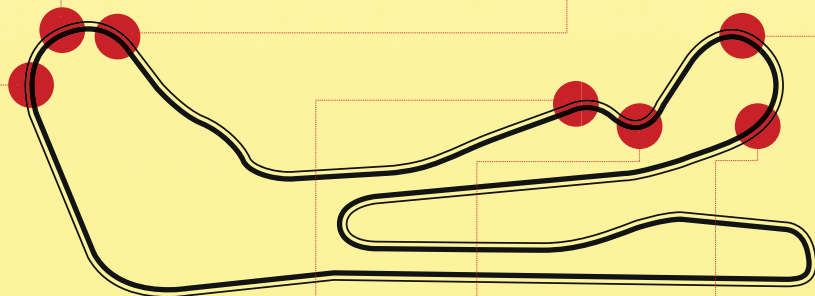
1b Turn 2

We're at the sharpest part of the turn, but Prost has only half a turn of lock on, and drops just one gear while bleeding off the brake effort. Slowest point of the corner is 44mph. From here, he picks up speed and has to unwind the steering only slightly



1c Turn 2

With one flowing movement on the wheel, we've gone around the corner and the car is perfectly positioned at the apex of the next one, as Prost accelerates hard all the way to the chicane. We gain 13mph before the steering is fully unwound.



Chicane 1

We've gone up only one gear, topping out at 87mph before reaching the chicane. Here Prost stays to the left all the way to the turn-in point



Chicane 2

Brake, turn, go. A short, sharp braking effort combined with the turning force brings us down to 65mph as we take the straightest line through the chicane. Just before the first cone, Prost downshifts to third and hooks the car around the cone



Spoon 1

The most technical corner on the circuit runs at a constant radius and then tightens at the exit. Prost has time to talk to his passengers while turning in to the first apex at precisely the right point, carrying 67mph throughout, hands still delicate on the wheel



Spoon 2

Most drivers would get on the throttle too early and understeer well before the exit, but Prost keeps a constant pace, straightening before turning again – shedding speed but lengthening the straight that follows

that way. It depends on the traction; turning and accelerating at the same time can be difficult. With the early turbo F1 cars you knew you would have the turbo lag, so you could afford to lose a little bit at the apex if you knew it would help you get the power faster. This car is different because there is no lag."

Before we climb aboard with *Le Professeur*, I ask him to move from generalities to the specifics of Guadix.

"The chicane is okay – you can go over the kerb," he says.

"That's the only place you can use the kerbs because it's so slippery, especially on the outside. This corner," – he points towards the long 'spoon' curve that follows the chicane – "you go a little to the inside then to the outside. Maybe not the most difficult but you must be careful, especially at the entry."

He pauses, looks skywards and wrinkles his nose. "It's very humid. It's not raining yet, but it will. It's very important here on the straight, and over there into the hairpin, you brake mainly in the straight line and you don't ask for the gears too soon. If you ask too soon then it won't shift down because it automatically prevents the engine from over-revving. But it's best to show you..."


From the back seat, the first thing I notice is Prost's grip on the steering wheel: soft hands, not a tight clench. The second corner on the track is a constant-radius right-hander. Where I'd braked hard – I thought – and then turned in at the first cone, making a sort of hard-U, Prost brakes later and harder, and is already turning as we reach the cone, perhaps a car-width across already. His motion on the wheel is as light as his grip, directing rather than throwing the car, blending out the brakes and bringing in the power. Once we pass the apex, there's no more steering left to do; the car is already pointing at the apex of the following left-hander and accelerating hard.

Into the chicane, Prost uses the width of the track: starting on the left, braking and turning late again, using the kerb to make a straight line between right and left flicks, balancing the power with imperious ease as the track vanishes up and to the left towards the hidden first apex of the next corner.

Between my laps and this, it's almost as if we're in a different car. On the straights we're at ballpark speeds; it's in the corners, in his delicacy at managing the car's trajectory and momentum, where the lap times come. He's braking later, but somehow contriving to lose less speed, effortlessly conserving it through the cornering phase and then letting it build again. It's like watching a concert pianist at work.

The difference between our laps – and bearing in mind Prost has passengers aboard, blunting acceleration – is around seven seconds. Was he pushing to the maximum?

"Ah no," he says. "I didn't want your photographer to have just blurry pictures..."

I'll study the video. I may even learn something. Will I ever be as quick as Alain Prost? Definitely not. 



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Recent guests on *The Racer's Edge* have included GP2 prodigy Conor Daly, and Andrew Westcott, CEO of the Australian Grand Prix Corporation, as well as Anthony Rowlinson, editor of *F1 Racing* magazine.

From May, *The Racer's Edge* will be filmed live from Teddington Studios, the home of *F1 Racing* magazine, where Peter is a senior columnist.

As usual, it will be broadcast live and completely free on the internet, so all you have to do is subscribe to the *YouTube* channel. You can also download each episode from Amazon and iTunes as audio or video files.

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FINISHING STRAIGHT

Reports Previews Analysis Opinion Stats

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Stirred not shaken

No points in Malaysia then a storming victory in China... but Alonso's recovery still wasn't quite enough to overshadow the ramifications of 'Multi-21-gate'

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The team orders debate rages on, as Red Bull take a one-two of the most controversial variety



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Fast-degrading tyres dominate the weekend, while Fernando Alonso dominates the race

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TC finds himself in a spot of bother at Bahrain International Airport. Is this your bag, sir...?



