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ULTIMATE 2011

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COVER STORIES



102
80
129
86



46 **VETTEL** F1's youngest world champion wants total domination



50 **ALONSO** A new perspective on a seriously tough competitor



56 **LEWIS AND JENSON** The twin threat to Sebastian Vettel and Red Bull



66 **WEBBER** Stand well back, he's not afraid to air his opinions...

FIRST SECTOR: THE REGULARS

- 8 **PARADES: THINGS GET A BIT TOO TOASTY FOR FELIPE MASSA**
- 14 **FROM THE EDITOR: IT'S GOING TO BE A GREAT SEASON...**
- 17 **INBOX: STRONG VIEWS ON ROBERT KUBICA'S RALLY CRASH**
- 20 **PITPASS: NEWS, OPINION AND ANALYSIS**
- 34 **JACQUES VILLENEUVE: NOT A GREAT FAN OF KIMI RÄIKKÖNEN**
- 36 **MURRAY WALKER'S HOT TIPS FOR THE COMING SEASON**
- 39 **WHATEVER HAPPENED TO... PHILIPPE STREIFF**
- 40 **THE BEST RACE I'VE BEEN TO: YOUR GRAND PRIX MEMORIES**
- 150 **SUBSCRIBE TO F1 RACING AND GET AN AUTOGLYM VALET KIT**
- 154 **INSIDE THE MIND OF PASTOR MALDONADO**

SECOND SECTOR: THE SEASON PREVIEW

- 46 **CAN ANYONE STOP VETTEL?**
BBC Sport's Andrew Benson analyses the F1 world champion
- 50 **THIS MAN WANTS HIS THIRD TITLE...**
A portrait of Fernando Alonso, the grid's most ruthless driver
- 56 **LEWIS AND JENSON: THE RACE TO BEAT RED BULL... AND EACH OTHER**
Both talented, both determined... who'll come out on top in 2011?
- 62 **"I NEED TO WORK ON MY IMAGE... NOBODY TALKS ABOUT ME"**
Just because you keep on beating a seven-time world champion it doesn't mean you'll get noticed. Just ask Nico Rosberg
- 66 **"I'VE NEVER BEEN CLOSE TO HELMUT MARKO... I PROBABLY NEVER WILL BE"**
Mark Webber prepares for another tough season...
- 72 **WILL IT BE ANOTHER TRICKY YEAR FOR FORMULA 1'S PREMIER STRATEGIST?**
Ross Brawn talks about the big year ahead for Mercedes
- 78 **INTERVAL TRAINING, WEIGHT LIFTING – AND A FEW GAMES OF BADMINTON**
Heikki Kovalainen on the rigours of pre-season training
- 80 **BRUNDLE AND HUMPHREY ON 2011**
(and without EJ around, there's no chance of being interrupted...)
- 86 **NEWY'S LATEST MASTERPIECE**
Be afraid, be very afraid... if you work at an F1 team other than Red Bull, that is. The RB7 is here, and it looks rather good
- 94 **CAN FERRARI, McLAREN OR MERCEDES CATCH RED BULL THIS SEASON?**
Pat Symonds assesses what the RB7 is up against
- 102 **F1'S NEW RULES EXPLAINED**
The lowdown on the 13 regulation changes this season
- 107 **20-PAGE GUIDE TO ALL THE TEAMS**
Opinion, expert analysis and stats for every outfit on the grid
- 129 **20-PAGE GUIDE TO ALL THE CIRCUITS**
...with a little help from Anthony Davidson

THIRD SECTOR: FINISHING STRAIGHT

- 152 **FRANK WILLIAMS** INTRODUCING HIS BRAND NEW COLUMN
- 153 **ALAN HENRY** ON SCHUMACHER'S CHANCES IN 2011

104 WIN!

A lavish trip for two to the Abu Dhabi Grand Prix, worth £5,000



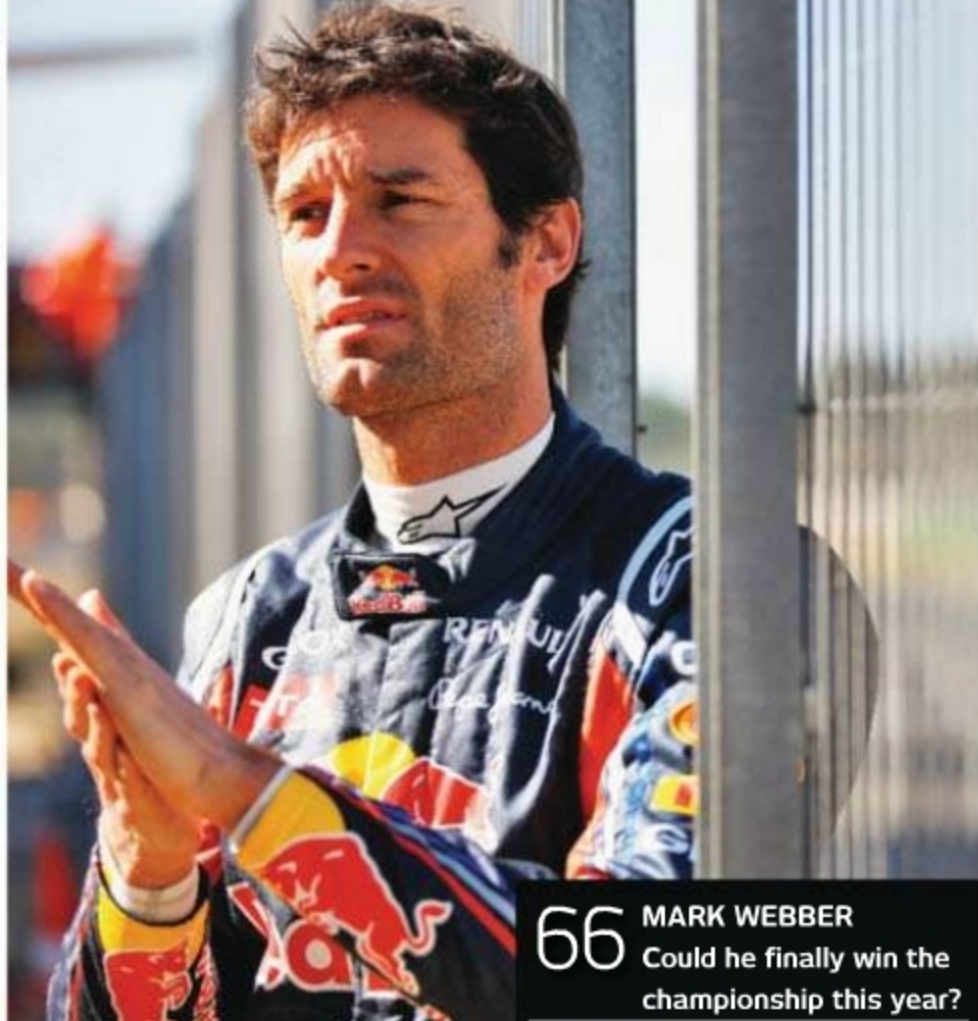
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72 **ROSS BRAWN**
It could be a very tough year for Mercedes...



129 **CIRCUIT GUIDE**
Anthony Davidson's view of all the season's tracks



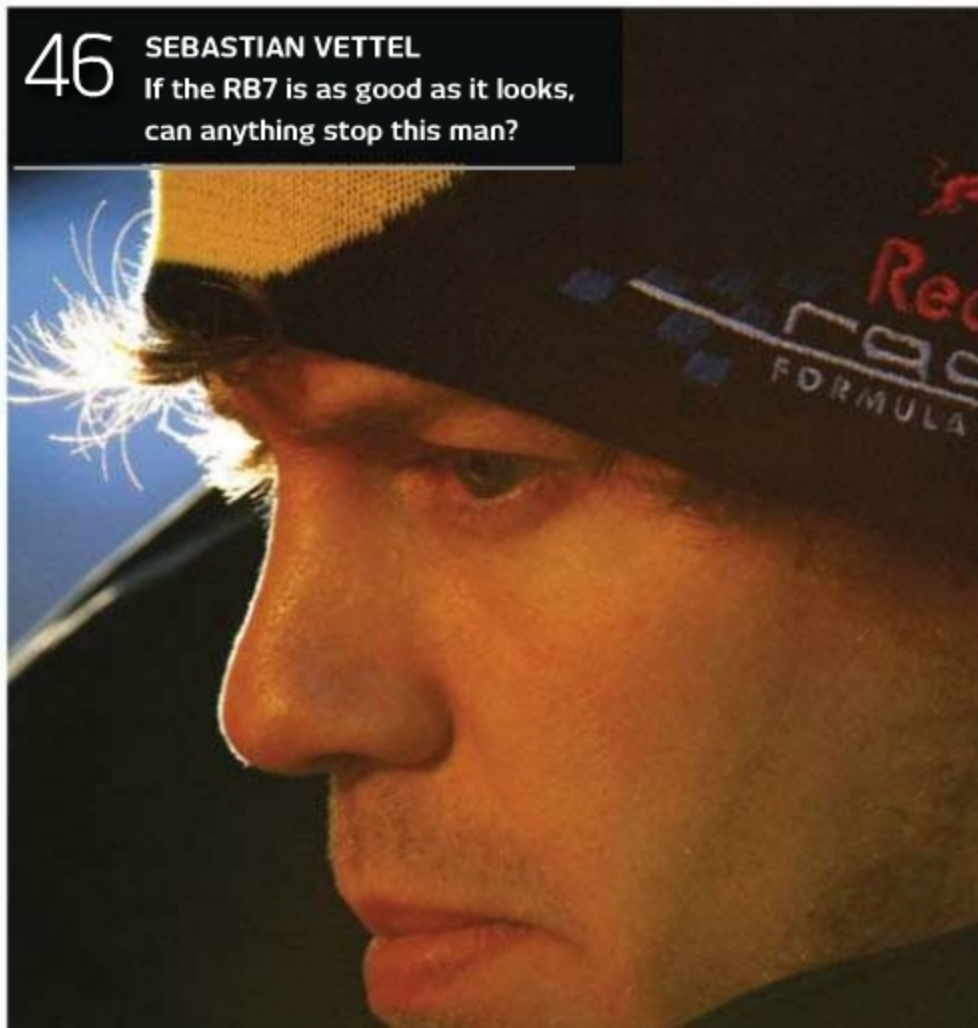
66 MARK WEBBER
Could he finally win the championship this year?



50 FERNANDO ALONSO
Beware: he wants his third world title



56 McLAREN'S DANGER MEN
Jenson Button and Lewis Hamilton are relishing taking the fight to Red Bull this season. Who'll come out on top?



46 SEBASTIAN VETTEL
If the RB7 is as good as it looks, can anything stop this man?



94 RED BULL BEATERS?
Pat Symonds assesses Red Bull's competition





Parade

All of a blur Nico Rosberg, like the rest of Formula 1, was back pounding out the laps when testing resumed at the start of the month. But who emerges as top dog will only become clear when the teams head to Bahrain in March

Where Circuit Ricardo Tormo, Spain **When** 12:31pm, Wednesday 2 February

Photographer Andrew Ferraro/LAT

Details Canon EOS-1D Mk IV, 600mm lens 1/15th at F32







Parade

I'm an F1 driver, get me out of here! Felipe Massa wastes no time at all in extricating himself from his Ferrari at Valencia, when the shiny new F150 develops an unexpected oil leak

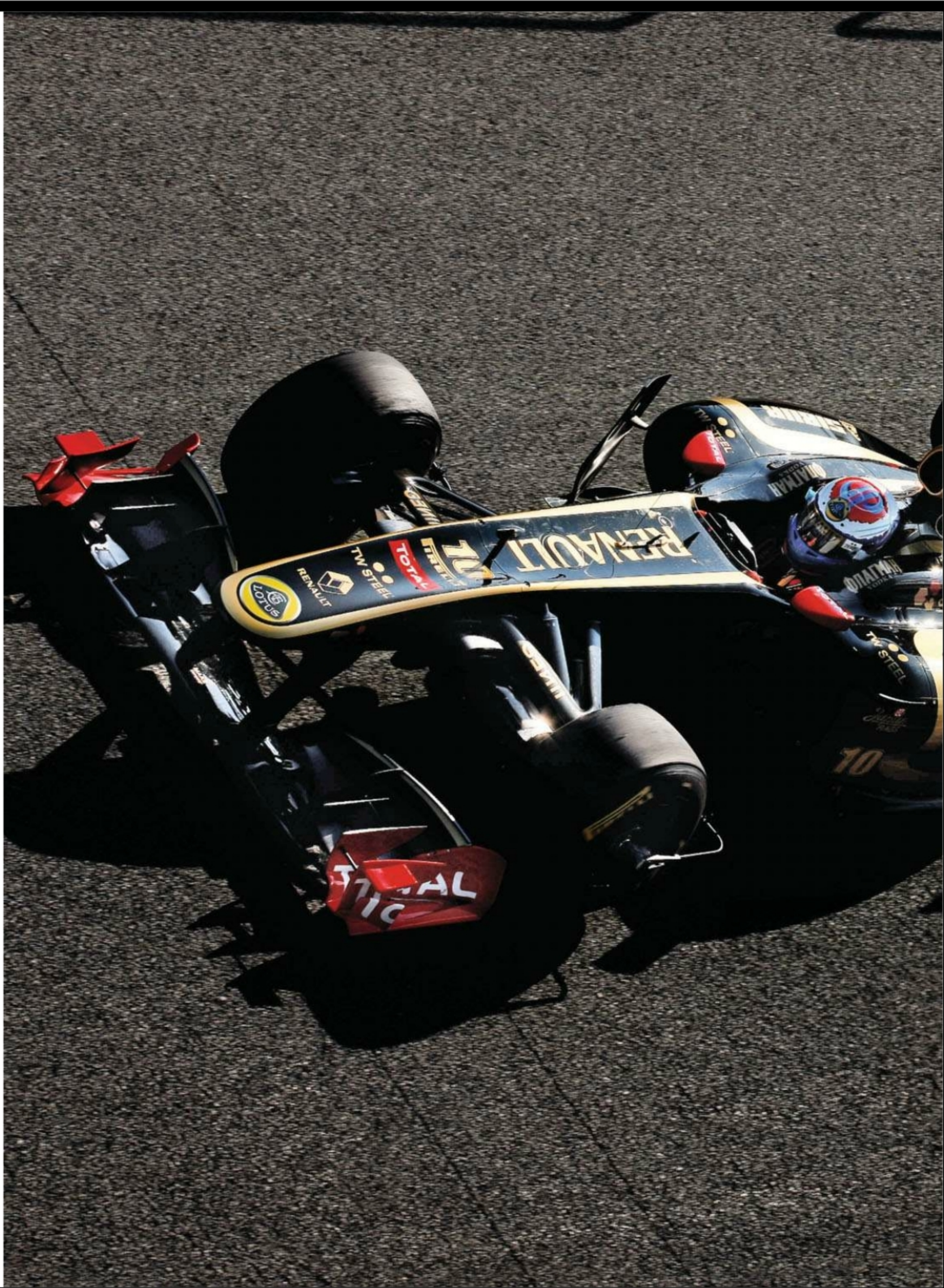
Where Circuit Ricardo Tormo, Spain **When** 9.37am, Thursday 3 February

Photographer Mark Thompson/Getty Images

Details Canon EOS-1D Mk IV, 600mm lens 1/400th at F5.6









Parade

Extreme tyre testing It's 20 years since Pirelli were last in F1, but Vitaly Petrov lights up his rears and gives F1's new tyre suppliers' rubber a more than demanding workout in the second test of the year at Jerez

Where Jerez de la Frontera, Spain **When** 10.07am, Friday 11 February

Photographer Mark Thompson/Getty Images

Details Canon EOS-1Ds Mk III, 600mm lens 1/640th at F5.6



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STOP AND GO / Hans Seeberg / 03.2011

Welcome to your ultimate Formula 1 season preview...



During what is an incredibly candid interview – even by his no-nonsense standards – Mark Webber admits in this issue that he reads ‘nothing’ about Formula 1 (admittedly using slightly more industrial language). Now, if you happen to drive the fastest car in the sport and work closely with aerodynamic brainbox Adrian Newey, you probably don’t need to. For the rest of us, though, this is the time of the year that you want revealing interviews, expert analysis, strong opinions, the lowdown on the new cars and some brilliant photography to wash it all down with. Well rest assured that you’ve come to the right place, because you’re holding in your hands the best and most comprehensive preview we’ve ever produced – ahead of what is going to be an absolutely corking season.

F1’s a funny sport, isn’t it? When the season began with a dismal race in Bahrain last year (which features editor Jimmy still maintains was ‘ten laps from being a classic,’ whatever that means), it apparently signalled the end of the sport as we know it. Then it came back and gave us the most unpredictable and barnstorming season in years, culminating in that incredible what-are-Ferrari-playing-at climax in Abu Dhabi. So with a new world champion, a ruthlessly determined Fernando Alonso, Lewis and Jenson in their radical new McLaren, a certain Michael Schumacher and the aforementioned Webber, this season looks all set to be another belter. And just when you thought it couldn’t get any better, we’ll all be able to watch it in HD at last. Enjoy the issue!

Mark Webber smiles politely as art ed Frank Foster initiates a game of charades. Read the startlingly forthright interview on p66



“Over here, Ross... over here...” Anthony Rowlinson chats to Mr Brawn ahead of a rather important season for Mercedes (p72)







Jake Humphrey and Martin Brundle talk to news editor Jonny Reynolds about what’s going to happen this season (p80). Jonny listens intently but refuses to turn on any more lights



Special thanks to Steve Cooper for moving mountains, Claire Williams, Alexandra Schieren, Matt Bishop, Silvia Hoffer Frangipane, Clare Robertson, Wolfgang Schattling, Nicola Armstrong, Sabine Kehm, Katie Tweedle, Britta Roeske, Luca Colajanni, Roberta Vallorosi, Stefania Bocchi, Bradley Lord, Clarisse Hoffmann, Will Hings, Lucy Genon, Eric Silberman, Fabiana Valenti, Tom Webb, Anna Goodrum, Hanspeter Brack, Heike Hientzsch, Alba Saiz, Tracy Novak, Chris Hughes, Paul Quinn, Liam Clogger, Valenti Fradera – our man in Spain, Chris Bird, Craig Gardner for his pilledriver to take Birmingham to Wembley, Winston the security guard for his help with the Newey feature, RTL for help beyond the call of duty, Tom Clarkson for making the miraculous commonplace, whoever came up with the idea of eating pork spare ribs with a barbecue-related sauce on them. Absolutely no thanks at all to East Coast trains

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STAR LETTER



A new take on team orders

It may be as well that team orders are now permitted in F1, since the regulations concerning the new moveable rear wing offer an opportunity for some spectacular team tactics in both qualifying and racing.

The focus has always been on overtaking but those clever strategists who have read their history books will no doubt have noticed that back in the good old days, team-mates used to tow each other around the track in order to obtain a fast qualifying lap in each others' slipstream.

There must be scope, particularly at the faster circuits, for team-mates to work together by passing and repassing in order to achieve a far better time than they would unaided. Imagine the final minutes of Q3 when teams are waiting in the pitlane for just the right moment to set off together, and also to benefit from a tow by the unwitting opposition.

The Monza slipstreaming races may return – and the phrase 'Fernando is faster than you' will have a completely different meaning.

David McLaughlin
Abinger Hammer, UK

Was Robert right to rally?

What a shame that Robert Kubica won't be competing for at least the first half of this season. I wish him all the best for a speedy recovery. The Renault looked very quick in his hands in testing and it will be devastating for him if his replacement wins races in it. The morality of him driving in rallies this close to the season is surely up for discussion though; Niki Lauda has said it is selfish and I'm inclined to agree with him. Although I appreciate Robert's eagerness to drive, he has a duty to his team and the mechanics who work hard on his car to arrive at the races fit and ready to give his best. It was, of course, a freak accident, but he did put himself in that situation. Not many will share my point of view, and I do wish him the quickest of recoveries; I just feel he should have bubble-wrapped himself until Bahrain.

Ben Needham
Northampton, UK

F1 goes HD – finally

Finally, Formula 1 is going to be broadcast in HD for 2011. I have no idea what took Bernie so long to introduce this technology.

I wondered why there was such a lengthy delay given that the Tour de France has been broadcast in HD for two years. F1 claims to be premier motorsport, but they certainly dropped the ball where this technology was concerned. Still, better late than never.

Brian Willaman
USA

Fans love the noise

I've just read your article on the proposed rule changes for 2013 (*F1 Racing*, February, p18). We're told that the 1.6-litre turbo engine will safeguard the future of F1, but I think it could turn fans away.

I accept F1 must use eco-friendly technology where possible. Yet despite having had one of the most thrilling F1 seasons ever, with record TV audiences, we are now told the spectacle is to be improved by reductions in engine size, overall speed and noise. Engine sound is integral to the spectacle of F1, and whether fans really will 'just get used to it' remains to be seen.

Stephen Jaques
London, UK

FLAT-OUT RANTS F1 fans who haven't got all day

Could you set up a campaign please to get Michael Schumacher onto Twitter?
@Miss_F1

We don't refer to McLaren as Vodafone, or Williams as AT&T so, for clarification, Renault are still called Renault, okay?
@PhilRenwick

Praying for Robert Kubica and it's TOTALLY inappropriate for anyone to question why he was in the car.
@JCHadar

STAR PRIZE

David McLaughlin wins a pair of tickets to this year's British Grand Prix. For more details, visit www.silverstone.co.uk



F1 F55

"Szybkiego powrotu do zdrowia, Robert"

NEWS

Why a brilliant driver is still an F1 team's greatest asset

You've spent millions on a car that's looking good in testing, then your star driver suffers a horrific injury. Some of F1's biggest players explain why replacing **Robert Kubica** will be easier said than done – no offence, Nick

Another 20 minutes and Robert Kubica would have died on the Ronde di Andora Rally in Italy. He lay trapped in the wreckage of his Skoda Fabia rally car for 42 minutes, while ill-equipped marshals tried to cut him free.

He'd glanced a section of guardrail at more than 100mph and at that exact spot there was a join in the metal barrier. The old section gave way, but the new section remained fixed and penetrated the cockpit of the car. The barrier partially severed Robert's right arm and cut deep into his right thigh, and the resultant loss of blood nearly cost him his life.

Kubica was airlifted to the Santa Corona hospital in the nearby town of Pietra Ligure and his condition was stabilised, but his injuries – a broken tibia, fibia, foot, shoulder, elbow and partially-severed wrist – will take many months to heal. As a result, his Renault F1 team face a year of underachievement.

"This accident has cost the team 0.5secs per lap," said Red Bull boss Christian Horner. "It's

going to take a huge amount of car development to make that back up."

Kubica's replacement, Nick Heidfeld, should do a solid job for the team. He's capable of winning races if the car is good enough and his experience (172 GPs) will help to develop the R31. But there's little doubt that Kubica was the quicker driver when they were team-mates at BMW and the team's stated aim of 150 points this year suddenly looks hard to achieve.

"If you put Kubica in a McLaren or a Ferrari," said Bernie Ecclestone a couple of years ago, "I'd put my money on him blowing Hamilton away."

Since Bernie made that remark, Robert has won a race and established himself as the best driver on the grid never to have won the world title. The hole he leaves behind this season merely highlights his importance to Renault and the continuing importance of a good driver in F1.

"Since the beginning of racing," said Renault boss Eric Boullier, "the driver has been the key – and it's the same now. You can have the best car in the pitlane, but without the best driver you won't be on pole position and you certainly won't win the world championship."

"Someone like Robert can extract time out of a car that other drivers – good drivers – cannot. When you think how much it costs to develop a car, the salary of a driver like Robert is a good investment. We will miss him."

Too many times in history, a good car has been underexploited. Williams won't need to be reminded of the championship that went begging in 1995, when their FW17 was the class of the field, yet they were beaten by Michael Schumacher in a Benetton.

F1 fans will miss Kubica as well because he's a driver around whom there's always an air of excitement. His consistency might have won him the 2008 world title, had BMW decided to continue with the development of their F1.08, and he has the respect of his rivals.

"There's no doubt that Robert is a class act," said Mark Webber, who was one of only three drivers to visit Kubica in hospital. Vitaly Petrov visited Boullier the week after the accident, while Fernando Alonso disrupted a skiing holiday in Val Gardena to be at the hospital on the night of the crash.

"The main thing," says Alonso, "is that Robert is alive. That was the concern of the doctors at the hospital. Now he's had all his operations, he faces a long road back to fitness. It's going to be tough for him, particularly with the hand and the elbow. But he's a fighter."

"A grand prix is more than a race," says Ecclestone. "It's an event. It's a happening. The drivers play a central role in the event because they attract the support of the fans. They are important to the show."

Kubica is going to be missed this year on many levels – and not only by his Renault team.

Heidfeld is a solid replacement but few rate him as highly as Kubica





023

INTRODUCING... PAUL DI RESTA

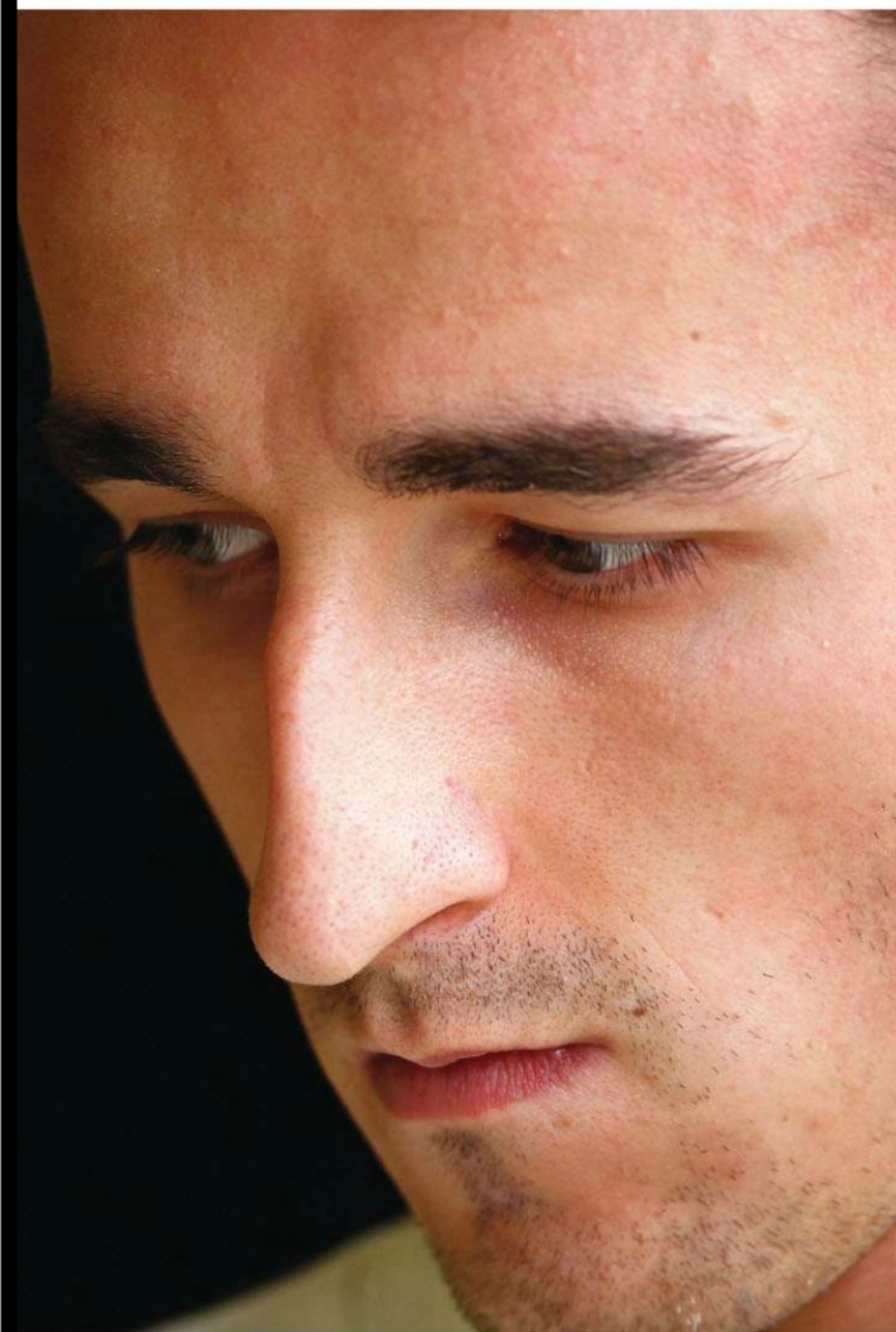
He's fast, he's British, and he's driving for Force India this season. Fellow Scot Sir Jackie Stewart tells us why it'll be a tough year for the youngster



029

BRACE YOURSELF FOR QUITE A LOT OF THIS

Pirelli's 2011 F1 tyres degrade very quickly. What will that mean for Formula 1? Up to four pitstops per grand prix according to Fernando Alonso



ROBERT KUBICA'S NOT THE ONLY DRIVER TO MISS RACES BECAUSE OF AN INJURY SUSTAINED AWAY FROM F1...



Patrick Depailler

The Frenchman made a great start to the 1979 season before a hang-gliding accident left him with severe leg injuries. He didn't return to racing until 1980.



Nick Heidfeld

He'd already missed two GPs in 2005 due to injuries sustained in a testing accident when he was knocked off his bike by a motorcycle while training for his comeback.



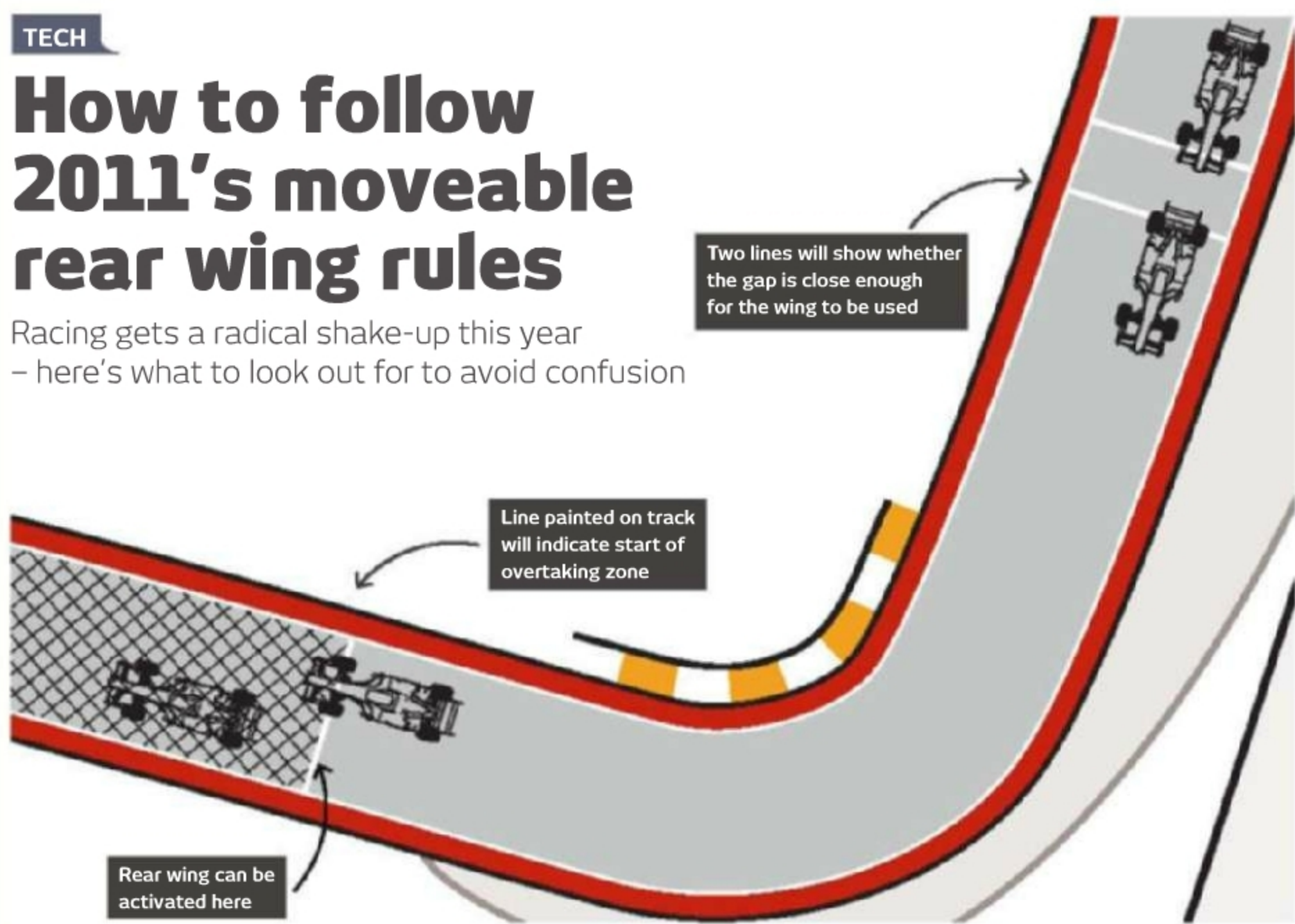
Juan Pablo Montoya

Missed two GPs in 2005 after injuring his shoulder. Rumours pointed to a motorcross accident although the Colombian insisted it happened while playing tennis.

TECH

How to follow 2011's moveable rear wing rules

Racing gets a radical shake-up this year – here's what to look out for to avoid confusion



The FIA is to paint markings onto the track surface this season to make it easier for viewers to understand where drivers can activate the new moveable rear wing in races. Drivers are free to use the drag-reduction system as often as they like in practice and qualifying, but in the race they can only use it in a predetermined 'overtaking zone'. The FIA wants to make these zones obvious to fans.

The teams have been told that the overtaking zone will be a 600-metre section of track on each circuit's main straight. However, this length is based on simulation data and if overtaking proves too easy or too hard, the governing body will amend it. The trick will be to ensure that the speed differential between the leading car and the car trying to pass is just enough to aid an overtake. It's estimated that the loss in drag from opening the slot gap in the wing will increase a car's speed by around 9mph, but KERS-equipped cars could boost that speed still further.

The start of the overtaking zone will be signified by a painted line on the track. On

reaching this point, a driver will be able to activate his rear wing – but only if he's been notified by Race Control via a cockpit light that he's less than a second behind the car in front. To give viewers a visual indication of whether a car is close enough to the one in front to use his rear wing, two lines will be painted on the road just before the braking point at the previous corner to indicate the one-second distance.

The FIA wants moveable rear wings to have a positive effect on racing, but some have expressed doubts. "I don't think the advantage gained by the rear wing will dramatically change overtaking because there won't be a big enough drag reduction," said Williams technical director Sam Michael. "You only get help from the wing when you're a second from the car in front, which might not happen until halfway down a straight, depending on where the FIA puts the timing loop that activates it. It will take a few races to fine-tune."

Expect this fine-tuning to continue during the early races of this season.

HOW TO SPOT AN ACTIVATED REAR WING

Closed 'normal' setting



Overtaking 'open' setting



» Turn to page 102 for the full lowdown on all the new rules for 2011...

NEWS

Introducing Britain's newest F1 star

Sir Jackie Stewart on what to expect from Force India rookie Paul Di Resta this year



Paul Di Resta might have taken on and beaten Sebastian Vettel in equal machinery in Formula 3, but Sir Jackie Stewart has told *F1 Racing* that the Force India rookie must be given time to establish himself in Formula 1. The young Scot has just stepped up to a race seat, becoming the third British driver on the grid this year.

"You have to be cautious about expecting too much too soon from any young driver," said Sir Jackie. "He did a few practice days last year, but that's different to qualifying and racing. I hope everyone is

patient. He has to take his time then try to show off his potential if his career is going to blossom."

In Bahrain, the 24-year-old will become the 141st Brit to start a GP, but he'll have to perform with last year's talented rookie Nico Hülkenberg waiting in the wings as Force India's reserve driver.

"There's pressure, no doubt about it," said Stewart. "Paul has just got to finish as many races as he can. You've got to get through that period of having a lot of pressure on you in an area of the grid where you are very vulnerable. But he has a lot of impressive qualities."

FIVE MINUTES ON THE PHONE WITH...

NICO HÜLKENBERG

FORCE INDIA'S NEW RESERVE DRIVER



Good morning Nico
"Morning!"

How are you feeling going into the season? It must seem very different to last year...

"Yeah, I've obviously got a very different role to last season. Last year was my first year and it was pretty exciting. This year I would have liked to have started my second year of racing, but things didn't work out that way. Now I'm a reserve driver which is not so nice on one hand – but on the other hand, I'm still there and I still have the chance to prove myself and get back in the near future."

How important was it to stay in F1 instead of another series?

"It's very important because people can forget what you did the year before. You need to stay within the F1 circus. I've got the opportunity to drive first practice on Fridays this year so people will still see me on track. You don't want people to forget about you."

Was it hard to adjust to the fact that you won't be in the car as much this season?

"It was, but it's behind me now. I don't want to think about it too much. I just want to work on being back in a car next season."

What motivates you this year?

"I'll get to drive on Fridays so hopefully I can do a good job and convince the key people at Force India to give me a race seat next year, just as Paul Di Resta did last year. That's my target."

Adam Parr told *F1 Racing* that he'd love to see you back in a Williams one day. Is that something you'd be open to?

"What happened at Williams was not nice so I don't want to think about it. I'm with a new team now: I want to focus on that."

Will you be giving Paul Di Resta any advice this season?

"I'm up for it. I'm there to help the team so if he asks me for my opinion, I'll give it."



Nico will get chance to impress at Friday practice sessions for Force India

F1 Mastermind

Your chosen specialised subject: the world's greatest sport...

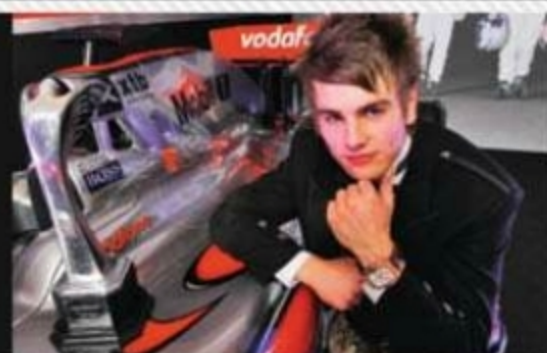


- 1 Who won the first Bahrain Grand Prix in 2004?
- 2 On how many occasions did Stirling Moss finish as runner-up in the F1 world championship: two, three or four times?
- 3 Who won the 1986 Spanish GP by 0.014 of a second – one of the smallest margins of victory ever?
- 4 How many grands prix made up the inaugural Formula 1 world championship: was it six, seven or eight races?
- 5 Rubens Barrichello made his F1 debut at which race?
- 6 Which driver was lucky to escape unharmed after his car became engulfed in flames at the 1996 Argentine GP?
- 7 Yardley sponsored which team during the early 1970s?
- 8 At which former F1 track would you find the corner Peraltada?
- 9 Who won the 1999 French GP?
- 10 Which US city hosted seven GPs between 1982 and 1988?



THIS BOY CAN DRIVE

Keeping an eye out for the Hamiltons of tomorrow



Lewis Williamson

Who is he?

A 21-year-old Scot, who recently beat off the competition to claim the prestigious McLaren Autosport BRDC Award. As part of his prize, he'll receive a test in a McLaren Formula 1 car.

Is he any good?

The panel of judges, who were led by former F1 driver Derek Warwick, were all hugely impressed by Williamson's speed in Formula 2 and DTM machinery. The youngster also took second place in this year's Formula Renault UK series scoring five wins along the way.

Anything else we need to know?

He's already won the British Grand Prix... well, sort of. In 2008 he won the British Kart Grand Prix at Cadwell Park in the 125 ICC gearbox class.

F1 chances:

Winners of the McLaren Autosport BRDC Award have a habit of making it into F1 – David Coulthard, Jenson Button, Ralph Firman, Anthony Davidson, Gary Paffett and Paul Di Resta are all proof of that. But to follow in their footsteps, Williamson will have to keep on winning.



NEWS

For sale: one rather famous F1 team

Sir Frank's legendary racing squad are heading for the stock exchange, with 27.39 per cent of the business up for grabs

How does the prospect of becoming a part owner in an F1 team take you? Well, if your pockets are deep enough, you'll get that chance in March when Williams take the unusual step of floating 27.39 per cent (or 2,739,383 shares) of their business on the Frankfurt Stock Exchange. But before you get too excited about owning a chunk of Sir Frank's famous squad, bear in mind that each share costs £20-£24 – so to own even a one per cent stake in the team, you'd have to shell out £2million.

The aim of the flotation is not to raise capital: the Grove-based team have stated they intend to use the shares as an incentive for luring the best technical talent to the team in the future. The message is 'work here and you could own part of the business' – which is ironic given that Adrian Newey left Williams in 1996 having not been offered a shareholding in the company.

Professor Mark Jenkins, an expert in business strategy at Cranfield School of Management,

said that the timing of the flotation is significant, coming at a time when spending in Formula 1 has been limited.

"I think it's a key factor. F1 has suffered horrendous cost inflation in the past. The fact that the teams have got together to cut costs makes an investment more attractive than it would have been five years ago."

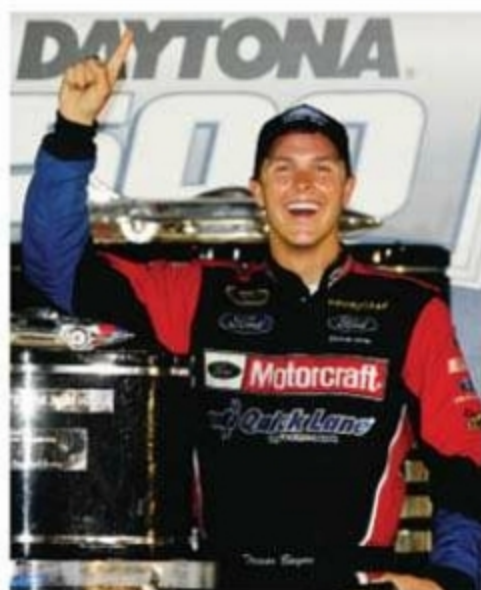
And a lack of recent wins shouldn't necessarily concern investors, according to Jenkins: "If I was looking to invest in an F1 team, I'd look at their cost base. I'd ask, 'Are they lean and mean?' – and Williams are at the leaner and meaner end of the scale. There are risks, but separate revenue streams in the business, such as Williams Hybrid Power, means that the investment is less vulnerable to the F1 team's performance."

You can bet the other teams will be watching Williams' progress with interest.

» Read Frank Williams' new column on page 152

BAYNE IN THE LIMELIGHT WITH DAYTONA 500 WIN

Twenty-year-old rookie becomes youngest winner of NASCAR Sprint Cup race



A week ago, Trevor Bayne (left) was almost unknown outside NASCAR circles, but a win in the Daytona 500 not only catapulted him to stardom but it also lifted him up 125 places to 326th in the Castrol Rankings.

The 20-year-old rookie beat Carl Edwards by just 0.118 seconds to become the youngest winner in

Daytona 500 history. It was his first attempt, and only his second start in the Sprint Cup championship.

