



GRACE VS PACE.

With its sleek and sporty exterior and responsive handling, the new BMW 3 Series is used to setting the pace. Featuring an abundance of driving innovations that seamlessly combine outstanding performance and agility with impressive fuel economy, it's a win win situation, whichever way you look at it. To book a test drive contact your local BMW Dealer, or to find out more visit **www.bmw.co.uk/3series**

JOY WINS. THE NEW BMW 3 SERIES.

BMW EfficientDynamics Less emissions. More driving pleasure.

Official fuel economy figures for the new BMW 3 Series Saloon: Urban 25.4 – 56.5 mpg (11.1 – 5.0 ltr/100 km). Extra Urban 46.3 – 80.7 mpg (6.1 – BMW EfficientDynamics reduces BMW emissions without compromising performance developments and is standard across the model range.





8



FIRST SECTOR: THE REGULARS

- PARADES: THE BEST IMAGES FROM MELBOURNE
- 14 FROM THE EDITOR: HATS OFF TO MR SCHUMACHER
- 17 INBOX: BBC Vs SKY... THE DEBATE RAGES ON
- 18 PITPASS: NEWS, OPINION AND ANALYSIS
- 31 PAT SYMONDS' TECH MASTERCLASS: CFD EXPLAINED
- 33 JACQUES VILLENEUVE: ON RUBENS' F1 DEPARTURE
- 34 MURRAY WALKER: REMEMBERING JAMES HUNT
- 37 NOW THAT WAS A CAR: THE LANCIA D50
- 38 THE BEST RACE I'VE BEEN TO: YOUR GP STORIES
- 102 WAY BACK WHEN: F1 AS IT WAS 12, 31 AND 33 YEARS AGO
- 104 SUBSCRIBE TO F1 RACING AND GET A McLAREN T-SHIRT

SECOND SECTOR: THE FEATURES

40 YOU ASK THE QUESTIONS

Heikki Kovalainen on moving from McLaren to Caterham – and why it's not true what they say about Finns and vodka

SHOULD F1 RACE IN BAHRAIN?

David Tremayne gives his personal assessment

THE SENNA NAME RETURNS TO WILLIAMS

Following in his famous uncle's footsteps, Bruno gets a full-time drive... in the blue and white Williams FW34

6 IF YOU CAN'T STAND THE HEAT

...don't race in Malaysia. Find out how drivers cope with the scorching temperatures at F1's most gruelling event

60 13 YEARS AND COUNTING...

Incredibly, McLaren haven't won a constructors' title since 1998. Can they end the drought in 2012?

62 INSIDE THE MARUSSIA FACTORY

Race, design and marketing are finally in the same building

68 DREAM DEBUTS

70

The most legendary maiden grand prix outings of all time

"IT GAVE ME SATISFACTION TO SHOW LEWIS YOU HAVE TO WORK A BIT HARDER THAN HE DID"

Now into the third year of his comeback, beating his rivals is still pretty high on Michael Schumacher's agenda

THE MERCEDES F1 W03 UNVEILED

We headed to Barcelona, as the Silver Arrows finally revealed what they had up their sleeve for 2012

84 NOT JUST HERE TO MAKE UP THE NUMBERS: WEBBER SPEAKS OUT

The tough Aussie's still got unfinished business to attend to

90 WHEN MAURICE MET CHARLIE

Race director Charlie Whiting's heard every excuse in the book – and was happy to share them with Maurice Hamilton

NOT WHAT YOU'D CALL A LOOKER...

You thought 2012 cars were ugly? Check out the JS5...

THIRD SECTOR: FINISHING STRAIGHT

- 108 AUSTRALIAN GP DEBRIEF A GREAT START FOR McLAREN
- 114 RACE PREVIEW CHINESE GP
- 116 RACE PREVIEW BAHRAIN GP
- 119 FRANK WILLIAMS ON CHANGES AT THE TOP
- 121 ALAN HENRY IN PRAISE OF LEWIS'S BROTHER, NIC
- 122 AND FINALLY... WHAT BERNIE SAID TO GROSJEAN





40 KOVALAINEN Caterham's cheery Finnish racer takes your questions



50 SENNA That familiar yellow and green helmet in a Williams again



70 SCHUMACHER The legend explains the motivation behind his comeback



84 WEBBER After three years in Vettel's shadow, he's got something to prove



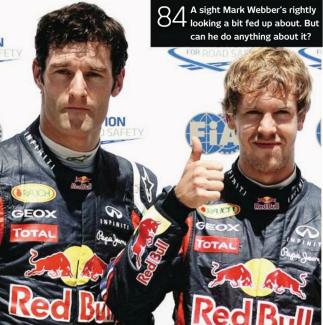


















Monaco Grand Prix 2012

The finest selection of race viewing and exclusive hospitality packages



MONACO GRAND PRIX SPECIALISTS

Senate Grand Prix specialises in providing F1tm teams, drivers and sponsors, as well as a vast array of corporate and private clients, with the finest hotel accommodation and race viewing hospitality for the world's most glamorous motor race.