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Seb's let Webber down, he's let Red Bull down... but most of all he's let Murray down

RACE DEBRIEF by James Roberts

Malaysian Grand Prix

24.03.2013 / Sepang, Kuala Lumpur



A bruising victory

There were no celebrations on the podium as the latest intra-team bust-up between winner Sebastian Vettel and second-placed team-mate Webber overshadowed all other talk at Sepang

Down in the paddock Ferrari's team principal Stefano Domenicali was laughing: "For once, you aren't asking *me* about team orders! You can ask them next door, I'm sure it will be a lot of fun..."

Them next door. That would be Red Bull, whose paddock enclosure remained firmly barred while a growing scrum of media personnel, TV and press, jostled for position to hear the results of the inquisition that was being held within. Not since Hungary 2007 has a non-contact fracas between two team-mates commanded such attention – and anticipation.

The "fun" arrived after a long wait. At around 8.30pm local time, some two-and-a-half hours after the race had finished, Christian Horner finally emerged to face the press to discuss the afternoon's proceedings. In a solemn tone he said: "Sebastian made it quite clear what his intention was when he made the move. He knew

what the communication was. He chose to ignore it. He put his interest above what the team's position was – he wanted the extra points and it was wrong and he accepts it was wrong."

When Sebastian Vettel weaved his RB9 from side to side in celebration as he crossed the finish line after 56 frantic laps of the Malaysian GP, all this was yet to be brought home to him. He was euphoric and punched the air in delight, his index finger aloft for the 27th time in his career.

The victory put him equal with Jackie Stewart in the all-time winners' list. The Scot's last triumph came at the 1973 German GP at the Nürburgring, a race in which he led his young Tyrrell team-mate François Cevert throughout. Afterwards JYS noted that Cevert had many chances to overtake, but had held station behind the elder statesman. The route to Vettel's 27th GP win took a very different direction.

Vettel, polesitter and erstwhile leader, had ended up behind Webber after switching from intermediates to slicks on lap five, two laps before Webber. This was a bad call since the track had not fully dried following a pre-race rain shower. So, with tyre preservation in mind the team transmitted their code 'Multi 21' to the drivers after the last pitstop on lap 43. It was an instruction for second-placed Vettel to hold station behind Webber until the end of the race.

Three laps later Vettel chose to ignore the message and at the start of lap 46 dived into the ever narrowing gap between Webber's car and the pitwall and squeezed ahead into Turn 1. The move wasn't quite complete, but by Turn 4, Vettel was ahead of his duped team-mate and that's where he stayed for the final ten laps.

In that moment Vettel showed what a ruthless competitor he is, displaying the steel that lies

beneath his typically jolly demeanour. He acted directly against the orders of his team to secure the extra eight points for the win.

Webber's anger was manifest as he initially refused to take part in the podium ceremony. After a delay he was ushered into the holding area at the back of the podium. An awkward scene played out as Webber ignored Newey and Vettel, went over to shake third-placed Lewis Hamilton's hand, then stalked to the far corner and sat down. Newey squirmed, knowing full well that Vettel had wrongfully snatched victory from the Aussie.

Vettel quickly turned down the wick on his celebrations once he realised the pain he had caused – you'll find no Red Bull celebratory team photograph for this one-two.

"I made a mistake. I'm not proud of it and if I had the chance to do it again, I wouldn't do the same," said the three-time world champion, a trifle disingenuously, immediately afterwards. "I think we should have stayed in the positions we were in, I didn't ignore it on purpose but I messed up and took the lead, and I can see now he's upset. Apologies to Mark..."

Not for the first time in their five years together, Webber has come second to his teammate and he has clearly had enough. Asked if he would accept Seb's apology and whether he would consider his future, his answer spoke volumes: "My mind, in the last 15 laps was thinking many things, yes. Many, many things." Apology not accepted then.

It's not the first time the Red Bull team-mates have banged wheels. It wasn't as bad as Istanbul in 2010 when the pair crashed while fighting for the lead of the race – this time they kept it on the road – but the incident raised questions as to who, if anyone, has authority over Vettel. As Webber said on the podium, "Sebastian... will be protected as usual."

The attention focused on Red Bull must have come as a relief to Mercedes, for they too had to manage a team-orders kerfuffle in the closing minutes. Nico Rosberg passed Hamilton on two consecutive laps, but each time Lewis re-took third position and Ross Brawn had to reiterate to Nico to hold station a number of times because Lewis was running low on fuel.

Rosberg held station, but should he have ignored the order as Vettel did? Should he have asserted his position in the team, stood on the podium then dealt with the backlash afterwards? That was the course Vettel chose. While it was selfish, it proved he has the ruthless win-at-all-costs streak that has been a mark of so many champions. It was perhaps morally wrong, and the rancour it generated will fester, but it gave him 25 points and the lead of the championship. **F1**

The story of the race

V
Vettel makes a tidy start but Alonso is on his tail. They get too close and touch at Turn 1



SEPANG



>
Alonso loses his front wing on the main straight on the second lap and slides off into the gravel



<
For his first stop, Lewis accidentally drives through the McLaren pits before arriving at Mercedes

<
Button stops in the pits because of a wheel-gun error and loses out on some major points



<
Rosberg is told to hold position behind Hamilton as they battle for third due to concerns about fuel



>
Vettel emerges behind team-mate Webber on the final stop but defies team orders to pass and win the race



MAIN PHOTO: CHARLES COATES/LAT. ILLUSTRATION: ALAN ELDREDGE. INSETS: ANDREW FERRARO/LAT. CHARLES COATES/LAT. STEVE ETHERINGTON/LAT. ANDY HONE/LAT. ALASTAIR STALEY/LAT.