Edwards' runner-up spot kept him 13th in the Castrol Rankings, giving the Roush Fenway Ford driver a chance to reach the top 10 in the next few weeks.

Castrol Rankings		CURRENT STANDINGS	
1	Sebastian Vettel	F1	24,200
2	Mark Webber	F1	22,079
3	Sébastien Loeb	WRC	21,215
4	Fernando Alonso	F1	20,467
5	Lewis Hamilton	F1	19,217
6	Will Power	IndyCar, V8 Supercar	17,858
7	Jenson Button	F1	17,006
8	Jimmie Johnson	Sprint Cup, Grand Am	16,330
9	Dario Franchitti	IndyCar, V8 Supercar, Grand Am	15,946
10	Kevin Harvick	Sprint Cup, Nationwide, Trucks	15,237

DATA CORRECT AS OF 21 FEBRUARY 2011

The Castrol Rankings analyze 2,000+ drivers in 500+ races and rallies across five continents. Go online today to find out more

Castrol **EDGE** Expert performances

Sprint Cup **David Gilliland**

David Gilliland (right) has had just three top-20 finishes in the past three years, but the Front Row Ford driver finished third at the Daytona 500 and shot up 69 spots to 253rd position.



NASCAR Trucks **Michael Waltrip**

Michael Waltrip out-sprinted Elliott Sadler for a maiden victory in the Truck Series at Daytona, gaining 38 places from 1,090th to 1,052nd in the Castrol Rankings.

Nationwide **Danica Patrick**

IndyCar star Danica Patrick (right) led a Nationwide Series race for the first time at Daytona after qualifying fourth, and secured a career-best 14th place finish. She moved up two places to 65th.



Sprint Cup **Dale Earnhardt Jr**

Dale Earnhardt Jr was on pole for the Daytona 500, but crashed out with just a few laps left. He dropped six spots to 60th in the Castrol Rankings.

Castrol **EDGE** **Performer of the Month**

Nasser Al-Attiyah was the Castrol EDGE Performer of the Month for January, but who will be February's top-ranked driver? Visit the website to find out.

www.castroldriverrankings.com

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The exhaust pipe now exits at the front of the sidepod, redirecting the exhaust plume under the floor

TECH

The idea they'll all be copying

The double diffuser ban has caused a rethink of exhaust-blown systems, and Renault appear to have come up with the best solution yet. **Pat Symonds** explains...

“Renault have introduced a radical front-exit exhaust system in a bid to replicate the success of Red Bull’s much-imitated exhaust-blown diffuser of 2010. Last year’s champions developed a system that directed exhaust gases into the diffuser to create more downforce, but the exploitation of this concept in 2011 has been limited by the ban on double diffusers. The holes in the floor necessary to pass the exhaust gases through have been outlawed, but Renault have identified a novel solution.

The team have lengthened their exhaust tailpipe considerably and rerouted it so that it now exits towards the front of the sidepod. The exhaust plume it releases is then pushed underneath the floor and redirected back along the length of the car until it reaches the diffuser at the rear. Here, it adds energy to the airflow moving through the diffuser, which, in turn, increases downforce. This radical reworking of the exhaust eliminates the need for holes in the floor.

Of course, it is not as straightforward as it sounds since the new design requires compromises to be made. The length of the exhaust system is critical to the tuning of the engine and, in general, a high revving F1 engine requires a short exhaust. The engines therefore had to be retuned to accept a longer tailpipe. The exhaust is also extremely hot at 950-1,000°C degrees, and requires extensive insulation, particularly as it now passes very close to the fuel cell – and the driver.

The performance advantage from the new system should hopefully outweigh the problems listed above, since a properly developed system is probably worth a couple of tenths of a second of lap time. As we saw in 2009 when the double diffuser made its appearance, it doesn’t take the other teams very long to copy a good idea – no matter how complex. In fact, it is rumoured that word of Renault’s innovation was a hot topic of conversation in some Oxfordshire pubs well before Christmas, so replicas have undoubtedly already made it onto the drawing board.”

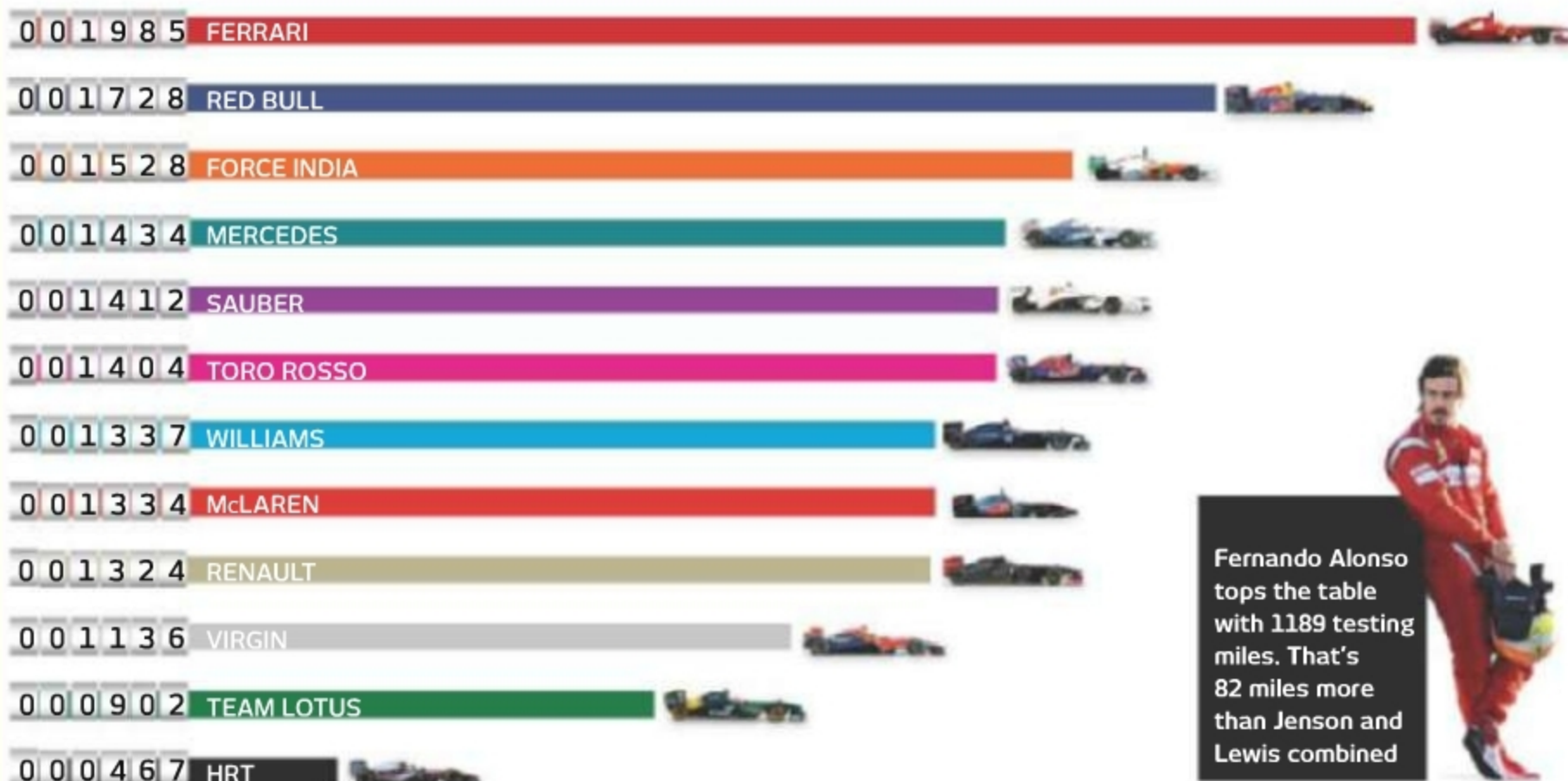


The exhaust plume travels the length of the floor to enter and energise the diffuser at the rear

STATS

On the road again

F1 kicked back into action in early February for the first two pre-season tests of 2011. Here's how much mileage each team racked up in Valencia and Jerez



Fernando Alonso tops the table with 1189 testing miles. That's 82 miles more than Jenson and Lewis combined



TECH

Brakes will feel the heat in 2011

They'll stay the same size as in 2010, but will be subjected to much heavier wear

The major talking points of 2011 so far have been tyre degradation, the return of KERS and the introduction of the moveable rear wing. Brake wear has hardly got a look in even though, under the new regulations, brakes will be working harder than ever.

There are two reasons for the increased wear. First, top speeds will be at least 9mph higher than in 2010, courtesy of the drag-reducing moveable rear wing and KERS; and second, the minimum weight of the cars has risen from 620kg to 640kg. But despite this extra speed and weight, brake size remains the same as in 2010.

"The brakes are definitely working harder," Williams technical director Sam Michael told us. "We've had to increase brake cooling on this year's car because there's a larger amount of energy to

Braking distances are set to vary by up to seven metres in a race



dissipate. We're still operating on the limit though, as bigger brake ducts mean less aero efficiency." Any team going the wrong side of that limit at a heavy-braking circuit like Montreal will likely pay the price.

Significantly, this extra demand on the brakes can also be felt inside the cockpit.

"On long runs," said Force India's Adrian Sutil, "our braking distances are changing more than in the past. Our braking points are going to change by as much as six or seven metres during the course of a race."

It's yet another intriguing factor in a season that promises to be full of variables.

NEWS

"We could get four pitstops in a race," says Alonso

The new Pirelli tyres haven't lasted many laps in testing and that's going to have a big effect on the racing this season



The indication from testing is that the gap between Pirelli's hardest and softest tyre compounds will vary by up to three seconds per lap. It sounds a lot, but the lap time difference isn't what's worrying the drivers – their focus during testing has been on tyre degradation, which is much higher than last year.

The hard compound lasted about 20 laps at Jerez and Barcelona, which was less than half as long as 2010's Bridgestone equivalent. As a result, we'll see many more pitstops this year. "We could even see four pitstops in some races," said double world champion Fernando Alonso.

Rubens Barrichello set the fastest time of the Jerez test at 1min 19.832secs, but his lap times dropped off by 1.3secs immediately afterwards and never returned below 1min 21secs. "I've never used tyres like these," said Rubens. "But at least it's the same for everyone."

Pirelli make no apology for their tyres' degradation. "We were asked to come up with tyres that degraded quicker than the ones used last year," said Pirelli's director of motorsport Paul Hembery. "That's what we've done. How the drivers look after the tyres in the first four to five laps will have a big influence on their longevity, but we think that makes the sport even more exciting."

EXCLUSIVE

Legendary kart race makes a return

After a ten-year break, the stars of Formula 1 are once again set to do battle in Bercy

The legendary Bercy Masters Karting event, famous for pitting F1 rivals Ayrton Senna and Alain Prost against one another in 100cc karts, is set for a revival in 2011.

Former F1 driver Philippe Streiff, who originally set up the event in

1993, has told *F1 Racing* that the event will go ahead on 10-11 December this year and that most of the grid have already signed up. "I asked the drivers if they'd do it last year and they all said 'It's a very nice idea to do it again'," explained Streiff.

The reason they are so keen, the Frenchman reckons, is because so many of them took part in the event early on in their careers. "The first part of the evening always used to be a junior kart race," he said. "The list of winners reads: Jenson Button in 1997, Fernando Alonso in 1998, Robert Kubica in 1999, Lewis Hamilton in 2000 and 14-year-old Sebastian Vettel in 2001. For them, they

have good memories of winning in front of Formula 1 drivers."

This year, for the first time, the event will feature electric-powered karts developed by Streiff with the help of a famous friend. "My test driver is Alain Prost. When I told the drivers the event would use electric karts they said, 'Oh no, they're slow,' but the new kart is incredible and very quick."

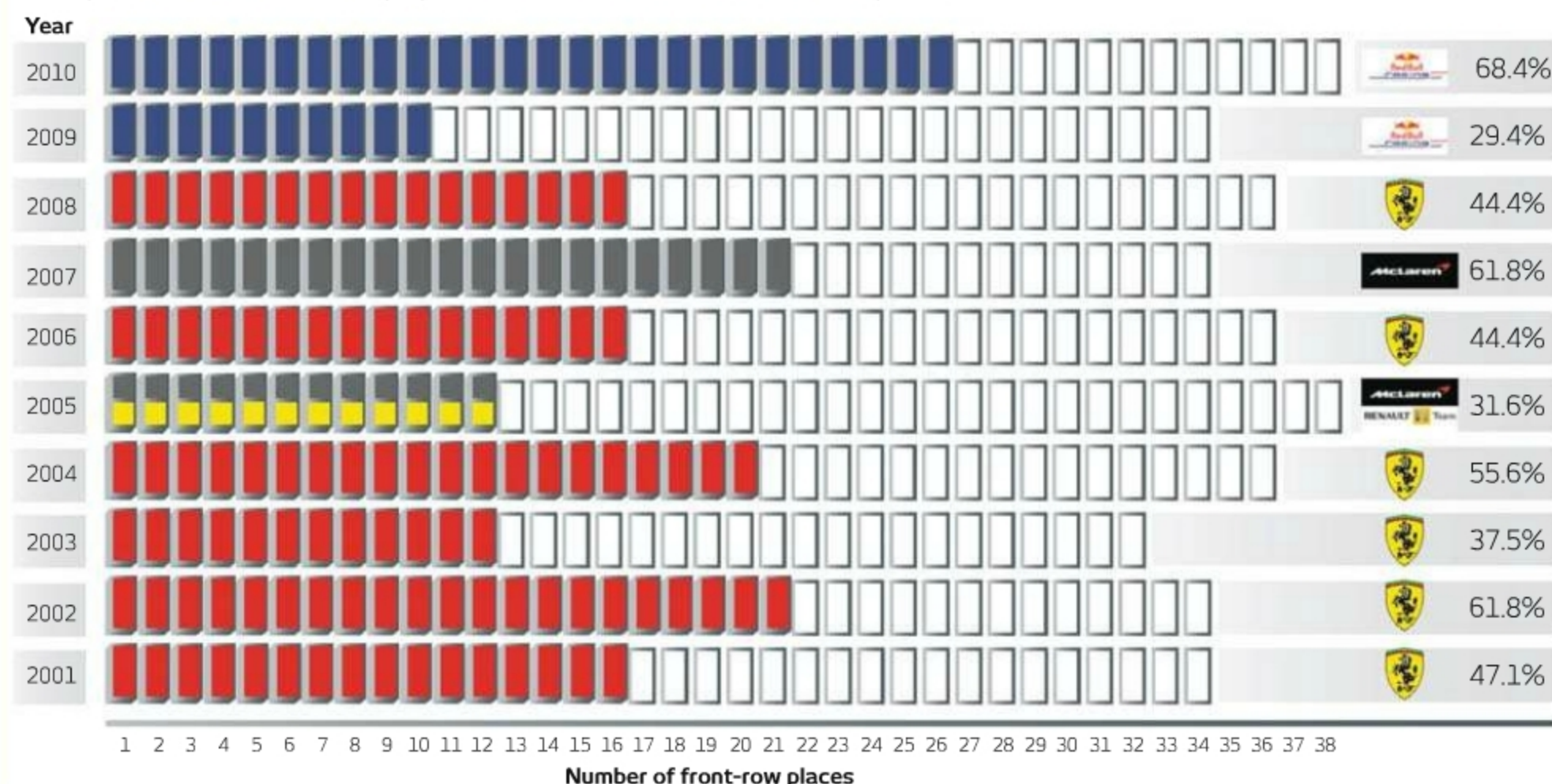
If that hasn't whetted your appetite for December's event, just head over to YouTube and search for 'Senna Prost karting 1993'. If the modern stars can put on half as good a show as the drivers did back then, we'll be in for a real treat.



STATS

Saturday superstars

Red Bull were the class act when it came to qualifying in 2010 – but how do they compare with other top-performing teams from the past ten seasons?



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You Tube

Go to youtube and search:
'jenson and lewis one tent'



PITPASS / Steering wheels go ultra-complex

Just what I needed, more buttons...

With the addition of KERS and a moveable rear wing this year the drivers are going to have their hands extra full, as Adrian Sutil explains

KERS

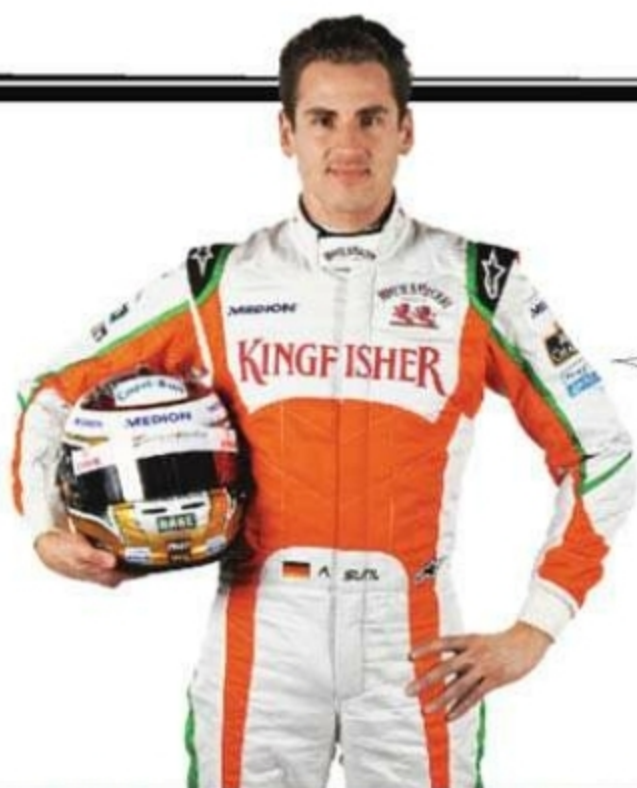
"We've placed the KERS button on the back of the steering wheel, on the left-hand side. I'll be using my right hand to go up through the gears, so my left hand will be free to press the KERS button when I'm accelerating out of a corner.

I prefer to hold the button down when I want the KERS power, rather than pressing it once to turn it on and pressing it again to turn it off. It seems a more efficient way to operate the system and it means you won't forget to turn it off.

We're still discussing whether or not to turn the KERS button into a paddle at the back of the wheel. I think it might be easier to operate that way."

REAR VIEW





"Formula 1 is all about technology, so I welcome the addition of new devices on the cars this year. KERS is interesting and the moveable rear wing should make the racing even better. It means there's more to think about when you're in the car, but that's okay; we're used to changing things on the steering wheel."

"What you see here isn't Force India's definitive steering wheel for the coming season, but it gives you an idea of what Paul Di Resta and I will be working with."

MOVEABLE REAR WING

"As with the KERS button, there are two ways to operate the moveable rear wing. Either you can hold the button down for the period of time that you want to keep the wing open, or you can press the button once to open it and then again to close it. During winter testing we evaluated the best way to work it and, again, I prefer to hold it down because you don't want to leave it open by a mistake."

The moveable wing is harder to use than KERS because you need to predict whether or not the car will go through a corner with the wing open. It was the same with the F-duct last year, and through corners like Eau Rouge and 130R you could feel the rear end getting a bit loose if you had the duct working.

The rules let us use the moveable rear wing in practice and qualifying, so you might see some brave manoeuvres on a hot lap on Saturday afternoons. In the race, we'll only get to use it along one straight when we're within one second of the car in front. We'll pass a line on the track that signals the start of the 'wing zone' and we'll be notified we're within one second of the car in front by a light on the steering wheel (although we haven't decided where that's going to go yet).

The wing should help overtaking, but there are going to be so many marbles [small bits of used rubber] off-line that it won't be easy to find enough grip under braking. It's going to be interesting!"

ACTUAL SIZE



RAW NEUVE

Jacques Villeneuve: older, wiser... but no less opinionated

Could Kimi have stood in for Kubica?

Pretty soon after Robert Kubica's terrible rally accident in Italy, talk understandably turned to which driver was going to stand in for him at Renault this season. I have to say that I was very surprised to hear some people mentioning Kimi Räikkönen as being a potential replacement.

It seemed like a strange solution to me, because in this situation you need someone who's going to put in the hours on setup and work hard with the engineers and, at times, it didn't seem as if Kimi wanted to be in F1. Why would a team want to take on someone who wasn't interested in being there?

You could argue that there aren't that many experienced drivers around due to the lack of testing, but look at Kimi's last season in F1:



Kimi Räikkönen: not JV's first choice as a replacement for Kubica

Felipe Massa was the quicker driver at Ferrari and I wouldn't be surprised if Felipe was the one doing the development on the car as well. If I owned a team and Kimi was available, I wouldn't take him on. What Renault needed was a driver hungry to stand in for Robert. Kimi would probably have been quicker than Bruno Senna, but I don't think he would have been faster than eventual choice, Nick Heidfeld, who, in my opinion, will work hard and help develop the car.

I have heard quite a few people saying, "Kimi can be very quick on the right day." The problem is – when is that day? He's still popular with his fans because he is very anti-establishment, but I happen to think that there's a big difference between not being a robot and not showing any respect to the fans of Formula 1, the teams and also to the millions of people who would all have wanted to be in his place.

Renault were right to let Robert go rallying

Robert Kubica's accident was awful, but I was surprised at how many people criticised the fact that Renault let him go rallying in the first place. If you're a racing driver, racing is your



life – you live on the edge, not only in an F1 car but in everything. If you're not like that, you shouldn't be in F1. Too many drivers in modern F1 don't do anything else: they just drive an F1 car and that's it. I couldn't be like that.

Robert's contract allowed him to go rallying and you have to respect that – I never signed a contract where I wasn't allowed to ski. It's so rare to want to race away from F1 these days, and I admire it. If Renault didn't let him do that, he wouldn't be the same person. He's a racer and you'll never change that.

Mercedes need to rebuild their image

Michael Schumacher has voiced concerns about the new Mercedes during testing. Last year the team put all their energy into the 2011 car, so bringing down expectation levels makes sense as they're really under pressure.



Mercedes bought a winning team but have gone backwards. Image-wise, that's not great and ultimately, it doesn't damage the drivers – only Mercedes.

THE
JV KEY



Silly shunt



Driver error



Controversy



What a car



Fantastic drive



Good call



Bad call

MURRAY WALKER



"This season looks like being even better than the superb 2010. Let battle commence!"

So, with the new season almost upon us, what's going to happen in 2011, bearing in mind that over the winter all the teams have had to think very hard about how to accommodate the rule changes? Out go double diffusers and F-ducts... in come moveable rear wings, re-introduced KERS and Pirelli tyres.

Past achievements aren't necessarily a guide to future performance, but you don't need to be Einstein to deduce that the usual suspects will be running up at the front. With four of the five world champions competing for Red Bull, McLaren and Ferrari, they'll be fighting tooth-and-nail for supremacy and I couldn't put a cigarette paper between them. Although luck hasn't always been on their side, Red Bull have had the best car for the past two years and, with

Vettel, Webber, Adrian Newey and his talented colleagues, plus Dietrich Mateschitz's money and the confidence of being the reigning double champions, it'll take a lot to beat them.

But both McLaren and Ferrari have only got to improve a whisker more than Christian Horner's men to overcome them, and you can bet they won't have been sitting on their hands over the winter. Given the right car, Button, Hamilton and Alonso all have the experience and talent to triumph over their Red Bull rivals and so has Felipe Massa – provided the team and his temperament let him assert himself. If one of the top teams come up with a magic ingredient as Brawn did with the double diffuser in 2009 and McLaren did last year with the F-duct, it could make all the difference.

But for my money, the greatest pressure this season is going to be on the Mercedes team, for whom nothing but wins will satisfy their Stuttgart masters. After the need to keep developing the 2009 Brawn car right up until the end of the season to brilliantly secure both championships, last year was a major struggle. They had a greatly reduced workforce, some of the right men in the wrong places, an off-the-pace car, and the need to adjust to new owners and accommodate two new drivers, one of whom had been out of racing for three years.

However, I fully expect 2011 to be very different for Mercedes. The team will again have the best engine and, this time, a car designed and developed by a much-improved workforce with time on their side and the might of Mercedes behind them. Ross Brawn has proved, at Jaguar (sportscars), Benetton, Ferrari and his self-named team Brawn that he is an all-time great – and I have absolutely no doubt he can weave the magic again for the three-pointed star.

But will Michael Schumacher prove to be a weak link? I don't think so. As I've repeatedly said, I believe he's still got it – and if the 2011 car and the Pirelli tyres suit him, he'll be up there. A seven-time world champion doesn't forget how to drive and his hunger and determination to win again remain undiminished. And while Nico Rosberg has yet to win a Formula 1 race, I believe he is more than capable of doing so given the right machinery. If you can win races you can win the championship, so I believe that this season, Mercedes could join Red Bull, McLaren and Ferrari up at the front – where they rightly belong, given their great sporting history.

That'll make four top teams and eight top drivers jostling for supremacy, and until Robert Kubica's rally crash I'd have said his Renault could have been up there, especially after his heartening Valencia testing performance. But the popular Pole's departure from the scene for an unknown amount of time is a devastating blow to the team. The loss of his determined leadership combined with the inexperienced Vitaly Petrov and a so far unspecified second driver means they face an uncertain season. I wish them well.

Of the other six teams I'll be watching two in particular – Williams and Team Lotus (if that is what Tony Fernandes' and Mike Gascoyne's creation finally ends up being called, following



"If one of the top teams come up with a magic ingredient like McLaren did with the F-duct, it could make all the difference"



Forthright chatter from the legend of F1



"The greatest pressure this season will be on the Mercedes team. Will Michael Schumacher be a weak link? I don't think so"

the court hearing about naming rights that starts on 21 March). It grieves me to see the great Williams, with 16 world titles to their name, just scraping into sixth place in last year's constructors' contest, but the contribution of F1's most experienced driver, Rubens Barrichello, seems to have been the catalyst for better times and I'd hope that 2010's improvement will be maintained. Linked with Cosworth, who I think did a great job last year, Williams were a midfield


force to be reckoned with in 2010, but unless I'm mistaken, the loss of major sponsors and the replacement of the talented Nico Hülkenberg with the unproven Pastor Maldonado is going to make it difficult for Frank's men to improve their position. Fingers crossed though...

But if the Williams situation is sad, that of 'Lotus', with all that unseemly squabbling over naming rights, is even sadder. The whole thing is a sorry mess. To an old-timer like me, no

"Of the other teams I'll watch two in particular – Team Lotus and Williams"



new team should call themselves Lotus because Lotus is a name belonging to the great Colin Chapman era that ended in 1982. Having said that, logic indicates that if any F1 organisation has a common-sense right to call itself Lotus it is one that actually makes cars called Lotus, even though the original Team Lotus existed as a legally separate entity. Nevertheless, all credit must be given to Tony Fernandes for creating and building a fine team that shows every sign of improving dramatically in their second year. Whatever happens, I sincerely hope the court hearing resolves this very unhappy situation and that whatever the current 'Team Lotus' end up being named, they go from strength to strength. They truly deserve to and, for me, would not suffer at all from being called something else.

So don't any of the other teams deserve a mention? Don't they work just as hard, with much smaller budgets and infrastructures, as the major teams? Of course they do but, worthy as they are, they seem unlikely to be racing at the front in 2011. But the same applied to all the others at various points in their histories. History tells us that today's winners can be tomorrow's losers and vice versa. So every good wish for Force India, Sauber, Toro Rosso, HRT and Virgin, whose time may yet come. We have entered a golden era of Formula 1, and 2011 looks like it's going to be even better than the superb 2010. Let battle commence! 



"Given the right car, Button, Hamilton and Alonso all have the experience and talent to triumph over their Red Bull rivals"



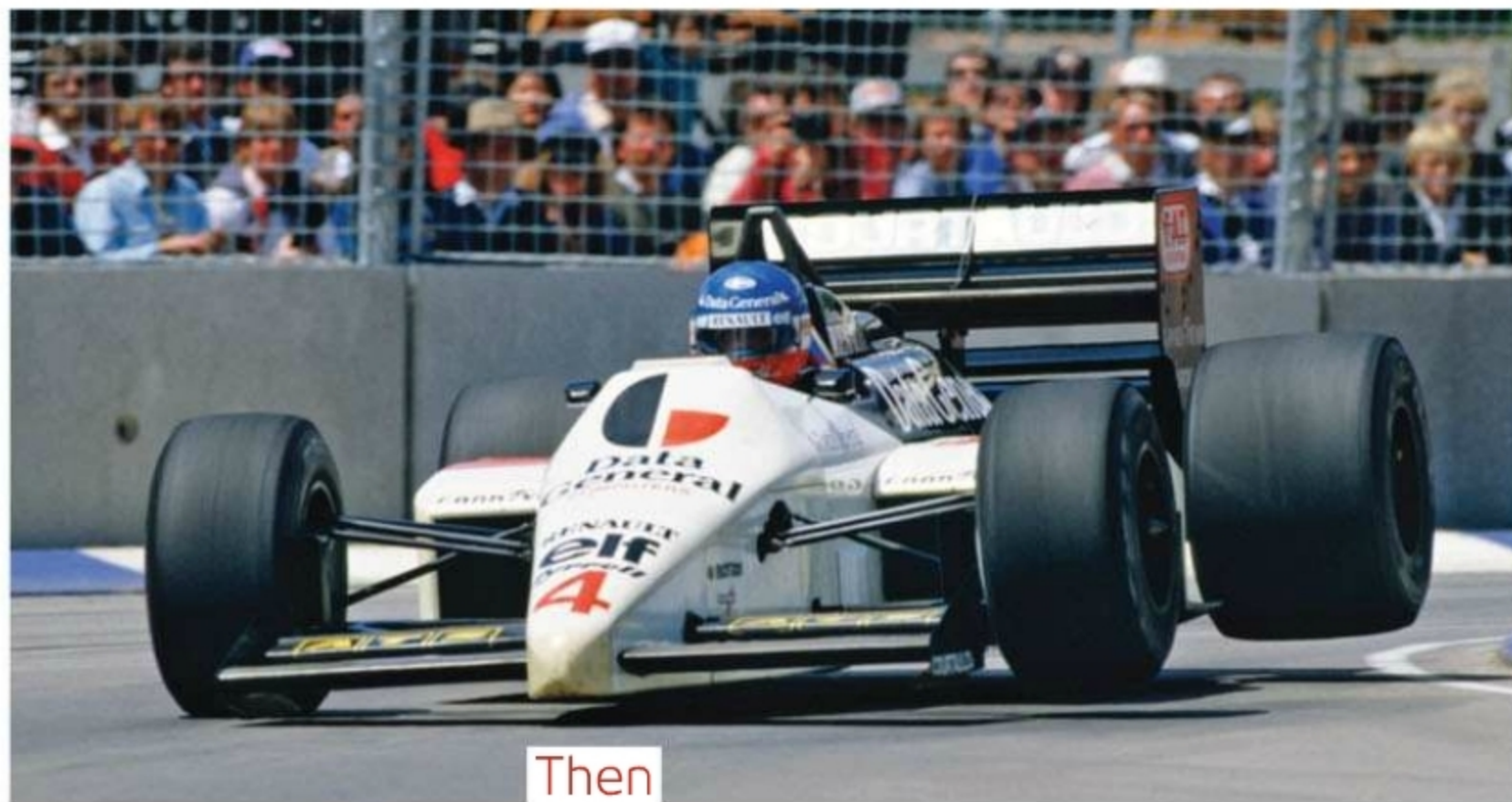
PHOTOS: CHARLES COATES/LAT; GLENN DUNBAR/LAT; ANDREW FERRARO/LAT



WHATEVER HAPPENED TO...

PHILIPPE STREIFF

A crash in testing left him paralysed... but it hasn't held him back



Then

On three wheels for Tyrrell at the 1986 Australian Grand Prix... he came fifth

Formula 2 racer Philippe Streiff got his first taste of F1 in 1982 when he was chosen as one of five French drivers to test Alain Prost's Renault at Paul Ricard. After posting the quickest time, Streiff was hired as Renault's test driver and his F2 campaign was interspersed with straightline tests as Renault sought to improve the reliability of their turbo engine.

When Prost left in 1984, Streiff thought his moment had come, only to be told he was too inexperienced. Instead he got a one-off drive in a third car at the Portuguese GP. When Renault boss Gérard Larrousse moved to Ligier the following season, he got Streiff a drive there – Streiff duly took third place in Australia later that year.

Streiff moved to Tyrrell for the following two seasons, scoring points on occasion but generally being overshadowed by team-mates Brundle and Palmer. He took a gamble and joined the tiny French outfit AGS for 1988, a team he had raced for in F2. The car was poor, but Streiff put in some spirited drives and was looking forward to a second season with them



Now

Inventor of a joystick-control system to help physically disabled people drive cars

when disaster struck. In testing at Rio in 1989, Streiff had a huge crash in which he broke his neck, badly damaging his spinal cord and leaving him paralysed. His F1 career was over.

"I was in hospital for a year after my accident, then spent two years in rehab. I was lucky to survive although at first I didn't think so. In hospital I wanted to kill myself – I didn't want to live. It's thanks to my children and the Formula 1 family that I have the possibility to live and be happy.

"My disability is the same as Sir Frank Williams'. There was a programme about me on TV and he

sent me a message. He said: 'If now I am happy, it's thanks to F1. You are lucky to be in that big family.' So, with Alain Prost and Ayrton Senna, I organised the F1 Karting Masters event in Bercy, Paris. I ran it from 1993 to 2001 and I'm reviving it this year.

"Between 2002 and 2007 I worked for the French government to improve the situation of disabled people.

These days much more compensation and help is available if you are disabled. Since 2007 I've worked for a government road-safety campaign.

"The important thing is that I live a normal life, go to work and drive a car. Ten years ago, I developed a joystick system for driving road cars and now more than 200 people in France have cars like this. The original models are school cars that are used to teach injured people how to drive again.

"I'm still in close contact with F1 and I'm grateful to Bernie Ecclestone because he gives me three permanent passes to the races – for me, my nurse and my wife. I have regrets about my time in F1, but overall I am happy – I was lucky to be there for five years."



1984: makes his F1 debut

Qualifies 13th in a third Renault in Portugal but fails to finish the race



1985: F1 career high

Takes a brilliant third place for Ligier in Australia in what is only his sixth GP start




Now...

The 55-year-old works to improve the lives of disabled people across France

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 MELBOURNE 2006 / James Bolton / 26 / UK

"My ears were ringing after 90 minutes of glorious V8 engine noise!"



"When I finished my degree in 2006, I decided to go travelling in Asia – fitting the trip around the F1 calendar, obviously! I went to the Malaysian Grand Prix, then all three days of the Australian GP where I was thrilled to see Jenson

Button put his Honda on pole. It was the first time since San Marino 2004 that there was a real chance of a Brit winning and I was hugely excited on race morning.

"The drama began when Montoya spun at the end of the formation lap and Fisichella stalled on the grid. The Safety Car came out after a first-lap crash and again a few laps later when Christian Klien crashed his Red Bull. During the pitstops, the home fans were offered a glimmer of hope when Mark Webber took the lead in his Williams – but then his gearbox failed. A few people left but I don't understand why as the race was a thriller. Temperatures were lower than expected and the tyres weren't performing – especially on the Hondas. Jenson started to slide down the order.



"There was another sizable crash involving Michael Schumacher as he ran wide on the final turn. I could see the cloud of dust from my seat in the Piquet Grandstand. Soon after, the crowd gasped as Liuzzi had a huge accident in his Toro Rosso and the Safety Car came out yet again.

"After the race finished, I walked to the pit straight for the podium celebration and I noticed I was walking on a huge streak of oil from Jenson Button's car. I could see the mechanics taking the garages apart and deconstructing cars like the Midland and the other Toro Rosso to take to the airport and back to Europe. I was gutted that Jenson hadn't won, but thrilled to have seen such a dramatic race. Of course I went home with my ears ringing after listening to 90 minutes of glorious V8 engine noise."

2006 AUSTRALIAN GP

- Jenson Button was on pole for Honda, ahead of the Renaults of Fisichella and Alonso
- Alonso won by 1.8 seconds from Kimi Räikkönen, with Ralf Schumacher third
- Michael Schumacher and Felipe Massa started 10th and 15th respectively for Ferrari, but both crashed out

 HUNGARORING 2008 / Zuzanna Oskiera / 20 / Poland

"The Ferrari fans were cheering – then Massa's engine blew"

"The Hungarian GP in 2008 was the first race I've seen live, and me and my dad had seats on the main grandstand opposite the pits and the podium.

"The start of the race was very exciting – there was a fantastic getaway by Felipe Massa, which drew

huge cheers from the Ferrari fans. They cheered even more loudly when Lewis Hamilton's tyre punctured!

"They were jumping up and down until three laps from the end,



"Me and my dad were sat right opposite the pits and the podium"

when Massa slowed on the straight with smoke coming from the engine. It was a very exciting race."

 MONTREAL 2001 / Joel Osborne / 39 / Canada

"The circuit commentators said Montoya had brake-tested Villeneuve"



"The 2001 Canadian GP was incredible! Michael Schumacher led the race until the pitstops when Ralf, in the faster Williams, overtook him to win by 20 seconds or so.

"This picture was taken from the grandstands during Friday practice. Something broke in the rear of Jacques Villeneuve's car, and the car came straight at us. After practice, the track commentators were discussing



how Juan Pablo Montoya had 'brake-tested' Jacques, and they had a behind-the-scenes discussion about it."

TELL US YOUR GREAT GP MOMENTS! If you've got a story from a race you've been to, email us at thebestraceivebeento@haymarket.com

THE 2011 SEASON PREVIEW

Your ultimate
guide to 2011
starts here

45

The people

F1 Racing appraises the champion, the challenger, the nearly man, the danger men, the strategist, the drivers' training schedule... and speaks to the BBC's commentator and anchorman





85

The cars

We assess Adrian Newey's latest masterpiece, the Red Bull RB7, and investigate whether the challengers from Ferrari, McLaren and Mercedes will be fast enough to catch it



107

The teams

Definitive analysis and stats for each of the 12 teams on the grid this year

129

The circuits

Your step-by-step guide to each of this season's 20 circuits – with driver's-eye views from Anthony Davidson



102

The rules

Everything you need to know about the 13 biggest changes to the regulations for 2011

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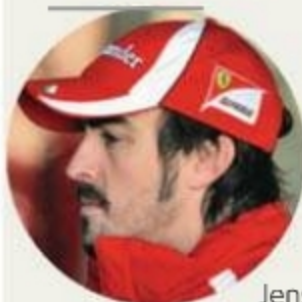
PHOTOS: LAT

THE PEOPLE

Sebastian
Vettel
46



Fernando
Alonso
50



Lewis
Hamilton
56



Jenson
Button
56



Mark
Webber
66



Nico
Rosberg
62



Ross
Brawn
72



Martin
Brundle
80



Heikki
Kovalainen
78



Jake
Humphrey
80



Teams spend huge amounts of time and millions of pounds building their new cars. In the end, though, it all comes down to the talent and fearlessness of the drivers, and the guile of those behind them

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He's number **one**.

Who's going to stop him?

Sebastian Vettel wants to dominate F1 and leave an indelible mark, says the BBC's Andrew Benson. Hamilton and Alonso, you have been warned...

PORTRAIT ADRIAN MYERS

It became one of F1's abiding images of 2010 – Sebastian Vettel wagging his index finger in the air as he climbed out of his car to celebrate another win or pole position. On the face of it, Vettel's trademark gesture is straightforward enough, signifying a simple: 'I've just beaten everyone.' But, in fact, it means much more.

Vettel's 2010 season was marked as much by his struggle for superiority over team-mate Mark Webber as it was against his other title rivals, so that the raised finger also meant, 'I am the number one' – as in Red Bull's number one. He was sending a message to Webber, the team and to the world about how they should treat him. And when he stepped out of the car after completing the great upset in Abu Dhabi, it also meant, 'I am the number one in the world.' He certainly wants that to be the case. And, as the reigning world champion, in some ways he is. But for Sebastian Vettel, this is not enough.

Despite his sunny disposition and the unusually long and good-humoured answers to questions, steel runs through Sebastian Vettel. And, at just 23, he already has a clear-sighted vision of the career that lies ahead of him. From little remarks he makes from time to time, Vettel makes no secret of his desire to rack up wins, poles and even fastest laps. Already this is

something of an obsession – as Webber is well aware. Which is why, when the Australian was unable to beat his young team-mate to victory in Japan last year, Webber made sure he nailed the fastest time on the final lap of the race, knowing full well how much it would niggle his rival.

Vettel's clear aim – even if he has not quite said it yet – is to leave an indelible mark on F1 history, perhaps even to break all the records. In that context, his new friendship with Michael Schumacher, the man who currently holds them all, can be seen in a new light. Vettel is clearly young enough: he could easily have another 15 years in the sport at or near his peak. But whether he can remains an open question. The answer to that question depends on the quality of the cars he gets and his ability to match up to his rivals... more of which in a moment.

This all raises an interesting point about the amount of pressure Vettel subjects himself to, and whether winning the world title will change him in any significant way. Success usually brings about two fundamental changes in F1 drivers – their driving improves as they learn what works and what doesn't; and they become more inaccessible. →

Vettel guards his private life, but is generally an upbeat and approachable presence at races. BBC commentator David Coulthard, who is still part of Red Bull in his role as ambassador and knows Vettel well, says he "would be surprised if he became a distant and aloof champion".

Equally, Red Bull team principal Christian Horner sees no signs of a let-up in intensity in Vettel the driver. "Looking at the determination and drive he's putting into the coming season," Horner says, "he's more motivated than he's ever been, plus he has that extra glow of being world champion." Coulthard agrees: "He has achieved a goal in his life and reset the counter and will try to do it again, in the same way that Fernando Alonso has always had the same approach to his racing, whether he was at Minardi, Renault, McLaren or Ferrari." That drive got Vettel into trouble at times in 2010 – he would have been world champion much earlier last season had he not made some fairly basic mistakes, nearly all of them rooted in impetuosity.

Even with Red Bull's reliability problems, Vettel would have had no need of Ferrari's strategic blunder to put him in a position to overhaul Alonso's advantage in Abu Dhabi, had it not been for the crash with team-mate Mark Webber in Turkey, the puncture caused by a refusal to back down at the first corner in Silverstone, or his loss of control behind Jenson Button at Spa, which ended with the Red Bull T-boning the McLaren. How many of these mistakes had their roots in something beyond a will to win – a desire to always be at the front, to ram home a belief that he is the best?

In normal circumstances, winning the world title calms a driver down, takes the edge of desperation out of his driving and lifts him to a new level of maturity that makes him all the more effective. Alonso says he expects this of Vettel in 2011. "Sebastian will have experience and will be calm in certain moments," the Ferrari driver says. "He will drive better than last year and that makes him dangerous to us." But if Vettel is chasing such huge targets – he is 81 wins shy of Schumacher's total of 91 victories – will that necessarily apply to him?

Statistics, however, tell only part of the story. Just because Schumacher won more races than anyone else, it doesn't necessarily make him the best driver ever. Likewise, Vettel emerging as champion in 2010 does not necessarily make him the best driver – after all, team bosses voted him second to Alonso in a poll conducted by *F1 Racing's* sister title, *Autosport*.