Tel: +44 (0) 1342 830495 f1racing@senategrandprix.com/f1racing

Combined Packages IdMags

Race Viewing & Accommodation

Fairmont VIP Suite Package



- · 3 nights accommodation, choice of Nice or Monaco hotels
- · Unobstructed views over the famous 'Fairmont' hairpin turn
- Fully catered hospitality
- · Open bar Champagne, fine wines, beers and soft drinks
- · Sold as individual places or flexible for private groups

From €3,000 pp

Midi Terrace Package

- 3 or 4 nights accommodation, choice of Nice or Monaco hotels
- Great views over the track and harbour
- Giant screen directly opposite terrace
- · Fully catered hospitality
- Open bar Champagne, fine wines, beers and soft drinks

From €3,200 pp



Dual Location 1 Package



- 3 or 4 nights accommodation, choice of Nice or Monaco hotels
- · Superb race-viewing from 2 different locations over the weekend
- Fully catered hospitality
- Open bar Champagne, fine wines, beers and soft drinks

From €3,000 pp

Surf & Turf Package

- 3 or 4 nights accommodation, choice of Nice or Monaco hotels
- Choice of race-viewing locations for qualifying on Saturday
- Sunday race-viewing from luxury trackside VIP Yacht
- Fully catered hospitality
- Open bar Champagne, fine wines, beers and soft drinks

From €3,200 pp



Fairmont Black Package



- 3, 4 or 5 nights accommodation at the Fairmont Hotel
- Thursday (5-night package) from the Garnier Suite, Hotel de Paris 5*
- Saturday race-viewing from the Midi Terrace, Hotel Hermitage 5*
- Sunday race-viewing from the Fairmont VIP Suite, Fairmont Hotel 5*
- · Fully catered hospitality
- · Open bar Champagne, fine wines, beers and soft drinks