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Malaysian Grand Prix stats

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

THE GRID

	1. VETTEL RED BULL 1min 49.674secs Q3		1. VETTEL RED BULL 1min 49.674secs Q3
	2. MASSA FERRARI 1min 50.587secs Q3		3. ALONSO FERRARI 1min 50.727secs Q3
	4. HAMILTON MERCEDES 1min 51.699secs Q3		5. WEBBER RED BULL 1min 52.244secs Q3
	6. ROSBERG MERCEDES 1min 52.519secs Q3		7. BUTTON MCLAREN 1min 53.175secs Q3
	8. SUTIL FORCE INDIA 1min 53.439secs Q3		9. PÉREZ MCLAREN 1min 54.136secs Q3
	10. RÄIKKÖNEN* LOTUS 1min 52.970secs Q3		11. GROSJEAN LOTUS 1min 37.636secs Q2
	12. HÜLKENBERG SAUBER 1min 38.125secs Q2		13. RICCIARDO TORO ROSSO 1min 38.822secs Q2
	14. GUTIÉRREZ SAUBER 1min 39.221secs Q2		15. DI RESTA FORCE INDIA 1min 44.509secs Q2
	16. MALDONADO WILLIAMS NO TIME IN Q2		17. VERGNE TORO ROSSO 1min 38.157secs Q1
	18. BOTTAS WILLIAMS 1min 38.207secs Q1		19. BIANCHI MARUSSIA 1min 38.434secs Q1
	20. PIC CATERHAM 1min 39.314secs Q1		21. CHILTON MARUSSIA 1min 39.672secs Q1
	22. VAN DER GARDE CATERHAM 1min 39.932secs Q1		

*Three-place grid penalty for impeding another driver

THE RACE



THE RESULTS (56 LAPS)

1st	Sebastian Vettel	Red Bull	1h38m56.681s
2nd	Mark Webber	Red Bull	+4.298s
3rd	Lewis Hamilton	Mercedes	+12.181s
4th	Nico Rosberg	Mercedes	+12.640s
5th	Felipe Massa	Ferrari	+25.648s
6th	Romain Grosjean	Lotus	+35.564s
7th	Kimi Räikkönen	Lotus	+48.479s
8th	Nico Hülkenberg	Sauber	+53.044s
9th	Sergio Pérez	McLaren	+72.357s
10th	Jean-Éric Vergne	Toro Rosso	+87.124s
11th	Valtteri Bottas	Williams	+88.610s
12th	Esteban Gutiérrez	Sauber	+1 lap
13th	Jules Bianchi	Marussia	+1 lap
14th	Charles Pic	Caterham	+1 lap
15th	Giedo van der Garde	Caterham	+1 lap
16th	Max Chilton	Marussia	+2 laps
17th	Jenson Button	McLaren	53 laps - vibration
18th	Daniel Ricciardo	Toro Rosso	51 laps - exhaust

Retirements

Pastor Maldonado	Williams	45 laps - KERS
Adrian Sutil	Force India	27 laps - wheelnuts
Paul di Resta	Force India	22 laps - wheelnuts
Fernando Alonso	Ferrari	1 lap - accident damage

THROUGH SPEED TRAP



Fastest: Esteban Gutiérrez, 191.42mph



Slowest: Fernando Alonso, 171.91mph

TYRE COMPOUNDS USED



Medium



Hard



Intermediate



Wet

CLIMATE



TRACK TEMP



FASTEST LAP

Sergio Pérez, lap 56, 1min 39.199secs



FASTEST PITSTOP

Mark Webber, 20.736secs (entry to exit)

DRIVERS' STANDINGS

1st	Sebastian Vettel	Red Bull	40pts
2nd	Kimi Räikkönen	Lotus	31pts
3rd	Mark Webber	Red Bull	26pts
4th	Lewis Hamilton	Mercedes	25pts
5th	Felipe Massa	Ferrari	22pts
6th	Fernando Alonso	Ferrari	18pts
7th	Nico Rosberg	Mercedes	12pts
8th	Romain Grosjean	Lotus	9pts
9th	Adrian Sutil	Force India	6pts
10th	Nico Hülkenberg	Sauber	4pts
11th	Paul di Resta	Force India	4pts
12th	Sergio Pérez	McLaren	2pts
13th	Jenson Button	McLaren	2pts
14th	Jean-Éric Vergne	Toro Rosso	1pt
15th	Valtteri Bottas	Williams	0pts
16th	Esteban Gutiérrez	Sauber	0pts
17th	Jules Bianchi	Marussia	0pts
18th	Charles Pic	Caterham	0pts
19th	Giedo van der Garde	Caterham	0pts
20th	Max Chilton	Marussia	0pts
21st	Daniel Ricciardo	Toro Rosso	0pts
22nd	Pastor Maldonado	Williams	0pts

CONSTRUCTORS' STANDINGS

1	Red Bull	66pts	9	Williams	0pts
2	Lotus	40pts	10	Marussia	0pts
3	Ferrari	40pts	11	Caterham	0pts
4	Mercedes	37pts			
5	Force India	10pts			
6	Sauber	4pts			
7	McLaren	4pts			
8	Toro Rosso	1pt			



For comprehensive F1 statistics visit www.forix.com

RACE DEBRIEF by Stuart Codling

Chinese Grand Prix

14.04.2013 / Shanghai



Man vs rubber

Tyres were the talk of the town at the weekend in Shanghai as the increasingly fragile compounds dictated the race strategy. But Fernando Alonso got it just right to take Ferrari's first win of 2013

Lewis Hamilton was “really happy with third place” according to the quote in the post-race press release. Off-camera, Lewis's simmering frustration was fully evident. The euphoria of claiming pole position on Saturday had been beaten aside by the smack of firm reality: he had been mugged for the lead, for second place and nearly for third. Outside, the light was fading as the sun receded into the Shanghai smog, and a stiff wind whipped up dust in the paddock as fully laden forklifts charged this way and that, hurriedly decanting F1's chattels into the waiting containers. As one race had finished, so another had begun – the race to get away, to move on.