This is an unusually rich era in F1 history, with a high number of world-class drivers. Vettel

has all the hallmarks of someone who will come to be regarded as a true great, but he has some way to go before he can definitively be seen as more than a very fast driver who made harder work than he should have done of winning the title in the fastest car in the field. Just how good Vettel is, is an open question for now. While Alonso and Hamilton have conclusively demonstrated their excellence – not least against each other – Vettel still has something to prove.

He looks very good indeed when pulling out a last-second pole position, or stroking to a victory at the front – but that, so far, is how all his wins have come. And, with one or two exceptions, he has looked less convincing when forced to come up from behind. And how fast he really is, remains unclear to some degree. So far, he has gone up against only two drivers over the course of a whole season – Sébastien Bourdais, his 2008 Toro Rosso team-mate, and Mark Webber.

Bourdais, sacked by Toro Rosso midway through 2009 after an unconvincing season and a half, was pretty much Vettel's match in the first half of their season together. And while Vettel has proved to be more consistent than Webber over a season, he is only marginally faster, and it is impossible to tell how much of that has to do with their different ages, and the inherent handicap Webber has had through being a much bigger guy.

"He will drive better than last year and that makes him **dangerous** to us" *Fernando Alonso*

"I think the wind got taken out of Mark's sails," Coulthard says, "because in the journey he had from Minardi to Jaguar to Williams, he was never up against someone who was established and at the prime of their career. The difference between the two last season was about 0.1secs, and Mark was never able to achieve the same weight distribution for qualifying because of his size. And if he could have got the weight to the right position, instead of being off by 0.1secs, which is absolutely nothing, it could have been 0.1secs the other way. And track position being king, the whole balance of power changes, and the whole thing becomes a little bit messy."

"I think Seb is in his comfort zone – because of his natural speed and because of his youth, which means his mind is not cluttered with being an investor in a GP3 team, and supporting some kid in Speedway. You've got two guys with potentially equal speed, one with a slightly cluttered mind and one with a free mind."

Equally, despite his nine-year F1 career, who can be absolutely sure how Webber stacks up against the likes of Hamilton and Alonso? Listen carefully to Webber, though, and you get the

impression that he thinks he knows. He refers to Alonso as 'the benchmark' for all the other drivers, and holds Hamilton in similar regard.

The Australian has never partnered either of these drivers, although he did get a sense of how good Alonso was when the two tested for Jaguar back in 2002, and Webber came away very impressed. If Webber believes Alonso is faster than he is, it probably follows that he thinks the Spaniard (and therefore Hamilton) are faster than Vettel, too.


For Horner – who also rejects doubts about Vettel's ability to win from behind, citing his fightbacks at Brazil in 2009 and Silverstone in 2010 as examples – these questions are redundant. "It's impossible to answer unless they're all in equal equipment. Sebastian is tremendously talented. And Lewis and Fernando share a great talent, that's clear," he says.

Is Vettel absolutely at their level? "I'm convinced he is," Horner says. "He has a quality that is very special. He's tremendously quick, and Mark is no pushover. He

would give any one of those guys a run for their money. It would be degrading of Mark's performance to say he's not as big a challenge as a Fernando or a Lewis."

But Coulthard has a slightly different view: "Is he as good as Hamilton? Is he as good as Alonso? I think it's a valid question. You close the book after you've written the final chapter. Seb is very much at the beginning of his career. What he is, is the youngest world champion, a class driver and a great ambassador for the sport. He has in many ways rebuilt some of the bridges that were damaged during Michael's time as a German world champion."

"Sebastian is very special. He's a very level-headed young racing driver, and he's reached an exceptionally high standard in the sport. I'm a great fan. I don't want to be critical of any of them, quite frankly, because they've all achieved great success. But I think it's fair to say in the fullness of time we'll be able to answer more questions. I hope we get the chance to see a really good wheel-to-wheel battle between him and Fernando and Lewis."

Then we'll really see who's number one. 



PHOTOS: GLENN DUNBAR/LAT; PAUL GILHAM/GETTY IMAGES

This man wants his third world championship

Great driver he may be, but a lot of British fans don't like **Fernando Alonso**, do they? Neither did former Williams PR man **Liam Clogger**. Then, having watched the Spaniard up close at races last year, he changed his mind. This is why...

PORTRAIT ADRIAN MYERS

For the past decade, I've had a privileged view of the Formula 1 playground as head press officer for Williams. Every other Sunday at around noon, local time, racing drivers are forced to abandon their resolutely tribal turf and mix it in the schoolyard. This press-ganged gathering of all 24 drivers remarkably happens only twice at each grand prix weekend: once to take utterance from the master in charge of discipline, Charlie Whiting, at the drivers' briefing; and then again for the somewhat more showbiz assembly in the FIA garage before the drivers parade around the circuit. And it's during this brief interlude before the drivers are shuffled off for the parade that watching how individuals behave among their wider peer group is so fascinating – especially in a sport where the mental interplay is a significant, if not decisive, factor on the track. That ten minutes before the drivers' parade on Sunday is a psychologist's field day.

Like any ordered social hierarchy, there are clear protocols to be observed in the Formula 1 drivers' playground. The pups turn up first for the drivers' parade – some nonchalant, some more jittery as the minutes to the race start tick down. Once upon a time, a more sensitive driver in my charge wanted me →



to hang around in the garage and chat to him as he didn't have any buddies there and found the environment intimidating. We've all been there, the kid at the disco with no one to dance with, but it takes you by surprise to find that type of neurosis alive and well among elite sportsmen.

Next in are the regular guys: not beholden, but not seeing the point in making a point. Count among this number for instance, Mark Webber, your solid, dependable, Aussie type – as I know from our time together at Williams. But two minutes before the parade starts, there is a small group as yet unaccounted for: the superstars. Number one among them is Michael Schumacher, despite his terrible 2010 season. And close behind, perhaps even nosing alongside Michael in superstar status, is Fernando Alonso.

So I guess that's how I came to regard Fernando myself. Insufficiently discriminating on my part, by some distance. We all know he is a great driver. Engineers up and down the pitlane eulogise about his abilities and there is no reason to call into question his capability behind the wheel. This is a man who won a world title in 2006 with a race car that was far from being the fastest. That takes real talent. But because I had lumped Fernando into the superstar bracket, the associated assumptions of a certain level of arrogance and self-importance just went with the territory. My point of view was reinforced by the press, especially the British press who, quite accurately, understand that having a pantomime villain out to wreck the happily-ever-after ending for one of our British boys, always helps boost circulation.

I hadn't really moved on from 2007 with those helmet-throwing antics and the ease with which Fernando had let a rookie get under his skin. But then gradually, almost imperceptibly, the media that had helped construct my view of Fernando Alonso began to tear its own thesis apart during the 2010 season. And what's even more remarkable is that it happened against the backdrop of the Hockenheim debacle and some less-than-polished on-track performances.

On the Thursday of the Italian Grand Prix, the FIA threw Fernando Alonso in front of the media for the official pre-race driver press conference, immediately after Ferrari had been exonerated by the World Motorsport Council for the charge of race fixing.

I happened to be seated at the back as Rubens Barrichello had been mischievously added to the driver panel to inflame talk of team orders, Ferrari, sportsmanship and the like. The press conference was another playground, and this time the drivers were outnumbered by the press: their only weapons would be guile and wit.

So the British attack dogs got to work on one of their favourite subjects. On the right-hand side in the blue corner sat the *News of the World's* Ian Gordon; in the red shorts on the left, Byron Young of the *Daily Mirror*; and in the middle sat Fernando Alonso. Cue a Fleet Street pincer action – not choreographed, mind, but with the best instincts of the press, they happened to have some rocks to throw and there was just a chance that if they lobbed stones from both directions, one or the other of them would clobber the dastardly Spaniard...

Ian Gordon: Fernando, you said here, a few years ago, F1 is not a sport and your then team boss said the championship had been fixed around a table when it appeared Ferrari had been a beneficiary. Many people in the sport think you were a beneficiary yesterday. If you win the title by less than seven points this year, do you think that the title will be as good as 2005/2006 when you were maybe fighting against the odds?

Fernando Alonso: Yes.

Gordon: Why?

Alonso: Because when you win the title, you win the title.

Gordon: Do you think if you win the title this year you will have won it fairly, on the track, not in the Paris courtroom?


Alonso: Yes.

Byron Young: Fernando, could you please give me your description of the ingredients that make up a worthy Formula 1 world champion?

Alonso: I think that whoever is first at the end, it's because they have more points than the others; one's a champion and this is the way it was throughout the history of Formula 1 and other sports as well – in football, in the Premier League, in tennis. This is not too difficult.

Young: Are points the only ingredient?

Alonso: Yeah, I think if you are talking... because I'm sure you are talking about the decision of yesterday, you have to respect it and be calm. Respect everything as we do and don't worry.



Young: Isn't talent an ingredient of being a great champion?

Alonso: Of course.

Reading it back, the assault was pretty intense. What it doesn't quite reveal, however, is the calm and almost dismissive way in which Alonso smiled and batted the answers straight back. Not to disavow the right of the media to call his actions in Germany to account, but Fernando had a polite, smiling understanding of the game that was being offered, a game he could see no benefit in playing. Most other racing drivers – actually, almost anybody – would have bitten on one or more of those questions or at least disclosed some small clue to their disapproval, but not this man.

His skirmishes with the authorities, the press and his critics in general have made him sage. He understands that there is nothing to be gained in such confrontation and much to be lost. The control he exhibited around this affair in 2010 made me think that he was no longer the tempestuous talent that we saw losing control three years before, and that any continuing suggestions of a fragile and explosive Latin temperament could now be dismissed as tosh. As the season progressed, Alonso had his fair share of frustration out on the race track – from drive-through penalties to the angst of seeing a championship slip helplessly away in the Abu Dhabi desert – but the much-predicted explosion never happened.

I left that press conference impressed, but perhaps not wholly convinced. He'd flipped the bird at the *Mirror* and the *News of the World* but still more was needed to take me past my prejudice and lack of faith that Fernando Alonso had all three courses in his lunchbox.

As Formula 1 embarked upon its late-season run of flyaway races, media scrutiny was again focused on the Spaniard's season. Between ITV and the BBC, it would be fair to say that Alonso hasn't exactly been at the top of UK television's editorial priorities in recent years. That's not just because we have had our own fair share of home-grown talent on which to focus, but perhaps it's also due to the mistrust and ill will that had grown up in 2007 between Alonso and the British media, and which had never been entirely laid to rest. However, in 2010, the BBC made a point of taking a much more rigorous →

“So the **British attack dogs** got to work on one of their favourite subjects...

...Reading it back, the assault was pretty **intense**...

...actually, almost anybody would have bitten on one or more of those questions or at least disclosed some small clue to their disapproval, **but not this man.**”



From the aftermath of the fallout at McLaren in 2007, to the team orders scandal at Hockenheim in 2010, Alonso has rebuilt his reputation as a mature, intelligent and tactical racer



news approach to its programming and part of that policy meant balanced representation across all teams and drivers.

Over the course of the Singapore Grand Prix weekend, the BBC's pitlane reporter, Lee McKenzie, recorded a sit-down interview with Fernando in the Ferrari garage. She is an interviewer who engages well with Alonso and the viewer gets a much deeper insight as a consequence of their positive rapport.


When the interview took place, it began as part of the white noise of radio transmission that plays in your ears all weekend at the track, but something about Alonso's diction and turn of phrase caught my attention, and I put on my headset to listen to the whole thing. Having not heard Alonso in a formal, probing in-depth interview for quite some time, I was amazed by his vocabulary, his syntax and, more importantly, by his ability to communicate abstract and complex ideas in English – which is perhaps his third language after Spanish and Italian. His mastery of the language had progressed immeasurably and presumably as a result of some considerable effort on his part.

While Fernando's dexterity with English surpasses that of many native speakers, his team-mates at Ferrari say his Italian is also excellent and his fluency in French makes him more than competent in four languages. Not that linguistic ability in itself is a measure of anything core to the needs of a racing driver, but certainly

Alonso's ability to communicate carefully crafted thoughts about his position in the title hunt was striking and powerful.

Slowly, I became more convinced that this was a highly intelligent personality: a thinker, a driver with real maturity who knows just how to pitch it to keep his rivals guessing without overstepping the mark.

From identifying an athlete that we all know to be a superlative performer in the cockpit, I discovered, in the distance of a few short weeks, that Fernando Alonso has matured into a personality capable of weathering and even thriving on the conflict that comes with being at the very top of his game. By the end of 2010, I added to that list, the asset of a great tactical mind. I might just have come to this conclusion the long way round, and it might have been supremely apparent to everyone else for a very long time, but I no longer subscribe to the view of Fernando as pantomime villain.

Alonso is the most complete talent in F1 bar none, and I believe he is still an improving proposition. Even if Ferrari don't manage to produce a car that is the quickest thing out there in 2011, this is a man who doesn't need the fastest soapbox in the playground to get his third world title. He'll do the rest through talent. 

II



THE
DANGER MEN

LEWIS
HAMILTON

JENSON
BUTTON

MISSION:



BEAT RED BULL

McLaren's aim for 2011 is clear... but both of their drivers want Sebastian Vettel's title

WORDS
JAMES ROBERTS
PORTRAITS
ADRIAN MYERS



Murray Walker once remarked that Lewis Hamilton reminded him of Alain Prost. That yellow helmet and the hard-charging McLaren late on the brakes, or dancing through the rain with that self-assured belief behind the wheel often reminds people of Senna. But according to Murray, it is the small frame and the soft whisper that makes Lewis so Prost-like. Ask Alain to speak up during an interview, Murray went on to explain, and he would still be only faintly audible.

There's no problem hearing Lewis today as, mic in hand, he heaps praise upon the MP4-26. McLaren's 2011 title challenger has just been unveiled to the public at the Potsdamer Platz in a grey, gloomy Berlin. Looking down on that familiar silver and fluorescent-red colour scheme, with its new-for-2011 innovations, two world champions stand shoulder-to-shoulder hoping the '26' will bring them further glory. When they fly out of Brazil in November will it be Jenson or Lewis who has emerged on top? And will either be ahead of Sebastian Vettel? If 2010 is a guide, then this season will be much closer for the pair of them.

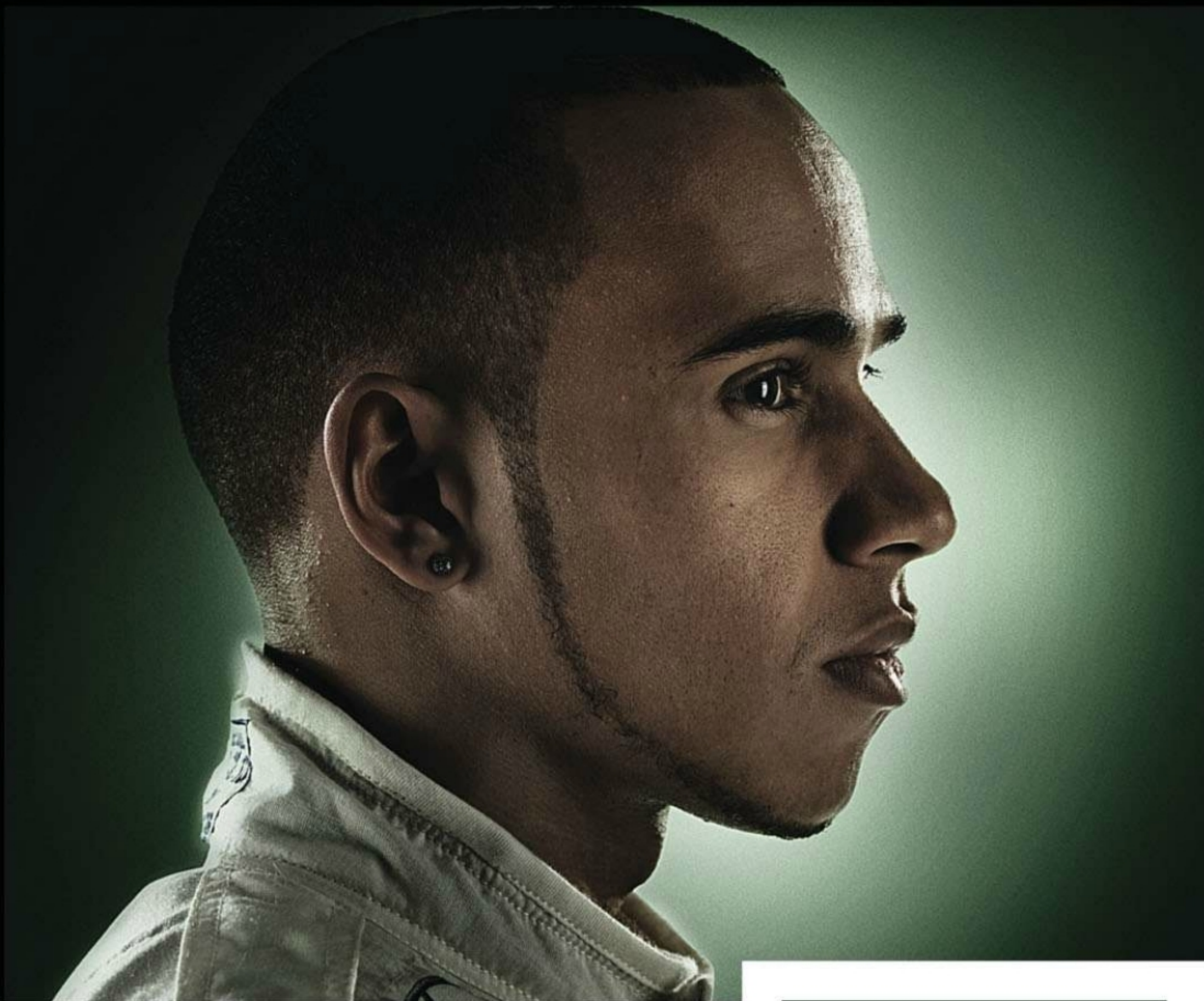
THE CASE FOR: LEWIS HAMILTON

From the very first moment Lewis jumped into one of John Booth's Manor-run Formula Renaults at Mallory Park in 2001, he demonstrated his blinding speed in a single-seater. Then, on his fourth lap, he binned it.

That pace and occasional overexuberance continued throughout his junior career and into his first F1 season in 2007. On the first lap of his debut GP he outbraked his team-mate – and two-time world champion – Fernando Alonso, which has set the tone for the rest of his career. "He's always had the ability to overtake people," recalls John Booth, who ran Lewis in F3 and is now team principal at Virgin. "He's decisive: he doesn't think about it. It's instinct."

After Lewis's meteoric rise culminated in the world title in 2008, the following year was dogged by a poor chassis, although there was still the hallmark foot-to-the-floor grace behind the wheel. But at the start of last year, something wasn't quite going according to plan.

"After he made such an unbelievable debut in the sport, it was difficult to know how he



could top that," says former McLaren winner John Watson. "Last season was his fourth in F1 and it was evident that he was having some issues outside the cockpit. There were problems surrounding the role of his father in his life, distractions in his personal life and that moment in Melbourne with the police. You have to imagine what sort of an effect such sudden wealth and fortune must have on someone. He moved to a place in Geneva and while that might seem nice, actually it's not his home, and he might have been a bit lonely, as he couldn't easily see his mum or dad or pop in to the factory. Then he has a relationship with Nicole Scherzinger, who is equally famous and has her own career, so maybe there wasn't the stability for Lewis in his private life. I think a variety of things conspired to upset his momentum last year and maybe he wasn't as happy as he was when he first came into F1 in 2007."

Last year's Australian GP was significant for a number of reasons, aside from that notorious four-wheel drift onto Fitzroy Street. During the

race, Lewis was exciting to watch, doing what he does best: outfoxing his rivals on track. But equally he was emotionally charged, eating up his tyres and bickering with the pitwall on the radio.

Contrast that with Jenson's laid-back manner in the car. He made a decisive, experienced call to switch to slicks early on and nursed his rubber to a cool victory, which was followed up with another win in the wet at Shanghai. But those early wins for JB seemed to provide Lewis with the impetus he needed to refocus his campaign. Brilliant back-to-back wins in Turkey (where he resolutely put Jenson in his place) and Canada took him to the top of the world championship standings. And despite the strength of Ferrari and Red Bull, Hamilton still had an outside chance of winning the title at the final race of the year. Whatever it was, and he's admitted that all was not well in his personal life, it seemed that it has passed.

This winter he's spent time with his girlfriend in Colorado, and has been working with his

If Lewis is mentally stronger in 2011, then his rivals should be wary, especially his team-mate

new trainer Antti Vierula. He's seemingly in a happier place, describing the off-season as "probably the best Christmas and birthday I've ever had." Perhaps the pressure is off; perhaps he's more comfortable in himself. "He's still young and he will make some mistakes, like we all did when we were young," says Jackie Stewart. "But some drivers have never been given the type of profile he has and he's learning to deal with that."

If Lewis is mentally stronger going into the 2011 season, then his rivals should be wary of the threat he'll pose this year – none more so than his team-mate... →

The addition of Jenson to the McLaren setup and the effect he might have had on Lewis shouldn't be underestimated. There is less needle between them than you might expect, which is probably down to their age difference. With JB five years older, the relationship is more of a mutual respect; it's almost brotherly. Jenson has been in Formula 1 for over a decade now and a long time ago went through that cycle of immediate fanfare and acclaim, followed

by a season in a uncompetitive car and then distractions outside the cockpit.

"I think there are problems with having sportsmen and F1 drivers that are so young," says John Watson, who made his F1 debut at the age of 27. "If you've spent your whole life

karting or at racing circuits then maybe you don't go through normal adolescent behaviour and don't grow up to be a rounded individual. And some of the things drivers do are understandable given the amount of pressure they are under.

"When Jenson first went to Williams, I did say that he would be a world champion, but after a couple of years he was having a great time and enjoying life – and then I questioned whether he would ever win a grand prix. He picked me up on it, but then his attitude changed; he matured and then when he had a car that suited him, he was absolutely

unstoppable. It's not a criticism, it's just the nature of the sport that drivers are coming in too young. Now Jenson is 31, five years older than Lewis, and I think he's been a really good influence and has had a calming effect, not only on the team, but on Lewis himself."

Jenson hasn't always had a front-running car capable of scoring podiums or wins and, as a result, he's had to learn to deal with disappointment throughout his career. But now he's settled at McLaren he's never looked happier. Many thought switching teams to join Lewis was a dangerously bold move, but it's one Jenson has carried off with aplomb. "I thought he was going into the lion's den," says Jackie Stewart, "yet Jenson has adapted to McLaren beautifully – and they have adapted to him."

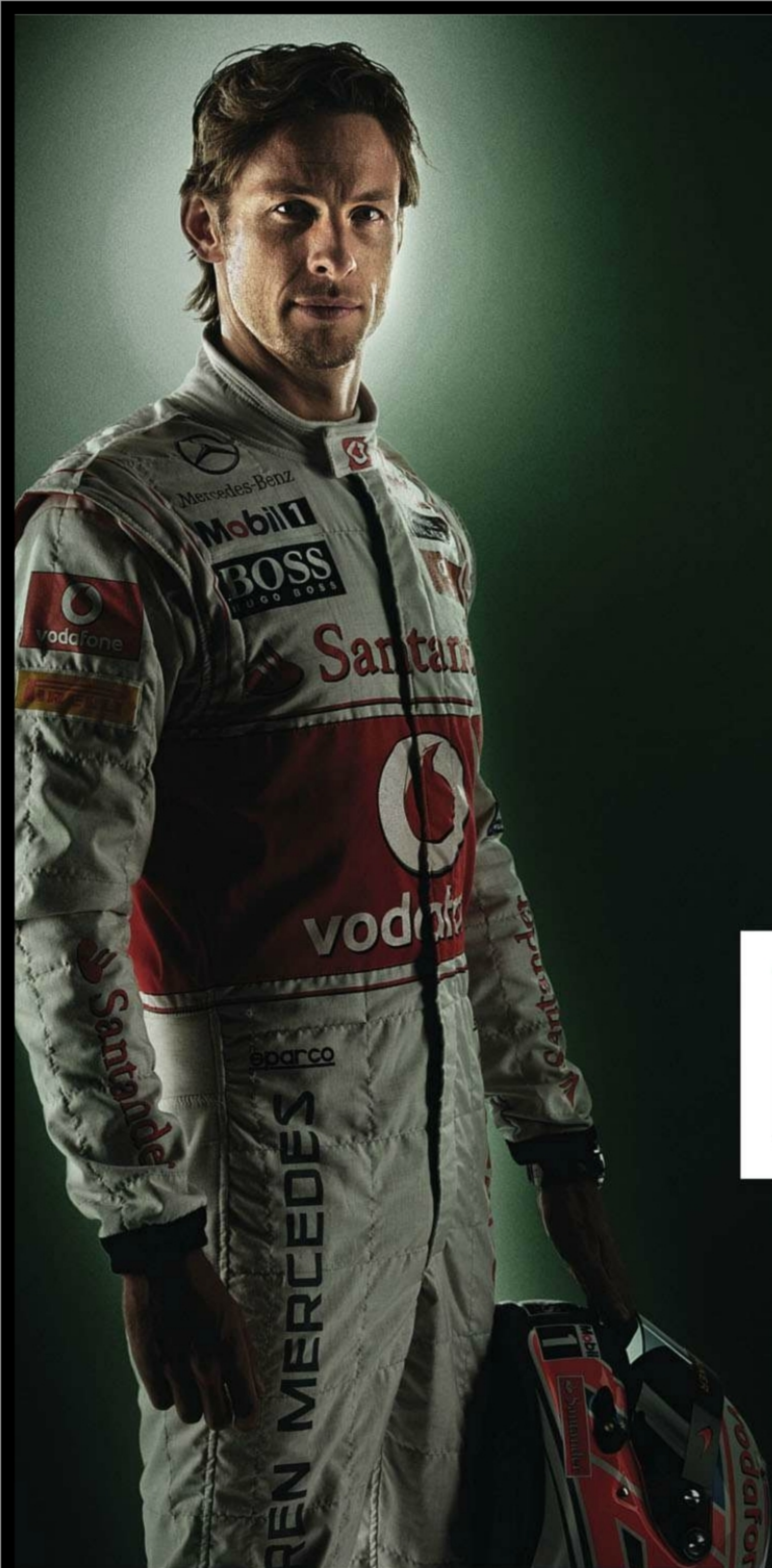
The partnership is set to improve in 2011. With Jenson having been at the team a year, he was able to have some input into the direction of the MP4-26 – in particular to help accommodate his 1.82-metre frame. "The main thing for me is the space inside the cockpit," says Jenson. "I'm a lot lower in the car and actually I do feel a lot more comfortable now."

Give Jenson a well-balanced car with plenty of stability and grip and he's formidable: few can get near him. Throw in a bit of imbalance or a touch of oversteer and it's a different story. Like his team-mate, the characteristics in Button's driving today are very similar to when he was climbing up the single-seater ladder. Back in Formula Ford, he would often lose a couple of places on the opening laps because his tyres weren't up to temperature, as his smooth style stopped him from getting enough heat into them; yet by the end of the race he had fresher rubber than anyone else and would be flying. Pirelli's arrival in F1 this year might play into Jenson's hands, particularly if concerns over their rapid rate of degradation aren't resolved.

"I bet Jenson is rubbing his hands with glee about the tyre situation because with the high wear rates, he's going to be much smoother and

THE CASE FOR: JENSON BUTTON





more caring of the rubber, while you'll expect Lewis to go full bananas. It'll be interesting if he can save enough time by doing a pitstop less than his team-mate at some races," says Wattie.

As the two world champions

stand next to each other in the Berlin gloom, all hope lies with the MP4-26 and its radical looking sidepod intakes. Jenson speaks up: "Our car looks different to most cars out there, sorry, our car looks *better* than most cars out there... whichever is the quickest car will be the one we'll say is the best looking. What's certain is this guy's going to be very competitive," he says, pointing at Lewis. "And I hope this is the guy I'll be fighting for the world championship. We are fitter, mentally stronger and we're not here to finish runners-up."


We should brace ourselves for a decent scrap between these two. Having world champions as team-mates is rare in the history of F1. In fact, it's only happened on five previous occasions and the past three have all been at McLaren.

"We haven't really seen Lewis and Jenson in a head-to-head," says former McLaren racer Martin Brundle. "They are quite good mates, but there is no point being that much of a mate with any driver you're competing against. So when we see them in an absolute head-to-head, I think we might find there's a different dynamic between the two. Think back to Istanbul and remember Lewis's face on the podium when Jenson had passed him and he wasn't expecting it. I think that is a little taster of what might happen..."

Give Jenson a balanced car with plenty of stability and grip and he's formidable: few can get near him

Perhaps, then, there should be a comparison with Prost and Senna, the last two world champions to go up against each other in the same team, at McLaren?

"Ayrton Senna had that blinding speed and would close his eyes and go for broke, while Alain Prost would be much more measured and thoughtful in his approach, but both would achieve results and would do it in their own way," says John Watson. "Prost's experience was brought to the car and the team and Senna would see the fruits of that direction. I see a very similar relationship between the pair of McLaren drivers now."

Whisper it, we all know how that story ended. 

"Building up my image is something I need to work on."

No
one
talks
about
me"

He might have had a successful season last year, but something has been bothering **Nico Rosberg**. His plan is simple: win races... and boost his profile

WORDS HANS SEEBERG PORTRAIT ADRIAN MYERS

"Wow! WOW!" shouts Nico Rosberg as he enters the room at Mercedes HQ in Brackley, Northamptonshire. "I've just seen the new car and it's amazing! Actually it's better than amazing! This season is going to be so boring – we'll probably win at least half of the races."

Is the car really that good? "Hey, I'm joking!" he laughs. "But we are making big progress, because we made mistakes last year. We have Ross Brawn leading us and he'll get it right. The targets are always super-crazy for a new car, but it's looking good. We're all confident."

It's a little exchange that rather neatly sums up Nico Rosberg: slightly disarming but to the point; perfectly friendly yet businesslike; amusing but unpredictable. And after this interview you may also decide to add 'decidedly honest', 'self aware' and 'incredibly confident' to that list of attributes...

For someone who's only 25 years old, it's sobering to think that this is Nico Rosberg's sixth season in Formula 1. It's a fact that's certainly not lost on the man himself, who wastes no time getting stuck into the topic:

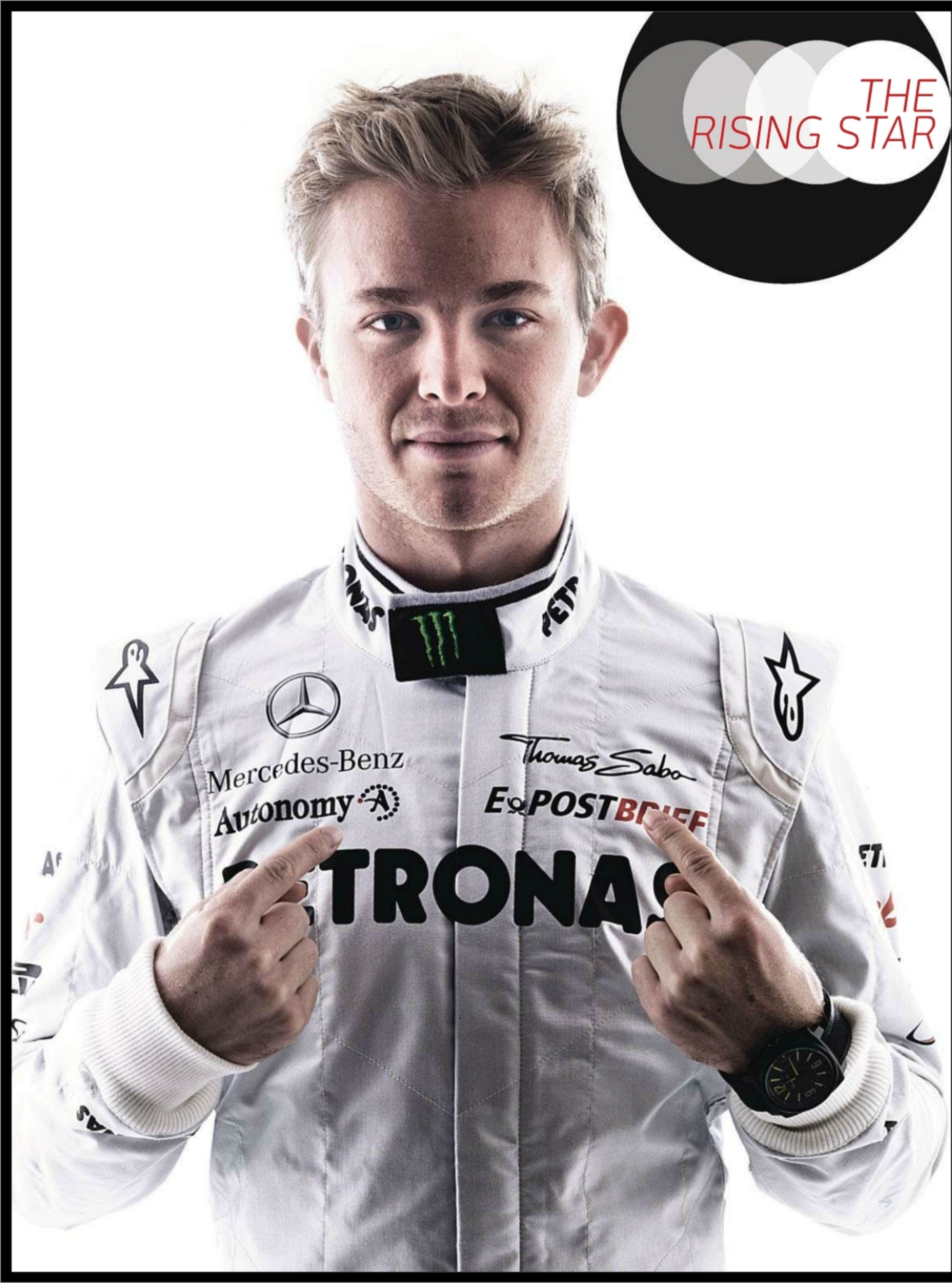
"It's crazy! But even to think that I haven't won a grand prix yet, it's just... silly. I can't believe it. I used to win all the time in my career, and then I get to this thing called Formula 1 and I haven't won in six years. It's crazy."

Does he feel that now is his time to break through? He laughs. "No, that was five years ago. That's my feeling." But then what about the perception of the fans? Does he think a lot of them will feel that this is his year to break through? There's a long pause, during which Nico remains silent. Isn't he interested? "Yeah, I'm interested, but I'm driving a Silver Arrow, and a Silver Arrow needs to be in front."

He is clearly a driver and personality who expects big things from himself, but it's hardly as if Rosberg has been unsuccessful in his Formula 1 career. True, that first win still eludes him, but you'd be a bit harsh if you castigated yourself for not winning races in the 2009 Williams. And the same goes for Rosberg's first season with Mercedes last year, when he couldn't realistically have been expected to triumph against the likes of the Red Bull RB6 while driving a car whose problems have been well documented – not least by both of its drivers.

But despite all this, Nico managed to finish seventh overall last year, a mere two points behind Felipe Massa (who had vastly superior →

THE
RISING STAR



machinery) and ahead of both his illustrious team-mate and Renault's highly rated Robert Kubica. Yet while pundits and fans alike lavished praise on Kubica's brilliant 2010 season, little mention was made of Rosberg's success.

Did you feel you didn't get the recognition you deserved last year?

No, I didn't... I probably did from the real insiders in Formula 1, but otherwise no.

Why was that, do you think?

It's just image related. Building up my image is something that I need to work on.

People have spoken quite a bit about the amazing job done by some of the other drivers on the grid last year...

I know! That's what I always hear: but nobody talks about me. It's not that I need people to talk about me, but it's important for my career: if I have a strong media presence, my market value is higher. It's a big factor.

Does this image perception annoy you?

Yes. Actually I'm not sure whether 'annoy' is the right word to use... it's more of a concern really. Like I said, I know it's important for my career, and I know it's something that needs to be worked on.

Rosberg is a switched-on customer, and you sense that his stock in F1 – particularly among the bigger teams, you would naturally conclude – is very important to him. His concern is 'image'. Does it explain the new haircut and carefully cultivated, Jenson-esque 'semi-beard' – an attempt to somehow be seen as a tougher competitor? So what is his problem? Is he just a little bit too much under the radar as he gets quietly on with his job? Whatever the reason, it's something that irks him. Expect to hear more from him in 2011.

Nico has been written off before, of course. This time last year he was supposedly about to get his bottom royally kicked by a man who hadn't raced in Formula 1 for three years, and we all know how that one panned out: Rosberg surprised pretty much everyone – including himself – by consistently outperforming Michael Schumacher.

Were you irritated by the way in which people were so surprised that you got the better of Schumacher?

[Nico shrugs] Not really. I mean, he's the best of all time. Even I expected it to be extremely difficult. I wasn't expecting him to walk all over me, but I did think it was going to be very tough.

"I come to F1 and I haven't won in six years. It's crazy"



In that context then, how satisfying is it to beat your team-mate when many people predicted you wouldn't?

That's not what makes it satisfying. What made it good was that I know he's very good, and I'm pleased I was able to beat him throughout the whole season – especially considering I wasn't able to get any really good results. As a small compensation it was nice to be able to beat the one guy I could compare myself to – who just happens to be one of the sport's all-time greats.

Speaking of 'really good results', you've been open about your aim of winning races in 2011. Does that put a lot of extra pressure on your season?

No... no.

What happens if you don't? Do you worry your words will come back to haunt you?

No, because it's not down to me, it's down to the car. I think I can win races if I have the right car. And I think I will have the right car.

Do you relish the pressure in your job?

It depends how much there is. A certain amount is always good. It keeps you going.

What about Ross? He's always very complimentary about your talents.


Describe your relationship with him...

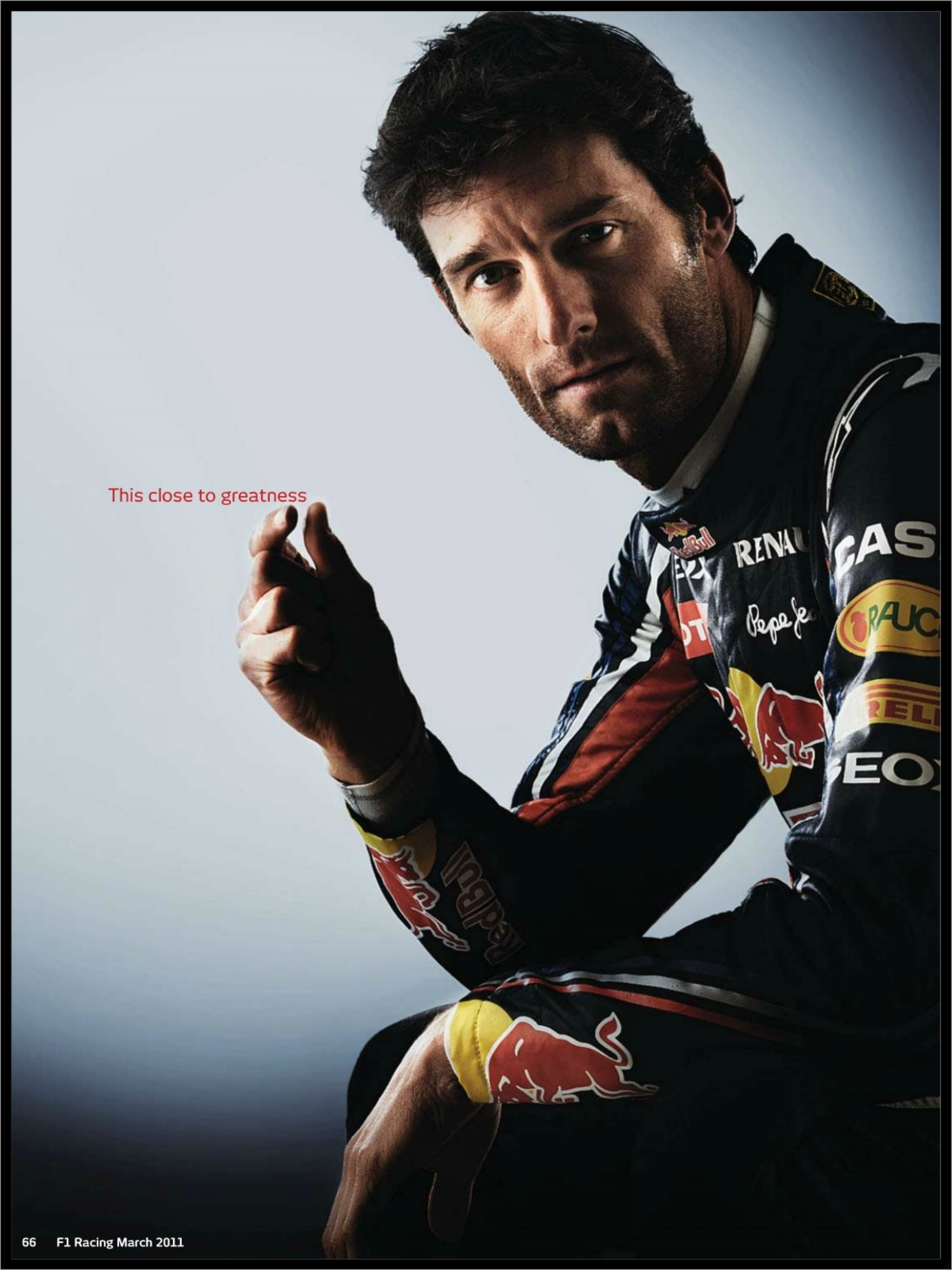
Well, I'm very fortunate. I mean, I had a concern coming here and not knowing him or Michael and knowing their relationship had been strong over the years, but Ross has been really good to me. He's been equal and fair, so I get on well with him. It's a good relationship. I respect him a lot as a person and also for his competence. He's a very good leader.

He seems to really motivate you...

And everybody else! That's one of his strengths. Everybody gets their fair share of that.

Nico Rosberg doesn't lack motivation, talent, confidence... or even the certain arrogance needed to prove yourself as one of only 24 people in the world capable of being on the Formula 1 grid. There's something quite strange about hearing a sportsman of his stature discussing a supposed 'image problem', but the reality is that what's missing from his armoury is probably something a lot simpler: a win – something to help him enter that inner circle of sought-after drivers he feels he deserves to join. His only obstacle is beating the cars and drivers of Red Bull, Ferrari and McLaren.

If he could pull it off, there wouldn't be anything wrong with his image then. 



This close to greatness



THE NEARLY MAN

INTERVIEW TOM CLARKSON
PHOTOS ADRIAN MYERS

The tiniest of margins separated him from eventual world champion Sebastian Vettel last year. For 2011, in equal machinery, **Mark Webber** intends to close that gap

IT'S BEEN DIFFICULT TO KEEP UP with Mark Webber over the winter. A hectic travel schedule prior to Christmas, which took him to Thailand and Australia, was followed by radio silence. He spent most of January at Lanzarote's Club La Santa, mobile phone switched off.

As much as Webber loves his team and his sport, he needed this time away to refocus and re-energise himself after a gruelling 2010 campaign in which he came within touching distance of the sport's greatest prize. He was exhausted, frustrated and annoyed by the end of last season, but some time away has helped him to learn from those negatives and come back stronger.

At the launch of Red Bull's RB7 in Valencia, he looked relaxed, tanned and excited to be back. He was pleased to see everyone in the garage (he and Sebastian Vettel even shook hands) and he was spotted having a long chat with Dietrich Mateschitz when the Red Bull boss turned up to wish the team well.