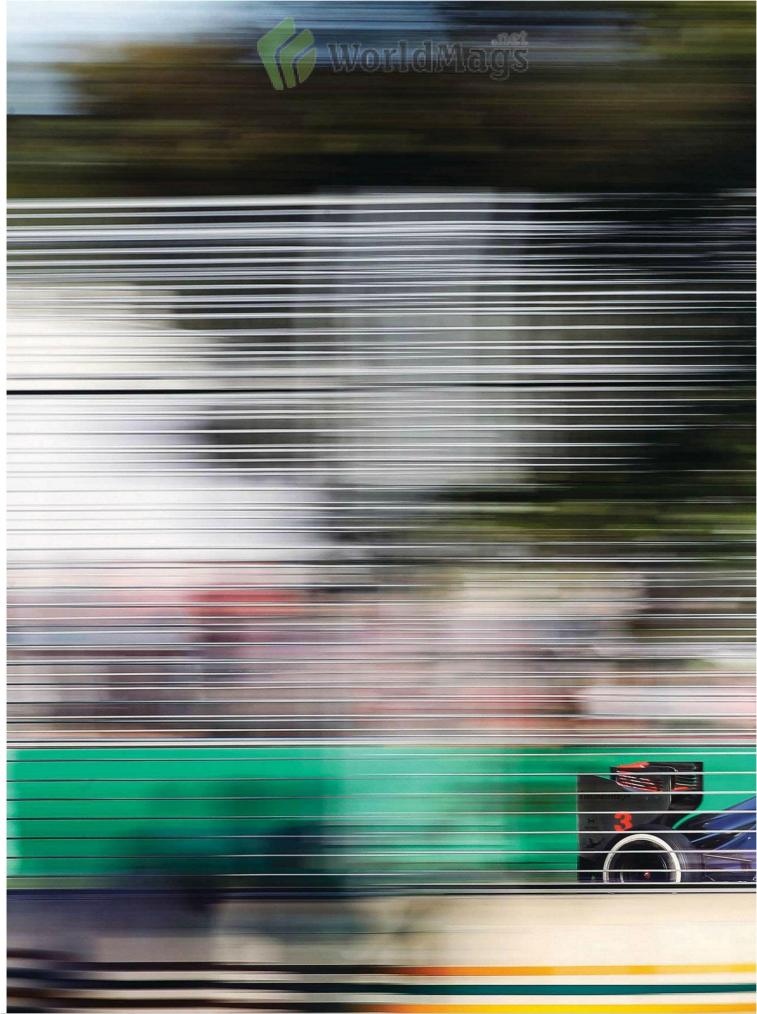
From €5,200 pp

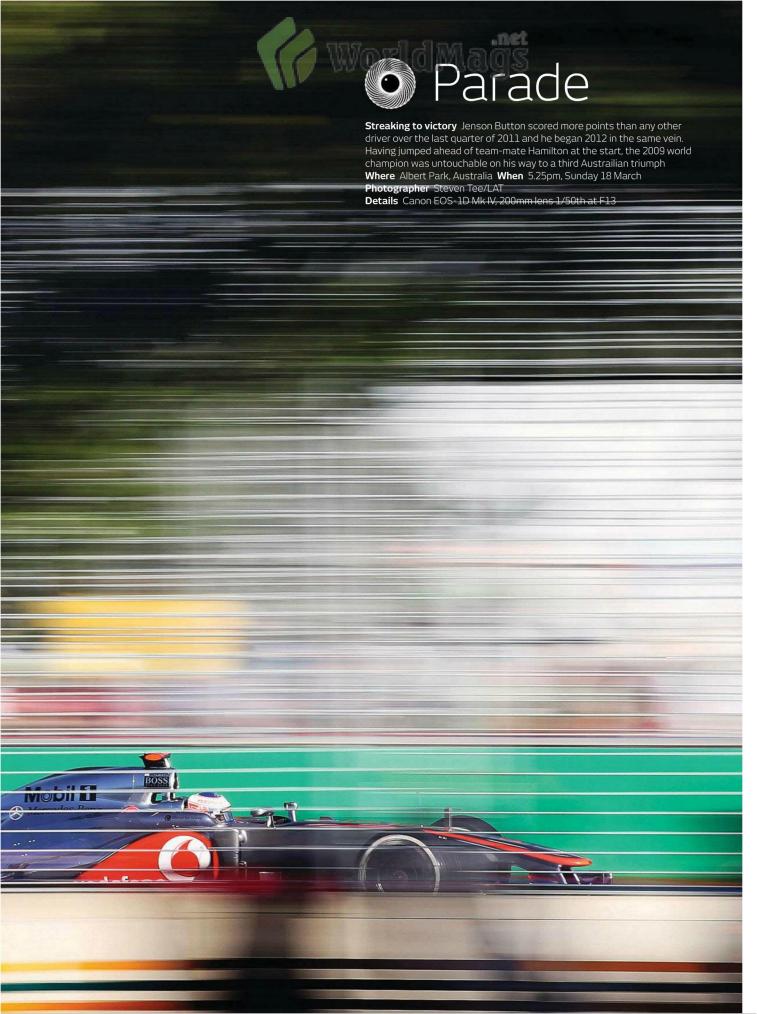
Garnier Suite Package



- 3 or 4 nights accommodation, choice of Monaco Hotels
- Exceptional views over the track overlooking Casino Square, Hotel de Paris 5*
- Additional access to the trackside Garden Terrace of the Hotel de Paris 5*
- · Fully catered hospitality
- · Open bar champagne, fine wine, beers and soft drinks