Frustration and rancour were the themes of this weekend. The tension between Vettel and Webber took up where it had left off in Malaysia, the situation not helped by the Red Bull's lack of straightline speed here – 5mph slower than

Mercedes'. Ten minutes before the end of first Friday practice, Vettel was stationary in the pits awaiting a new nosecone. Perhaps the 0.3secs deficit to his team-mate was playing on his mind, for he began to gesticulate angrily at the mechanics to hurry up. Then, with the nose in place, he set off with an irritable jab of throttle, slightly sideways, leaving four car lengths' worth of black lines on the concrete apron. All this during a track session of little importance, save that, at the time, Vettel was slower than Webber.

At the head of the timesheets, the two Mercedes were trading fastest laps as Hamilton, egged on by his engineer, sought to oust team-mate Rosberg from the top spot. Another point to prove, another hangover from Malaysia.

The new storyline that was so desperately required arrived in the form of tyre paranoia. Pirelli's soft 'option' rubber offered a clear

performance advantage, but only for a few laps. Out of necessity, both Red Bull and McLaren – of the frontrunners – opted to begin the race on the harder, more consistent 'primes', hoping to pick up track position when their soft-shod rivals made early stops. Button and Vettel duly qualified eighth and ninth, Button touring slowly and Vettel not even bothering to set a time. But was starting on options really, as Ferrari's Pat Fry put it, “the most sensible course of action”? Or was it merely a case of groupthink?

That question resolved itself in the opening laps as Fernando Alonso seized the race by the scruff. Hamilton converted pole into the lead, but behind him and to the right Kimi Räikkönen was slightly slower off the mark. Alonso and Felipe Massa blasted around the outside into Turn 1 and, four laps later, performed the double-whammy on Hamilton to run one-two.

We now had two races in one, although the strategies would interweave. On lap 4, Hülkenberg sought to pass Vettel and Button, and as the cars ahead pitted – Alonso, Massa, Hamilton, Räikkönen, Grosjean and Rosberg – it was the Sauber that took the lead. For all the RB9's superior downforce, Vettel couldn't get close enough to pass and spent laps seven to 14 behind the Sauber until they pitted. The well-drilled Red Bull pitcrew got their man out first, but by then the damage had been done.

Vettel enjoyed spells in the lead but only because his pit strategy was out of sync with the battle for the top spot. Alonso's first stop, on lap six, dropped him to tenth, but he made the places back up with DRS-assisted passing moves. While Alonso's stop was perfectly timed, Massa suffered on account of pitting a lap later. His tyres had gone off and his slower in-lap put him into 12th after the stop. From there he made heavier weather of traffic than his team-mate.

"Do not lose time defending against Alonso," Vettel was told as the Ferrari arrived in his mirrors, and this time around he had no difficulty comprehending an order. This must have come as a disappointment to those on the Mercedes pitwall, for whom an Alonso/Vettel dust-up would have proved a boon.

Alonso eked out his second set of tyres for two more laps than Hamilton and Räikkönen, continuing to edge away throughout the stint, then completed 18 laps to Hamilton's 16 on the next set before his final stop on lap 42. That allowed Vettel back into the lead, but only for one lap before Alonso brushed him aside again.

Räikkönen had damage from an early contretemps with Sergio Pérez but it didn't hinder his speed. He made his final stop earlier than Hamilton, drove two quick laps, and the Mercedes duly emerged behind him.

Vettel stayed in second until he took his option-tire medicine with five laps to go, leaving the pits in fourth, nearly 12 seconds behind Hamilton. He slashed that gap with aplomb to deliver a nail-biting finish – Alonso took the chequered flag almost unnoticed as the Mercedes and the Red Bull dived into the final hairpin as one – but Hamilton managed to cling on.

Joy, then, for Alonso. Something less for Räikkönen and Hamilton. What of Vettel? As the dust swirled in the post-race paddock, two drivers were left fielding questions in the FIA 'pen': Vettel and Webber. Vettel was all smiles, having maximised his points haul when a win was impossible. Webber had nothing positive to say about running out of fuel in qualifying, starting at the back then losing a wheel in the race. News of the Bahrain grid penalty was yet to come. He, too, will be anxious to move on. **F1**

The story of the race

Alonso and Massa sweep into second and third while Rosberg drops back from fourth



SHANGHAI



The Ferraris overtake Hamilton's Mercedes to run one-two



Alonso pits and Massa inherits the lead, but staying out just one more lap costs Massa dearly



Webber started from the back after running out of fuel, then loses a rear wheel and retires

From tenth place after his first stop, Alonso fights through to lead the race once again



Vettel pits from second place to take on soft tyres, setting up a tense final sprint to the flag