Mark's playing a good hand amid the post-championship glow that exudes from Red Bull

This close to Vettel...

Racing. He'll have his work cut out this year alongside Vettel, the world champion, but he's never shied away from a challenge in his life. Nor, for that matter, has he ever refused to answer a question – as you're about to find out...

Ferrari boss Stefano Domenicali didn't sleep for two days after Abu Dhabi. What about you?

Ferrari thought they had the title in their hands, so it was harder for Stefano on the day. They didn't give it away, but they made it easier and that might have made it harder for him to sleep.

Some could argue that I did the same, but obviously I needed to go there and win the race. We had the whole season to do what we did and I think that we had some incredible results along the way. We put ourselves in a position where it was like, 'Okay, this could be pretty special.' In the end, I didn't get enough points at the start of the season or at the end of the season, and that's why I was able to sleep – not well – but I could think, 'I gave it my best shot.' I was lucky and I had more than my fair share of races that went my way for lots of different reasons. →

If you find yourself in a championship showdown in 2011, will you be more nervous as a result of what happened last year?

I think the best thing to do is not to get into that position going into the last race. At least if it does happen, we'll be in Brazil, a real track, not like Abu Dhabi, so it'll be better for me.

How difficult would you say it is to recover after a season like 2010?

Not massively difficult, because it's the old thing of however many times you get knocked down, you get back up again. Giving up is the easy bit; you've got to come back and start again. You've got to be very careful how you look at 2010 because you can say you got defeated, but lots of other drivers don't see the season like that.

Only Fernando and I can really say we got defeated because we got pretty close. It was a tough closure to the finish because we didn't actually hit the jackpot. There was only one driver who did that, but you still have to look at how we got ourselves into that position. We must have ticked some pretty serious boxes along the way... not quite enough, but it was still a pretty successful campaign.

The British press were quite harsh about Andy Murray's performance after his defeat in the final of the Australian Open in Melbourne. Would a similar assessment of your performance in Abu Dhabi be justified?

Murray only has three or four chances to win a Grand Slam each year, so they are probably a little bit harder to win than a grand prix – but not by much. I could have closed the championship, as could have Sebastian, as could Fernando, less so Lewis... we could have claimed it much earlier, but we didn't. Some of my best drives were in Suzuka and Brazil where Sebastian and I pushed each other like hell... so you could say that they were the first and second sets of the championship.

So Abu Dhabi: qualifying, bang, roll the dice, first ten laps didn't show – and then it's over.

What have you been up to over the winter? How have you prepared yourself for this season?

After the season I had some work to do for Red Bull, a bit of stuff in Perth and Bangkok and a bit of stuff on the east coast of Australia as well. Then over Christmas and New Year I just relaxed. Lots of chocolate and ice cream – normal things. I sat in front of the fire. I didn't train. I did not do a single thing for nearly five weeks.

Was that a career first for you?

Yes.

Is that positive?

I'm the same weight as I was when I finished last year so... it was my first off-season for two years where I wasn't doing rehab work, so I made the decision to really enjoy it instead of sitting there and looking at my leg. I just relaxed, dropped my guard a bit and stopped worrying about stuff.

What do you expect from Sebastian this year? Is he a more formidable opponent for having won the title?

I don't see him being any weaker. There might be more pressure for him to go about his business as a world champion. When you're winning races, more people want to hear what you've got to say. He knows that as well... he's not stupid. But when you're in the garage, nothing's changed from three or four years ago. He's just a world champion now. He's still got to work hard and get on with it.

Do you worry that his position within Red Bull has become stronger as a result of last year?

I don't. I've always had to work very hard here. I've got a great relationship with Christian and Adrian, which I think is very important. It's held me in good stead in the past and it will do in the future. My results keep me in the game and that's what I've got to do again. →

This close...

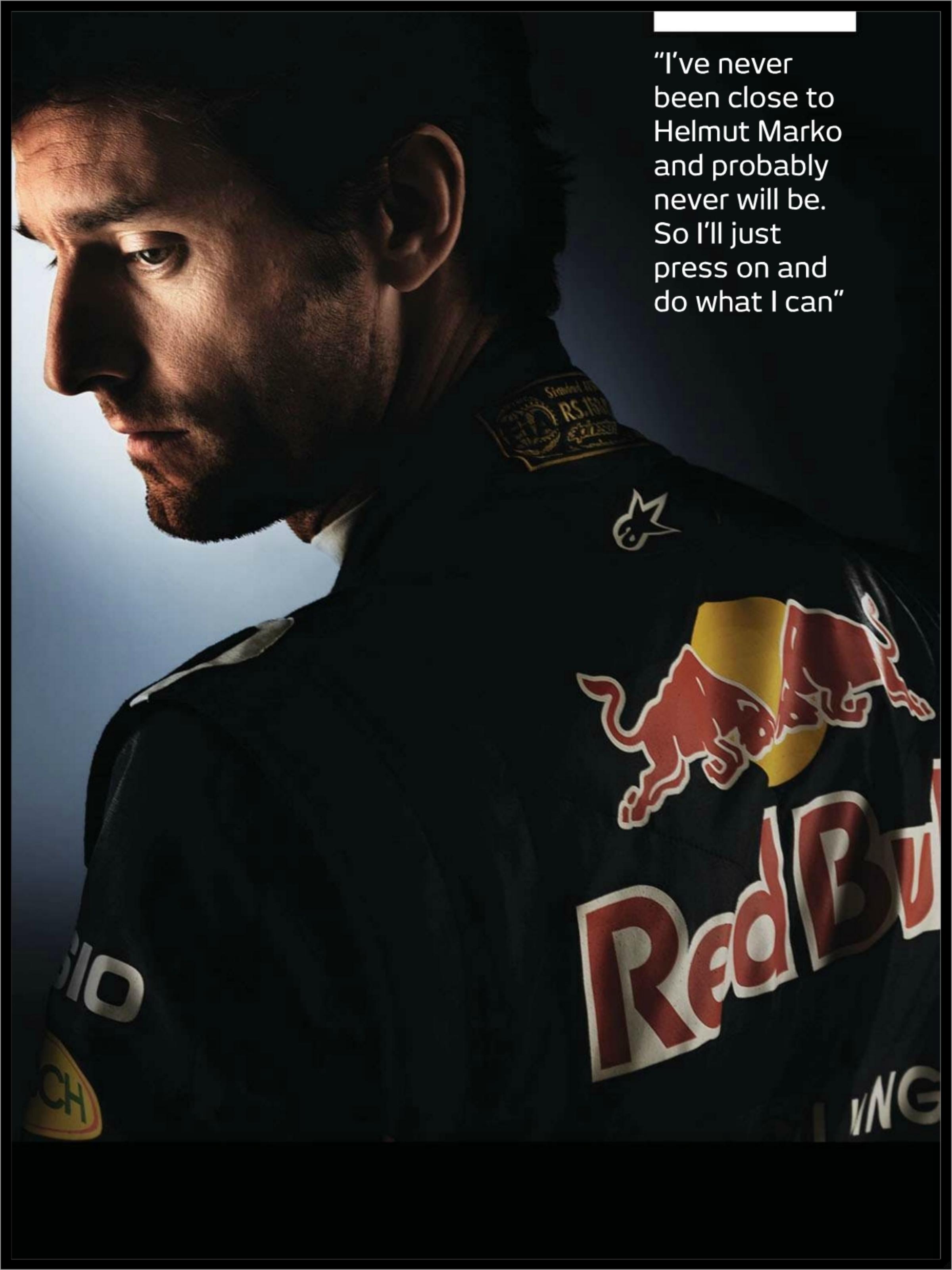
This close...



"Over Christmas I just relaxed.
I didn't train. I didn't do a single
thing for nearly five weeks"



"I've never
been close to
Helmut Marko
and probably
never will be.
So I'll just
press on and
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Will you have to do anything beyond what you did last year to get a fair crack of the whip?

No.

You say you have a good relationship with Christian and Adrian but, ultimately, is Helmut Marko the man you've got to appease?

I've never been that close to Helmut and probably never will be, so I don't worry about that. I'll just press on and do what I can with the people I have the relationships with to get the job done.

Do you think you'll get equal status?

I don't know how you can have a number one driver, unless you say, 'Yes, you have the best slice in qualifying all the time,' or 'You have the best pit strategy all the time.' To keep the whole team motivated you need two cars that can go out there and give it the best crack.

This is your tenth season in F1. How has the sport changed you as a person?

That's a massive question. I never ever, in a million years thought I'd arrive in F1 and race for this long in it, so I've been incredibly lucky. I've worked with some amazing people, and a few clowns as well, but generally I've been very fortunate to work as a professional at this level. I've come across some unique individuals and that's made me a person of more substance. I believe I've tried as best I can to remember where I've come from and that's also something which I believe is important. No matter what you've achieved, how lucrative it's been, or what results you've got, you still have to look at the bloke in the mirror. That's important. He's the guy who's real to you, so you need to understand what's going on there.

You said you didn't expect to be going this long as a professional in F1, so how much longer are you going to continue?

The desire is still there, particularly for racing. I enjoy developing the car, too, because you're laying the foundations for when the lights come on at a race meeting. I love how the momentum builds into a race weekend. If I didn't have that, I'd miss it a lot. I have the motivation and desire to keep testing myself against the best. I'm lucky to be racing people like Fernando and Lewis. I give them nothing because when I stop, I've got to know I gave

them nothing. Be a hard competitor, be as hard and fair as you can, put whatever you can into it to achieve the best results you can against the hardest guys and teams in the world.

Do you think you can beat every guy on the grid?

Well, I've done it several times already. You can say, 'Yeah, he had a great car...' – but you know what? There aren't many guys who've won races in shitboxes in this category. I think you need everything together – I could still be sitting here without a victory if I hadn't delivered on certain days. To have had some very special races is unique, and I need to try to do more of it.

Going forward, do you think that you'll see out your career with Red Bull?

I would believe so. I want to continue – any driver wants this – racing towards the front and hanging out with these punks I've just mentioned, week in week out. To race with them is very rewarding and enjoyable. Of course you have nerves at the time. There's not a guy in the pitlane who doesn't have nerves. They'd be lying if they told you they didn't. It's what gets you out of bed. That's what a competitor goes through and that's what you enjoy.

Do you want to re-sign for Red Bull next year? Are you putting the wheels in motion for that?

No. I haven't started to negotiate with them, but they've always only ever signed me for one year at a time. I've never had any more than that.

Has that offended you in any way, Red Bull not committing to you in the longer term?

Not too badly. I think it suits both of us well. I certainly like to believe I've bought something to the party here. Obviously we've had a few headwinds here and there within the team, but to have two drivers do what we did last year is a unique situation and one of them might not – was not – supposed to have been in that situation. I hope I can continue to work hard for Red Bull. They know my reputation is that when I do things, I do them to the best of my ability at all times. And they know that I will do that again.

What team might lure you away? Is there one?

Driving those red cars has always held that romantic attraction...

Fernando Alonso is locked in at Ferrari. Would you fancy being his team-mate?

It's difficult to say how I would deal with that. The reason it's hard to answer that question is because I know how happy I am here. The people I work with the most are people I like and people forget that when I make a pitstop... pitstops made me win crucial races last year and some of the guys in the pitstop are Seb's mechanics and, as a unit, we did a lot last year. I've got a lot of time for those boys.

What are the odds of you being world champion this year?

I think all of us are at about 10-1. It'll be the same guys as last year, but keep in mind that no one has really turned a wheel yet. There'll be JB, Lewis, the Fonz [Alonso], Seb...

What about Mercedes?

Nico... we'll see, Michael... we'll see. Both of them are capable of doing bloody well, it's just a matter of the team getting it together.


Some people have already written you off after your end to last year. Do you care what's written about you?

If someone's constantly slating you, or you are made aware that someone is being unduly harsh to you, then of course you might have a chat with them. Some of them are obviously free to have their opinion and off they go. But you shouldn't worry too much about what people say.

Is that a defensive mechanism, protecting you from all the misinformation on the internet?

When there's nothing going on, it's even worse. I might see what's going on technically. Sometimes that can be of interest, particularly when the season gets going, but in the off-season – nope. It's just junk.


Do you read what people write about you?

Since Abu Dhabi last year, I've probably read 15 minutes worth of F1 press. I love reading about other sports, but I read fuck all about this one. 



A man with glasses, a mustache, and a goatee stands with his hands on his hips in the center of a large, dark-colored maze cut into a green lawn. A white dashed line traces a path through the maze, ending at a small white circle just behind the man's feet. In the top left corner, there is a graphic of four overlapping circles in shades of gray, with the text 'THE STRATEGIST' in red capital letters.

THE STRATEGIST



Mercedes face a winding journey out of the midfield maze, but **Ross Brawn**, one of F1's top strategic thinkers, is confident the team are on their way. We'll soon see if he's right

WORDS ANTHONY ROWLINSON
PHOTOS LORENZO BELLANCA/LAT

E

ven Ross Brawn can't win this one. The deepest, darkest, meanest winter to breathe a silent chill into Britain's heart since 1910 has managed to slow down a man whose essence is being the very fastest.

Despite having at his disposal some of the very finest Mercedes-Benz 4x4 machinery available, Brawn concedes that the only way he managed to complete the (usually) 45-minute journey from home to Mercedes GP HQ in Brackley, Northamptonshire, was by driving very slowly.

Those resonant Brawn tones, familiar from a thousand media moments (the FIA press conference, the Ferrari post-race briefing, the rare-but-welcome paddock aside) have taken on an unwitting seriousness as he describes the care and caution he had to exercise, not just in getting to work today, but also as he's carried out his life's work. Lest we forget, Brawn has been around a while. He has earned his place in the pantheon and has done so through talent, ferocity, ambition, guile, hardness, humanity... all the stuff that makes a modern F1 success story.

Back in the day (which began more than 30 years ago) there was March, then Williams, then the Alan Jones Beatrice-Haas-Lola,

Arrows, Jaguar (world sportscar champs), Benetton (Schumacher v1), Ferrari (Schumacher v2), the Todt-Byrne-Brawn dream-team, the year's sabbatical, Honda, Brawn GP (double world champions!) and, finally, (deep breath), Mercedes (Schumacher v3).

And here he is now: a large, friendly presence, with a slight cold, putting his coat and scarf back on in his office, because it's -5°C outside and maybe only -4°C inside the Brackley factory with its broken boiler. But frost be damned; Ross is no hater of the media and is happy to spend a chilly hour chatting to *F1 Racing*. It's a big season for the Mercedes boss. And, as you'll hear, he's expecting great things from Michael Schumacher and Nico Rosberg as the team bid to rediscover the magic of 2009.

F1 Racing: What's your verdict on 2010, then? Average? You don't really do average, do you?

Ross Brawn: Well 2010 was pretty average, yes, but I like to think we're not an average team. It was a disappointing year. Despite winning the championship in 2009, behind the scenes it was fairly traumatic. We had to make a lot of people redundant and that destabilised the organisation a fair bit – it took a while for things to settle down. During 2009 we were focused totally on winning the championship and putting a lot of our resources and focus and attention into doing that. And, quite frankly, we didn't put enough

focus and attention on the 2010 car. It wasn't a bad machine in every respect, but there was nothing outstanding about it. It was an average car and it did an average job. That's really all we can say about it.

F1R: That's quite an admission from you Ross, considering that you stole a march on all your rivals in 2009. By contrast, the 2010 MGP W01 had a sluggish F-duct, troublesome blown wings, tyre warm-up issues and imperfect weight distribution. So how does a team like yours go from A+ to average in the space of a year?

RB: We weren't ambitious enough in terms of what we tried to achieve with the car and I was as responsible as anyone for the conservative approach. We were a newly restructured group and I didn't want to push the boat out too far with some ideas. In fairness to the guys here, they had a lot of ideas but I damped them down because of the need to make sure we could at least achieve a decent car. But with the strength of the structure we have now, we're being far more ambitious in the things we're doing.

F1R: Is it possible to do with Mercedes what you did with Ferrari in the early 2000s and become a standard-setting dream team?

RB: Any successful team consists of a group of people. There's no team I can think of that has been successful through the sole efforts of one individual. Ferrari was a fairly high-profile group of people: myself, Jean Todt, Rory Byrne and Michael, and here we have a very good group of people, too. We have two first-class drivers, as well, so we have the right ingredients. It will be a dream team if we're successful.


The calmness of the Brawn delivery creates a beguiling and entirely believable sense that, as long as logic and due process are followed, everything will fall into place and success will follow. The correct race strategy will deliver victory and the correct team strategy will likewise bring success.

One element of the restructuring that's now complete is in the cockpit. Having swapped Button-Barrichello for Schumacher-Rosberg at the start of last season, the Mercedes GP driver line-up remains unchanged for 2010. But not, it must be said, without questions still being asked about the merits of retaining a certain seven-time world champ, beaten 142 points to 72 by a team-mate who is yet to win a race...

F1R: Was hiring Michael after his three-year break from Formula 1 the right decision?

RB: [Without any hesitation] Yes it was. I think probably the only frustration we felt was that it took a little time for Michael to find his feet. But he is incredibly committed and works hard and impressed everyone in the team with →





"Last year was pretty average, but I like to think we're not an average team"



now without the testing are really struggling. Michael has huge experience of F1, but not recent F1, so he came in almost as a rookie in the sense that without the testing behind him, it was a massive challenge.

F1R: Had it been anyone other than Michael in the other car and had the performance gap to Nico been the same [qualifying was 15-4 in Rosberg's favour] would you have shown the same level of support?

RB: Well it depends who it is. If it's a driver coming straight from another team with recent F1 experience and they struggle, you'd say "Why should he get any better?" And that's what you have to analyse: are they likely to get better? Take a guy who's been exceptional in F1 but who has been out of it for three years. He jumps in the car, he's not bad but perhaps not quite as competitive as you'd all hoped – there are still lots of reasons to think he'll get better, because time in the car will help him improve. I've had this question before: "If he was a rookie, would you have kicked him out?" But I wouldn't, because if you'd got someone in who'd not done

is it all management, or do you still get your hands dirty with the engineers?

RB: I generally oversee things, but I like to know the issues and the problems and I can sometimes lend my experience to a particular problem or consideration. I will definitely sit down with the engineers and set out my objectives with them, so that we all know what we're trying to achieve. I feel I have as good a view as anyone of the objectives and the targets that are needed for us to be able to move forward. To be honest, I fairly rarely look at the detailed design but, particularly when the car is at the conceptual stage, we have a lot of reviews and I sit in on those reviews with a great interest in what's going on.

We've already spent more than half an hour with Ross and the overriding impression is of a man totally fixed on his objective and moving towards it with absolute confidence that he can be successful. All well and good for Brawn and his team – and also for the prestige motor maker whose shield they carry. But surely nothing can equal winning a world-title double in a car that's got your name on it?

his approach and attitude. He's an essential ingredient for us in establishing this team and going forward. Towards the end of the year, his performance was reaching the levels we hoped they would and, interestingly, we go into the new season in the perfect position, because if we had ended the year with Michael dominating Nico we would have been pretty disappointed in Nico. He ended the year just a touch ahead of Michael but the gap was much closer. So you can see the progress that Michael made during the year – he never gave up thinking about how he could improve things, and that's typical Michael. I think we probably both underestimated the impact of his having been away from the sport for three years, but by the end of the year he was doing very well.

F1R: Did he suffer from the lack of testing?

RB: Absolutely. He's a person who was very highly committed to testing when we were at Ferrari. He was always the guy who would ring up and say: "I want to jump in the car." His normal testing mileage was huge. And his raw ability and commitment to driving the car and understanding its nuances means he's definitely found it difficult not having testing available. You see some of the young guys coming into F1 and it takes them a year or more to settle down and produce any sort of performance. Lewis came in with a massive amount of F1 testing behind him, and the guys that are coming in

"We go into the new season in the perfect position, because if we'd ended the year with

Michael dominating Nico, we'd

have been pretty disappointed in Nico"

F1 before and he was performing at that level you'd be delighted. By the end of the year there wasn't much between Michael and Nico, which was encouraging. We saw progress. Certainly by the last few races I was happy.

F1R: It paints Nico in a pretty spectacular light...

RB: I was very impressed – I mean hugely impressed. We tried to get Nico to join us a year or two ago and he decided to stay with Williams. We thought he was good although, if I'm honest, we didn't think he was as good as he has proved himself to be. He has exceeded our expectations. When he was at Williams you would spot the occasional error, but he didn't put a foot wrong last year and he has been quite exceptional in terms of his performance. We're delighted with him. And I think Michael relishes the challenge of meeting someone who is getting towards the top of their game.

F1R: What about your job these days? after all the tribulations at the end of the Brawn GP year

RB: Brawn GP had a hundred per cent record! Well of course what equals it is what we're working on now and what we're achieving now. It's funny, but in Formula 1 I don't think anyone looks back. I think everyone looks forward. And if I didn't think there was something that was going to give me as much pleasure or satisfaction then I wouldn't be doing it. So yes, Brawn GP was a very, very special period: the highs were fantastic; the lows you really wouldn't want to experience again. We're all so engrossed in the present and what we're trying to achieve for the future that we... well, let's say that the lows had been largely forgotten by the end of the year. We got to the point where the various socials and awards ceremonies were almost starting to be an unwelcome distraction because we were trying to focus on the future. It was a great period and I'm proud of the team, but we're all focused on what we can do in the next few years. Starting with this year. 🏁



THE
TRAINING
SCHEDULE

JUMP RUN, LIFT & SPRINT

Heikki Kovalainen has been preparing for 2011 since mid-December with cross-country skiing and punishing gym sessions. But nothing beats the workout you get with a racket and a shuttlecock

PICTURES LORENZO BELLANCA/LAT



hen you start

training for the new season depends on what the last one was like, I suppose. After my last year at McLaren I had six weeks off where I did nothing, but 2010 wasn't particularly tiring for me so I didn't feel like I needed to take that long off.

Although my crash at the Race of Champions in late November set me back a bit, I still started training for the new F1 season in the second week of December. All I do to start with is work on my basic fitness. Initially, I have a three-week plan that's designed to boost my endurance levels, so I'll do loads of cardio stuff for longer amounts of time but with less intensity. There's no speed or power work with massive weights or anything during this period – I do things like cross-country skiing for a couple of hours at a time, which is brilliant conditioning for my legs and upper body.

The amount of exercise I do in this first stage varies from day to day. I had one week where I did 11.5 hours of training and then another where I did 16 hours – the idea was to have an easy first week, followed by a medium one and then a tough one just before the New Year.

So I suppose I'll have done about 40 hours of training over the course of that period. I was planning to have a few days off either side of New Year before I stepped up the training, which I sort of did – I caught the bad cough and cold that was going round!

Once I got into January, I worked on a different type of fitness. It's totally concentrated on power and strength, so I do shorter sets of exercises with more weights in the gym as well as the maximum amount of cardio possible – basically I'll do a lot of interval training, where you sprint for short bursts and then walk, then keep repeating that.

Another thing I do during this period is play a lot of badminton

with some friends of mine who are really good. I know that might sound strange to some people but it's a tough game and the intensity is unbelievably high when it's played to a good standard. There's lots of stopping and starting, it requires you to move very quickly and your heart rate can get up to about 190bpm. It's one of the best things I've found to get me up to my maximum aerobic capacity, because I build up more tolerance to the lactic acid in my body and there's a lot of speed work involved. To be good at badminton you need your muscles and brain to react quickly – just like in F1. So once I've added this power and speed training to the previous endurance work, I'm really starting to get ready for the new Formula 1 season.

I have a lot of input into my training schedule. Me and my trainer work out a plan together, but we also have input from some people from different sports in Finland that I know – they're real sports experts who know how to get you to reach your optimum aerobic capacity. I know

what I want to do so I have quite a lot of input, but I love all sorts of fitness and I wouldn't do it if I didn't like it. I have to do so much of it that it's got to be fun as well.

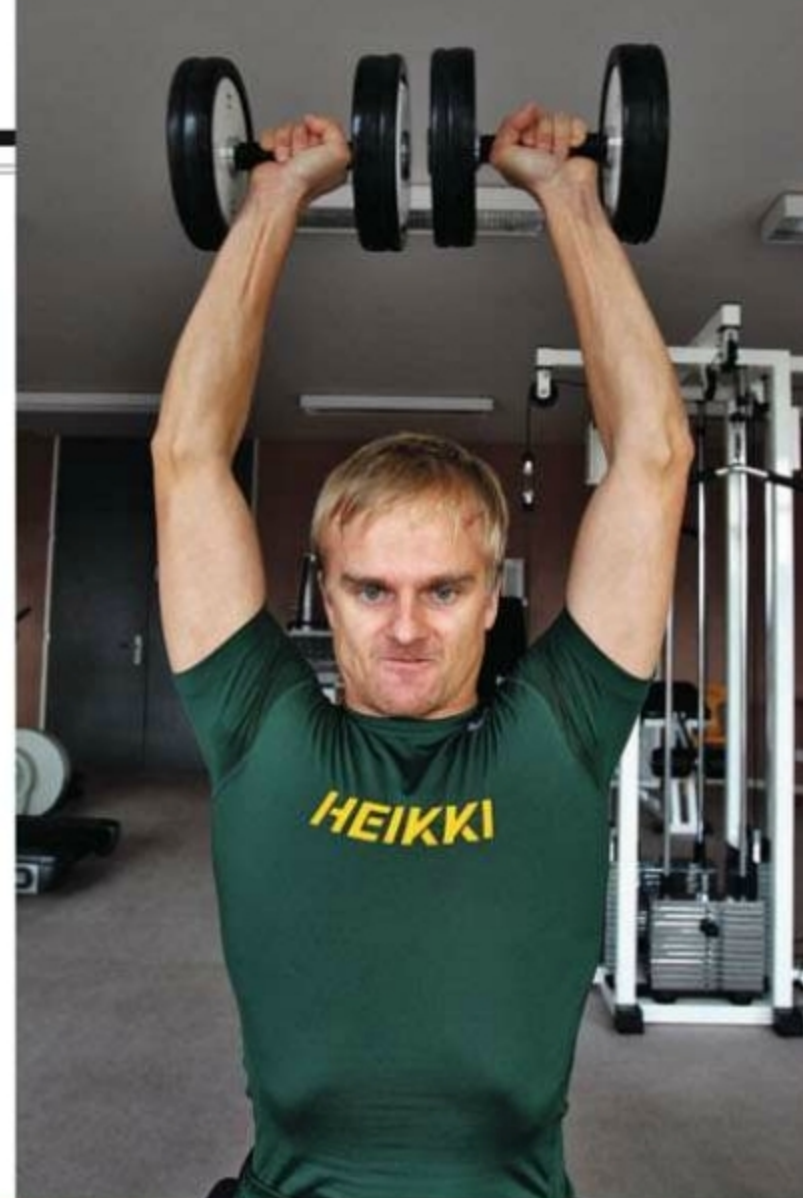
A lot of people ask about how we get our necks strong enough before the season starts, and that's an area I work on after pretty much every session – maybe for ten or 15 minutes. I usually pull different loads using a machine that has a race helmet rigged up to some weights, and I find that once the season starts my neck is pretty much ready for what it'll be subjected to in a Formula 1 car. I've never had a problem with my neck since I was at Renault, where I used to work on my neck muscles for two hours at a time. Now that was boring.

Food-wise I generally eat pretty healthily, so there's no strict diet to be followed during training. During the off-season I might have a burger now and again, but not often. Once I'm training, the main thing is actually managing to eat enough. I'll have supplements that I take before the various workouts, plus carb and protein recovery drinks and vitamins. It all adds up to the calorie count I need. I actually find eating enough during training is the most difficult thing.

"People always want to know who the fittest F1 driver is. I'm not interested in what other people are doing as long as I'm ready to race"



The other thing people always want to know is who the fittest F1 driver is. Personally, I'm not interested in what other people are doing as long as



Heikki has taken steps to ensure no one will pinch his T-shirt...



I'm ready to race. I believe in a different type of training to a lot of other guys; many drivers do triathlons, and if you put me on a bike against them they'd probably beat me, and then they could say they were fitter than me. But I don't know how much they do in the gym on their speed and stuff. So trying to measure who the fittest F1 driver is, is a very difficult thing to do.

I know that Lewis trained in the same way to me when I was at McLaren, and I hear Sebastian Vettel has a trainer from Finland and does similar stuff. My target is always to be the fittest of the drivers who train like me.

CHARLES COATES

THE
PUNDITS

Martin & Jake talk 2011

On the one side, there's the former racer and now lead commentator Martin Brundle; on the other, F1 presenter Jake Humphrey. Together, they'll be heading up the Beeb's coverage this year. And they can't wait...

INTERVIEW JONATHAN REYNOLDS PORTRAITS MALCOLM GRIFFITHS/LAT

F1 Racing: So how excited are you about getting to Bahrain and starting the season?

Martin Brundle: It'll be a long season but we're looking forward to it. Twenty races – have there ever been that many? Not in my experience. We're going to some exciting places, including a new track in India, there are a lot of regulation changes and Pirelli are coming back...

Jake Humphrey: And we've got five champions on the grid. What's nice about that is there are five champions all in cars where they can fight for the championship again. All I'm getting are messages saying, 'I can't wait for the winter to end,' and I think we feel the same. You know, it's nice to have a break to do your washing, go to the dentist and remind your wife what your name is, but before you know it you're starting to think about Bahrain and getting excited.





F1R: You mentioned the new rules, Martin...

MB: KERS didn't work in '09 but now they've increased the weight of the car. Unlike '09, there's no refuelling so you have bigger fuel tanks and they've also had to put more crash protection in the car, so a lot of that weight increase has been used up. The problem before was that KERS took up all the ballast and some cars were overweight; in fact cars were often faster without it, which is not how it should be.

I think there are concerns from the heavier drivers that they will be at a disadvantage in terms of centre of gravity and having less ballast to move around to tune their cars. But I'm afraid F1 has to recognise its responsibilities and move with the times. I've also heard some drivers saying 'there are lots of buttons to press on the steering wheel, are you sure about this?'

"F1 has to recognise its **responsibilities** and move with the times, but we don't want it to be artificial. It shouldn't be the **push of a button** that decides the result of a grand prix" **Martin Brundle**

We don't want it to be artificial. An overtake should be something to be savoured: a high-class important-pressure overtake on the brakes into the apex. It shouldn't be the push of a button that decides the result of a grand prix.

JH: Remember that the circuits make a massive difference, though. In any given season you'll see great overtaking at somewhere like Brazil, and then none at Abu Dhabi. We can change the cars on a season-by-season basis, but the circuits are

set in stone so perhaps they need to rewrite the rule book on how to design a great F1 circuit, because I'm not sure the recent ones have benefited overtaking. Sometimes it feels like you're at the same circuit week after week.

F1R: Will there be any graphics on the coverage to show people what is going on with KERS and the rear wings?

JH: Our job is to make the sport as accessible as possible for people and we know we're catering →



"Lewis will feel 2008 was a hell of a long time ago. I think **McLaren** will produce the car and Lewis will be pushed to the limit by his **team-mate**. I'd like to see him win another title" **Jake Humphrey**



Fernando Alonso: more popular with the tifosi (and Fernando Alonso lookalikes) than Michael ever was, according to Brundle's sources...



for a wide variety of viewers. What I would say to people is tune in and we'll do our best to cater for everybody. I think it's a huge boost having David Coulthard in the commentary box alongside Martin because we've got two different drivers' perspectives, and David has driven contemporary machinery. He drove the title-winning Red Bull last season and was their reserve driver at a number of races.

MB: Very reserved!

JH: DC can speak with the experience of having driven these cars and he's driven against a lot of the guys on the grid so he can discuss their ability... or otherwise.

MB: Regarding how the fans will know when a device has been used, I think we're just going to have to look at the speed differentials and work out if it's KERS or KERS and rear wing. Hopefully there'll be some sort of graphic on the screen but if we're not careful you won't be able to see the pictures for graphics.

F1R: What do you think Sebastian Vettel's chances are of retaining his crown?

MB: Christian Horner pointed out that Seb's only just old enough to rent a car in the UK. Of course he'll keep developing as a racing driver and as a person and he'll have this confidence now that the monkey's off his back. But having said that, winning consecutive world titles has proved very difficult over the years. We know Alonso has, but Lewis has found it very difficult. So there could just be this release of pressure where actually you sometimes see the drivers dip a little bit, even to the extent that Jenson did in parts of 2010 as the reigning world champion. It's not a given that Seb will keep shooting for the stars – but I wouldn't bet against him.

F1R: We saw a lot of team-mate tension at Red Bull last year. Do you think that will continue?

JH: It's impossible to know. Everyone always thinks they know what's going on in the team and you hear a million conflicting stories. But no one really knows except Mark and Sebastian and perhaps Christian Horner and Helmut Marko. But I think Sebastian will be comfortable in his own skin. He's won the championship and almost outpsyched Mark Webber at times with those brilliant races at the end of the season. Equally, I think Mark will look at it and say "I've proved I can mix it and be a race away from being world champion." It will be difficult for Mark with KERS because he's heavier than the other drivers but I think like last year he'll see it as his final chance and go out all guns blazing.

MB: I think Mark said at some point last year that when you start a new season, it's always the most important season ever. I remember saying it to myself 20 times. That's life in this business.

F1R: What about Ferrari? One drivers' title in six years isn't good enough, is it?

MB: What about McLaren? Lewis won a title, but they desperately need to win the constructors'.



Brundle and Humphrey
debate who they'd put
their money on this season

JH: They haven't won a constructors' title since the '90s. Ultimately, a fizzy drinks company has come in and beaten Ferrari and McLaren at their own game. Ron Dennis must be sitting there, having devoted his life to McLaren, looking at Red Bull flying down the straight and thinking: 'This is madness'. I imagine it's the same at Ferrari, where it's a religion to support that team. A group of guys have come along, taken an outfit that had never won a title before, plastered a fizzy drinks logo on the side of the car, spent a fair chunk of money, had fun along the way *and* won the title. So what are they doing that Ferrari and McLaren haven't been doing?

MB: Hiring Adrian Newey for one thing, and a lot of other very talented people...

JH: They've achieved the ultimate and won the double. It massively piles the pressure onto Ferrari and McLaren and I think they will start the season vowing it won't happen again. They're going to go out there and show us why they're the two most famous racing teams in the world.

F1R: What about Fernando Alonso?

JH: He seems to love being at Ferrari by all accounts. I went to Maranello with Martin last year and I remember going into the room upstairs from Enzo's office where they signed the first Concorde Agreement and Fernando, who'd been having a rub

down, came in wearing just a pair of underpants. The two of us were looking at pictures in this office and he was just laughing and joking, and it was a side I've never seen before. This is a guy who's totally at home. Then he went off and played football with the mechanics on a little pitch next to the track. The *tifosi* have fallen for him head over heels. He won on his debut, he won in Italy, and he nearly won the title. It was so close to being the perfect season.

MB: I was amazed to be told by some eminent Italian journalists that Fernando is more popular with the *tifosi* than Michael ever was. Pressure is building, though. They need to get ahead of the game – they've been chasing it in recent years. But Fernando will push them hard, that's certain.

JH: There are no excuses for Ferrari or McLaren this year. Ferrari have got Alonso, the driver they always wanted; McLaren have the two most recent British world champions. They couldn't want for better drivers or any more money.

MB: Isn't that the great thing about 2011, though? None of them have any excuses. Red Bull are reigning double world champions, Mercedes have really got to get their act together, and it's pretty clear for Ferrari and McLaren, as you've just explained.

JH: We'll be cutting them no slack!

MB: Yeah, that's it, we're going to get tough on these people! You should never underestimate Jenson, though. What he has to do to beat Lewis is to sort out

qualifying because he looks like he's a match on race pace, particularly in variable conditions. He's taught Lewis a few lessons in that respect.

F1R: And Lewis has spoken of putting personal issues behind him..

JH: You look at drivers and see them as these robots designed to go and race. But they've all got things going on in their personal lives and it's normal that if you're not 100 per cent happy at home, it will affect your work life. Lewis and Jenson have been better for each other than we or McLaren could ever have imagined. They push and inspire each other and they want to beat each other. It's the perfect recipe.

F1R: And there was no bust-up...

MB: No there wasn't, but let's wait and see if they're both up for the title. They get on pretty well, but we haven't seen them both really, really fighting for a title in the last race or two and that will be the real test of their relationship. Look at how Turkey last year nearly ended up. Lewis's face on the podium said all you needed to know.

F1R: What about Mercedes? Nico Rosberg said he thinks Mercedes will win races this year...

JH: He wasn't far off being driver of the year in 2010.

MB: I've always championed Nico and a few people, especially journalists, have said, "Are you sure?" But what's always impressed me about him is that he goes forward in a race and that's an important quality. I think he could have won in Korea last year with a bit of luck. I'd also be interested to see how Michael can develop. I still believe in him as a top-line racing driver. He's not going to dominate like he used to because he doesn't have the tools around him any more. But if he doesn't deliver this year, then I personally think it's time for him to stop. Having said that, Michael and Nico make a tremendous combination. And Renault could be in with a shout if they've got the car right, or Lotus-Renault or whatever they're called...

F1R: Have you had a discussion about what you'll be calling them yet?


JH: I'm sure something will change and we won't have four Lotuses on the grid. It doesn't work.

MB: It's complicated. I'm going to wait until I walk down the paddock on Thursday in Bahrain and then I'll make my mind up. Right now it looks a bit like black Lotus/green Lotus, but let's see what happens after the court hearing.

F1R: So if we gave you £10 for a bet, who's your money on for the title?

JH: Lewis Hamilton. He'll feel 2008 was a hell of a long time ago. McLaren will produce the car and Lewis will be pushed to the limit by his team-mate. I'd like to see him win another title.

MB: Red Rum would have my money. My job is to explain what goes on, to add some facts and some entertainment – I don't do guessing...

JH: If I've guessed right it'll make me look very clever though, won't it? 

DC will be spending a fair bit of time in the commentary box this year, leaving EJ to run amok...



THE CARS



Red Bull RB7
86



McLaren MP4-24
96



Ferrari 150th Italia
99



Mercedes MGP W02
100

Naturally people have marvelled at the Red Bull RB7, the latest work of art by Adrian Newey to vye for F1 dominance. Can the new cars from Ferrari, McLaren and Mercedes get close to it? Pat Symonds has his say

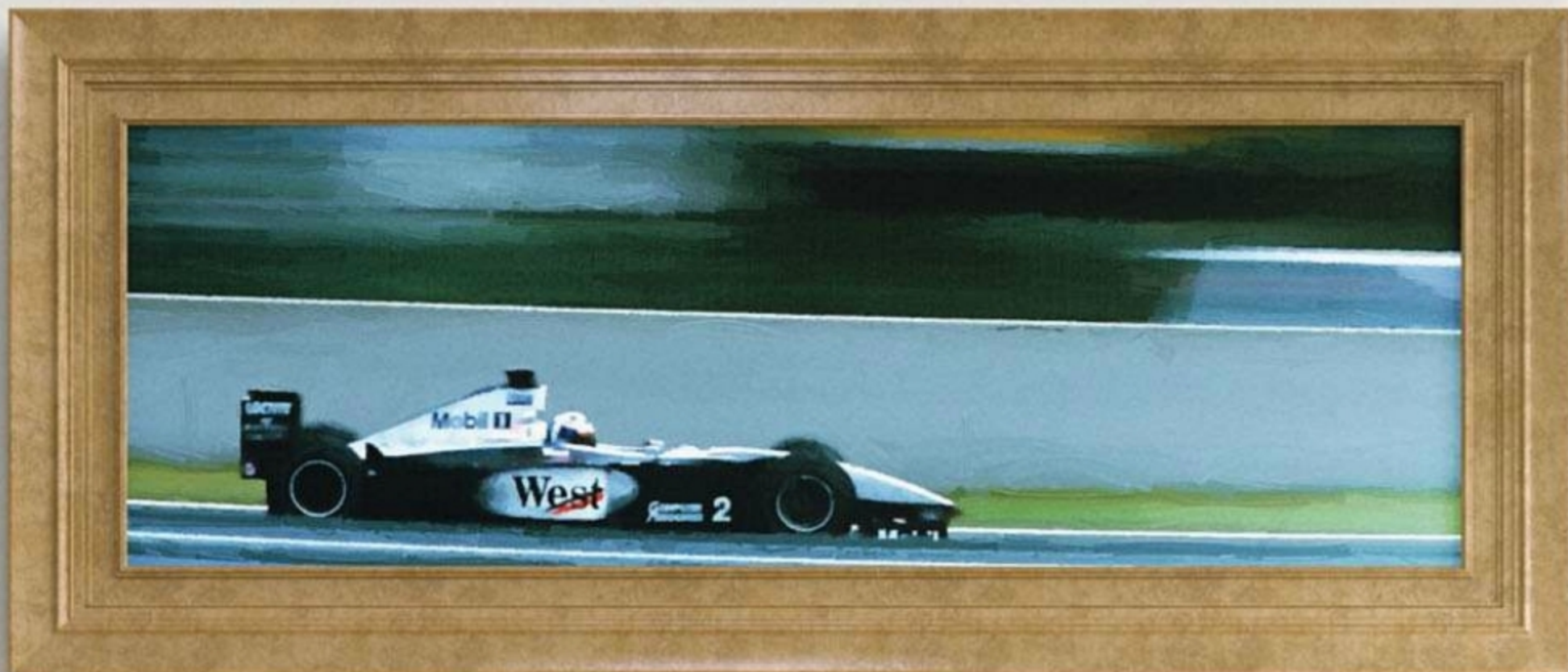
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power to you



McLaren MP4/14

1999

Beautifully sculpted from carbon fibre, this neatly packaged racing monolith took seven glorious wins



Williams FW19

1997

An evolution of the FW18 and the last Williams to be blessed by Newey's Midas touch



Williams FW16

1994

A fast but devilish beast, this diamond in the rough evolved into a constructors' title winner



Williams FW18

1996

This flawless specimen redefined dominance and engineering excellence





**McLaren MP4/13
1998**

A striking melange of silver and black, this nine-time winner looked deceptively simple

**Red Bull RB6
2010**

Its austere blue bodywork belied a work of supreme aerodynamic ingenuity



**Williams FW14B
1992**

A masterpiece of electronic sophistication, this creation won both 1992 titles



**Williams FW15C
1993**

A chariot of exquisite proportions, driven to the title by soft-handed virtuoso Alain Prost

Adrian Newey has designed eight works of art that have won F1 world championships...



THE
MASTERPIECE?

...but will the
RB7 be his
masterpiece?

WORDS TOM CLARKSON
PICTURES PETER CROWTHER;
ANDREW FERRARO/LAT; LAT ARCHIVE



**Red Bull RB7
2011**
A tighter repackaging of
the 2010 triumph, with
a longer wheelbase and
low-down KERS. Has
the maestro outdone
himself this year?





"Look at it,"

said a rival technical director. "It's a complete masterpiece... the car that we all have to beat."

Seven F1 cars were launched at the first winter test in Valencia, but there was only one that everyone wanted to see: the Red Bull RB7. The RB5 and RB6 had been a class apart and the new car was expected to again set the benchmark.

Sebastian Vettel and Mark Webber removed its covers slowly and deliberately. Camera shutters clicked, rivals strained to get a look and everyone in a Red Bull shirt gave a knowing nod. The car looked beautiful. Adrian Newey, the team's chief technical officer, looked on with satisfaction. "The launch of a new car is a proud moment for all of us in the team," he said to the waiting media. "So much work has gone into RB7 and I'm very happy with the end result."

When Newey speaks, people in F1 listen. His record in the sport is second to none; since he joined Williams in 1990, his designs have won more than 100 GPs. To say that he's the most important man in the pitlane is a bold statement, but the fact that you could even make a case for it speaks volumes. Newey is simply peerless as an F1 engineer and aerodynamicist. "The man deserves a knighthood," says Webber. "What he's achieved in Formula 1 is amazing... phenomenal."



The RB7 certainly looks pretty; let's hope she's as fast as she looks."

The new car is a tour de force that's typical of Newey. After an exhaustive world championship campaign in 2010, he extended the aerodynamic programme in the windtunnel over the winter and finally signed off the design later than any car in Red Bull's seven-year history. Only a huge amount of overtime put in by the staff in Milton Keynes got the car finished in time for Valencia.

This season marks the third year of the current aerodynamic regulations, so the RB7 is an evolution of last year's RB6 rather than a revolutionary new design. It's a refinement of the old car that sees even tighter packaging at the front and rear, while continuing to push the aerodynamic envelope within increasingly restrictive regulations.

Beyond the usual percentage improvements he seeks year-on-year, Newey has had to contend with small but significant changes to the regulations for 2011. As a consequence, he's had to alter the layout of the car.

The wheelbase is slightly longer than last year's to accommodate the Magneti Marelli KERS device, which Newey has placed under the fuel cell in the centre of the car. The system weighs about 30kg and Newey has pushed hard to get KERS as low down in the car as possible.

"Our 2009 car was designed to run KERS and we trialled the system briefly pre-season," says Newey. "We decided not to race it, but it's not a completely new concept for us. With the bigger fuel tanks we have this year, compared to 2009 when refuelling was still permitted, packaging has been a big challenge. It's also been tough to keep the car light enough for Mark, the heavier of our two drivers."

To ease the re-introduction of KERS, the FIA has raised the minimum weight of the cars from 620kg to 640kg this year. But that's not a like-for-like trade-off because there have been several weight-enhancing additions this year, such as double wheel tethers and anti-penetration zylon chassis panels. For that reason, you'll see the

diffuser going forward, and they've also reduced the depth of the diffusers from 175mm above the reference plane to 125mm.

"This ban has resulted in a big loss of downforce," concedes Newey. "We've been scratching away with that on this car, trying to reduce the deficit in other areas and we've met the challenge well. I've heard other teams claiming that they're close to recovering the downforce lost from the diffuser, and my only reaction is that they're talking rubbish. Or they were a long way off where they could have been with their double diffusers. We've a way to go before we're back to the old levels of downforce."

Less downforce means less aerodynamic drag, which means higher top speed. But we're seeing

The wheelbase is slightly longer than last year's car to fit in KERS

taller drivers looking thinner than ever this year, Webber included.

In addition to KERS, a ban on double diffusers has sent teams back to the drawing board. The FIA have been explicit about the type and size of the holes that are permitted on the

top-end speed increases of nearly 10mph this year, due to the new moveable rear wing. Vettel and Webber reported that it's a very powerful tool and more effective than the F-duct, which was banned at the end of last season. "The wing doesn't go completely flat when activated," says



About the artist: ADRIAN NEWEY

After gaining a first-class degree in aeronautics and astronautics for which he had penned a memorable thesis on ground-effect aerodynamics, Adrian Newey's burgeoning genius found a home in the hallowed sphere of race car design. He presided over several works of mechanical opulence in sportscars and Indycar before his ascension to F1, where he unveiled masterpieces for March, Williams and McLaren before joining Red Bull Racing in 2006.

Newey. "It lifts at the front until the slot gap is 50mm, which gives significant drag reduction. How that affects the racing and whether it makes it more dangerous, only time will tell."

The last major change for 2011 is the return of Pirelli. They haven't made an F1 tyre since 1991, and their interpretation of the current rules appears to be different to Bridgestone's. During winter testing, the super-soft compound degraded quickly, while the medium and hard compounds appeared to be quite conservative.

"The tyres are the same for everyone," is Newey's nonchalant response, "and we'll keep on learning about them for a while yet. The first time Pirelli brought out their race-spec compounds was at the Barcelona test, so we're still working out the performance parameters. The dimensions of the tyre are the same as


"I've had offers from Ferrari in the past," admits Newey

they were last year, but the way it performs is different. It degrades at a different rate to the Bridgestone and it deflects and deforms in a different way under high lateral loads. That has aerodynamic ramifications."

Whatever the problem, and particularly if it's aerodynamic, you sense Newey will find a solution. He's so good that Red Bull team principal Christian Horner must envisage two battles on the horizon this year: the world championship and a fight to keep Newey. He has a long-term contract in place, but that's never stopped staff movements in F1 before...

"I'm very happy at Red Bull," he counters. "It's flattering if people rate the work I do, but that's not why I get out of bed in the morning; I do it because I enjoy the design challenge of F1." Adrian has won world titles with established teams like Williams and McLaren, and he's done it again with relatively new team Red Bull. Surely there's only one box left to tick?

"I've had offers from Ferrari in the past," he says, "and I've considered them seriously. But F1 is a people sport, not a marque sport. Working for Ferrari just for the sake of working for Ferrari isn't something that I'm interested in."

Rest assured the Scuderia will probably come knocking again if their F150 is left trailing the RB7 this season. To get a masterpiece like this, you need Adrian Newey. 





Can Ferrari, McLaren or Mercedes catch Red Bull?

Against the backdrop of the intrigue and mind games of February's testing schedule, **Pat Symonds** assesses the cars of the three big teams gunning for a certain energy drink company...

PHOTOS ANDREW FERRARO/LAT

McLAREN

When the MP4-26 appeared at its Berlin launch, it featured some interesting features such as the curious-looking sidepod inlets.

The shape, which is reminiscent of the Benetton of 1995, has clearly been designed to get strong airflow to the rear of the car, and follows an idea first seen on the championship-winning Benetton B195, of which I have many fond memories.

All the teams have paid a lot of attention to the flow on the outboard side of the pod, by undercutting the front and sculpting the rear tight to the mechanical skeleton

beneath. McLaren have also considered the inboard flow and have effectively provided a channel to enhance it. This should prove very successful as the flow is both strong and fairly clean. The downside is that the outboard flow that feeds the radiators is more turbulent. To mitigate this, the sidepod veins have been moved forward to clean up airflow into the radiators.

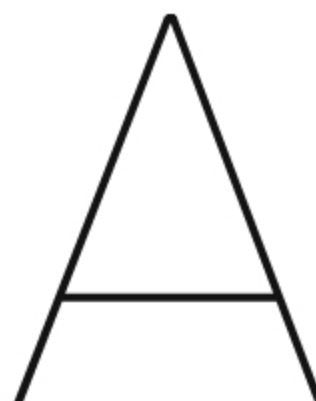
At the front of the car, the ubiquitous high nose has a horizontal splitter beneath it, but is otherwise unremarkable – although the low-positioned steering rack is different from last year. The car retains what

appears to be a high degree of anti-dive, which I believe compromised the ride quality last year.

At the rear, pullrod suspension is seen together with a very simple diffuser and a conventional low-mounted exhaust. I think we can expect significant changes in this area by the Bahrain Grand Prix.

The roll-hoop area has been the subject of much attention, with additional cooling scoops added behind the engine air intake to cool the gearbox and hydraulics. The KERS cooling, meanwhile, appears to have been taken from beneath the engine air intake.





fter a short hiatus

that is anything but quiet for those involved, the Formula 1 teams gather in Spain at the beginning of February for the Machiavellian game known as winter testing. Press days are full of optimism and running days are all too often full of excuses but, behind the hype, the teams set about learning all they can about their cars... while hiding that same information from others.

The pecking order of winter testing used to be all-important as the commercial people sought to woo new sponsors and reassure those already onboard. It was not unknown for cars to run underweight or, in some other way, to be beyond the bounds of legality. Today, certainly for the real contenders, almost the opposite is true as teams desperately try to hide their performance for fear of instilling yet more determination in their rivals.

I've never fully understood the gamesmanship of hiding performance. No team approaches testing with the confidence that the championship is sewn up; instead, each mile covered should wring the maximum possible performance from the car. While knowledge of each other's competitiveness is always of interest, it should not be a spur to harder work. Let's face it, if each team had been awarded championship points based on their best times at each test last year and used the same increments as those awarded for race finishes, we would have seen Red Bull coming fifth and snapping at the heels of Toro Rosso and Sauber!

It's actually far more important to hide the gizmos that have led to that performance, whether they are fundamental to the layout or mere add-ons that can be quickly copied. The speed with which rivals copied the double diffuser in 2009 shows that even major design concepts cannot be kept exclusive for long.

Car launches are more low-key in these austere times but they still represent a first chance to study photographs of competitors' machinery. For this reason, the cars presented at the launch, and the photos supplied by the teams' press departments, are often designed to deceive. Even in these days of computer-aided design, mock-up cars are still used for the final checking of many components and I have even known these mock-ups to be used at press launches. Certainly, unless there has been a radical change to the aerodynamic rules, it's normal for a car to appear wearing the previous season's wings. →

Last year, McLaren were unusual in that they displayed the F-duct even on their launch car. It may be that they felt it was so radical that it would take the others a long time to copy it. Red Bull, on the other hand, didn't run their exhaust-blown diffuser until the last day of winter testing; a calculated risk that balanced the reliability of the system against the security of the concept.

One of the difficulties of maintaining secrecy is presented by the length of the design process. With aero concepts being evaluated as early as March and design starting in the summer, any employee changing teams takes with him, in his head, huge amounts of knowledge of what is being planned for the following year. 'Gardening leave' does not eliminate the problem.

So what is done at the tests and what are the frustrations the teams have to cope with? Naturally the performance of the car is an area of prime interest but, more specifically, teams will be checking to see if the performance matches their expectations. This is particularly true of the aerodynamics, and a number of constant speed runs will be done on the straights to acquire data on the aerodynamic loading. Understanding air flow is nearly as important as the measurement of the downforce; for this, teams will use either a rake of instrumentation designed to measure the air speed of the wake coming off the car over an area of interest, or a special fluid that shows the airflow patterns. This fluid, which is generally oil-based with small fluorescent particles, is painted on the bodywork and, once dry, leaves a fluorescent trail of the airflow.

Another prime area of interest, especially this year, is how the car and the tyres interact. In →



FERRARI

Ferrari were the first to unveil their car this year and the F150 contains no big surprises. The nose section is raised by around 50mm to a point where the top deck of the monocoque is now almost horizontal, a trend that we've seen on most of the new cars. This can further compromise the inboard front suspension pick-ups, but Ferrari have minimised the problem by driving down the lower surface very steeply, so it can mount the wishbones. They have also repositioned the outboard lower wishbone pivot in the centre of the hub.

The radiator inlets are higher and flatter to allow a greater undercut and better

airflow to the rear, although the sidepod itself is quite wide. I suspect this is because KERS packaging has pushed the radiators outwards.

The bodywork then dives in to a reasonably tight tail section (the coke bottle area), where it interacts with a new lower rear wing. This is a departure from the designs we have seen from Ferrari over the past two years and shows how banning the double diffuser has led teams to find new solutions to aid what has become a weak diffuser.


I was surprised to see the pushrod rear suspension retained, but Ferrari's way of inclining the pushrods forwards may give them the

best of both worlds because it allows a very narrow gearbox keel to be retained while cleaning up the upper rear deck of the bodywork.

Changes to the team structure at Ferrari will also be significant. Pat Fry joins the team after many years at Benetton and McLaren; his experience will be a huge asset to the team, although I hope that the replacement of Chris Dyer, a very capable engineer, is not a sign of a blame culture creeping in. Ross Brawn gave Ferrari man-management, something they lacked before he joined. Their ability to carry on the culture he initiated will be as essential to their success as a fast car.



spite of the improvements in tyre modelling over the past few years there is still a need to test and understand the tyres under real conditions. Unfortunately, even Spain cannot provide the desired track temperatures in February and so the data collected is not perfect, but the drivers and engineers will start to get an understanding of how tyre performance degrades with time and what the wear is like. They will also try to understand how best to use the tyres for qualifying and how they might perform following a Safety Car period. Once the season starts, it is not possible to complete the long runs that are made in testing and so each race becomes something of a lesson.

Performance is not the only attribute studied (and disguised) during the tests. Reliability is at the forefront of everyone's minds. With no in-season testing, the four winter tests present the only opportunity for the accumulation of high mileage on the 10,000 or so parts that make up a Formula 1 chassis. While quality of testing should always take precedence over quantity of testing, the teams will still want to have put at least 4,000 miles under their belts before the first grand prix commences in Bahrain. 

MERCEDES

This season, Mercedes have to challenge for wins – anything less is unacceptable. The car sports a very clean look with good attention to detail. The diffuser is clean and, like most teams, they have pointed the exhaust at the access hole for the starter motor to give a limited degree of blowing of the diffuser surfaces.

As is all the rage this year, the nose is not only lifted but is also a lot wider than it was last year. The underside is extremely sculpted and, as a consequence, there's quite a steep angle on the lower wishbone that may not be an entirely good thing. At the rear, the suspension has changed to a pullrod layout.

The sidepod inlets are quite a bit smaller than last year's. This is achieved by keeping the same triangular shape at the top but carrying it on without the lower flare that was seen on the 2010 car. It's allowed the pod undercut to be made much more significant to allow a strong flow to the upper surface of the rear floor, aiding the extraction of air from the diffuser.

Notwithstanding the adjustment mechanism, the front and rear wings seen in early testing appear very similar to last year's. Mercedes probably made fewer front wing changes than most teams during 2010 and, although they maintained their

level of competitiveness well last year, they are going to have to step up their in-season development in 2011 if those elusive wins are to materialise.

The main question for Mercedes is whether they can get to grips with the new Pirelli tyres better than they did with last year's Bridgestones. I do not particularly subscribe to the view that the tyre was their major problem last year. The way they warmed up their tyres and the race degradation always seemed acceptable to me. I suspect the slightly lower grip they experienced was more down to aerodynamic characteristics and this, as always, is where the focus should be for 2011.

WHY RENAULT COULD BE THIS SEASON'S DARK HORSES

Pat Symonds is tipping his old team to challenge Ferrari and McLaren

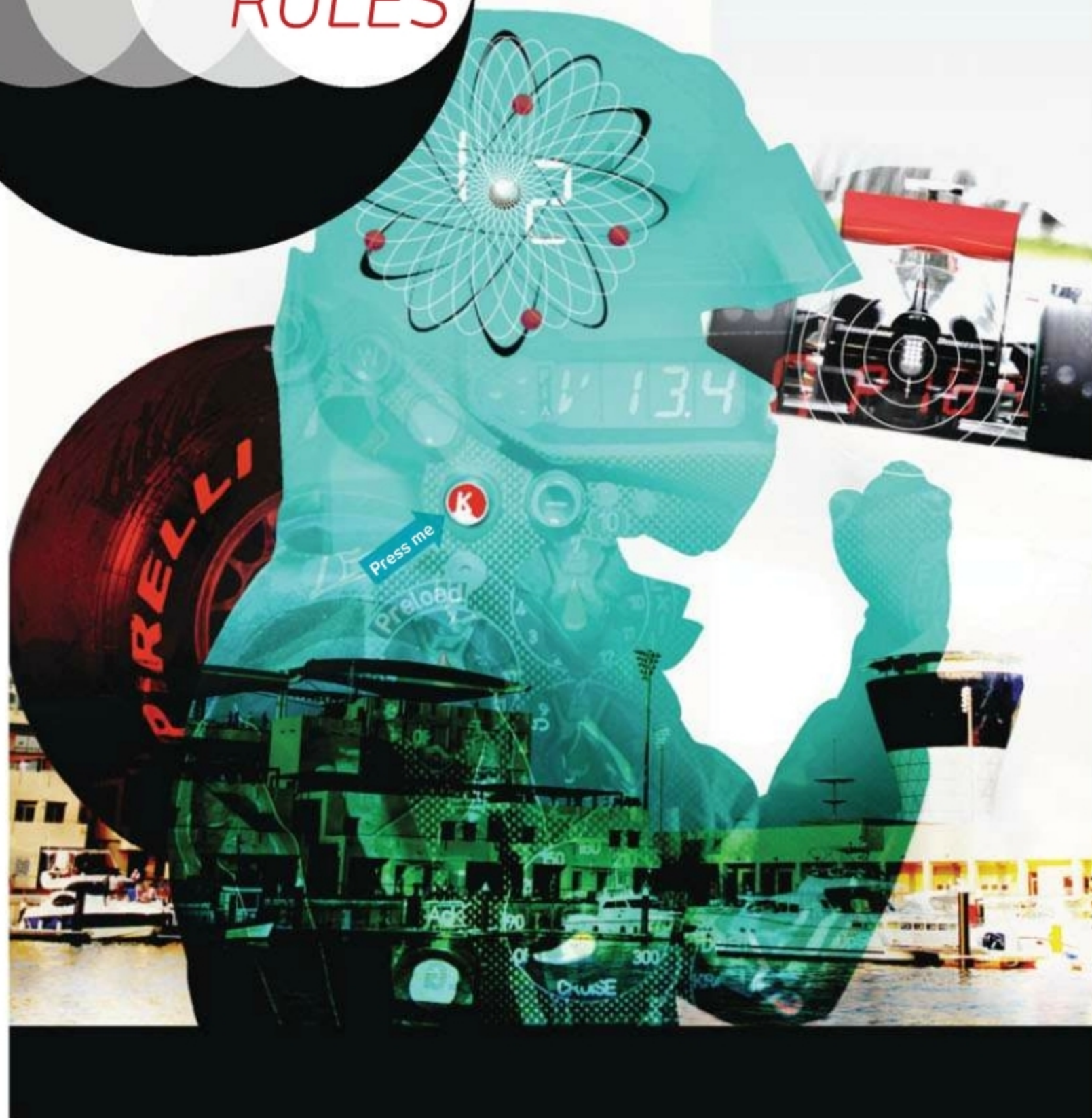
Ferrari and McLaren will take the fight to Red Bull for the 2011 world title – but it's not a given that Mercedes will join them. Equally up for it are the team from Enstone who operate under more pseudonyms than the geekiest avatar.

The Renault R31 is an ambitious design from James Allison and Tim Densham, a formidable if under-recognised duo who are among the deepest thinkers in the pitlane. While the forward exit exhausts have captured the imagination of those who closely scrutinise the pre-season tests, you can be sure these two will not have risked everything on just one endeavour and the exhaust will be an enhancement to an otherwise sound design.

I naturally have a soft spot for my old team but being totally objective, I recognise the talent there as well. There are many people there who know how to win, and it may be that this is the team to join the challengers in 2011.



THE RULES



02

Minimum weight of cars is increased and the weight distribution is fixed

Technical Regulations, Articles 4.1 and 4.2

With the return of KERS, the minimum weight of the car has been raised by 20kg to 640kg. This will help F1's heavier drivers because they won't pay such a large penalty in terms of weight distribution with the reintroduction of KERS batteries. Also, for 2011 only, the weight distribution has been set so no one team can luck into an advantage with the new tyres. The weight that is applied on the front and rear wheels must be no less than 291kg and 342kg respectively during the qualifying practice session.



What's new for 2011

F1 has undergone quite a few rule changes over the winter. Here's the lowdown on what to expect from the new season, from adjustable rear wings to the return of KERS

WORDS JONATHAN REYNOLDS ILLUSTRATION LYNSEY ROW PICTURES LAT

01

Tyres

Sporting Regulations, Article 25.4

For the next three years, Pirelli will be F1's sole tyre supplier, and their arrival coincides with a number of changes. Drivers will have to better manage tyre usage, since the number of dry-weather tyres per race has been reduced from 14

to 11 sets. That's six sets of the hard 'prime' tyre and five sets of the soft 'option'. If a driver fails to use both types in a dry race, he will be excluded from the results.

There were calls for Pirelli to help improve the racing, so they've reduced tyre

durability to force every driver to make at least two stops per race. They've also made a stronger, grippier front tyre. This should help the likes of Schumacher and Massa, both of whom struggled with the hard Bridgestone fronts in 2010.

03 Qualifying

Technical Regulations, Article 6.6.2

After grabbing pole in Canada last year, Lewis Hamilton was fined \$10,000 for stopping on his way back to parc fermé, having been told by his team he was nearly out of fuel but that some of it was still needed for a post-qualifying sample. The FIA has clarified this to stop teams deliberately underfilling their machines. If a fuel sample is required after practice, the car must first be driven back to the pits under its own power.

04 107 per cent rule returns

Sporting Regulations, Article 36.3

The reintroduced 107 per cent rule hasn't been seen in F1 since 2002. The rule prevents any driver whose best qualifying lap exceeds 107 per cent of the fastest time in Q1 from starting the race. To put that in perspective, had the rule been in place last season, HRT would have failed on more than one occasion to make it onto the starting grid. Under exceptional circumstances, stewards may still permit a driver to start the race – but usually only if they've set a suitable time in practice. We'll have to see whether it catches anyone out this year.

05

Safety Car clarification

Sporting Regulations, Article 40.13



Remember the 2010 Monaco Grand Prix? As the Safety Car pitted at the end of the last lap, Michael Schumacher audaciously overtook Fernando Alonso to steal a last-gasp sixth place. Or so he thought. Schuey later got a 20-second time penalty for overtaking under Safety Car conditions, causing great confusion. The FIA has now issued a clarification, stating that if the Safety Car is deployed at the beginning of the last lap or during it, it will enter the pitlane at the end of the lap and the cars will take the chequered flag as normal without overtaking.

06

F-ducts, connected shark fins and double diffusers are all banned

Technical Regulations, Articles 3.15, 3.9.1 and 3.12



McLaren's innovative and widely imitated F-duct became last season's must-have accessory, but the device has been banned for 2011. Not only has the FIA outlawed connecting shark-fin engine covers, but it has also prohibited any devices that use "driver movement as a means of altering the aerodynamic characteristics of the car". The rules regarding the cars' floors have also been tightened, effectively banning the double diffusers that have been around since 2009. It's believed this will bring a reduction in downforce of around 10 per cent.

07 Extra wheel tethers added

Technical Regulations, Article 10.3.6

Following a number of dangerous incidents last season when tyres became separated from cars and were sent flying through the air, all the teams must now place a second tether on each wheel. Additionally, the wheel tethers must run through two separate suspension arms, the thinking being that even if one tether fails, there will still be another to ensure that the wheel remains securely attached to the car.

08 KERS is back

Technical Regulations, Article 5.2

Use of KERS was suspended in 2010, but it's set to return this year. The optional systems will be similar to those seen in 2009, with maximum power still set at 60kW. This gives the driver an extra 80bhp for up to 6.6 seconds per lap, which can be used whenever they like. So we could see drivers who are trapped behind another car launching KERS- and adjustable-rear-wing-equipped attacks. Heavy battery systems will be used again, but they'll be less of a penalty due to the cars' increased minimum weight. So we shouldn't see non-KERS cars being faster than their KERS equivalents.

09

Team curfews

Sporting Regulations, Article 30.19

It's been a common sight in F1 for years – mechanics working late into the night to ensure cars are fixed and ready to go the next day. But for 2011 the FIA has, on safety grounds, introduced a curfew on team personnel in a bid to reduce long working hours. Team personnel connected with the operation of cars will not be allowed into the circuit between midnight and 6am when practice starts at 10am, and between 1am and 7am if practice starts at 11am. Each team will be permitted four individual exceptions to the curfew over the course of a season, for example if a car is badly damaged and needs to be repaired in time for the following day.

10

Adjustable rear wings

Technical Regulations, Article 3.18



The driver-adjustable rear wing is aimed at boosting overtaking. It will work in a similar way to the F-duct, with the flap moving to reduce downforce (and therefore drag) and so boost straightline speed. Drivers can use it at any time in practice or qualifying, but race use will be moderated by Race Control via GPS to ensure it's used only for overtaking. When a driver is less than a second behind the car in front in a predetermined zone he will be notified that the device can be activated. It will then be disabled the first time he brakes. Drivers cannot use the wing during the first two laps of a race, or for two laps after a Safety Car restart.

11 Gearboxes

Sporting Regulations, Article 28.6

As part of the drive to reduce costs and improve component longevity, gearboxes must now last for five consecutive races instead of four. But for 2011 only, the FIA will allow teams one penalty-free gearbox change so long as it's not the last race of the season. Any subsequent gearbox changes will result in the driver being hit with a drop of five places on the starting grid at the event where the change is made.

12 Penalties and driver conduct

Sporting Regulations, Articles 16.3 and 20.2-4

In 2011, the FIA wants to clamp down on unsporting and dangerous driving. Drivers who are overly aggressive when defending a position, who regularly run off the track to gain an advantage, and who ignore blue flags will all be targeted. Furthermore, the FIA has given stewards a wider range of penalties to dish out, from time penalties and reprimands to more severe punishments such as exclusion from the results – or even suspension from the next race. It looks like the time has come for Schuey to ditch his infamous 'chop' once and for all...

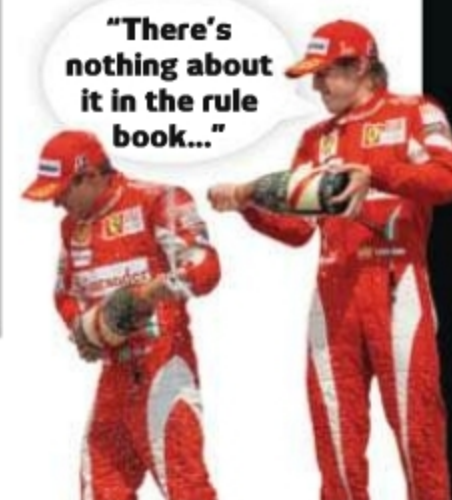
13

Team orders

Article 39.1 of the Sporting Regulations deleted

Amid the fallout from last year's German Grand Prix, when Ferrari asked Massa to move over to let Alonso win the race, it became evident that the ban on team orders was just not enforceable. So the FIA has now deleted it from the rule book. However, the teams have all been reminded that any actions liable to bring Formula 1 into disrepute will still be dealt with under Article 151c of the International Sporting Code and any other relevant provisions.

"There's nothing about it in the rule book..."



THE TEAMS

Red Bull
108



McLaren
110



Ferrari
112



Sauber
122



Mercedes
114



Toro Rosso
124



Lotus
125



Renault
116



Williams
118



Force India
120



HRT
126



Virgin
127



At the front of the grid, the battle will be on to find out who are the closest challengers to the all-conquering, Adrian Newey-designed Red Bull. Meanwhile, at the back, the newer teams will be aiming a bit higher

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power to you

RED BULL

Red Bull are *the* team to beat in 2011. Expect a fast car and possibly a few more rumblings between their drivers

In five years, the team based in Bradbourne Drive have gone from the disarray of Jaguar to a double-title-winning, all-conquering operation. There are two key factors: the investment from Red Bull supremo Dietrich Mateschitz and the genius of their technical director, Adrian Newey.

The fact that 2010 was characterised by innuendo about the legality of the RB6 – first its ride-height adjusters, then its flexi-wings – only strengthened the team's view that their car was the envy of the rest of the pitlane. Imitation was considered to be flattery as their rivals sought to understand what made the Red Bull so fast.

With its unique pullrod suspension and clever side-blown exhausts, the RB6 came into its own at those circuits with the longest corners and shortest straights. At the 160mph Campsa turn at Barcelona, both drivers could, for the first time, take it without lifting – a trait that gave them confidence in the RB6 throughout the year.

The only notable weakness in the package was the Renault RS27-2010 powerplant, which Newey argues was four per cent down on the Mercedes and hampered them at high-power tracks such as Monza, thanks primarily to the homologation legislation. Quite often, the Red Bull would be one of the slowest cars in the speed traps, but awesome in the corners. Take Hungary, where Vettel's qualifying margin over Ferrari was 1.2 seconds – and a mighty 1.7 seconds faster than the closest McLaren.

It was at the Hungaroring where the new super-slow-motion TV replays clearly showed Red Bull's front wing 'flexing' more than the opposition's. For a 50kg load, deflection had increased to 10mm, where it had been 5mm prior to 2009. Despite protestations from their rivals and a more rigorous scrutineering test at Spa, the team didn't make any modifications – although they did need to run a slightly higher

front ride height for the new front-floor tea-tray test introduced at Monza.

Rival teams first became aware of Red Bull's supreme front wing due to the nature of Vettel's failure on the Saturday morning at Silverstone. Who would have thought it would be such a defining moment of the year? To take Webber's new wing and give it to Vettel, for whatever reason, drove a wedge between the two sides of the garage. And Vettel was struck by how Webber used the press to his advantage – even if he felt it was a little too extreme on occasion.

Webber is popular in Milton Keynes, but his relationship needs to improve with the team's Austrian contingent, namely Dr Helmut Marko, Mateschitz's eyes and ears. After that coming-together with Vettel in Turkey, Marko was too quick to blame Webber. But the Australian seems almost to enjoy being the underdog: it gives him the resolve and spirit to fight his corner.

In qualifying, Webber and Vettel were much closer than they were in 2009, which perhaps says something about the extent of the injuries Webber sustained in his bike accident before the start of that season. Needless to say, it didn't go down well, when last autumn he revealed that he'd driven the final, crucial few races of 2010 with a shoulder fractured during another bike

Chassis: Red Bull RB7
Engine: Renault RS27-2011





Pat Symonds explains the RB7

"Most of the time in F1, new cars are simply an evolution of the previous year's car – and the RB7 is a very good example of that. The RB6 was a fantastic base to work from and in this sport you get performance either from radical new ideas or by just doing everything really well: this car falls into the latter category.

"The front wing looks great and they've retained their pull-rod suspension, but there are no trick bits there. The one thing that's striking is just how incredibly tightly everything is packaged at the back, which is something all the teams have tried to do. All in all, it's a great optimisation of what they had last year, but I wonder if they've got any new bits and pieces up their sleeve for Bahrain..."



accident. If Webber is to eclipse his team-mate, he'll have to start beating him early in 2011, as he hasn't qualified ahead of or led Vettel in a race (apart from one pitstop lap) since Monza last year. This could prove tricky, since most drivers claim they race better the season after winning the world championship.

There were times when mistakes and impetuosity crept into Vettel's driving last year and many had already written him off before the final stages of the championship. Remember the kerfuffle in Hungary behind the Safety Car and that crash into Jenson Button at Spa? But then bear in mind he's only 23 and has years ahead of him to learn from those mistakes. His final few races last year turned him into a dauntless competitor and one that not only Webber, but all the opposition, should quite rightly fear. With another genius creation from Newey, improved reliability and continued backing from Mateschitz, 2011 should see Vettel start as favourite to retain the world title this year and build on Bradbourne Drive's legacy.

Red Bull Racing

Debut Australia 2005

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Team owner

Dietrich Mateschitz

Team principal

Christian Horner

Consultant

Helmut Marko

Chief technical officer

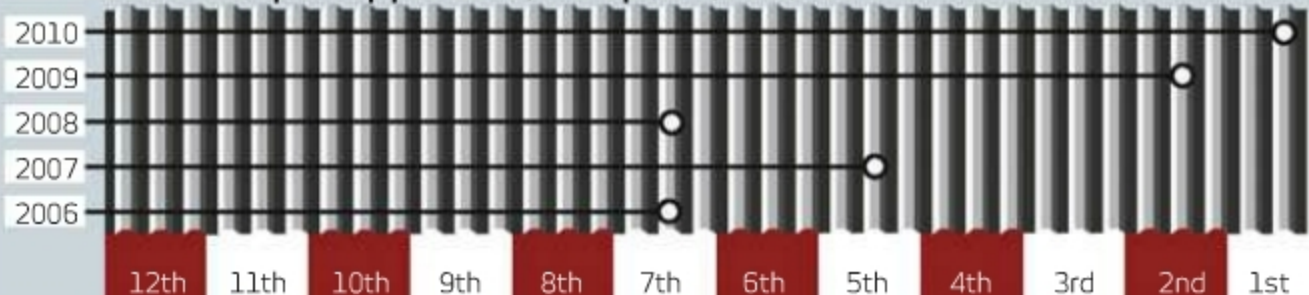
Adrian Newey

Head of aerodynamics

Peter Prodromou

POLES 20 **Starts** 107 **WINS** 15 **FASTEST LAPS** 12 **Points** 754.5 **DRIVERS' TITLES** 1 **CONSTRUCTORS' TITLES** 1

Constructors' championship position over the past five seasons



DID YOU KNOW?

In 2010, Red Bull matched McLaren's and Williams' record of 15 poles scored in one season

Mark Webber had more wins (four) and more poles (five) in 2010 than in the rest of his F1 career put together

Although he won the title, Sebastian Vettel was unable to record three consecutive podiums in 2010

Red Bull spent 454 more laps in the lead than their nearest rivals, McLaren, who only managed 245

Team stats compiled since Red Bull took over from Jaguar Racing in 2005

Car 1 Red camera



Sebastian Vettel

Age 23

Born Heppenheim, Germany

Height 1.74m

Weight 64kg

Race engineer

Guillaume Rocquelin

Web sebastianvettel.de

Debut USA 2007



POLES 15 **Starts** 62 **WINS** 10 **FASTEST LAPS** 6 **DRIVERS' TITLES** 1 **PODIUMS** 9 **POINTS** 381

Car 2 Yellow camera



Mark Webber

Age 34

Born Queanbeyan, Australia

Height 1.85m

Weight 76kg

Race engineer

Ciaran Pilbeam

Twitter @AussieGrit

Debut Australia 2002



POLES 6 **Starts** 157 **WINS** 6 **FASTEST LAPS** 6 **DRIVERS' TITLES** 0 **PODIUMS** 14 **POINTS** 411.5

McLAREN

What trickery have the Woking-based squad got up their sleeves this year after the much-copied F-duct? Maybe something to help them to their first constructors' title in 13 years...



Chassis: McLaren MP4-26
Engine: Mercedes-Benz FO 108Y

You couldn't fail to notice it. A little vent in the monocoque appeared on the front of the McLaren at their first test in Valencia in 2010. Under new rules governing monocoque homologation, McLaren had created the innovation of the year.

What McLaren originally called the RW80, soon became known as the F-duct – probably because it appeared next to the 'F' of their title sponsor at the car's front. It was a system for redirecting airflow over the rear wing, which caused the flap to stall. When used on the straights, drag was reduced and top speed increased by 5mph. Airflow was regulated in the cockpit by the drivers, neatly sidestepping regulations that outlaw moveable aerodynamics. It was a brilliant yet simple piece of ingenuity that left their rivals literally flailing in their wake.

F-ducts have been banned for 2011, but when the MP4-26 was unveiled in Berlin, all eyes were

searching for the next bit of ingenuity developed by Paddy Lowe, Neil Oatley, Tim Goss and their team. Certainly one aspect of the chassis that needed improvement over the MP4-25 was its stiffly sprung nature. It was necessary to enhance the aerodynamics, but caused numerous problems over the bumps. At the first race last year on the new section of track in Bahrain, McLaren looked to be in trouble and, at Silverstone too, there were further problems with the new blown floor and diffuser, which they had introduced later than both Ferrari and Renault.

The combination of the Mercedes-Benz V8 and the F-duct gave McLaren immense top-speed figures, and their wins in China, Montreal and Spa bore testament to that. For this season, they're expected to perform strongly in the same area again as Mercedes believe they have made significant gains with their version of KERS. With this system in place for 2011, expect a neat,

lightweight solution that could prove to be a key performance advantage.

Many predicted fireworks between McLaren's two British world champion team-mates in 2010, but there was a competitive yet harmonious relationship between Lewis and Jenson. That's probably due to the different stages they're at as drivers. Lewis is five years younger than Jenson and is hungry to fight for every gap in the traffic and to try to top every session: that's because he's always had a front-running car. For Jenson, after years in mediocre machinery, he finally took the title and looks more relaxed as a result. Experience brought him early-season wins in Australia and China through strategy and conserving tyres: they said a lot for his maturity.

Contrast his races with Lewis's: hard-charging, yet complaining to the team on the radio about tyre choice and battling dangerously with Vettel wheel-to-wheel down the Shanghai pitlane.



Pat Symonds explains the MP4-26

"McLaren have gone for pullrod rear suspension this season, which I think is a good move. With the blown double diffuser, the pullrod system was probably a bit of a compromise, even though Red Bull retained it. With double diffusers gone, it's all about getting good top-deck airflow and I think the pullrod is a good solution.

"This car reminds me a lot of the 1995 Benetton. We tried to get a reasonably strong flow on the cockpit sides and you can see with the shape of the sidepods that McLaren have tried to do the same thing. The idea is to get the airflow along the side of cockpit and engine cover and then down to the lower rear wing and over the top of the diffuser. The McLaren also looks to have a long wheelbase, which can be good for tyre wear. A longer car rotates slower in yaw and that can help preserve the tyres."



Exciting to watch, but always right on the edge. Lewis admitted that mentally he wasn't in a good place, with difficulties in his personal life – most notably the split with his father, who had managed and nurtured him throughout his entire racing career until last year. Remember there was that lapse in focus when he 'hooned' his way onto Fitzroy Street in Australia.

Yet Lewis is an emotional racer. The look on his face on the Turkish podium, when he was told that Jenson wouldn't pass him but did, said it all. So did the body language when he collided with Webber in Singapore and the look of fury in his eyes when Jenson outqualified him at Monza.

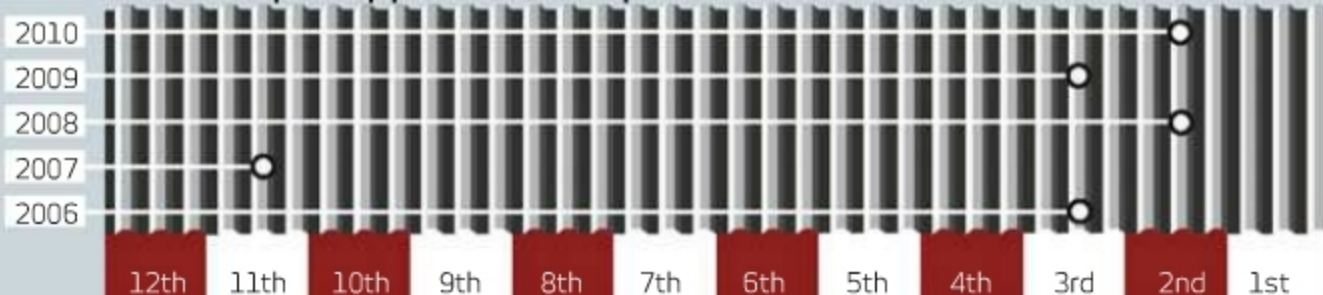
Lewis and Jenson are an almost perfect pairing, with different styles and different outlooks. It's up to McLaren now to give them a car capable of beating Red Bull. If they manage to do it, they'll have a shot at both the drivers' and constructors' crowns.

Vodafone McLaren Mercedes

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Team principal Martin Whitmarsh
Managing director Jonathan Neale
Technical director Paddy Lowe
Director of engineering Tim Goss
Operations director Simon Roberts

POLES 146
Starts 684
WINS 169
FASTEST LAPS 142
Points 4,153.5
DRIVERS' TITLES 12
CONSTRUCTORS' TITLES 8

Constructors' championship position over the past five seasons



DID YOU KNOW?

Lewis Hamilton was overtaken only three times in 2010 – a feat he shared with Sebastian Vettel

McLaren's one-two in China was the first time two British drivers had managed a one-two since 1999

In his entire F1 career to date, Jenson Button has yet to win a race any later in the season than 6 August

This year will be the 17th season McLaren have used Mercedes engines – they replaced Peugeot power

Team stats compiled from when McLaren first entered F1 in 1966

Car 3 Red camera

Lewis Hamilton
Age 26
Born Tewin, England
Height 1.74m
Weight 68kg
Race engineer Andy Latham
Twitter @iamLewis4real
Debut Australia 2007



POLES 18
Starts 71
WINS 14
FASTEST LAPS 8
DRIVERS' TITLES 1
PODIUMS 22 | **POINTS** 496



Car 4 Yellow camera

Jenson Button
Age 31
Born Frome, England
Height 1.82m
Weight 71kg
Race engineer Dave Robson
Twitter @JensonButton
Debut Australia 2000



POLES 7
Starts 189
WINS 9
FASTEST LAPS 3
DRIVERS' TITLES 1
PODIUMS 22 | **POINTS** 541





Chassis: Ferrari F150th Italia
Engine: Ferrari 056

FERRARI

The Scuderia will be seeking to avoid blunders like that one in Abu Dhabi. And in Alonso, they have a real title challenger

The disconsolate look on Fernando Alonso's face after the Formula 1 season finale in Abu Dhabi said it all. As far back as Hockenheim, the Spaniard had said he could still claim the 2010 world title, despite sitting in fifth place – nearly 50 points off the top of the table at that stage. From Germany onwards, he made a pretty impressive attempt at capturing the crown, winning at Monza, Singapore and Korea. But it was the Hockenheim win that tainted his year in the eyes of fans – no matter how brilliant his subsequent driving.

His team-mate Felipe Massa was humiliatingly relegated to the number-two role and, after that, wasn't really his old self for the remainder of the season. Perhaps his return to Formula 1 had come too soon after his crash at the Hungaroring in 2009, but had he been allowed to stay ahead of Fernando in Germany, he could have enjoyed the perfect victory, a year to the day of that life-threatening accident.

Many felt the sport's governing body had failed to deal with Ferrari with sufficient severity in the aftermath of Hockenheim, but the reality is that team orders have always existed in what is, effectively, a team sport. And for 2011, the rule banning team orders has been rescinded. Ironical, really, that the team who forced the rule to come in have now forced the rule to go...

Despite the uproar, Alonso never waned in his commitment to the goal of trying to win the title. He remains, despite those early-season errors, one of the most demanding competitors in the sport, and it came as no surprise when he was twice voted best driver of last season in polls of team principals and his fellow drivers.

Victory in Bahrain was the perfect beginning to the new partnership of Alonso and the Scuderia, but whether it was down to teething trouble or pressure, both parties made mistakes quite early on in the year. Alonso jumped the start in China, crashed in Monaco and was

caught out by both the Safety Car and stewards in Valencia and Silverstone. In Barcelona and Turkey, the team introduced their F-duct, but admitted that performance would be lacking until they fully understood the system – and they were further compromised in their development by working on a blown diffuser at the same time. By mid-July, with a new-generation double diffuser, everything started to fall into place and a lot of development work with the brakes saw Ferrari putting in strong performances at circuits such as Monza and Singapore.

In fact Fernando Alonso's comeback charge for the world championship coincided with Ferrari getting their development path back on track. While Red Bull had their blown diffuser and McLaren had their F-duct, Ferrari's innovation was to tilt their engine and gearbox to allow more design freedom for the double diffuser. The car produced a lot of downforce, but they could see that an uprated blown diffuser would be a further benefit.