Alonso takes a comfortable victory from Kimi Räikkönen by more than ten seconds



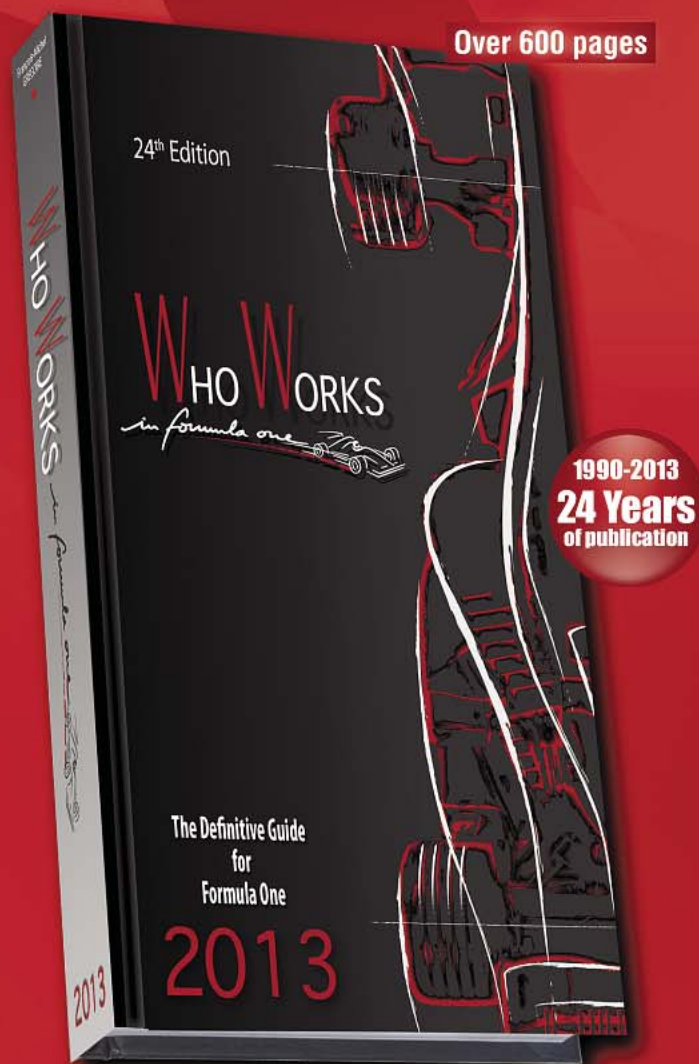
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




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Chinese Grand Prix stats

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

THE GRID

 1. HAMILTON MERCEDES 1min 34.484secs Q3	 2. RÄIKKÖNEN LOTUS 1min 34.761secs Q3
 3. ALONSO FERRARI 1min 34.788secs Q3	 4. ROSBERG MERCEDES 1min 34.861secs Q3
 5. MASSA FERRARI 1min 34.933secs Q3	 6. GROSJEAN LOTUS 1min 35.364secs Q3
 7. RICCIARDO TORO ROSSO 1min 35.998secs Q3	 8. BUTTON McLAREN 2min 05.673secs Q3
 9. VETTEL RED BULL NO TIME IN Q3	 10. HÜLKENBERG SAUBER NO TIME IN Q3
 11. DI RESTA FORCE INDIA 1min 36.287secs Q2	 12. PÉREZ McLAREN 1min 36.314secs Q2
 13. SUTIL FORCE INDIA 1min 36.405secs Q2	 14. MALDONADO WILLIAMS 1min 37.139secs Q2
 15. VERGNE TORO ROSSO 1min 37.199secs Q2	 16. BOTTAS WILLIAMS 1min 37.796secs Q1
 17. GUTIÉRREZ SAUBER 1min 37.990secs Q1	 18. BIANCHI MARUSSIA 1min 38.780secs Q1
 19. CHILTON MARUSSIA 1min 39.537secs Q1	 20. PIC CATERHAM 1min 39.614secs Q1
 21. VAN DER GARDE CATERHAM 1min 39.660secs Q1	 22. WEBBER* RED BULL 1min 36.679secs Q2

* Excluded from qualifying for having insufficient fuel for sample
‡ Started from pitlane

THE RACE



THE RESULTS (56 LAPS)

1st	Fernando Alonso	Ferrari	1h36m26.945s
2nd	Kimi Räikkönen	Lotus	+10.168s
3rd	Lewis Hamilton	Mercedes	+12.322s
4th	Sebastian Vettel	Red Bull	+12.525s
5th	Jenson Button	McLaren	+35.285s
6th	Felipe Massa	Ferrari	+40.827s
7th	Daniel Ricciardo	Toro Rosso	+42.691s
8th	Paul Di Resta	Force India	+51.084s
9th	Romain Grosjean	Lotus	+53.423s
10th	Nico Hülkenberg	Sauber	+56.598s
11th	Sergio Pérez	McLaren	+63.860s
12th	Jean-Eric Vergne	Toro Rosso	+72.604s
13th	Valtteri Bottas	Williams	+93.861s
14th	Pastor Maldonado	Williams	+95.453s
15th	Jules Bianchi	Marussia	+1 lap
16th	Charles Pic	Caterham	+1 lap
17th	Max Chilton	Marussia	+1 lap
18th	Giedo van der Garde	Caterham	+1 lap

Retirements

Nico Rosberg	Mercedes	21 laps – anti-roll bar
Mark Webber	Red Bull	15 laps – loose wheel
Adrian Sutil	Force India	5 laps – accident
Esteban Gutiérrez	Sauber	4 laps – accident

THROUGH SPEED TRAP



Fastest: Daniel Ricciardo, 199.38mph	Slowest: Pastor Maldonado, 189.68mph
---	---

TYRE COMPOUNDS USED



CLIMATE

Dry 28°C

TRACK TEMP

40°C



FASTEST LAP

Sebastian Vettel, lap 53, 1min 36.808secs



FASTEST PITSTOP

Sebastian Vettel, 19.323secs (entry to exit)

DRIVERS' STANDINGS

1st	Sebastian Vettel	Red Bull	52pts
2nd	Kimi Räikkönen	Lotus	49pts
3rd	Fernando Alonso	Ferrari	43pts
4th	Lewis Hamilton	Mercedes	40pts
5th	Felipe Massa	Ferrari	30pts
6th	Mark Webber	Red Bull	26pts
7th	Nico Rosberg	Mercedes	12pts
8th	Jenson Button	McLaren	12pts
9th	Romain Grosjean	Lotus	11pts
10th	Paul Di Resta	Force India	8pts
11th	Daniel Ricciardo	Toro Rosso	6pts
12th	Adrian Sutil	Force India	6pts
13th	Nico Hülkenberg	Sauber	5pts
14th	Sergio Pérez	McLaren	2pts
15th	Jean-Eric Vergne	Toro Rosso	1pt
16th	Valtteri Bottas	Williams	0pts
17th	Esteban Gutiérrez	Sauber	0pts
18th	Jules Bianchi	Marussia	0pts
19th	Charles Pic	Caterham	0pts
20th	Pastor Maldonado	Williams	0pts
21st	Giedo van der Garde	Caterham	0pts
22nd	Max Chilton	Marussia	0pts

CONSTRUCTORS' STANDINGS

1	Red Bull	78pts	9	Williams	0pts
2	Ferrari	73pts	10	Marussia	0pts
3	Lotus	60pts	11	Caterham	0pts
4	Mercedes	52pts			
5	McLaren	14pts			
6	Force India	14pts			
7	Toro Rosso	7pts			
8	Sauber	5pts			



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The Spanish GP preview



10-12.05.2013 / Circuit de Catalunya, Barcelona

Drivers might be very familiar with a track so well used in winter testing, but the Circuit de Catalunya can still throw up surprises – particularly in the final sector



THE ENGINEER'S VIEW

Xevi Pujolar,
Williams' chief race engineer

The Circuit de Catalunya is a place that everybody in Formula 1 knows well and after I engineered Pastor Maldonado to victory there last year, it's one that I particularly like...

Even though it was Williams' first victory since 2004, there was no great secret to securing the win. It was all about one driver and team managing the tyres better than the

others. Because Barcelona is a difficult circuit to overtake on, the key is to preserve your tyres and try to keep everyone behind you – and that's exactly what Pastor did so brilliantly last year.

Barcelona is a circuit we use a lot in testing because it has every type of corner: low speed, medium speed and high speed. There are places on the lap that require a lot of traction as well as spots like Turns 3, 9 and 16 that are demanding on the tyres on the left-hand side.

Come race day, you can run long stints on the tyres and perhaps do a three-stop strategy, but you have to do your homework to understand exactly where on the lap you are stressing your tyres the most, since overall degradation is so high and downforce has such a big effect on how

the tyres work. During the race we need to keep our drivers informed of the condition of their rubber and remind them to look after their tyres.

The key to Barcelona is downforce and driver technique; particularly the last sector, from Turn 10 onwards, which is very demanding for the driver. In this sector alone, the difference between two drivers can be as much as 0.2secs. You need a lot of talent to drive this sector well, not just once but to repeat it again and again. During winter testing we actually take our drivers to the outside of Turn 15 so they can watch everyone else and learn. Sometimes drivers say they've felt very fast through this sector and you look at the times and they aren't – so we do a lot of work in the simulator in Grove to perfect this section.

BARCELONA STATS AND FACTS

730 metres

The run from the start/finish line to the first apex is one of the longest straights of the season

8 different drivers have won the Spanish GP in the past ten races held at Barcelona

Five different venues have hosted the Spanish GP

Michael Schumacher's record

SIX Spanish GP wins is followed by Jackie Stewart, Nigel Mansell, Alain Prost and Mika Häkkinen on three each



SPANISH GP RACE DATA

Circuit Circuit de Catalunya
F1 debut 1991
Length 2.892 miles
Distance 190.826 miles
Laps 66
Direction Clockwise
Lap record 1min 21.670secs,
 K Räikkönen, 2008
Full throttle 58%
Gear changes per lap 44
Winners from pole 17
Tyre compounds TBA

LAST YEAR

Winner Pastor Maldonado
Retirements 5
Overtaking moves 30
DRS overtakes 15
Weather Sunny, 22°C

TV TIMETABLE (UK TIME)

Friday 10 May
Practice 1 09:00-10:30
Practice 2 13:00-14:30
Saturday 11 May
Practice 3 10:00-11:00
Qualifying 13:00
Sunday 12 May
Race 13:00
Live coverage
 Sky Sports F1 (available in HD)
 BBC One (available in HD)