This season, the desire to put right the wrongs of Abu Dhabi will be stronger than ever. Ferrari are hurting after their defeat when they misplaced a strategy call to cover Webber, allowing Vettel to nick the title. There would have been recriminations in the Ferrari camp and it seemed inevitable that heads would roll. Stefano Domenicali revealed that in the



Pat Symonds explains the F150

"The much higher front nose is a feature of most of the cars this year, and it looks as if the Ferrari F150's has gone up by about 50mm. The top of the monocoque is almost horizontal, which is probably about as high as the regulations – and driver visibility – will allow. I think they've done it to get a clean flow of air under the monocoque and divert it to the splitter and underbody.

"At the back of the car, things look quite interesting: they've really shunted the springs and dampers as far forward as they possibly can and have skinned the body very tightly, too. It looks very narrow between the rear wheels, which is what you want. The rear looks good but overall it looks quite conservative – there's nothing very radical about it."



immediate aftermath of the fiasco, he came close to handing in his notice. He remains in place, but other Ferrari staff have been reshuffled. Former McLaren engineer Pat Fry has been drafted in to replace Chris Dyer as head of race track engineering and former Red Bull and McLaren man Neil Martin will head up a new operations research department, reporting directly to technical director Aldo Costa.

It would have been a harsh call if the likeable Stefano Domenicali had gone, but success has not been as forthcoming for Ferrari as it was back in the Jean Todt era. After their endless domination at the beginning of the last decade, the Scuderia have now won only one drivers' title in the past six seasons. Kimi Räikkönen wasn't the natural heir to Michael Schumacher they hoped he'd be, but Alonso is more than suited to that role. And with Massa playing a supporting role, Alonso came oh-so-close to taking the title in 2010. Domenicali will be hoping he goes one better this season.

Scuderia Ferrari Marlboro

Debut Monaco 1950

Address Via Abetone Inferiore 4, 41053, Maranello, Italy

Twitter @InsideFerrari

President

Luca di Montezemolo

Team principal

Stefano Domenicali

Technical director

Aldo Costa

Chief designer

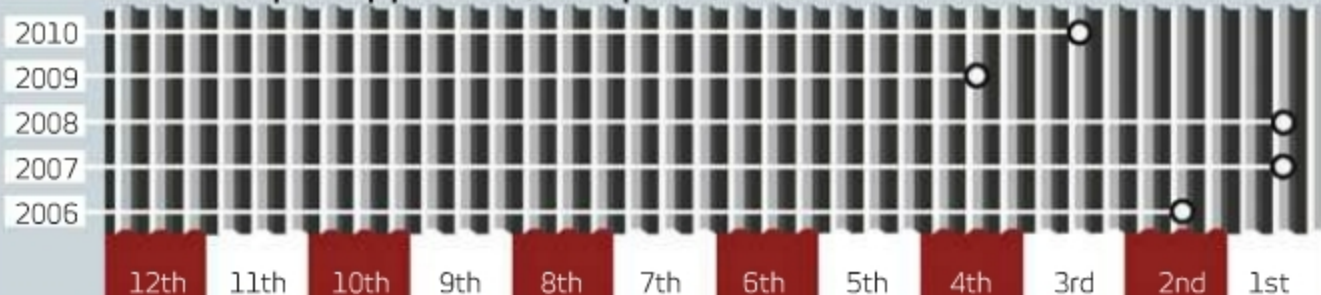
Nikolas Tombazis

Head of race track engineering

Pat Fry

POLES 205 **Starts** 812 **WINS** 215 **FASTEST LAPS** 224 **Points** 5,391.27 **DRIVERS' TITLES** 15 **CONSTRUCTORS' TITLES** 16

Constructors' championship position over the past five seasons



DID YOU KNOW?

In Singapore 2010, Alonso took his first ever F1 'grand slam' of pole, win, fastest lap and every lap led

Only Schuey (179), Barrichello (102) and Berger (96) have started more races for Ferrari than Massa (81)

Malaysia 2010, when Alonso and Massa qualified 19th and 21st, was the team's worst grid since 1980

In 2010, Fernando Alonso spent more laps (212) in third position than any other driver on the grid

Team stats compiled since the first year of the F1 world championship

Car 5 Red camera



Fernando Alonso

Age 29

Born Oviedo, Spain

Height 1.71m

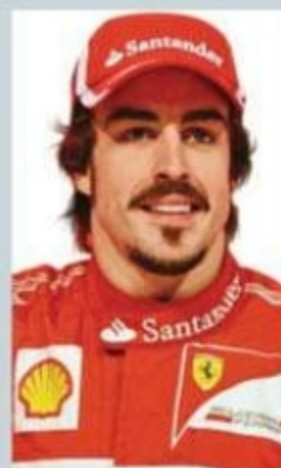
Weight 64kg

Race engineer

Andrea Stella

Web fernandoalonso.com

Debut Australia 2001



POLES 20 **Starts** 157 **WINS** 26 **FASTEST LAPS** 18 **DRIVERS' TITLES** 2 **PODIUMS** 37 **POINTS** 829

Car 6 Yellow camera



Felipe Massa

Age 29

Born São Paulo, Brazil

Height 1.66m

Weight 59kg

Race engineer

Rob Smedley

Web felipemassa.com

Debut Australia 2002



POLES 15 **Starts** 133 **WINS** 11 **FASTEST LAPS** 12 **DRIVERS' TITLES** 0 **PODIUMS** 22 **POINTS** 464

MERCEDES

After a lacklustre 2010, can the team get the car back on track? And will we see the Schumacher of old this year?

Has Michael Schumacher still got it? That's the \$64,000 question. Even his supporters would have to admit that three years out of the sport have had more of an effect on the 42-year-old than he and Ross Brawn could have expected. And it was evident from early on that a lack of testing had compromised the German's driving. In the good old days, if Michael wanted to test another part or a new tyre compound he could ring up Ferrari and the Fiorano test track was available at the drop of a hat. Not any more.

Early-season performance was an indication of rustiness, but as last year developed so did Michael's pace. It goes without saying that a driver with seven world titles won't rest on his laurels but, on occasion, you did question Michael's motivation. Is it just a case of doing what he loves doing – simply racing in F1 – or is there a genuine determination to score an unprecedented eighth world title?

What was never in doubt was his speed and bravery in the high-speed stuff, which was still spot on, but it was in the tight, slow, technical corners that he often lost time to his younger team-mate Nico Rosberg. A lot has already been said about the characteristics of the W01, and also about the Bridgestone tyres that induced so much understeer. It's a trait that doesn't suit Michael and there will be a lot of hope that the switch to Pirellis for 2011 will benefit him. If not, he could be in for another long and potentially embarrassing year.

The W01 was conceived during the chaos of the Brawn year, a season when the team already had a great car but lacked the resources and structure to pioneer a decent machine for 2010. To the detriment of planning for the following year, all the focus went into winning those two 2009 titles – although it was a gamble that was probably worth taking. When Honda pulled out,

every department lost 40 per cent of their staff. Add to that the later influx of personnel from Mercedes and it's understandable that it's taken a while for the structure of the team to settle into place. As a result, the 2010 car was in many ways a compromise and not adventurous enough to challenge the top teams.

The W01 suffered from troublesome weight distribution that the team tried to correct by using a longer wheelbase car. But it continued to suffer from tyre warm-up issues and had an understeer tendency that neither driver could exploit. What's more, Mercedes were late with their F-duct and blown diffuser. The aim now is to push for more aggressive solutions with this year's car, in a similar vein to the 2009 model.

Despite the German feel of the team now, a presence that is very different to the BAR years, at their core Mercedes are still the same Brackley-based outfit. And one of the benefits of their location is that just a stone's throw away, on the other side of Northampton, is Mercedes-Benz High Performance Engines at Brixworth. The closer the integration between both bases, the better the snug fit of the powerful 2.4-litre V8 engine – and with positive noises being made about Mercedes's KERS system continuing, top speed shouldn't be an issue in 2011.

Chassis: Mercedes MGP W02
Engine: Mercedes-Benz FO 108Y





Pat Symonds explains the MGP W02

"Like a lot of teams, Mercedes have really lifted the front nose as high as it can go – but this one also looks very wide. They'll be trying to get a good flow of air to the splitter area underneath where the driver's legs are. I have to say that the front wing is a beautiful sculpture, but I'm worried about the lower-front wishbone – it's got quite a big angle on it to match the shape of the monocoque, but the question is how good it will be from a suspension geometry point of view.

"They've adopted a pull-rod rear suspension and are running the exhausts low, with the tailpipes pointing onto the small hole for the starter motor to get some airflow to the lower part of the diffuser. I think the back of the car could have been a bit more tightly packaged."



In terms of staff, race engineers Jock Clear and Andrew Shovlin have been replaced by Mark Slade (ex-Renault) and Tony Ross (ex-Williams) this season. 'Shov', who engineered Jenson to his title and worked with Michael in 2010, has moved into a more senior role, working with both race engineers, and Jock is developing a vehicle engineering group back at the factory.

While Michael has struggled to readjust to life in Formula 1, the 2010 season raised the stock of his team-mate, Nico Rosberg, no end. No other team-mate has ever scored so highly against Schumacher. Outqualifying him 15-4 and outscoring him in the points 142-72, the youngster has matured a lot over this past season, quietly getting on with the job of putting a seven-time champion in the shade. There's very little fuss to Nico's driving and that elusive first grand prix win surely can't be too far away. What will be fascinating to see is how Michael deals with a second year with a quick team-mate. All the ingredients are in place to make for a very interesting 2011 at Mercedes.

Mercedes GP Petronas F1 Team

Debut Bahrain 2010

Address Reynard Park, Brackley, Northamptonshire NN13 7BD

Twitter @OfficialMGP

Team principal

Ross Brawn

Chief executive officer

Nick Fry

Vice president

Norbert Haug

Chief engineer

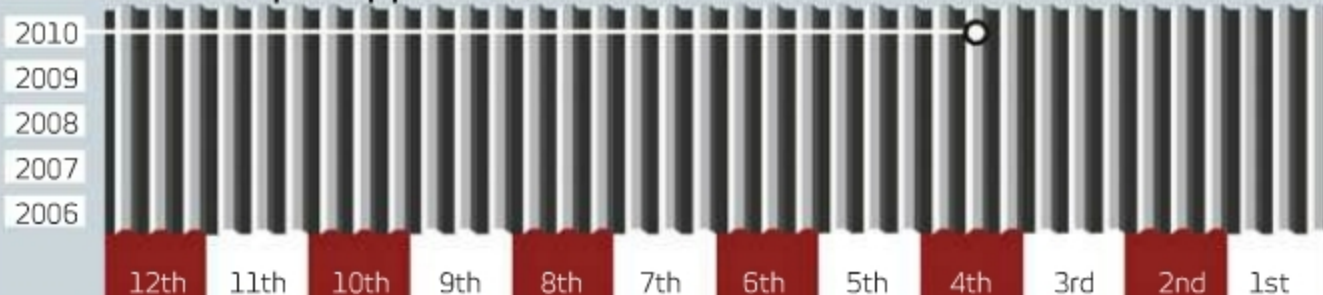
Andrew Shovlin

Sporting director

Ron Meadows

P O L E S 0	Starts	19	WINS	0
	FASTEST LAPS	0	Points	214
	DRIVERS' TITLES	0		
	CONSTRUCTORS' TITLES	0		

Constructors' championship position last season



DID YOU KNOW?

In 2010, Michael Schumacher didn't lead a single race. He spent most races sitting in ninth place

Nico Rosberg took three podium finishes in 2010 – his best ever tally during a Formula 1 season

At 42, Michael is the oldest driver on the grid. The last 42-year-old to race in F1 was Mario Andretti in 1982

When Schumacher takes part in the Belgian GP this year, his F1 career will have spanned 20 years

Team stats compiled since Mercedes took over from Brawn GP in 2010

Car 7 Red camera



Michael Schumacher

Age 42

Born Hürth-Hermülheim, Germany

Height 1.74m

Weight 68kg

Race engineer

Mark Slade

Web michael-schumacher.de **Debut** Belgium 1991



P O L E S 68	Starts	267	WINS	91
	FASTEST LAPS	76		
	DRIVERS' TITLES	7		
	PODIUMS	63	POINTS	1,441



Car 8 Yellow camera



Nico Rosberg

Age 25

Born Wiesbaden, Germany

Height 1.78m

Weight 67kg

Race engineer

Tony Ross

Twitter @nico_rosberg

Debut Bahrain 2006



P O L E S 0	Starts	89	WINS	0
	FASTEST LAPS	2		
	DRIVERS' TITLES	0		
	PODIUMS	5	POINTS	217.5



RENAULT

After topping the times in the first test, Renault's promising pre-season was suddenly thrown into disarray when Robert Kubica was seriously injured in a rallying accident



Chassis: Renault R31

Engine: Renault RS27-2011

On the final day of the first F1 test of the year in Valencia, Robert Kubica headed the timesheets with the fastest time of the week. There were positive noises coming from the new R31 with its innovative forward-facing front exhausts, and people were predicting that Renault could be a genuine contender for wins and perhaps might even have an outside shot at the championship.

Three days later and the team's plans were thrown into turmoil with the devastating news that their star driver had suffered a potentially life-threatening crash at a low-key Italian club rally. Kubica's Skoda Fabia was speared by an Armco barrier during the accident, which caused serious injuries to his right arm, shoulder and leg. There were initial fears that his hand would have to be amputated, but it was saved by surgeons over the course of a seven-hour operation. Renault were then faced with the unpleasant reality that it would take Kubica months to fully recover, and he would most likely miss the entire Formula 1 season.

Some have been quick to criticise Robert for rallying in the off-season, citing the fact that some other teams prevent their drivers from competing in dangerous extra-curricular activities. But the fact remains that the Pole is addicted to speed and his desire to get behind the wheel at every opportunity has made him a favourite with Formula 1 fans around the world, who admire his passion for motorsport.

The difficulty faced by Renault's senior management lay in finding a suitable replacement for Kubica. In the off-season, the team announced a number of reserve drivers, including Bruno Senna and Romain Grosjean, but neither has front-line F1 experience. Then just as we went to press, Kubica's replacement was confirmed as Nick Heidfeld, who shone for the team at the second test in Jerez.

The new R31 caused a stir when it first appeared because of its innovative exhaust system and the detailing on the car looked impressive. This is the first chassis to benefit

from Enstone's new windtunnel and updated CFD facility. And even last season, under the guidance of technical director James Allison, the team produced a neat, nimble chassis.

The R30 had a decent number of upgrades, numerous front wings and a seventh iteration of their floor by Singapore. They had also developed a blown diffuser by Valencia, at the same time as Ferrari and a race before McLaren. The only key delay was the F-duct. Originally it was due for Silverstone, but after problems making it reliable, Allison made the decision to fully develop it before putting it on the car – and when it appeared at Spa, it was fully up to speed.

This year's chassis is still called a Renault, despite the manufacturer pulling out and selling all of its shares to Gerard López's Genii Capital Group. At the moment, Lotus Cars is on the car, but don't be confused into calling the team 'Lotus'. They are only a sponsor, in the same way that Vodafone are a sponsor of McLaren. In the long-term, the Norfolk car company might take



Pat Symonds explains the R31

"Everyone has been talking about the exhaust on this car, which does seem like a very good idea – it's the most different thing I've seen so far this year and I think a lot of work has gone into it. What they're trying to do is to get the exhaust gases flowing all the way under the car and energising the diffuser that way, which is a very clever concept.

"With the regulations as tight as they are, you have to admire anyone who comes up with great new ideas like this, and I know the team have been very bullish about what this car was achieving in the windtunnel. One of the major benefits of this trickery is that the back of the car is now even tighter as it doesn't have to allow for the exhausts. The front wing looks good too – and very complicated."



a stake in the team but, for now, they are simply branding the Enstone outfit with the iconic black and gold livery. And as for the other team called Lotus, which is powered with a Renault engine... well, that's another story and one that the highest court in the land will soon be sorting out.

Before Christmas, Vitaly Petrov was confirmed for another two seasons, and while his position in F1 does bring some investment from Russia he's not a complete fish out of water. He shines in the wet and his first lap of the Australian GP last year, where he made up eight places, was impressive. His biggest problem is inconsistency and the occasional off: think practice in Spain, Korea and the startline in Japan.

Despite his vast Formula 1 experience, Nick Heidfeld will have his work cut out to try to fill the void left by Kubica. The talented Pole was buoyant heading into the new season and with the new car turning in some quick times, he could have sprung a surprise or two. Let's hope his recovery is swift. Get well soon, Robert.

Lotus Renault GP

Debut Australia 2002

Address Whiteways
Technical Centre,
Enstone, Oxfordshire
OX7 4EE

Twitter @OfficialLRGP

Chairman

Gerard López

Team principal

Eric Boullier

Chief operating officer


Patrick Louis

Technical director

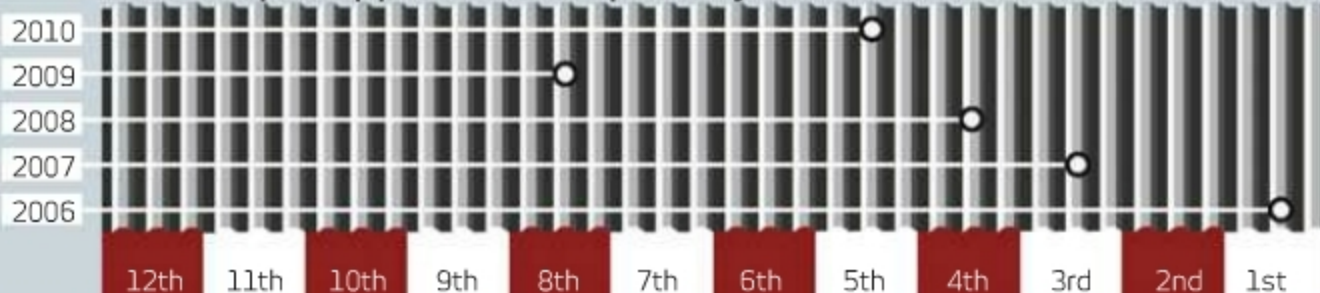
James Allison

Chief designer

Tim Densham

P **Starts** 159 **WINS** 20
O **FASTEST LAPS** 13 **Points** 933
L **DRIVERS' TITLES** 2 
E 
S **20** **CONSTRUCTORS' TITLES** 2

Constructors' championship position over the past five years



DID YOU KNOW?

As in 2009, Renault had only one double retirement during the whole of the last season, in Suzuka

Vitaly Petrov was the highest placed rookie in the world championship last year, coming 13th overall

Renault were the only team in 2010 to have both drivers set back-to-back fastest laps, in Turkey and Canada

Last year was the only season in Vitaly Petrov's entire racing career where he has failed to win a race

Team stats compiled from when Renault took over from Benetton in 2002

Car 9 Red camera

 **Nick Heidfeld**

Age 33

Born Mönchengladbach, Germany

Height 1.65m

Weight 61kg

Race engineer

Simon Rennie

Twitter @NickHeidfeld



Debut Australia 2000

P **Starts** 172 **WINS** 0
O **FASTEST LAPS** 2
L **DRIVERS' TITLES** 0
E **1** 
S **PODIUMS** 12 **POINTS** 225

Car 10 Yellow camera

 **Vitaly Petrov**

Age 26

Born Vyborg, Russia

Height 1.85m

Weight 72kg

Race engineer

Ayao Komatsu

Twitter @vitalypetrov10

Debut Bahrain 2010



P **Starts** 19 **WINS** 0
O **FASTEST LAPS** 1
L **DRIVERS' TITLES** 0
E **0** 
S **PODIUMS** 0 **POINTS** 27



Chassis: Williams FW33
Engine: Cosworth 2011k

WILLIAMS

Well-financed Pastor Maldonado makes his F1 debut. Can he and Rubens Barrichello spark a return to former glories?

For a brief moment, there was a glimmer of the Williams of old. When Nico Hülkenberg flashed across the start/finish line at Interlagos last year and blitzed the opposition by over a second, he took the team back to the top of the qualifying timesheets. No one begrudged them, but that pole wasn't the only aspect that reminded us of the Williams of the past. As former world champions Damon Hill and Nigel Mansell might be keen to remind us, Williams had once again slipped into the tricky position of having a popular driver that they weren't planning to hold on to...

The current GP2 champion, Pastor Maldonado, had negotiated a deal with Williams for 2011 and with Rubens Barrichello already tied to a multi-year contract, suddenly Williams were faced with the prospect of dropping their star rookie, who had just claimed the team's first

pole position since 2005. Sir Frank's mantra has always been that the driver is merely another component of the car and as expendable as a wheel nut, but in losing Hülkenberg the team might yet rue their decision.

With testing so limited, it's harder than ever to get rookies up to speed, and Hülkenberg had clearly demonstrated his talent, winning titles in every major category leading to F1, unlike many drivers who find their way into the top flight of the sport. And his qualifying record over Rubens Barrichello, a driver who, let's not forget, has outraced Michael Schumacher and Jenson Button, wasn't too shabby: Hülkenberg beat the veteran on half a dozen occasions last year. But sadly, it's a sign of the times that Hülkenberg has been released and another rookie, albeit one who has close links to the Venezuelan state oil company PDVSA, has got the nod.

Would it have been better to let Barrichello go, a man who is about to compete in an unprecedented 19th season and has over 300 grand prix starts to his name? Actually, those statistics prove what an asset Rubens is, for Williams have found the Brazilian's knowledge, experience and feedback inordinately helpful in developing their chassis. Technical director Sam Michael has spoken highly of the 38-year-old over the past 12 months and from Valencia onwards, Rubens only once failed to make it to the top ten shoot-out qualifying session.

Williams' biggest problem from a technical point of view at the beginning of last year was the switch in engine supplier from Toyota to Cosworth, just as refuelling stopped and fuel tank sizes had to be significantly expanded. With a new transmission that moved the clutch from the engine to the gearbox, the clutch actuator and hydraulic system and everything around the back of the car needed modifying. As a result of busy design work, there was no chance to work on a blown diffuser, because the layout of the exhausts weren't known to the team due to the switch in powerplant. When the blown diffuser finally appeared on the car it needed fine-tuning and it proved all too easy to misdirect



Pat Symonds explains the FW33

"This car features the same almost horizontal monocoque and high nose that most of the teams have opted for. At the back they've gone to extremes on the narrow gearbox, which is good, but I'd have liked them to have gone a bit further on the sidepod inlets – I reckon they could be getting a better flow around that area."

"It looks as if they've also opted for a lot of new parts, such as the gearbox and rear-wing mounting points, which is bold. The thing that is so striking about all these cars is how similar they are with the high front noses, flat monocoques and tightly packaged rear ends. I think the problem with keeping the regulations so tight is that all the teams then tend to come up with similar solutions."



the hot exhaust gases onto the tyres – as Nico Hülkenberg discovered in Valencia.

Without that problem this year, there's been more time to spend on other areas on the car, leading Rubens to declare the 2011-spec Williams 'aggressive'. It remains to be seen whether that glimmer of the old Williams form we saw in Brazil can be extended to a run of success this season. With major sponsors such as RBS, Philips and AirAsia dropping off the car, new Venezuelan sponsors coming in and a stock flotation, Williams hope to stave off a financial crisis. There are also links in Qatar, where the team are working in association with a hybrid company. Investment in their own flywheel version of KERS, however, has still yet to see fruition: the team will run a battery KERS in 2011, as they did in 2009.

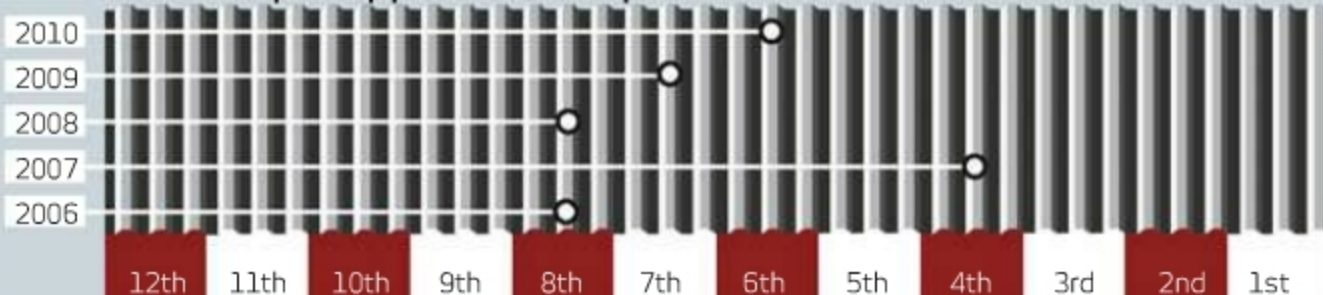
There is hope for the future – it's just a shame it will be without the talented Mr Hülkenberg. The pressure will be on Maldonado to prove that he has the speed and talent worthy of the prestigious seat he has on this year's grid.

AT&T Williams

Debut Argentina 1978
Address Station Road, Grove, Wantage, Oxfordshire OX12 0DQ
Twitter @WilliamsF1Team
Team principal Sir Frank Williams
Director of engineering Patrick Head
Chairman Adam Parr
Chief executive officer Alex Burns
Technical director Sam Michael

POLES 126
Starts 540
WINS 113
FASTEST LAPS 130
Points 2,661
DRIVERS' TITLES 7
CONSTRUCTORS' TITLES 9

Constructors' championship position over the past five seasons



DID YOU KNOW?

Rubens Barrichello has never won a race before round eight of the championship

Nico Hülkenberg's pole in Brazil was their 126th pole and their first one in 100 races

Rubens Barrichello has started 36 per cent of the 839 world championship F1 races

Pastor Maldonado will be only the third Venezuelan to start a Formula 1 grand prix

Team stats since the formation of Williams Grand Prix Engineering in 1977

Car 11 Red camera

Rubens Barrichello
Age 38
Born São Paulo, Brazil
Height 1.72m
Weight 72kg
Race engineer Tom McCullough
Twitter @rubarrichello
Debut South Africa 1993



POLES 14
Starts 303
WINS 11
FASTEST LAPS 17
DRIVERS' TITLES 0
PODIUMS 57 | **POINTS** 654



Car 12 Yellow camera

Pastor Maldonado
Age 25
Born Maracay, Venezuela
Height 1.73m
Weight 66kg
Race engineer Xevi Pujolar
Twitter @Pastormaldo
Debut Bahrain 2011



POLES 0
Starts 0
WINS 0
FASTEST LAPS 0
DRIVERS' TITLES 0
PODIUMS 0 | **POINTS** 0



FORCE INDIA

With talented new driver Paul Di Resta and a more settled workforce, can Vijay Mallya's team continue their solid advancement up the standings to take fifth place this year?

This is an important season for Force India. After years of planning, the first ever Indian GP will take place in October. Commercially, the arrival of F1 in India, presents an opportunity for the country to promote their growing economy on the global stage. This is also a chance for Force India to market themselves and potentially secure a big money investor.

But they missed a trick by failing to sign an Indian driver. With Narain Karthikeyan secure in a HRT race seat and Karun Chandhok closing in on a role at Lotus, Vijay Mallya's team could be overlooked when F1 heads to New Delhi. The team might have India in their title and the car displays the orange, green and white colours of the country's flag – but don't expect a billion people to be cheering on Adrian Sutil and Paul Di Resta to the same extent as their countrymen.

But British fans have reason to cheer on Paul Di Resta. The young Brit has shown good

pedigree in the junior racing formulae and could spring a surprise or two this year. He follows a number of British drivers, such as Gary Paffett and Jamie Green, who switched their careers to Europe and, as a result, were spotted and then supported by Mercedes. In 2004, he followed in the footsteps of his cousin, Dario Franchitti, by winning the McLaren Autosport BRDC Young Driver Award and two years later, in Formula 3, beat his team-mate (none other than Sebastian Vettel) to the F3 Euro Series crown.

Mercedes moved Paul Di Resta into the Deutsche Tourenwagen Masters (DTM) and he has finished in the top three of the standings over the past three years, culminating in the 2010 championship. Although he hasn't taken the traditional route of GP2, the Scot isn't the first driver to graduate from the DTM, as Christijan Albers followed the same career path five years ago.

In addition to his commitments in German Touring Cars, Di Resta joined Force India as the team's reserve driver last year and took part in a number of Friday practice sessions, the link being the Silverstone-based team's engine deal with Mercedes. In addition there is a gearbox and hydraulics tie-up with McLaren that has recently been extended for another two seasons. That brings much-needed continuity on the technical side, which has been shaken up with a number of personnel changes over the past year or so. At the end of 2009, chief operating officer Simon Roberts returned to McLaren and was replaced by former Honda man Otmar Szafnauer, while the team have also taken their third technical director, after both James Key (now with Sauber) and Mark Smith (now with Lotus) departed. That leaves development of the VJM04 in the hands of Andrew Green, who steps up from his role as director of engineering.

Chassis: Force India VJM04
Engine: Mercedes-Benz FO 108Y





Pat Symonds explains the VJM04

"Rear downforce has been reduced by the outlawing of the double diffuser and, therefore, the teams have been trying to claw back as much as they can. One of the most obvious ways you can do this is by trying to get as much downforce as possible from the rear wing. The 'blade' engine cover featured on the VJM04 and on the Lotus T128 is similar to that used by Mercedes last year and is useful because it improves the airflow to the rear wing. It probably won't improve it by much but it will help. I also understand that the team have been improving the chassis so that it works better on high-downforce tracks."



He has years of experience in the sport, having started at Reynard; more recently he headed up R&D at Red Bull Technologies.

After three years in the sport, 2010 was Force India's best finish in the constructors' championship. There was no repeat of the 2009 Spa pole and podium, however, partly because of aero changes to last year's car, which flattened their performance across all the circuits. The car was still at its best at the higher-efficiency venues, but struggled less at low-speed tracks. But Force India did manage to steal a march on their rivals last year when they developed an F-duct that blew the main rear-wing plane rather than the flap. But while it was more effective, it ultimately caused more problems.

Adrian Sutil retains his race seat, while Nico Hülkenberg is now reserve driver, having been cast aside by Williams. Thanks to a solid technical partnership, and a bright spark in Di Resta behind the wheel, Force India might achieve their goal of fifth place in 2011. Mallya wants a podium in New Delhi in October and is relying on a Scot to claim the headlines, but you'd suspect a point for Narain Karthikeyan in the HRT will be bigger news...

Force India F1 Team

Debut Australia 2008

Address Force India F1 Team, Dadford Road, Silverstone NN12 8TJ

Twitter

@clubforce

Team principal

Dr Vijay Mallya

Chief operating officer

Otmar Szafnauer

Team director

Bob Fernley

Technical director

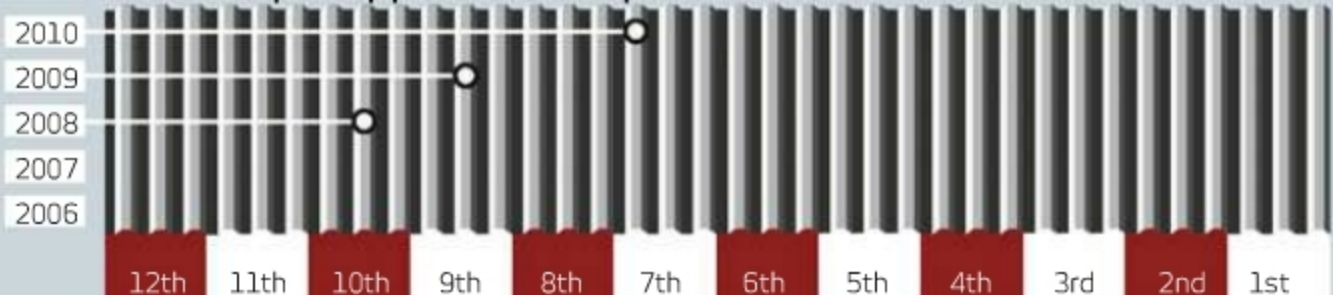
Andrew Green

Team manager

Andy Stevenson

POLES 1	Starts	54	WINS	0
	FASTEST LAPS	1	Points	81
	DRIVERS' TITLES	0		
	CONSTRUCTORS' TITLES	0		

Constructors' championship position over the past three seasons



DID YOU KNOW?

Monaco 2010 was the first time Force India managed to get both of their cars home and in the points

Adrian Sutil managed the most overtaking moves of anyone on the grid in 2010, with a total of 45

Vitantonio Liuzzi had the most crashes of anyone in 2010. He had five: four of which were in the last five races

Adrian Sutil has competed in every single race in which Force India have ever started

Team stats from when Force India took ownership of the team from Spyker in 2007

Car 14 Red camera

Adrian Sutil

Age 28

Born Gräfenberg, Germany

Height 1.83m

Weight 75kg

Race engineer

Bradley Joyce

Twitter @f1_sutil

Debut Australia 2007



POLES 0	Starts	71	WINS	0
	FASTEST LAPS	1		
	DRIVERS' TITLES	0		
	PODIUMS	0	POINTS	53



Car 15 Yellow camera

Paul Di Resta

Age 24

Born Uphall, Scotland

Height 1.85m

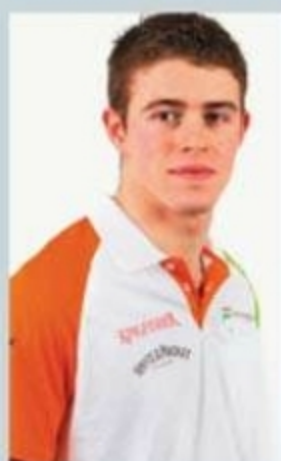
Weight 78kg

Race engineer

Gianpiero Lambiase

Twitter @pauldiresta1

Debut Bahrain 2011



POLES 0	Starts	0	WINS	0
	FASTEST LAPS	0		
	DRIVERS' TITLES	0		
	PODIUMS	0	POINTS	0





Chassis: Sauber C30
Engine: Ferrari 056

SAUBER

With an exciting Japanese driver and a rookie backed by the world's richest man, Sauber's next step is the podium

One thing is certain: financially, Sauber are now stable. Last year's car was a little bit too plain-white for the team's liking, but thanks to the arrival of the first Mexican driver in F1 for 30 years, along with major investment from Mexican telecom company Telmex, the Swiss team can now move in the right direction.

When BMW pulled the plug at the end of 2009, Sauber were left in a tricky position. Then came the mismanaged attempted sell-off to a mysterious consortium, Qadbak, following which Peter Sauber himself decided to take up the reins again. That was the right decision – as was hiring Force India's James Key as technical director. Sauber have the infrastructure of one of the best teams in the business, with a full-scale windtunnel and a huge CFD computing facility. That strength will allow Sauber to produce aerodynamically strong cars as Key will be

gutted to have finished behind his former team last year. Sauber's primary goal will be to eclipse Force India in 2011.

Hinwil have the resources, but the major factor that halted the team's progress last year was reliability, particularly in the early part of the season. Wings falling off, hydraulic failures and engine troubles all compounded their woes. It was only once those issues were resolved that Sauber could move forward. As an example of their efficiency, it was impressive that they had developed an F-duct by only the second race of the year, yet the C29 was problematic in other areas. The chassis was particularly stiff, spoiling the mechanical grip and making the car feel unstable, and drag was also high. When Key joined at the Chinese GP, his priority was a mid-summer update for softening the car, reducing drag and improving downforce. The

suspension was also tweaked for stability, as the car struggled in the low-speed stuff and under braking. Given the team's financial state last year, they opted against a blown floor and, with the last update coming at Singapore, decided early to commit time and money to the 2011 car.

One of the most likeable people in the sport, Pedro de la Rosa, was unfortunately dropped towards the end of the season so that the team could get a second opinion from another old hand: Nick Heidfeld. In the other car, some eye-catching performances were put in by Japan's Kamui Kobayashi, a man who isn't afraid of having a go, even if that results in him flying off the track. It's a trait that's won him many fans and if there's a procession at the front of the field, then the TV cameras quickly pick up on Kamui's battles, as they did notably at Suzuka last year. Kobayashi and de la Rosa were evenly matched in qualifying at seven-seven but, more impressively, the Japanese driver had the measure of 'Quick Nick', outqualifying him four-one on Saturdays. Often he'd gamble on running the softer option tyre late in the race, and that gave him a memorable seventh when he overtook Alonso in Valencia. He followed that up with sixth at Silverstone – a position he'll be keen to improve on this year.



Pat Symonds explains the C30

"The C30's nose seems lower than most of the others on the grid – but just look at that complex front wing. My favourite thing about this car is the way the lower front suspension wishbone has been picked up: the lower wishbone is seamlessly mounted onto these little ears that come out of the monocoque. It's a much neater solution than on some of the cars, like the Mercedes. The sidepod inlets look really good as well.

"Once you get to the back of the car, it isn't quite as exciting. The bodywork between the rear wheels isn't as tight as on the other cars, and the rear wing is quite plain. It looks like they were doing a great job until they got to the roll hoop – and then they just went down the pub! But overall it seems like a good car."



Sauber have two youngsters doing battle for them in 2011, with GP2 race winner Sergio Pérez taking the second seat. He comes with money from Telmex and has backing from the world's richest man, Carlos Slim. But he's no slouch either. Both Pérez and Kobayashi are the darlings of their respective countries and both will feel the pressure to perform. Mistakes will be easy to make, but the straight-laced, no-nonsense Sauber organisation should keep both drivers' feet firmly on the ground.

Twelve months ago, the C29 set some eyebrow-raising lap times in pre-season testing, but that was the first year of full-race sized fuel tanks. The suggestion was that their tanks were underfilled in comparison to the opposition in an attempt to gain much needed exposure, given the absence of major sponsors. This year, there will be no such need for stand-out lap times, as all the elements are now in place for a solid season. The target for the team this year has got to be podium finishes.

Sauber F1 Team

Debut South Africa 1993

Address

Wildbachstrasse 9,
8340, Hinwil, Switzerland

Website

sauberf1team.com

Team principal

Peter Sauber

Chief executive officer

Monisha Kaltenborn

Technical director

James Key

Chief designer

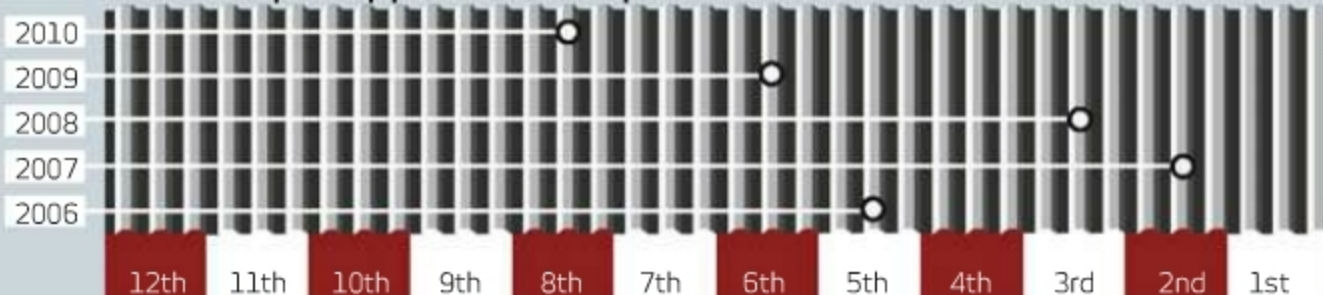
Christoph Zimmermann

Head of aerodynamics

Seamus Mullarkey

POLES 1	Starts	304	WINS	1
	FASTEST LAPS	2	Points	547
	DRIVERS' TITLES	0		
	CONSTRUCTORS' TITLES	0		

Constructors' championship position over the past five seasons



DID YOU KNOW?

Nick Heidfeld's five races in 2010 meant he'd had 172 starts without a win, second in the all-time list

Kobayashi was the last of the drivers who started in 2010 to finish a race – it took him until Barcelona

Sergio Pérez will be only the fifth Mexican to start an F1 race. The last was Hector Rebaque in 1981

Sauber's 2011 driver line-up makes this only the second time they won't have any European drivers

Team stats include the period when BMW partnered the squad from 2006 to 2010

Car 16 Red camera

Kamui Kobayashi

Age 24

Born Amagasaki, Japan

Height 1.70m

Weight 63kg

Race engineer

Francesco Nenci

Web kamui-kobayashi.com

Debut Brazil 2009



POLES 0	Starts	21	WINS	0	
	FASTEST LAPS	0			
	POINTS	35	DRIVERS' TITLES	0	
		PODIUMS			0



Car 17 Yellow camera

Sergio Pérez

Age 21

Born Guadalajara, Mexico

Height 1.72m

Weight 62kg

Race engineer

Marco Schüpbach

Twitter @checoperez17

Debut Bahrain 2011



POLES 0	Starts	0	WINS	0
	FASTEST LAPS	0		
	DRIVERS' TITLES	0		
PODIUMS	0		POINTS	0

A close-up of a racing helmet, primarily red with white and green accents. It features a visor and various sponsor logos, including a prominent 'P' logo on the side. The helmet is angled slightly towards the viewer.

TORO ROSSO

It's gone a bit quiet since Vettel's amazing win at Monza in 2008. Buemi and Alguersuari really need to deliver this year

When Sebastian Vettel triumphed in Abu Dhabi last year, a few of the boys from Toro Rosso went to his bash to celebrate his championship victory with him. They had played a part in his success since the primary role of the second-string Red Bull team is to nurture future F1 talent, and the guiding of Vettel from rookie to race winner had been completed with Toro Rosso back in 2008. Alas, his brilliant win at a soaking wet Italian GP was the last time this small, friendly team reached the podium.

The latest incumbents, Sébastien Buemi and Jaime Alguersuari, might be looking over their shoulders soon if they don't get a move on. Helmut Marko's junior driver programme isn't a charity and with youngsters Daniel Ricciardo and Jean-Eric Vergne waiting in the wings, you can't help but fear for the current racers. One criticism of the pair last year was that they were too conservative, but given the lack of testing these days, if either made a mistake, they'd suffer from the lack of mileage – so you can understand their reluctance to push too hard. Out on track, Buemi was closely matched by the

less-experienced Alguersuari and the qualifying ratio was close: 11 to eight in Buemi's favour.

It was a tough year for the pair but, to be fair, the STR5 was the first car the Faenza team had built under Red Bull ownership (now the rules on chassis sharing have been clarified). The resources of this Italian team are very limited and when the STR5 was first being worked on, the team's patriarchal technical director Giorgio Ascanelli admitted the windtunnel wasn't working and that they didn't know how to use the CFD! Last year, the team concentrated on a blown diffuser instead of directing resources into an F-duct, which they knew wouldn't carry into 2011. But then when the updated diffuser first appeared, it didn't work properly.

In F1 terms, little money is spent at Toro Rosso, but if they can keep finding future world champions, they're worth shelling out for. If not, you have to wonder how long Red Bull will be prepared to finance two teams. Toro Rosso finished last year ninth in the standings, one place higher than 2009, and there's no reason why they can't aim for eighth this year.

Chassis: Toro Rosso STR6
Engine: Ferrari 056

SCUDERIA TORO ROSSO

Debut Bahrain 2006

Address Via Spallanzani 21,
48018, Faenza, Italy

Twitter @ToroRossoSpy


Team principal Franz Tost

Technical director Giorgio Ascanelli

Team manager Gianfranco Fantuzzi

P O L E S 1	Starts 89	WINS 1
	FASTEST LAPS 0	Points 69
	POSITION LAST SEASON 9	
	CONSTRUCTORS' TITLES 0	
	<i>Team stats taken since takeover of Minardi in 2006</i>	
		

Car 18 Red camera

 **Sébastien Buemi**

Age 22

Born Aigle, Switzerland

Height 1.72m

Weight 65kg

Race engineer

Riccardo Adami

Twitter


@Sebastien_buemi

Debut Australia 2009



Starts 36	WINS 0
FASTEST LAPS 0	Points 14
POLES 0	
PODIUMS 0	

Car 19 Yellow camera

 **Jaime Alguersuari**

Age 20

Born Barcelona, Spain

Height 1.81m

Weight 65kg

Race engineer

Andrea Landi

Twitter @SQUIRE3

Debut Hungary 2009



Starts 27	WINS 0
FASTEST LAPS 0	Points 5
POLES 0	
PODIUMS 0	





Chassis: Lotus T128
Engine: Renault RS27-2011

LOTUS

That's Lotus with the green car who were here last year. This year, they've set their sights higher up the grid...

For all the dispute about naming issues, from Lotus Racing to Team Lotus to a public spat with Group Lotus and Lotus Cars, what lies underneath is a competent racing team. Technical boss Mike Gascoyne probably doesn't care what his team are called: all he wants is a decent racing car that can compete on the world stage. And credit where it's due, this team have gone from not even having an entry 18 months ago, to being tenth in the constructors' championship and best of the new teams.

With backing from AirAsia boss Tony Fernandes and a decent roster of sponsors, the team have benefited from not having to resort to pay drivers, and both Jarno Trulli and Heikki Kovalainen at least each have a grand prix win to their names. And neither has let frustration get the better of them, despite having come from higher up the grid to battling for 17th place.

But one big surprise is that Lotus and the other new teams, Virgin and HRT, were still such a significant distance behind the more established teams by the end of the season – and they can't blame the Cosworth engines because Williams ran the same powerplant. Lotus's last

update took place at Silverstone where they still found themselves 1-1.5secs off the pace of Toro Rosso and Sauber. The biggest problem seemed to concern the reliability of the Xtrac gearbox and hydraulics, a major issue that affected any chance the team had of gaining serious mileage. That situation should improve for Lotus in 2011, now that they have agreed a Renault engine deal and a technical gearbox/drivetrain collaboration with Red Bull.

The driver line-up remains unchanged, which should bring helpful continuity, but the biggest distraction will be the politics. It's a shame that the goodwill engendered by Tony Fernandes' revival of the Lotus name has become mired in legal wranglings but, to be honest, when most fans think of Lotus, they think of Colin Chapman, Jim Clark, Mario Andretti, Elio de Angelis and a bygone era. If a new team can be successful on their own merit, then their new name will be adopted and revered by the fans.

With Gascoyne optimistic about catching the likes of Renault by the end of this season, the aim for Team Lotus isn't just to move up the grid. It's to begin their own legacy.

TEAM LOTUS

Debut Bahrain 2010

Address Hingham Industrial Estate,
Ironsides Way, Hingham, Norfolk NR9 4LF

Twitter @MyTeamLotus

Team principal Tony Fernandes

Deputy team principal SM Nasarudin

Chief executive officer Riad Asmat

Chief technical officer Mike Gascoyne

Chief operating officer Keith Saunt

P O L E S 0	Starts	19	WINS	0
	FASTEST LAPS	0	Points	0
	POSITION	LAST SEASON 10		
	CONSTRUCTORS' TITLES	0		
	<i>Team stats taken from the beginning of last year</i>			
				

Car 20 Red camera

 **Jarno Trulli**

Age 36

Born Pescara, Italy

Height 1.73m

Weight 60kg

Race engineer

Gianluca Pisanello

Website


www.jarnotrulli.com

Debut Australia 1997



Starts	234	WINS	1
FASTEST LAPS	1	Points	246.5
POLES	4		
PODIUMS	10		

Car 21 Yellow camera

 **Heikki Kovalainen**

Age 29

Born Suomussalmi, Finland

Height 1.72m

Weight 66kg

Race engineer

Juan Ramirez

Twitter @H_Kovalainen

Debut Australia 2007



Starts	70	WINS	1
FASTEST LAPS	2	Points	105
POLES	1		
PODIUMS	3		



Chassis: HRT F111
Engine: Cosworth CA2011

HISPANIA

A stream of pay drivers and an off-the-pace car made for a tricky debut in 2010. Can HRT do any better this year?

The fact that this team even made it to the opening grand prix of 2010 was a massive achievement in itself. Adrian Campos had secured an entry and Bruno Senna's signature, but a cash shortfall meant there was no chance of starting the season. But then financial troubleshooter Dr Colin Kolles, who had previously been working with Zoran Stefanovic's Stefan GP operation, helped broker a deal with Campos that saw the squad sold to José Ramón Carabante. Kolles came on board as team principal just weeks before the first race and so began an incredible push to get Bruno Senna's and Karun Chandhok's cars built in time.

Unfortunately, that last-minute push left the team so far behind that they were always going to be struggling at the back of the grid. Bringing in former Honda and Red Bull man Geoff Willis as technical director was a sound decision, but the team's season remained blighted by a lack of funds. A roster of driver changes that included Sakon Yamamoto and Christian Klien helped to keep the team afloat, but there was never enough money to make any significant updates to the car. As was the case with the other new teams, the reliability of the hydraulics was a big problem but, fundamentally, the Dallara chassis

was poor: hugely lacking in downforce and suffering from terrible understeer.

Race strategy seemed mainly to be focused on losing the least amount of time possible while being overtaken by the leaders, rather than on where to find time on setup. Yet despite having a number of personnel and mechanics without any F1 experience, the team did a solid job in recording more finishes than Virgin.

There might be some improvement in 2011, thanks to a deal with Williams that will utilise an off-the-shelf gearbox and powertrain but, fundamentally, the car will just be an updated F110. One Indian racer – Chandhok – has been replaced by another, Narain Karthikeyan, who will be a key asset in generating revenue thanks to interest in the inaugural Indian GP later this year. As we go to press, no second driver has yet been announced, but Bruno Senna has lost his seat, having failed to shine in his debut season.

A major concern for HRT is the reintroduction of the 107 per cent qualifying rule, a margin they occasionally fell outside of last year. Jacques Villeneuve said in his *F1 Racing* column last month that HRT were in danger of becoming a joke. They will have to take significant steps if they're to prove him wrong.

HRT F1 TEAM

Debut Bahrain 2010

Address José Ortega y Gasset, 30 Bajo, 28006, Madrid, Spain

Twitter @HispaniaRacing

President José Ramón Carabante


Team principal Dr Colin Kolles

Technical director Geoff Willis

Head of operations Boris Bernes

P O L E S 0	Starts 19	WINS 0
	FASTEST LAPS 0	Points 0
	POSITION LAST SEASON 11	
	CONSTRUCTORS' TITLES 0	
	Team stats from the start of last season	
 		

Car 22 Red camera

 **Narain Karthikeyan**

Age 34

Born Chennai, India

Height 1.67m

Weight 60kg

Race engineer

Richard Connell

Twitter @narainracing

Debut Australia 2005



Starts 19	WINS 0
FASTEST LAPS 0	Points 5
POLES 0	
PODIUMS 0	

Car 23 Yellow camera

TBA

Age n/a

Born n/a

Height n/a

Weight n/a

Race engineer TBA

Website

www.hispaniaf1team.com

Starts 0	WINS 0
FASTEST LAPS 0	Points 0
POLES 0	
PODIUMS 0	



VIRGIN

With their CFD-only car and an undersized fuel tank, it was a tricky first season for the team. Expect better in 2011...

First it started as a rumour then, at last year's Australian Grand Prix, the ugly truth emerged. Virgin had built their first Formula 1 car with a fuel tank so small they couldn't finish the race. It was an embarrassing start for the new operation. Twelve months earlier, Richard Branson had swanned into F1 to proclaim himself the new sponsor of the Brawn GP team, and watched them score a memorable one-two on their debut. Now, with his own Virgin team, he was discovering that F1 wasn't always so straightforward. Virgin ended their first season rock bottom in the constructors' championship, with the fewest finishes of any team.

It wasn't just the undersized fuel tank that stopped Virgin from making the end of the race: unreliable hydraulics and numerous issues with the differential also hampered a number of their planned updates – in fact, the upgrade Virgin brought to Silverstone was originally intended for Barcelona. The VR-01 was particularly hard on its rear tyres, especially when running the super-softs, but the biggest problem of all was a lack of downforce.

Due to their limited budget, the team were constrained by their CFD-only approach to design. Their other problem is that they operate from three different locations. Design and manufacturing takes place at Wirth Research in Banbury; operations and assembly at John Booth's Dinnington base; while the marketing arm of the company is located in London.

There are two new additions to the team for 2011: Belgian Jérôme d'Ambrosio replaces Lucas di Grassi as Timo Glock's team-mate, and a supercar company known as Marussia has joined as title sponsor and a significant shareholder of the team, which should help stabilise the outfit financially. The man who heads up Marussia is Nikolai Fomenko – part pop star, part racing driver and former presenter of *Top Gear Russia*. He's established the country's first supercar – the Marussia – and aims to roll out 300 models a year. Although it's reminiscent of the Dutch Spyker brand that entered the sport a couple of years ago, with the Russian town of Sochi lined up to host the Russian GP in 2014, this is the right time for Virgin to get Marussia on board.



Chassis: Marussia Virgin MVR-02
Engine: Cosworth CA2011

MARUSSIA VIRGIN RACING

Debut Bahrain 2010

Address 1 Manor Drive, Dinnington, Sheffield, South Yorkshire S25 3QU

Twitter @VirginRacing

Chairman Sir Richard Branson

Team principal John Booth

Technical director Nick Wirth

POLES 0	Starts	19	WINS	0
	FASTEST LAPS	0	Points	0
	POSITION LAST SEASON	12	CONSTRUCTORS' TITLES	0
	Team stats from the start of last season			
	 			

Car 24 Red camera



Timo Glock

Age 28

Born Lindenfels, Germany

Height 1.69m

Weight 64kg

Race engineer

Michael Harre

Twitter @realTimoGlock

Debut Canada 2004



Starts	54	WINS	0
FASTEST LAPS	1	Points	51
POLES	0	PODIUMS	3

Car 25 Yellow camera



Jérôme d'Ambrosio

Age 25

Born Etterbeek, Belgium

Height 1.73m

Weight 62kg

Race engineer

Mark Hutcheson

Website

jeromedambrosio.com

Debut Bahrain 2011



Starts	0	WINS	0
FASTEST LAPS	0	Points	0
POLES	0	PODIUMS	0



THE CIRCUITS

From the classic tracks of Silverstone and Interlagos to the uncharted territory of India, **Anthony Davidson** gives you the lowdown on all 20 of this year's circuits

ILLUSTRATIONS ALAN ELDRIDGE



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BAHRAIN

Bahrain International Circuit, Sakhir, 11-13 March



The F1 season kicks off in the Middle East, where we'll all be hoping for a more exciting race than last year's

BAHRAIN: THE FACTS

Track length: 3.363 miles**Race length:** 191.53 miles**Laps:** 57**Direction:** Clockwise**F1 debut:** 2004**Lap record:** 1min 30.252secs

Michael Schumacher (2004)

Last five winners:**2010** Fernando Alonso**2009** Jenson Button**2008** Felipe Massa**2007** Felipe Massa**2006** Fernando Alonso**Race start (UK time):** 12pm

T9 ANTHONY DAVIDSON'S KEY CORNER

"This left-hander tightens at the apex and you brake all the way downhill into Turn 10. It's easy to lock the inside left front and it's painful if the wind is behind you: it kicks the rear around and you'll see drivers either spin or run out wide."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"I've always liked this track. I know that we had a boring race last year, but normally it's a circuit that creates overtaking, which is partly because of the way the last corner is designed and partly because of the huge main straight into the tight first corner. It extends the braking zone and there's a chance to overtake on the inside of Turn 1. The biggest challenge for a driver here is the wind, but for an engineer it's brake temperature as there are a few long straights into heavy braking zones."

WHO THE TRACK SUITS...

The last test of the winter is in Bahrain the week before the race and provides clues as to who will be competitive. Even so, testing throws up unlikely results as some teams sandbag while others run on low fuel – only after qualifying will we know who is competitive. In 2010, McLaren struggled with a stiff chassis and looked uncomfortable over the bumps on an extended section of track that's now been dropped. Alonso won on his Ferrari debut and you can expect the team to do well again, as he and Massa have five wins here between them.

REMEMBER THIS?

The first race of 2006 was a portent for the season ahead. A scrap for the lead between Schumacher and Alonso was decided in the Spaniard's favour by fractions of a second. When Alonso emerged from the pits with 18 laps to go, Schumacher was charging down the start/finish straight. The Renault just nosed ahead of the Ferrari as they entered Turn 1, and Alonso managed to hold the lead until the chequered flag. Räikkönen took third having started last, and Nico Rosberg scored points – and the fastest lap – on his F1 debut.

BAHRAIN'S HISTORY OF EXCITING RACES



AUSTRALIA

Albert Park, Melbourne, 25-27 March



A bumpy semi-street circuit with minimal grip, Albert Park is a real test of a driver's skill – and it usually makes for a brilliant race

MELBOURNE: THE FACTS

Track length: 3.295 miles

Race length: 191.117 miles

Laps: 58

Direction: Clockwise

F1 debut: 1996

Lap record: 1min 24.125secs

Michael Schumacher (2004)

Last five winners:

2010 Jenson Button

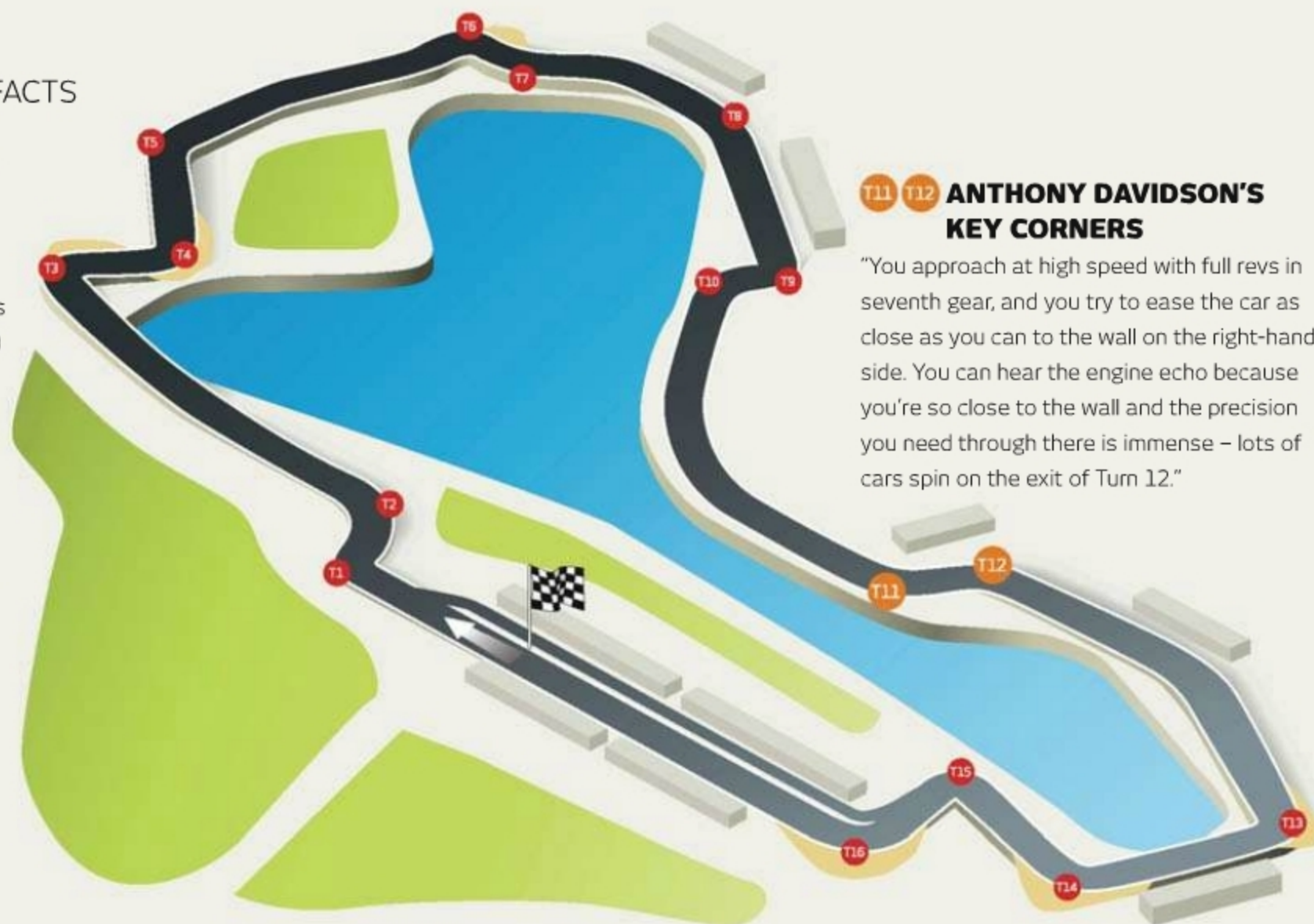
2009 Jenson Button

2008 Lewis Hamilton

2007 Kimi Räikkönen

2006 Fernando Alonso

Race start (UK time): 7am



T11 T12 ANTHONY DAVIDSON'S KEY CORNERS

"You approach at high speed with full revs in seventh gear, and you try to ease the car as close as you can to the wall on the right-hand side. You can hear the engine echo because you're so close to the wall and the precision you need through there is immense – lots of cars spin on the exit of Turn 12."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"Albert Park is a daunting track to get to grips with. When the drivers first get there it has dust and leaves all over it, so coming from a grippy circuit like Bahrain it's hard to tell where the grip is. It's very bumpy, too. It's a huge operation to get a street track into a clinical F1 condition, but they start working on it a couple of months prior to the race. If you find yourself in a situation where you make a mistake early on, it can really set you back for the rest of the weekend."

WHO THE TRACK SUITS...

A Melbourne March sits between the end of the summer and the onset of winter and, as a result, the weather can be sunny or chilly with downpours. When it's the latter, expect a driver like Jenson Button to excel, his smooth driving style being well-suited to a circuit with little grip. He took pole in 2006 and 2009 and could take a hat-trick of victories this year. Home favourite Mark Webber will seek to thwart him, but in his nine home races he's retired three times and his best finish is still fifth – scored on his 2002 debut and again in 2005.

REMEMBER THIS?

When Melbourne used to host the season opener, it often threw up some surprising F1 debuts. The first was Jacques Villeneuve's in 1996 when he qualified on pole and led most of the race before an oil leak scuppered his chances. On his McLaren debut in 2007, Lewis Hamilton put team-mate and double world champion Fernando Alonso in his place by starting fourth, leading laps and finishing third. Yet you could argue Kimi Räikkönen was the best of all – coming straight from Formula Renault to F1 in 2001 and scoring points with sixth place.

MELBOURNE'S HISTORY OF EXCITING RACES



Schumacher wins again, but local hero Mark Webber thrills the crowd by holding off Mika Salo's Toyota to take fifth on his F1 debut



Alonso wins a memorable race in which the Safety Car is deployed four times to clear up various shunts – including a big one for Schumacher



PICTURES: LORENZO BELLANCA/LAT, ANDREW FERRARO/LAT



MALAYSIA

Sepang International Circuit, Kuala Lumpur, 8-10 April



A great track that's one of Hermann Tilke's best efforts, says Anthony Davidson. If only they'd kitted it out with giant air conditioning units...

SEPANG: THE FACTS

Track length: 3.444 miles

Race length: 192.878 miles

Laps: 56

Direction: Clockwise

F1 debut: 1999

Lap record: 1min 34.223secs

Juan Pablo Montoya (2004)

Last five winners:

2010 Sebastian Vettel

2009 Jenson Button

2008 Kimi Räikkönen

2007 Fernando Alonso

2006 Giancarlo Fisichella

Race start (UK time): 9am

T14 ANTHONY DAVIDSON'S KEY CORNER

"Malaysia's Turn 14 is one of the toughest corners on the calendar. You approach in sixth gear, brake into second, then, as it climbs uphill, the apex is blind. As you get back on the throttle, the circuit drops away, enough to kick the back out and unnerve the drivers."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"More drivers would rave about Sepang if you could pick it up and move it somewhere cooler. It's a very physical circuit, not only in terms of layout, but also because of the heat and humidity. It punishes the surface of the track as much as it does the drivers. We've seen the track settle over the years, particularly into Turn 4 where there's a bump because of a tunnel that runs under the track. It has a lot of character and it's beautiful to drive. I still regard it as one of Tilke's finest."

WHO THE TRACK SUITS...

Monsoon-type rains are common here, which can upset qualifying and the race. In five years, five different teams have won here and it's outfits that make the right strategy calls in wet and Safety Cars conditions who succeed. Long straights demand top-end power, while the high-speed Turns 5 and 6 require downforce. Red Bull took a one-two in 2010 and should be strong again. There will be local support for Malaysian-owned Team Lotus as well as for Renault's new reserve driver, Fairuz Fauzy, who should run on the Friday.

REMEMBER THIS?

Back in 2004, David Richards was running the BAR-Honda team. The car was never going to be quick enough to challenge the Ferrari of Michael Schumacher, but people were beginning to sit up and take notice of the team's performances. That year, Jenson Button started sixth on the grid in Sepang, but after a light rain shower he began to scythe his way through the field, overtaking Jarno Trulli, Rubens Barrichello and Kimi Räikkönen to eventually finish third and record his first ever podium finish in Formula 1.

SEPANG'S HISTORY OF EXCITING RACES



CHINA

Shanghai International Circuit, 15-17 April

It might come with fiddly corners and indifferent locals, but last year's grand prix was an absolute belter



SHANGHAI: THE FACTS

Track length: 3.387 miles

Race length: 189.559 miles

Laps: 56

Direction: Clockwise

F1 debut: 2004

Lap record: 1min 32.238secs

Michael Schumacher (2004)

Last five winners:

2010 Jenson Button

2009 Sebastian Vettel

2008 Lewis Hamilton

2007 Kimi Räikkönen

2006 Michael Schumacher

Race start (UK time): 8am

T11 T12 T13 ANTHONY DAVIDSON'S KEY CORNERS

"If you're fighting a car for position, then you can plan to line it up to overtake on the long straight. It's all about your position as you exit Turn 13 – and that's why braking into Turn 11 is so important. Get that right and you can be ready to attack into Turn 14."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"The things that spring to mind about Shanghai are the long back straight and the annoying corners, which have been branded 'the snails'. The straight lets you adjust the settings on the car that the engineers have been begging you to adjust all through the lap. The first 'snail' is Turns 1, 2 and 3, where you brake around a seemingly never-ending corner that gets tighter and tighter. You always feel disappointed with yourself as a driver, as you never feel you've taken it perfectly."

WHO THE TRACK SUITS...

The ever-decreasing-radius Turn 1 complex requires a car that is stable under braking, as well as having strong traction out of the turns. The slow corners, added to one of the longest straights on the Formula 1 calendar, mean the teams are stuck with a tricky compromise and must sacrifice top speed for downforce. So expect those who have developed a strong KERS system, or the Mercedes-powered teams to excel here on the long straight. McLaren will be hoping to repeat their one-two finish from last season.

REMEMBER THIS?

Michael Schumacher admitted that he always seemed to struggle in China – and in 2005 he failed even to make it onto the starting grid. While on a reconnaissance lap, Christijan Albers came across the slow Ferrari, which wandered directly into his path. Albers had no time to react and smashed his Minardi into the side of Schumacher. Both managed to start the race in spare cars from the pitlane, but Albers was last of the classified finishers, while Schuey retired with a rather woeful spin on lap 22.

SHANGHAI'S HISTORY OF EXCITING RACES



PHOTOS: ANDREW FERRARO/LAT



TURKEY

Istanbul Park, 6-8 May



A fantastic track that includes one of the great corners of Formula 1 – Turn 8. It's just a shame none of the locals seem to be that bothered

ISTANBUL: THE FACTS

Track length: 3.317 miles

Race length: 192.249 miles

Laps: 58

Direction: Anticlockwise

F1 debut: 2005

Lap record: 1min 24.770secs

Juan Pablo Montoya (2005)

Last five winners:

2010 Lewis Hamilton

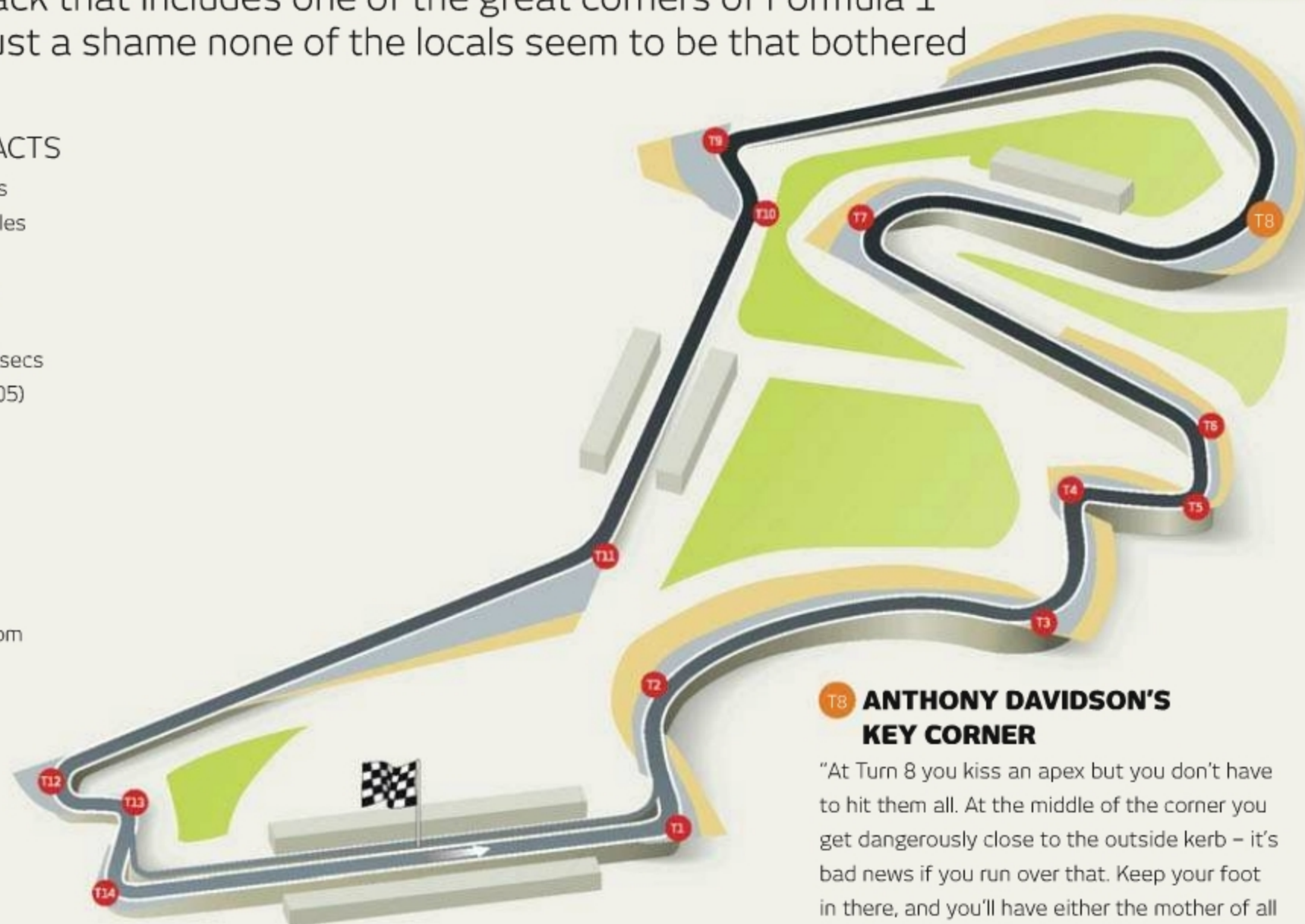
2009 Jenson Button

2008 Felipe Massa

2007 Felipe Massa

2006 Felipe Massa

Race start (UK time): 1pm



T8 ANTHONY DAVIDSON'S KEY CORNER

"At Turn 8 you kiss an apex but you don't have to hit them all. At the middle of the corner you get dangerously close to the outside kerb – it's bad news if you run over that. Keep your foot in there, and you'll have either the mother of all exits or the mother of all spins!"

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"The whole track is a great roller-coaster ride: it's elevated and it has high-speed corners. Turn 8 hasn't got a fancy name, but already it's the stuff of legend and it's a great corner in modern F1. This is a ballsy circuit with a lot of feel – until you get to the final sector, which is like a different track. When you arrive in the last few corners, you've got to revert to a more fiddly, technical style of driving and you see a lot of drivers slip up there. It's a circuit you can race on as well, definitely."

WHO THE TRACK SUITS...

Last year was a closely fought battle between Red Bull and McLaren, while Ferrari struggled to get to grips with their F-duct. It will suit the chassis with the best overall package, which is stable in the high-speed corners as well as having the traction to deal with the final couple of turns on the lap. It will also favour the car that can best preserve tyre wear because the high-speed corners can be very demanding on the rubber. Felipe Massa has the best overall record here, having won in 2006, 2007 and 2008.

REMEMBER THIS?

In his debut season, Lewis Hamilton was leading the world championship heading into the 2007 Turkish GP. He was running in third place behind the Ferraris when, with just 16 laps to go, the TV cameras cut to him slowing on the track and showed his right-front tyre flailing and flapping in the air. Yet he still managed to salvage fifth place – there must be something that clicks with Lewis here. Who could forget his meteoric drive in GP2 the previous year, when he charged from 16th place on lap 2 to finish second?

ISTANBUL'S HISTORY OF EXCITING RACES



McLaren are on course for a one-two until Montoya goes off the road lapping Tiago Monteiro. He recovers to finish third behind Räikkönen and Alonso



A flat-out race for victory between both Red Bulls and both McLarens ends when Webber and Vettel collide, handing the advantage to McLaren

2005

2006

2007

2008

2009

2010

SPAIN

Circuit de Catalunya, Barcelona, 20-22 May



It's not noted for its classic races or numerous overtaking manoeuvres, but this is a circuit that all the drivers know like the backs of their hands

BARCELONA: THE FACTS

Track length: 2.892 miles

Race length: 190.825 miles

Laps: 66

Direction: Clockwise

F1 debut: 1991

Lap record: 1min 21.670secs

Kimi Räikkönen (2008)

Last five winners:

2010 Mark Webber

2009 Jenson Button

2008 Kimi Räikkönen

2007 Felipe Massa

2006 Fernando Alonso

Race start (UK time): 1pm

T14 T15 ANTHONY DAVIDSON'S KEY CORNERS

"They've ruined the approach to Turn 16 with a new complex that's a 90° right, a short burst, then two more 90° lefts/rights in first or second gear with huge kerbs. If you hit one, your lap is ruined. You can't overtake, you rarely make a mistake and it's boring, slow and fiddly."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"I've driven this track enough times to be aware that in the morning, when the air is still, there is a distinct scent of chocolate in the air around Turns 11 and 12! There's an industrial area around there and I think that is responsible for some strange smells. If you arrived at the Circuit de Catalunya for the very first time, you'd think it was quite good and would come back with some fairly positive comments but, to be honest, we've all been there far too many times now."

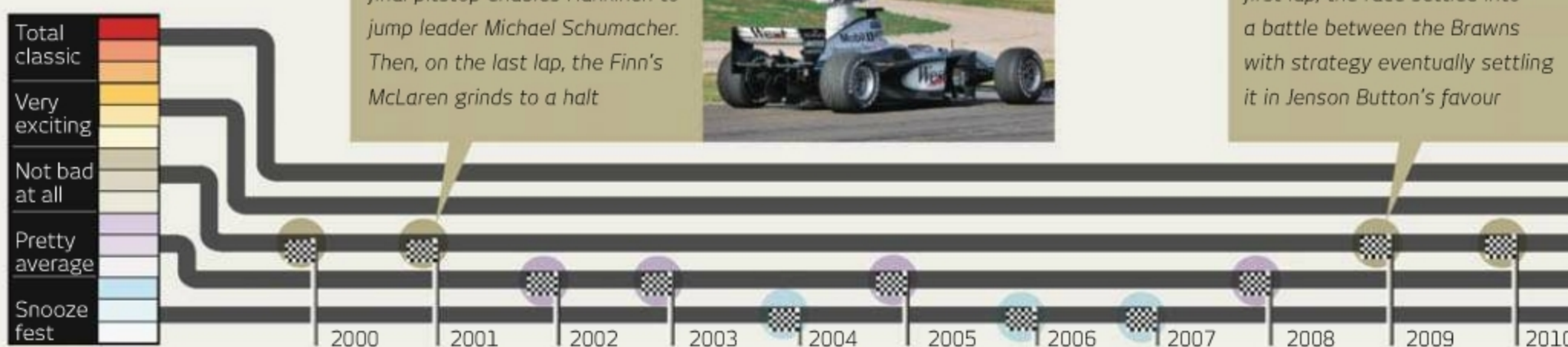
WHO THE TRACK SUITS...

Red Bull were able to display their superiority in the high-speed areas at this circuit last year when they were able to take the 160mph Campsa corner (Turn 9) flat-out without lifting for the first time ever. This is a track that really does require a large amount of top-end grip and so you can expect the Red Bulls to again be very quick out there. Look out for Fernando Alonso... he's the darling of the local crowd and he will be desperate to add another victory at his home grand prix to the last one he scored back in 2006.

REMEMBER THIS?

The first race held at the Circuit de Catalunya was in late September 1991 and the world championship battle was being closely fought between Ayrton Senna and Nigel Mansell. It got even closer out on track as the pair memorably ran side by side down the main start/finish straight in the opening laps, nearly touching wheels at speeds of over 180mph. Mansell moved ahead, but when they pitted together Senna was back in front – until he made a rare error and spun off. Mansell won, while Senna recovered to finish fifth.

BARCELONA'S HISTORY OF EXCITING RACES



MONACO

Circuit de Monaco, Monte Carlo, 26-29 May



It's been on the calendar since 1950 but despite being the slowest circuit of the year, for the drivers it feels like one of the quickest

MONACO: THE FACTS

Track length: 2.075 miles

Race length: 161.879 miles

Laps: 78

Direction: Clockwise

F1 debut: 1950

Lap record: 1min 14.439secs

Michael Schumacher (2004)

Last five winners:

2010 Mark Webber

2009 Jenson Button

2008 Lewis Hamilton

2007 Fernando Alonso

2006 Fernando Alonso

Race start (UK time): 1pm

T3 ANTHONY DAVIDSON'S KEY CORNER

"At Turn 3, before Casino, it's hard to follow the flow of the kerb. You need to get the car straight before you turn right. You can easily overdo it on the entry to Casino, and if you clip the marbles before you turn in, you're a passenger and into the barriers at high speed."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"It's awesome that we can still go to a track like this in modern cars. It brings out the true racer in everyone. There's no room for error, with the exception of Turn 1 where you can use the run-off area. It's bumpy, slippery and the whole lap is made up of immense speed. The slowest average lap speed of the year feels like the fastest because the walls are so close and the corners so tight. You get into a trance of rhythm and as the grip builds, so does your confidence."

WHO THE TRACK SUITS...

Monaco requires a well-balanced, smooth and drivable car that's predictable on the kerbs and bumps. And in the past three years, the car that has won here has proved to be the class of the field that season. Top power isn't an advantage, but in the past we've seen short, nimble cars do well, like the Tyrrell in the hands of Alesi, or the Renault that Kubica took to a podium finish last year. Every car runs with maximum downforce and the steering lock is also increased to circumnavigate the tightest corners of the year.

REMEMBER THIS?

Despite the speed of the new Ferrari 156s, the 'sharknose' was no match for Stirling Moss at the 1961 Monaco Grand Prix. For nearly three hours and 100 tortuous laps, Moss brilliantly kept his Rob Walker-run Lotus-Climax ahead of the three scarlet cars. For lap after lap, Ferrari hounded down the Englishman, even swapping places to try and halt Moss's charge. But it was all fruitless, as Stirling took a famous victory on the twisty streets ahead of the Scuderia trio of Richie Ginther, Phil Hill and Wolfgang von Trips.

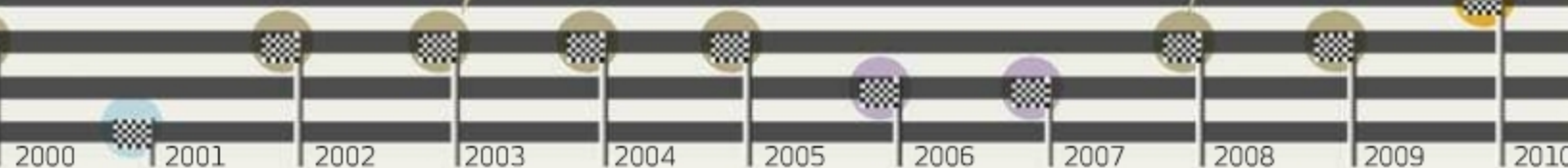
MONACO'S HISTORY OF EXCITING RACES



Top three Montoya, Räikkönen and Michael Schumacher are covered by less than two seconds at the flag after a marvellous strategic battle



Lewis Hamilton survives a brush with the wall in damp conditions to become the first Englishman to win at Monaco since 1969



CANADA

Circuit Gilles-Villeneuve, Montreal, 10-12 June



A firm favourite with fans and drivers alike, Canada usually produces some very good races. Lewis Hamilton quite likes it round here, too

MONTREAL: THE FACTS

Track length: 2.709 miles

Race length: 189.685 miles

Laps: 70

Direction: Clockwise

F1 debut: 1978

Lap record: 1min 13.622secs

Rubens Barrichello (2004)

Last five winners:

2010 Lewis Hamilton

2008 Robert Kubica

2007 Lewis Hamilton

2006 Fernando Alonso

2005 Kimi Räikkönen

Race start (UK time): 6pm

T6 T7 ANTHONY DAVIDSON'S KEY CORNERS

"In 2004, I had a shunt going into Turn 6, hit a bump and went into the barriers. You need to get it right to get good straightline speed out of Turn 7. You can get on the power too early here and end up on the marbles like Villeneuve did in his last grand prix here."



ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"Like Melbourne, this is another circuit where you can easily forget you're on a street track. Then, at other times, it's quite apparent you're about to hit a wall at high speed, especially around Turns 4 and 5. The huge temperature difference between summer and winter plays havoc with the track, so they've created a barely porous surface to stop the water getting in and freezing and cracking it. This makes it very smooth, which is why the tyre suppliers find it so difficult here."

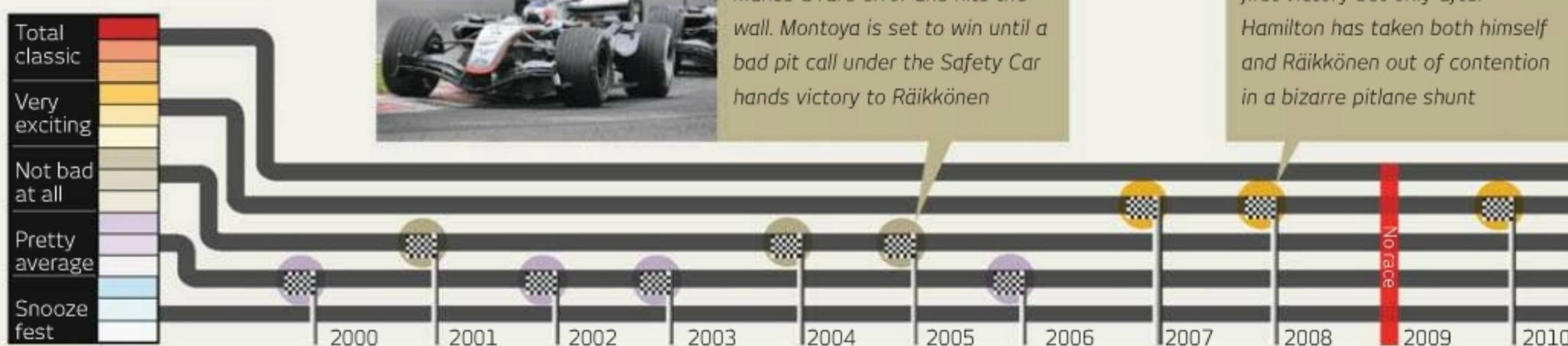
WHO THE TRACK SUITS...

Unusually for a street-circuit-style track that has walls close to the edge of the asphalt, the emphasis at the grand prix in Montreal is on top-end high speeds, stability under braking and in-line traction. This is mainly thanks to the long back straight that leads from the hairpin at Turn 10 into the final corner chicane. Expect the Mercedes-powered McLaren to do very well here and street-track experts such as Lewis Hamilton and Fernando Alonso to produce particularly strong results.

REMEMBER THIS?

Pirelli's last victory in Formula 1 (before they made their return to the sport this year) was at the Canadian Grand Prix back in 1991. The Italian tyre manufacturer lucked into the win on the very last lap of the race. Nigel Mansell had dominated proceedings in his Williams, but on his final tour made the mistake of waving to the crowd – in doing so, he let his engine revs drop and stalled his car. Nelson Piquet, in the Pirelli-shod Benetton, flew past the stricken Mansell to take an unexpected win.