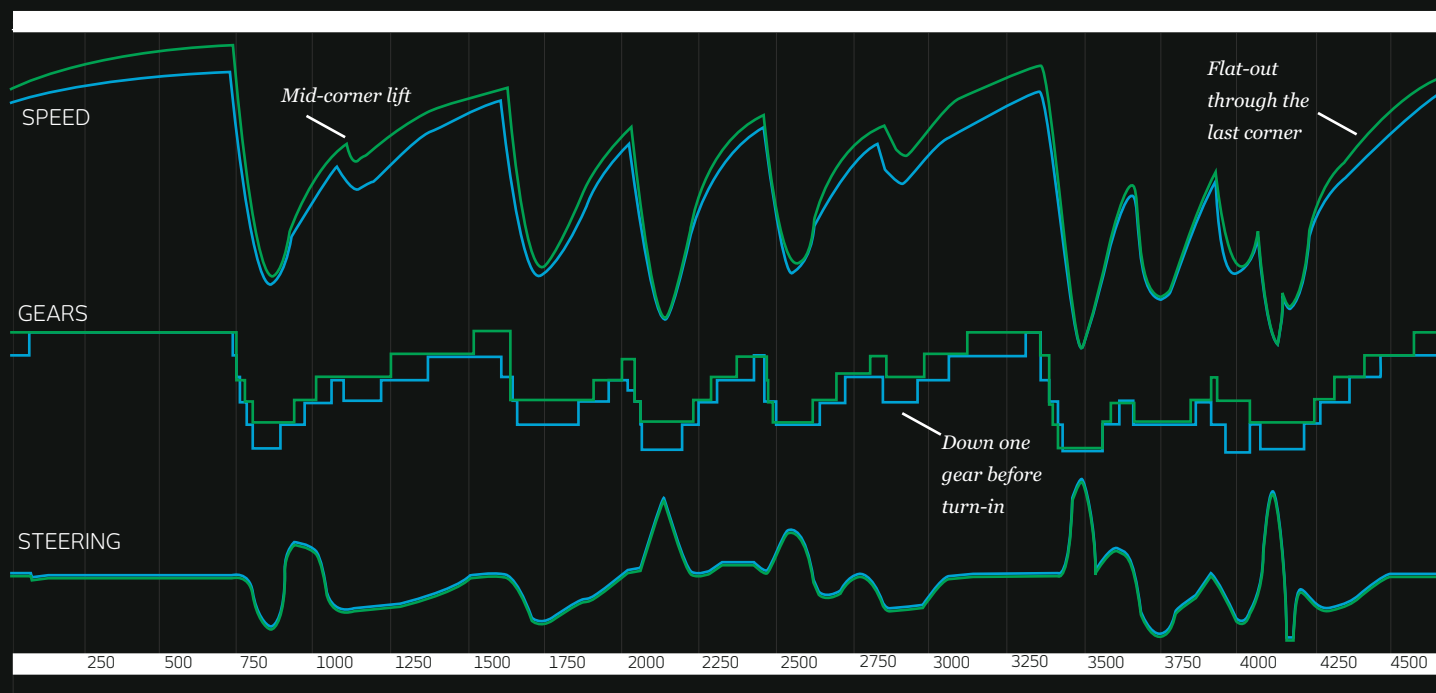
DO YOU REMEMBER...

...when Eddie Irvine and Giancarlo Fisichella came to blows after colliding at the 1998 Spanish GP? Irvine tried to pass the Italian's Benetton and the pair touched then spun simultaneously into the Turn 1 gravel trap.



BARCELONA TELEMETRY

QUALIFYING ■ RACE ■



Turn 3

This is fast, but because it's a very long corner, drivers are building up speed and they need to lift as it tightens mid-corner. The more fuel they have on board, the more speed they lose

Turn 9

This is a high-speed corner, although drivers do need to brake a little before turn-in. You can see how the speed reduces on the telemetry

Turn 13

You can take a number of lines here. Some drivers opt for a wide exit; others stay in the middle

ILLUSTRATION: ALAN ELDREDGE. PHOTOS: STEVE ETHERINGTON/LAT. LAT ARCHIVE

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TOM CLARKSON

Inside the paddock from our man on the road

The curious case of the case

Baggage reclaim at Bahrain International Airport.

There's one suitcase left on the carousel and it's not ours. It's similar, but not *the* actual case containing vital BBC kit for the forthcoming Bahrain GP. On inspecting the baggage tag, it becomes clear it's done the same journey from Shanghai via Abu Dhabi and has a German-sounding owner. RTL, Germany's free-to-air broadcaster, has probably picked up our case in error so we hatch a logical plan: we will take the bag with us and swap with RTL when we next see them. Everyone looks at the floor as we walk through customs and, you never know, our German colleagues might be waiting in arrivals.

Then comes the tap on the shoulder. An aggressive-looking, khaki-clad official with a beret wants to examine the luggage. Suddenly the heart begins to beat faster. What's in this bag, on my baggage trolley?

I wait while the bag is put through an extra-strong scanner. Then 'Arnie' asks me to open the bag. That pamphlet in immigration about Bahrain's policy on drug trafficking looms in the mind: "Offenders can expect long jail sentences and steep fines."

"What's in this bag?"

"Er..."

The official takes an inordinate amount of time to open the case. First he wanders off to find a knife, then he has a long chat in Arabic with his mate and points in our direction. He cuts the straps and the lid opens to reveal some sound equipment belonging to RTL. Phew. Nervous giggles all round.

It's the second time in 12 hours that I've been up before the beak, although I was only reporting on events in Shanghai the previous evening. Eight drivers were up before the race stewards for DRS infringements and they were all summoned to Race Control together.

The naughty schoolboys showed up on time. New boys Valtteri Bottas and Max Chilton arrived first, and then the rest: Jenson Button, Sebastian Vettel, Kimi Räikkönen, Mark Webber, Romain Grosjean and Daniel Ricciardo. It was fascinating to observe the drivers in the anteroom because it provided a snapshot of these megastars' attitudes towards authority.