MONTREAL'S HISTORY OF EXCITING RACES



There's plenty of action as Alonso makes a rare error and hits the wall. Montoya is set to win until a bad pit call under the Safety Car hands victory to Räikkönen

Robert Kubica scores a brilliant first victory but only after Hamilton has taken both himself and Räikkönen out of contention in a bizarre pitlane shunt

PHOTOS: GLENN DUNBAR/LAT; STEVE ETHERINGTON/LAT



EUROPE

Valencia Street Circuit, Spain, 24-26 June



Not renowned for hosting hugely exciting races, Valencia has had its share of incidents: Mark Webber was launched skywards here last year

VALENCIA: THE FACTS

Track length: 3.367 miles

Race length: 191.931 miles

Laps: 57

Direction: Clockwise

F1 debut: 2008

Lap record: 1min 38.683secs

Timo Glock (2009)

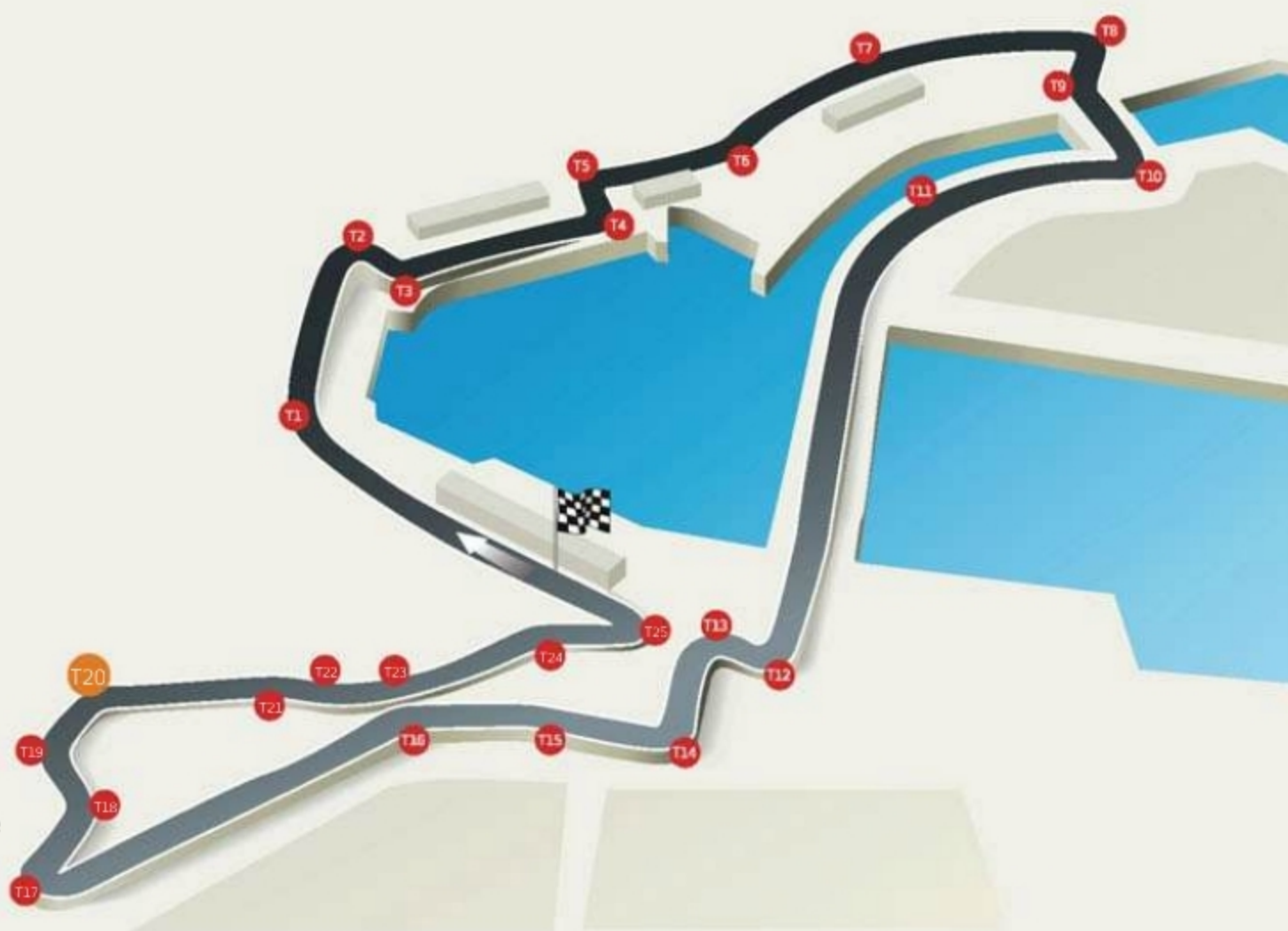
Last three winners:

2010 Sebastian Vettel

2009 Rubens Barrichello

2008 Felipe Massa

Race start (UK time): 1pm

T20 ANTHONY DAVIDSON'S
KEY CORNER

"The problem at Turn 20 is that there's a sea of Tarmac on the outside, so cars can run wide then happily drive straight back into the race. Anyone can drive full-throttle around a section with Tarmac run-off. The fear-factor is missing, which is what the fans love to watch."

ANTHONY DAVIDSON'S
DRIVER'S-EYE VIEW

"Although the flow of the track seems okay, in real life it feels like there's no magic there. They've tried to recreate something similar to what we've got in Canada and Melbourne, but it just doesn't work in Valencia. It's a disappointing track for me in terms of its character – it's living proof that we're never going to have another street track like Monaco again. So although we might have some interesting races in Valencia, for me it's not really such a special place."

WHO THE TRACK SUITS...

Despite Valencia being a street circuit, the emphasis is again on top speed as it is in Canada. Braking stability and traction for the low-speed corners is more important than aerodynamics and downforce. In the three years that the European Grand Prix has been held at Valencia, Ferrari, Brawn and Red Bull have all won here, so McLaren will be keen to get themselves on the score sheet. The locals will be interested only in Fernando Alonso, who gets a second chance to race in his home country this year.

REMEMBER THIS?

Perhaps Kimi Räikkönen was just in a hurry to get himself out on a yacht in the Valencia harbour when he made a rather speedy departure from Formula 1's inaugural grand prix in Valencia. As he pitted for his second stop on lap 43 of the 2008 European Grand Prix, he left his marks too early and with the fuel hose still attached, pulled his refueller, Pietro Timpani, to the ground. Just three laps later, Räikkönen's race was over when he stopped in front of the pits following a catastrophic engine failure.

VALENCIA'S HISTORY
OF EXCITING RACES

Vettel wins as team-mate Webber is involved in a shunt while battling Kovalainen. A brilliant charge by Kobayashi provides a spot of late-race drama

2008

2009

2010

GREAT BRITAIN

Silverstone, 8-10 July



This classic circuit benefited from a few nice additions before last year's race. Lewis and Jenson will be hoping to end Red Bull's run of form here

SILVERSTONE: THE FACTS

Track length: 3.66 miles

Race length: 190.603 miles

Laps: 52

Direction: Clockwise

F1 debut: 1950

Lap record: 1min 30.874secs

Fernando Alonso (2010)

Last five winners:

2010 Mark Webber

2009 Sebastian Vettel

2008 Lewis Hamilton

2007 Kimi Räikkönen

2006 Fernando Alonso

Race start (UK time): 1pm

T1 ANTHONY DAVIDSON'S KEY CORNER

"The new Turn 1 is much more fun than the old Bridge corner: they've replaced a high-speed right-hander with an even better one. It's more challenging and there's a bump as you turn in. We saw a number of cars go off here last year, so you know that it's a challenging corner."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"I drove here in the Autosport 1,000km race and enjoyed the new section of track. At least they didn't change Copse, Maggots and Becketts – that should never be touched. I spoke to the circuit designer and he said that both Turns 3 and 4 are of equal radius and severity of angle. In theory the cars should take exactly the same line, albeit in reverse, around each corner. But they don't and that threw the designers, because drivers could take Turn 3 faster than Turn 4."



WHO THE TRACK SUITS...

The middle part of the lap, from Copse through the top-speed switchback of Becketts and Maggots, requires a chassis that has high-speed stability and balance as well as bucketloads of grip. Last year the circuit played to the strengths of the Red Bull, which proved to be the class of the field. McLaren were suffering from problems with their floor in 2010 and home heroes Lewis Hamilton and Jenson Button both found themselves struggling. They will be keen to redeem themselves in front of the loyal British fans this year.

REMEMBER THIS?

The British crowd was treated to one of the final great duels between Ayrton Senna and Alain Prost in the 1993 race at Silverstone. After Damon Hill had stretched into the lead, Senna was lying second and kept both Prost and Schumacher behind him for as long as he could in the opening laps with his under-powered McLaren-Ford. The race was also notable for one of the first appearances of a Safety Car in modern Formula 1, when Luca Badoer binned his BMS Scuderia Italia Lola at Woodcote.

SILVERSTONE'S HISTORY OF EXCITING RACES



GERMANY

Nürburgring, 22-24 July



Mercedes would give anything for a Schumacher or Rosberg win at this three-mile track, situated next door to the historic Nordschleife

NÜRBURGRING: THE FACTS

Track length: 3.199 miles

Race length: 191.918 miles

Laps: 60

Direction: Clockwise

F1 debut: 1984

Lap record: 1min 29.468secs

Michael Schumacher (2004)

Last five winners:

2009 Mark Webber

2007 Fernando Alonso

2006 Michael Schumacher

2005 Fernando Alonso

2004 Michael Schumacher

Race start (UK time): 1pm



T5 ANTHONY DAVIDSON'S KEY CORNER

"Turn 5 is an old-school, cambered-in corner, one that really helps the drivers and gains you grip. On Turns 5 and 6, you can really find time if your car is working well, plus you can use the kerbs. Then you can brake unbelievably late into Turn 7 and ride the kerb nicely on the exit."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"I love both the German circuits and the Nürburgring is very technical. Into Turn 1 the track widens and you don't see that very often – although it's the same into the hairpin at Hockenheim, so maybe it's a German thing. If you go wide, you can create overtaking opportunities. There's a really nice flow to the circuit and it's one I really enjoy driving around. The only thing that spoils it is the chicane at the end of the lap – apart from that, it's a well-engineered track."

WHO THE TRACK SUITS...

Nestled in the Eifel mountains, the Nürburgring is often prone to extremes of weather. One day can bring scorching sunshine; the next may bring a torrential hail storm. In recent years, the German Grand Prix has alternated between Hockenheim and the Nürburgring, and prior to that, the Nürburgring was the home of the European Grand Prix. Four different teams have won on the past four visits and in 2011 you can expect that Mercedes will be very keen to have either of their German drivers emerge victorious.

REMEMBER THIS?

Typically wet weather affected the 1995 European Grand Prix, held at the Nürburgring in the autumn, and it became one of the most exciting races of the season. A wise decision to start the race on slick tyres gave Jean Alesi an advantage of over 20 seconds in the early stages. But after Michael Schumacher had disposed of Damon Hill, he saw that Alesi could be caught. With just a few laps remaining, Schumacher closed up on the Ferrari and memorably passed Alesi on the outside of the chicane to take an emphatic victory.

THE NÜRBURGRING'S HISTORY OF EXCITING RACES



HUNGARY

Hungaroring, Budapest, 29-31 July



The last race before the mid-season break, this twisty track has been good to British drivers over the years. But last year it was all Red Bull's

HUNGARORING: THE FACTS

Track length: 2.722 miles

Race length: 190.531 miles

Laps: 70

Direction: Clockwise

F1 debut: 1986

Lap record: 1min 19.071secs

Michael Schumacher (2004)

Last five winners:

2010 Mark Webber

2009 Lewis Hamilton

2008 Heikki Kovalainen

2007 Lewis Hamilton

2006 Jenson Button

Race start (UK time): 1pm

T4 ANTHONY DAVIDSON'S KEY CORNER

"At Turn 4, you go slightly uphill then turn in super aggressively at high speed and clip the apex kerb – but not too much. It's one of those vital corners you have to nail in qualifying. If you don't, you've given up a lot of time. You can easily gain 0.2 seconds in this corner."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"Hungary is one of the best roller-coaster tracks out there, but it's a circuit that can easily punish you for really small mistakes if you don't thread the car around the track correctly. The last corner is frustrating if you've got a car in front of you, because you lose all your downforce and you can't get the apex speed you want. They modified Turn 1 a few years ago to help overtaking and I think they should do something similar with Turn 14 – they should speed up the entry and tighten the apex."

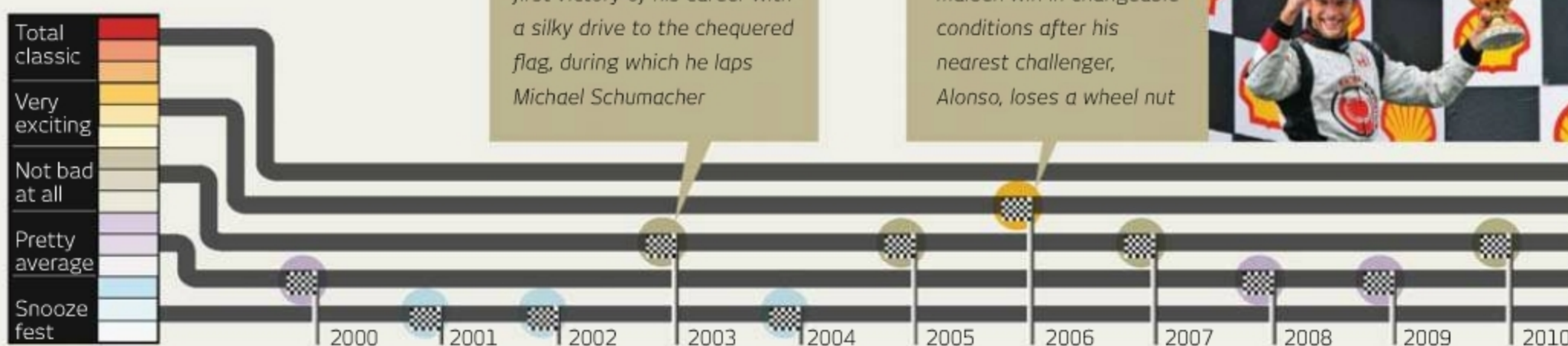
WHO THE TRACK SUITS...

The Hungaroring is twistier than was originally envisaged thanks to the discovery of an underground spring during construction. Over the years, the downforce generated by modern Formula 1 cars has increased the average top speed of the track, despite the fact that the first corner has been tightened, so downforce is king at this circuit. Last year in qualifying, Sebastian Vettel's Red Bull was streets ahead of the opposition – 1.5 seconds quicker than Ferrari and 2.1 seconds ahead of McLaren.

REMEMBER THIS?

The Hungaroring has been kind to a number of British drivers over the years. In 1992, this was the race where Nigel Mansell sealed the world championship, while a year later Damon Hill broke his grand prix duck with victory. And who could forget Jenson Button's incredible charge in the dramatic 2006 race? But the highlight has got to be Nigel Mansell's win here in 1989. At a track renowned for being impossible to overtake on, he went from 12th to win the race, passing none other than Ayrton Senna en route to victory.

THE HUNGARORING'S HISTORY OF EXCITING RACES



PHOTOS: CHARLES COATES/LAT; STEVE ETHERINGTON/LAT



BELGIUM

Circuit de Spa-Francorchamps, 26-28 August



Incredible elevation changes, famous corners, bizarre weather: this drivers' favourite has all the ingredients needed for seriously exciting racing

SPA: THE FACTS

Track length: 4.352 miles

Race length: 191.414 miles

Laps: 44

Direction: Clockwise

F1 debut: 1950

Lap record: 1min 45.108secs

Kimi Räikkönen (2004)

Last five winners:

2010 Lewis Hamilton

2009 Kimi Räikkönen

2008 Felipe Massa

2007 Kimi Räikkönen

2005 Kimi Räikkönen

Race start (UK time): 1pm

T10 T11 ANTHONY DAVIDSON'S KEY CORNERS

"Other than Eau Rouge, the best corner for me is down into Turn 10: Pouhon. Arguably it's not as challenging since they've sanitised it with a sea of Tarmac on the exit, but it still stops your breath for a moment when you plummet downhill into it at such high speed."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"I ran this track for the first time last year and I was shocked by how steep it is in places. There are some fairly massive elevation changes throughout the lap, but you never notice them from the cockpit. The corner that everyone talks about is Eau Rouge, but today, in a modern F1 car, it's comfortably flat-out. It's a beautiful track and I hope they don't make any more modifications to it, because at the moment it's on the verge of becoming a little too sanitised for F1."

WHO THE TRACK SUITS...

With such low downforce, the key to racing at Spa is to have a very aero-efficient car. In past seasons Force India have run extremely well here, taking pole position and second place in the 2009 race and fifth place last year. But above all, Spa is a real driver's circuit and traditionally the very best racers tend to win here. Räikkönen won four times, Senna did it on five occasions and Schumacher managed victory here six times. Set to make his home debut in this year's race is Virgin's Belgian rookie driver, Jérôme d'Ambrosio.

REMEMBER THIS?

Due to the unpredictable nature of the weather here, intermittent rain at different parts of the long circuit has always been a feature of Spa. In 1985, the race started on a sodden track. Ayrton Senna sprinted to an early lead in his black Lotus, but Nigel Mansell swiftly closed in on him. The sun appeared shortly into the race, as did a drying line, and the leaders pitted. Mansell had a quick spin at La Source that allowed his team-mate, Rosberg, to challenge for second. He held him off and was sandwiched by Senna and Prost on the podium.

SPA'S HISTORY OF EXCITING RACES



A spin drops Häkkinen behind Michael Schumacher but the Finn regains the lead late in the race with one of the greatest overtakes in history



Hamilton looks to have snatched a brilliant victory after a ding-dong battle with Räikkönen. But hours after the race, the Brit is controversially penalised...

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

ITALY

Autodromo di Monza, 9-11 September



Another of the classic tracks, requiring strong engines and very little downforce. The locals will obviously be rooting for the red cars here

MONZA: THE FACTS

Track length: 3.599 miles

Race length: 190.586 miles

Laps: 53

Direction: Clockwise

F1 debut: 1950

Lap record: 1min 21.046secs

Rubens Barrichello (2004)

Last five winners:

2010 Fernando Alonso

2009 Rubens Barrichello

2008 Sebastian Vettel

2007 Fernando Alonso

2006 Michael Schumacher

Race start (UK time): 1pm



T4 T5 ANTHONY DAVIDSON'S KEY CORNERS

"I really begrudge how they've changed the kerbs at the second chicane. The old-style kerbs were gentle in their elevation, which naturally stopped you cutting them. Now you're unable to gain an advantage from being braver and dancing the car over the kerbs."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"Because of the low downforce and long straights at Monza, teams design a specific aero package for this track alone. The car dances around more and makes you feel vulnerable. You feel the bumps, it's more violent in the car and you don't have as much grip. Because the track is older and narrower it feels really quick – especially out of the second Lesmo down to Ascari: full throttle, revs singing, wind buffeting the helmet, blurred vision – it's an immense experience."

WHO THE TRACK SUITS...

Teams would design a car specifically for Monza if they could, given the significant lack of downforce they run at this track, which is the lowest of any circuit on the calendar. The long straights demand top-end horsepower and reliability from the engines, given the fact that cars are running at full-throttle for most of the lap. Red Bull suffered here last year because of their less powerful Renault powerplants. Indeed, the records show that only Mercedes or Ferrari engines have won at Monza since 2002.

REMEMBER THIS?

Back in 1999, Mika Häkkinen came to Monza embroiled in a titanic battle with Eddie Irvine for the world championship. The Finn led from the start, ahead of Heinz-Harald Frentzen who had quickly passed Alex Zanardi for second. Irvine was struggling further back in eighth place and it looked as if Häkkinen would score highly against his rival. Then, incredibly, the McLaren spun out of the lead and Häkkinen hid in the bushes to sob his eyes out. Irvine's sixth place was enough for him to claim a crucial point.

MONZA'S HISTORY OF EXCITING RACES



Michael Schumacher scores his 41st GP win amid tragic circumstances as marshal Paolo Ghislimberti is killed by a flying tyre following a first-lap crash



Starting from pole in the unfancied Toro Rosso, Vettel drives brilliantly in treacherous conditions to become F1's youngest ever GP winner

PHOTOS: ANDREW FERRARO/LAT. LAT. ARCHIVE

SINGAPORE

Marina Bay Street Circuit, 23-25 September



One of the longest races of the year in one of the most spectacular settings, this is a favourite GP of Lewis Hamilton and Robert Kubica

MARINA BAY: THE FACTS

Track length: 3.152 miles

Race length: 192.2 miles

Laps: 61

Direction: Anticlockwise

F1 debut: 2008

Lap record: 1min 45.599secs

Kimi Räikkönen (2008)

Last three winners:

2010 Fernando Alonso

2009 Lewis Hamilton

2008 Fernando Alonso

Race start (UK time): 1pm



T10 ANTHONY DAVIDSON'S KEY CORNER

"The circuit designers have created a great track, but they were a bit limited in terms of Turn 10. I wouldn't know what to do here either, to be honest. It's a three-apex chicane which is a bit Mickey Mouse, but without it you'd enter a 90° corner at top speed with no run-off."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"This is probably the longest race on the calendar and with a number of Safety Cars, it can come close to the two-hour time limit. I like Singapore and think it's becoming one of the best events of the year. We stay on European time and it's great to see the track at night under the glinting lights next to the skyscrapers. I don't know why, but it's like Le Mans – when it gets dark and you see cars racing on track, it feels like something you shouldn't be doing. It's very exciting."

WHO THE TRACK SUITS...

Like Monaco and Valencia, the tight and twisty streets of Singapore demand a nimble chassis that has good traction and high downforce – in addition to forgiving suspension to deal with all the bumps. For the drivers, the Singapore night race is one of the toughest tests of the year: it runs for nearly two hours under floodlights while their body clocks are still on European time – so concentration is at a premium. Street-track demons such as Lewis Hamilton and Fernando Alonso should excel here.

REMEMBER THIS?

Who could forget the sight of Nelson Piquet Jr spinning his Renault into the Turn 17 wall back at the 2008 grand prix... and then the eventual winner Fernando Alonso mopping his brow before the podium ceremony and muttering something about the Safety Car to Flavio Briatore. The scandal that became known as 'Crashgate' rocked Formula 1 when the truth finally emerged and then, just one year later, there were groans of incredulity when Romain Grosjean spun his Renault during practice at, you guessed it... Turn 17.

MARINA BAY'S HISTORY OF EXCITING RACES



Piquet Jr crashes, bringing out the Safety Car at an extremely fortuitous time for team-mate Alonso. The Spaniard capitalises on this to take a controversial win



2008

2009

2010

JAPAN

Suzuka, 7-9 October



The drivers love this track with its incredibly demanding corners – especially Sebastian Vettel, who's won here two years on the trot

SUZUKA: THE FACTS

Track length: 3.608 miles
Race length: 191.053 miles
Laps: 53
Direction: Clockwise & anticlockwise
F1 debut: 1987
Lap record: 1min 31.540secs
 Kimi Räikkönen (2005)
Last five winners:
 2010 Sebastian Vettel
 2009 Sebastian Vettel
 2006 Fernando Alonso
 2005 Kimi Räikkönen
 2004 Michael Schumacher
Race start (UK time): 7am

T8 T9 ANTHONY DAVIDSON'S KEY CORNERS

"The most challenging part of the track is Turn 8, the Degner Curve. It doesn't look much, but if you mess it up you'll get thrown into the gravel on the exit. All we need is a slightly longer run into Turn 11, which might increase overtaking opportunities into the hairpin."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"Suzuka is a legendary circuit. Even from the exit of the pitlane you're downhill straightaway, flat-out into the entry for Turn 1. You try to gain as much speed as you can through the apex of the corner, then you're immediately into the next series of turns. Once committed, you have to pick your line carefully. It's an awesome part of the lap and if you get it right you have the satisfaction of knowing that you've mastered one of the most demanding series of corners of any track in the world."

WHO THE TRACK SUITS...

The high-speed twists and turns of Suzuka demand a car that has plenty of downforce and stability to give the drivers the utmost confidence around the lap. Make a mistake at one corner and it will upset your rhythm for the rest of the lap. The past two years have been dominated by Red Bull and Sebastian Vettel, although Webber ran him close in 2010. Sauber's Kamui Kobayashi used his local knowledge here to put on a brilliant show for his fans last year, and he will definitely be one to watch again in 2011.

REMEMBER THIS?

It was so dark at Suzuka in 1994 that it came close to being Formula 1's first night race, with the circuit's perimeter street lights shining through the gloom on the back straight. The race was red-flagged after Martin Brundle left the track in the atrociously wet conditions and hit a marshal. The restarted race was an aggregated event (whereby the times from both halves of the race were added together) and, in the spray, Damon Hill brilliantly drove one of the best races of his life to beat Michael Schumacher by just a few seconds.

SUZUKA'S HISTORY OF EXCITING RACES



Schumacher secures the first drivers' crown for Ferrari since 1979 after a fierce battle with Häkkinen in changeable conditions

Kimi Räikkönen overtakes Giancarlo Fisichella around the outside on the last lap of the race to seal an improbable victory from 17th on the grid



KOREA

Korea International Circuit, Yeongam, 14-16 October



This deceptively simple-looking circuit is where it all started to go horribly wrong for Mark Webber's title bid last year

YEONGAM: THE FACTS

Track length: 3.488 miles

Race length: 192.1 miles

Laps: 55

Direction: Anticlockwise

F1 debut: 2010

Lap record: 1min 50.257secs

Fernando Alonso (2010)

Last year's winner:

Fernando Alonso

Race start (UK time): 7am


**T12 ANTHONY DAVIDSON'S
KEY CORNER**

"You wind down the gears through Turn 11 then suddenly change direction; if you're not quite online, or the car is not straight, you can get an almighty kick-out from the rear and lose traction. Webber crashed here in 2010 and, for me, it's the most challenging part of the lap."

**ANTHONY DAVIDSON'S
DRIVER'S-EYE VIEW**

"I think this is one of the most demanding tracks, yet on the map it looks fairly simple. There are a lot of straights in the first part of the lap, then the second half gets more interesting. It's a track that's made up of a lot of compromises, where you sacrifice the exit of one turn to get a better entry for the next. Then the final section of the lap is strange because you go from a nice clinical track that's well thought out into a bit of a street circuit, with the walls very close to the edge of the road."

WHO THE TRACK SUITS...

With a mixture of long straights and street-circuit-style corners, straightline speed, downforce and traction are all extremely important at Yeongam, and that is something that will play into the hands of quite a few different chassis. Last year, the inaugural Korean Grand Prix could have been won by Red Bull, McLaren or Ferrari. And because the Yeongam circuit is located on the coast, the likelihood of wet weather could again lead to a lottery in the overall result.

REMEMBER THIS?

Last year's Korean Grand Prix was the first one to be held at the brand new Yeongam circuit and the weekend was beset by problems. A number of drivers slid off on the slippery new surface during the first practice sessions and when the rain started to come down on race day, the Tarmac caused difficulties with spray, which led to a infuriatingly long delay before the grand prix started in earnest. Eventually Fernando Alonso won just as the light began to fade, and took to the podium in virtual darkness.

**YEONGAM'S HISTORY
OF EXCITING RACES**


After downpours delay the start of the race, Vettel scampers into the distance, only for his engine to blow, which hands the race to Alonso



2010

INDIA

Jaypee International Race Circuit, New Delhi, 28-30 October



This circuit is the joker in the pack as F1 heads to India for the first time. Drivers will have mastered it on the simulator by the time they get here

NEW DELHI: THE FACTS

Track length: 3.194 miles

Race length: TBA

Laps: TBA

Direction: Clockwise

F1 debut: 2011

Race start (UK time): TBA



ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"Looking at the layout of the track as it is, I'd say that it seems fairly straightforward. But you never really know how good a circuit is going to be until you've seen the elevations of the track. That can make or break a circuit in my opinion, as height changes can really add a huge amount of character. So far I haven't driven this circuit on a simulator or a computer game, so it's quite difficult to comment on either the technical aspects of the track, or even its layout.

"One corner on the track seems quite banked and it looks like they've copied Turkey's Turn 8 with a multiple-apex corner, albeit the other way around and tightening towards the end. Designers always look for ways to create racing. Sometimes they get it spot on; sometimes they get it wrong and they're surprised. And you never know if they've succeeded until you see the race in real time.

"I get very excited by any new circuit, to be honest, and that includes this one in New Delhi.

I think they've picked an absolutely fantastic location for it and I think that the circuit designer, Hermann Tilke, has understood where he's made mistakes in the past. Clearly Valencia was a bit of a problem, but then he definitely got Turn 8 right in Turkey.

"Hopefully this track in India will have all the elements needed to create a winning formula and one where we'll see the kind of great racing that the fans will enjoy."

INDIA'S RACE TO MAKE HISTORY



PHOTOS: STEVE ETHERINGTON/LAT; GLENN DUNBAR/LAT; GRAHAM CROUCH/GETTY IMAGES; JAYPEE INTERNATIONAL CIRCUIT

ABU DHABI

Yas Marina Circuit, 11-13 November



There's no denying that Yas Marina is a truly spectacular setting, but unfortunately they forgot to put any overtaking points on the circuit....

YAS MARINA: THE FACTS

Track length: 3.451 miles

Race length: 189.742 miles

Laps: 55

Direction: Anticlockwise

F1 debut: 2009

Lap record: 1min 40.279secs

Sebastian Vettel (2009)

Last two winners:

2010 Sebastian Vettel

2009 Sebastian Vettel

Race start (UK time): 1pm



T2 T3 ANTHONY DAVIDSON'S KEY CORNERS

"This isn't such a great sequence of corners in an F1 car. Turn 3 isn't tight enough, so you can easily run wide at the exit. Also, Turns 5 and 6 are a bit of a problem. They've had to put them in due to a lack of run-off as Ferrari World is on the outside of Turn 7."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"This circuit does look stunning, but I'm afraid it's flawed and doesn't allow for any overtaking. One of the issues is that you need more challenging corners to force the drivers into making mistakes and, at the moment, any error is very recoverable because there's either a lot of run-off or another tight corner. Last year I drew up a different layout with David Croft in the 5 Live commentary box, as the one we have has a disappointing lack of gritty, truly high-speed corners."

WHO THE TRACK SUITS...

For the two years in which Abu Dhabi has hosted Formula 1 races, the grand prix has been dominated by just two drivers: Sebastian Vettel and Lewis Hamilton. They each have a pole position and a fastest lap to their name here, and while Vettel has taken the victory in both races, Lewis was in a commanding position in the lead in 2009 before he suffered a rare brake failure. If either of these drivers finds themselves in contention for the title heading into this race, then you can bet they'll shine again.

REMEMBER THIS?

The atmosphere prior to last season's world championship showdown was absolutely electric. An unprecedented four drivers could have won the crown, and every Formula 1 fan in the world was glued to their television set, intrigued and excited to see who would take the initiative and who would slip up. As things turned out, it was Fernando Alonso, Mark Webber and Lewis Hamilton who failed in their quest and Sebastian Vettel who won the 2010 title and became the sport's youngest ever world champion.

YAS MARINA'S HISTORY OF EXCITING RACES



A bad strategy call leaves Alonso stuck behind Petrov's Renault, while up front his title rival Vettel eases to a comfortable victory



BRAZIL

Autódromo José Carlos Pace, Interlagos, São Paulo, 25-27 November



Fans will be rejoicing that the season is ending at this brilliant track, which is capable of producing some absolutely classic races

INTERLAGOS: THE FACTS

Track length: 2.677 miles

Race length: 190.083 miles

Laps: 71

Direction: Anticlockwise

F1 debut: 1973

Lap record: 1min 11.473secs

Juan Pablo Montoya (2004)

Last five winners:

2010 Sebastian Vettel

2009 Mark Webber

2008 Felipe Massa

2007 Kimi Räikkönen

2006 Felipe Massa

Race start (UK time): 4pm



T1 T2 ANTHONY DAVIDSON'S KEY CORNERS

"Turns 1 and 2 are fantastic. There's a flow of braking while turning into a tightening left-hander, which plunges downhill into a sharp right-hander where you try to get on full throttle. The recipe is for the rear end to snap on you, and that's on every driver's mind."

ANTHONY DAVIDSON'S DRIVER'S-EYE VIEW

"This is a classic, old-school track to finish off the season. The high-grip, anticlockwise layout can be very tough on a driver's neck and the high altitude setting can really take its toll on overall fitness. Actually, the altitude, which is 810 metres above sea level at its highest point, also takes its toll on the cars and engines. The lack of air pressure means there is less combustion pressure and teams are forced to run much higher downforce levels than usual."

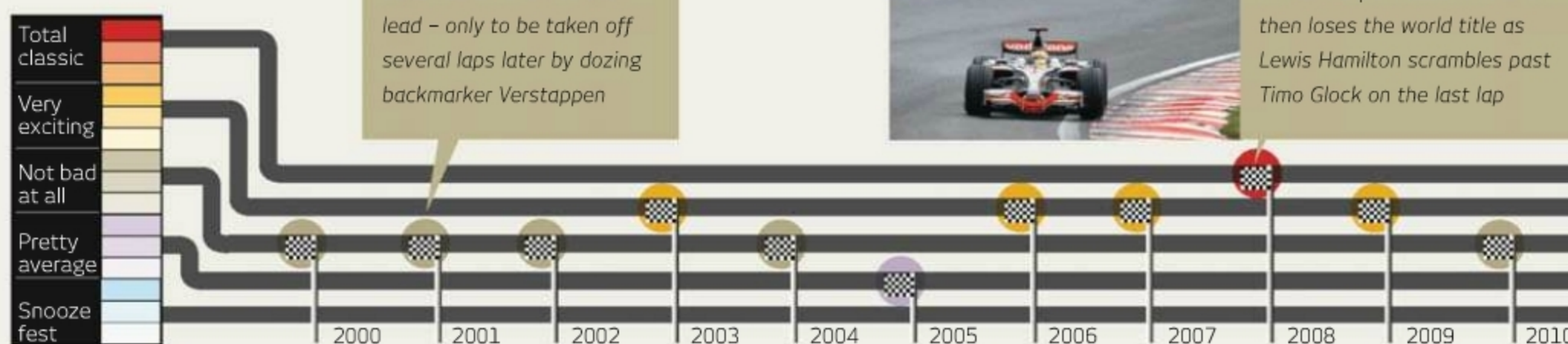
WHO THE TRACK SUITS...

The long climb from the last corner up to the start/finish straight demands an engine that has good torque and power because the drivers are on the throttle for approximately 17 seconds. But teams can choose to run less wing at Interlagos, so often you will see different types of setup suiting different cars – which can be particularly noticeable when it is raining. This is the reason why Nico Hülkenberg proved so quick in his Williams last year, when he surprised everyone by setting pole position.

REMEMBER THIS?

Race winner René Arnoux was given a lift back to the pits from Riccardo Patrese after he ground to a halt during the slow-down lap of the 1980 Brazilian Grand Prix. This race was the last one to be held on the sprawling, super high-speed Interlagos circuit before the race moved to Jacarepaguá near Rio for the remainder of the 1980s. Interlagos finally returned to the Formula 1 calendar in 1990, but was shortened from its majestic 4.89 miles to its current 2.68-mile length.

INTERLAGOS'S HISTORY OF EXCITING RACES



PHOTOS: GLENN DUNBAR/LAT; STEVE ETHERINGTON/LAT





My month in F1 FRANK WILLIAMS

Every issue. Only in *F1 Racing*

A GREAT NIGHT AT THE MOTOR SPORT HALL OF FAME

It was a very great pleasure to be inducted into the Motor Sport Hall of Fame in February. It was a proper do at the Camden Roundhouse in London: I had a posh dressing room and they even put some make-up on me. The evening went very well from my own selfish point of view. I was given a five-minute warning so that I had time to switch wheelchairs, and then I was pushed out onto the stage and spent six or seven minutes there before I was asked to leave!

Sir Jack Brabham was also inducted but sadly wasn't able to attend in person – a pity, as I would have liked to talk to him. Damon Hill and Dario Franchitti did attend, but I never managed to catch up with either of them.

I did an interview with Sky TV while I was there, and it turned out to be short and sharp.

THE EXCITEMENT'S BUILDING AS WE GEAR UP FOR A NEW SEASON

I'm always excited to see our new car for the first time. I didn't make it over to the testing sessions because I was busy in the office – I don't tend to go any more as I'm not really needed! Anyway, we've had a few tests now and I think the usual suspects will still be at the front.

I hear that Pastor is doing a very good job and getting on with his engineers – they tell me he's fitting in well. Rubens says that he wants more performance, but then drivers always say that.



"I'm excited to see our new car for the first time and I'm following the team's progress closely"

We've still got a few days of testing left to complete and I'll be following the team's progress very closely. No one can watch live streaming because FOM don't film it, but I can keep up to date from the comfort of my office – I've got a live timing screen in there.

CIRQUE DU SOLEIL – JUST UNBELIEVABLE!

We're a very close family and it saddens me that we don't do more together. So it was great to go en masse to Cirque du Soleil at London's Albert Hall. The show was riveting; every second was like watching Jochen Rindt on the limit. The stuff they do up on the ceiling is unbelievable. Any mistakes and they're dead. It's as simple as that.

WILLIAMS FAN DAY

We've just held a fans' day at our conference centre, and there were so many of them. They support Williams in the way that I shout for Newcastle United. I never really fell for a team though – I was more into drivers. I remember seeing Stirling Moss for the first time and just staring at him. I couldn't believe it was him!

SO SORRY FOR KUBICA

I was shocked to hear of Robert Kubica's crash. Renault will miss him. As well as dealing with the physical pain of his injuries, he's also got the mental anguish of having to rebuild his career.

Robert says rallying keeps him sharp and I do see that; we wish him a swift recovery. But we

know Renault picked a good replacement in Nick Heidfeld. We've worked with Nick – he's very dedicated, has great technical know-how and will be an asset in helping them develop the car as the season goes on. He's a polite young man, too – he'd always stop for a chat when he was here. But I wonder if Renault will make him have a haircut?

VISITING BERNIE

I usually visit Bernie's offices in Knightsbridge every month. When I'm in London he lets me use one of his meeting rooms for a stop-off – one has 'arty' gentleman's magazine covers on the wall, but I'm Roman Catholic, so Bernie lets me use the other one! It's a chance for me to stand up and he always comes in to chat while I'm standing.

My diary at a glance...

"It was a pleasure to be inducted into the Motor Sport Hall of Fame"



"The stuff they do up on the ceiling at Cirque du Soleil is unbelievable"

"We've just held a fans' day at our conference centre"



"Bernie lets me use his office for a stop-off when I'm in London"

For more information on Williams and what they're up to, visit www.attwilliams.com

ALAN HENRY



Forty years and counting on the frontline of Formula 1

Can Schumacher pull it together for 2011?

Fans of Michael Schumacher will be pleased to hear that I've been inundated with critical emails telling me I am wide of the mark with my prediction that his career will plateau in 2011 and that his dreams of an eighth world championship are pie in the sky. Their view is that a combination of his burning determination and relentless commitment to maintaining his superb fitness levels – not to mention a car that will suit his driving style better than last year's did – will combine to rekindle a soaring level of performance from the great man.



If Schuey's got the car, can he find the performance?

Yet I was delighted to hear Lewis Hamilton effectively riding to my rescue at the launch of the new McLaren MP4-26 in Berlin earlier this month. Taking a contradictory view to his team-mate Jenson Button, who believes that it would be wrong not to keep an eye firmly focused on Michael's new Mercedes, Lewis made it clear that he wasn't too worried and didn't expect the old boy to do much better than he did last season. Of course, Lewis being Lewis, the assessment was delivered with good humour and charm. But the unmistakable subtext is that Michael doesn't figure on the Englishman's personal radar.

"He's a seven-time world champion, so you assume he'll be at his best this year if he wants to be, and if his car and his team have done a good job," said Lewis. "I don't think it's going to be much different to the previous season – but he can easily prove us wrong."

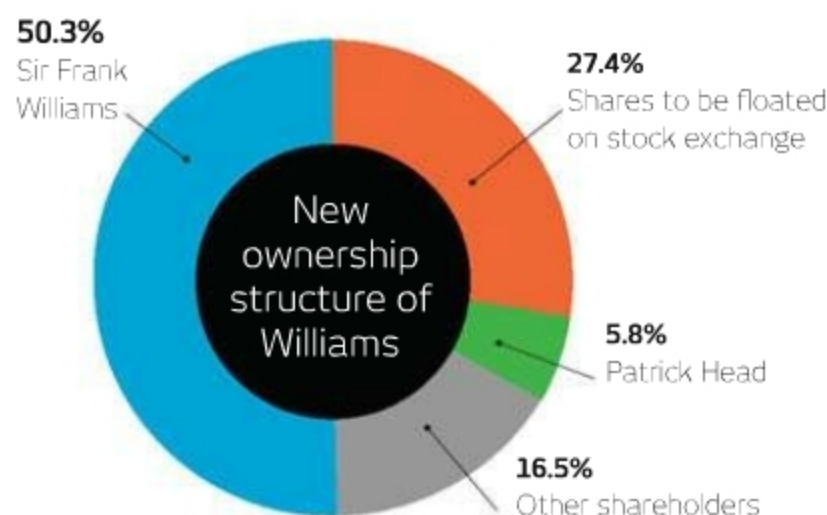
"Lewis made it clear he didn't expect Michael to do much better than in 2010"

Neither McLaren driver has followed the tongue-in-cheek assessment of Schumacher's potential that was provided by Fernando Alonso. He offered the view that the multiple world champion will emerge as his number one target to beat. Alonso, of course, outperformed Schuey – and indeed the McLaren team – to win his world titles in 2005 and 2006 – and defers to nobody when it comes to competitive edge.

As for the McLaren drivers' views, Schumacher will certainly be hoping that Jenson has hit the jackpot in the prediction stakes.

TO BUY OR NOT TO BUY?

Sir Frank Williams' decision to float his F1 team on the Frankfurt Stock Exchange adds a tantalising and intriguing new dimension to the F1 business. If his plan is a success, then it could well become a business model for others to follow – unlike March Engineering who 'went to market' in the early 1980s. My framed share certificate is one of my least likely pieces of motor-racing memorabilia, and is gathering dust somewhere in the loft.



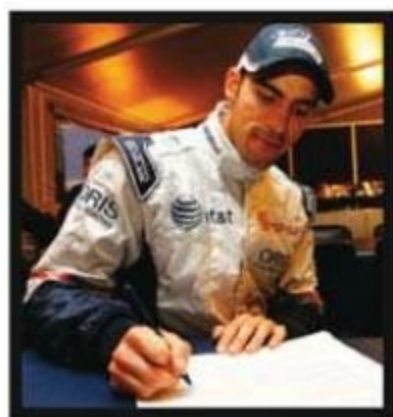
KUBICA FACES HIS BIGGEST BATTLE YET

Spare a thought for Robert Kubica who faces an uphill struggle to return to health and vigour in the wake of his horrifying rallying accident in a Skoda Fabia, just a couple of days before he was due to turn up at the Jerez Formula 1



test for the Renault squad. Many people criticise F1 drivers for their reluctance or unwillingness to sample other forms of motorsport, but Robert has an unquenchable competitive spirit and passion to explore as much of his chosen calling as he can. He will need every ounce of those qualities now the biggest battle of his life is about to begin.

PHOTOS: ANDREW FERRARO/LAT; STEVE ETHEINGTON/LAT



Inside the mind of... **PASTOR MALDONADO**

The pen-and-paper-based Q&A that you can win

Full name: Pastor Maldonado Nickname: Pastor

Occupation: Racing Driver

Describe yourself in three words: Competitive Determined Funny

Who is your favourite F1 driver in history and why? Senna was Great Racing style

What's your favourite corner in F1? Eau Rouge Who's your best mate in F1? Rubens Barrichello

What's the best grand prix you've ever seen? Too many Who do you owe your success to? family

What was your best overtaking manoeuvre? 2008 GP2 2nd Race SPA for the Lead

If F1 could introduce one new rule, what would it be? more tests

What would you be if you weren't an F1 driver? military

What's the best piece of advice you've ever had in F1? be quick lol

What's your career highlight so far? GP2 Championship win What car do you drive? Cherokee Jeep

What was the last thing Bernie Ecclestone said to you? Still waiting

Who's the sport's toughest competitor (apart from you)? Alonso

What are the three key elements to a perfect lap?
Concentration
Speed
Clear track

Please draw a quick self-portrait:



☒ I declare that all the information on this form is correct to the best of my knowledge

signed 

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Pastor Maldonado comes from which of these countries...
a) Venezuela
b) Mexico
c) Brazil
Email your answer to writeoff@haymarket.com or enter at www.f1racing.co.uk. The winner will be chosen at random.

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