They behaved as you'd expect: they were a tad nervous and there was an overwhelming sense of people wanting to get their stories straight. Webber, for his part, looked utterly pissed off. This was his second visit of the evening to the stewards and they'd already issued him with a three-place grid penalty in Bahrain for his part in the collision with Jean-Eric Vergne.



PHOTO: CHARLES COATES/LAT

In China, Kimi's popularity knows no bounds...

Jenson arrived at a run and bounced towards Race Control like a boxer, reminding everyone of his supreme fitness. Sebastian meandered in, and you could hear monosyllabic Kimi long before you saw him because he was surrounded by hysterical fans. His popularity in China is something else: spectators snuck into the paddock following the removal of the swipe gates and they were screaming at their hero as he walked by.

The drivers were with the stewards for about 15 minutes and there was no mass exodus at the end. Webber was first away (at a jog) and Kimi was next up. Vettel stayed five minutes longer than anyone else and you couldn't help but admire his thoroughness. His desire to understand every aspect of F1 and to ingratiate himself with the stewards had the hallmarks of Michael Schumacher, who sent Christmas cards to them every year.

Another thing Schumi used to do was visit the Shanghai markets ahead of the Chinese Grand Prix and, following his retirement, another driver has taken on that mantle.

"Halve it and halve it again!" shouted Pastor Maldonado. He proffered the advice while negotiating with a stallholder at the Nanjing Market on the Wednesday before the Chinese GP. His wife, Gaby, looked on sheepishly, but Pastor had a huge grin on his face and was clearly relishing the negotiations over a fake watch. Let's just say it was surreal to watch a highly paid F1 driver haggling over a fiver.

In an adjacent shop, some guys from Red Bull were busy negotiating for something else, and most of the media centre were buying tat costing a couple of quid, knowing it would either break or be binned by our better halves when we got home. But we were investing in the name of research because, just for a moment, we all felt like Bernie. We all got *The Deal*. Sounds like the title of movie about a guy who got nicked for taking someone else's bag through customs...

"Then comes the tap on the shoulder. An aggressive-looking khaki-clad official wants to examine the luggage..."

MURRAY WALKER



UNLESS I'M VERY MUCH MISTAKEN...

"Wow! What an absolutely great run of opening races for the 2013 season – and for very different reasons..."

From a kaleidoscope of dramatic memories so far this year, my outstanding one may surprise you – it is of Red Bull's *drivermeister*, Helmut Marko, who is a long way from being Mark Webber's number one fan, admitting with embarrassment in Malaysia that Sebastian Vettel had deliberately ignored team orders.

Vettel's selfish action has exacerbated tension between himself and Webber, as well as intensifying Mark's conviction that things are not equal in the team. Their situation has many antecedents, notably the 1981 Brazilian GP when Argentina's Carlos Reutemann similarly ignored Williams team orders to let Alan Jones pass.

With the same intentions as Vettel's apology in Malaysia, Reutemann tried to pour oil on

troubled team waters by suggesting that they bury the hatchet. "Yeah, mate," replied the feisty Australian. "In your back!" Other stars to suffer from disobedient team-mates were Alain Prost with René Arnoux (France '82) and Gilles Villeneuve with Didier Pironi (San Marino '82). Tragically, Pironi and Villeneuve never got to patch up their differences, as Gilles died shortly afterwards in an accident at the Belgian GP.

Politically astute Vettel may have apologised, but he retains the winner's 25 points and seems to have got away with his misbehaviour. For is a team likely to penalise itself by suspending its most successful driver? No, it isn't.

Sadly I have to say that I've lost much of the respect I had for Sebastian, who possesses great

charm and is immensely likeable, but who also has an inner core of steel and a ruthless Senna-like determination to win. He showed that in Malaysia by putting his racer's instincts ahead of team loyalty. So in years to come, history will record it was he who won the 2013 Malaysian GP and not the orders-abiding Mark Webber.

I am amused by the fact that three years ago there was uproar about Ferrari imposing team orders on Felipe Massa in Germany ("Fernando is faster than you"); and that now there is uproar about Vettel ignoring them. Red Bull and Mercedes both had contentious races in Malaysia, with unhappy drivers, in Webber and Rosberg, who felt they should have finished ahead of their team-mates. This has revived the hoary old subject of team orders, but the fact is they have existed ever since F1 began – and you'll never stop them. For the teams, where prestige and vast sums of money are concerned, the constructors' title matters more than the drivers' title, and he who pays the piper calls the tune. It was ever thus and ever will be.

My second great highlight of the year so far is of Kimi Räikkönen's super drive in Australia. People have told me how impressed they are with his return to the top after two years away from F1, but there's nothing new about top drivers attempting comebacks – although they haven't all been as successful as Kimi.

There have of course been other F1 world champions who have 'retired' and then returned. The great Emerson Fittipaldi was out of racing for three years between his brilliantly successful F1 and American CART careers. Niki Lauda returned to win the 1984 world title after an absence. Alan Jones tried twice but failed. Alain Prost won his fourth world championship after a year's sabbatical... but Michael Schumacher's unsuccessful second coming after three seasons away only reminded us of his glorious past.

If you've got what it takes to win, you don't lose the ability until your reflexes wither; and even then, experience can compensate. Kimi is neither old nor inexperienced and his two years away from F1 were spent in world-class rallying, which kept his reflexes sharp. If Lotus continue to give him a winning car and Sebastian does as he's told, Kimi could join Lauda and Prost as a returnee world champion. **F1**



"Vettel's selfish action in Malaysia has exacerbated tension between himself and team-mate Webber"





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