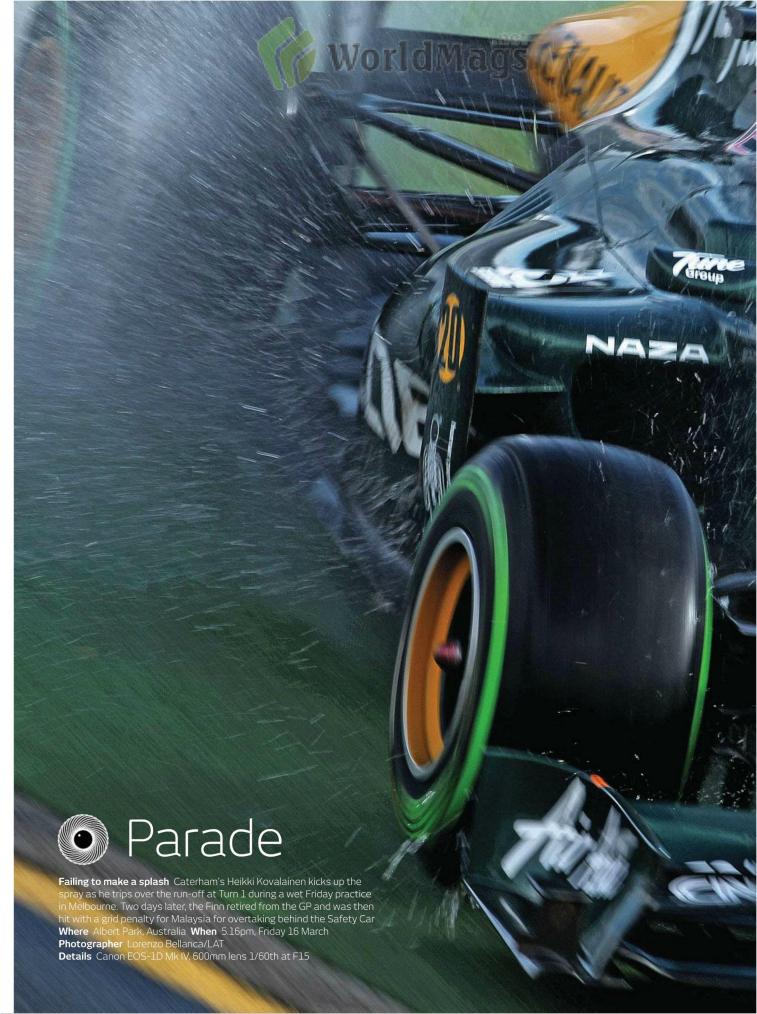
From €5,500 pp















The team Editor Hans Seeberg

Managing Editor Stewart Williams Features Editor James Roberts News Editor Jonathan Reynolds Chief Sub-Editor Vanessa Longworth Art Editor Frank Foster Senior Designer Matt Dungate Principal

Lorenzo Bellanca Editorial Tel +44 (0)20 8267 5806 Editorial Fax

Photographer

+44 (0)20 8267 5022

Out in the field

Editors At Large Alan Henry Tom Clarkson Agency Photographers LAT Photographic Getty Images

Publishing Director Ian Burrows

Publishing Manager Helen Spinney

F1 Racing Custom Emma Shortt Advertising Director Luciano Candilio **UK Sales Manager** Ben Fullick Office Manager Charlene Sampson Subscriptions Marketing Executive Karen McCarthy Licensing/Syndication Account Manager Roshini Sethi Licensing Director Jim James Licensing Manager David Ryan Advertising Tel +44 (0)20 8267

Subscriptions enquiries

5179/5916

Email F1racing@ Servicehelpline.co.uk Fax 01795 414 555 Customer Hotline 0844 848 8826

Missed an issue? Then call the back issues hotline 08456 777 818

Design director Paul Harpin Strategy and planning director Bob McDowel

Strategy and planning rector Hool NicLovies!

Managing director David Prasher

Chairman and managing director Kevin Costello

FI Rocing published morthity in Australia, Brazil, Bulgaria, China, Croat

Caech Republic, France, Germany, Greece, Hong Krong, Hungany, India,
Indonesia, Italy, Japan, Korea, Malaysia, Medico, Middle East, Netheria

Philippines, Poland, Romania, South America, Spain, Taiwan, Turkey, UK, USA Formula One, Formula 1 and F1 (trademarks of Formula One Licensing BV, a Formula One Group company) are used under licence

Circulation queries

Circulation queries

Frontline, Park House, 117 Park Road, Peterborough, Cambs PE1 2TR.

Et: +440(I) 73555161. ISSN 13614487, EAN 0773814489012.

Printed by Wyndeham Heron, The Bentall Complex, Colchester Road, Heybridge, Maldon, Essex CN9 4NW. Covers printed by Wyndeham Group. Colour by FMG, 90-92 Pentonville Road, London N1 9HS, Reproduction in whole or in part of any photograph, text or illustration without written permission from the publisher is prohibited. Due care is taken to ensure that the content of F1 Racing is fully accurate, but the publisher and printer cannot accept liability for errors and omissions. F1 Racing is a member of e Audit Bureau of Circulations.

F1 Racing Subscriptions

P. Nocing Subscriptions
P. De Osx 235, Stiftspourne, Kent ME9 8FA. Tet 0844 848 8826.
Fax: 01.795 414 555. Overseas: +44(0)1.795 592 990
Email: fl.rading@servicenleipine.co.uk. U.S. & Canada subscription queries:
Tet 1-866-918-146. Email: haymarket@imsnevex.com
F.1. Roding@SSN number 74597X0 is published monthly by Haymarket. Media Group, Teddington Studios, Broom Road, Teddington TW119BE, United Kingdom. The US annual subscription price is \$89.95. Airfreight and United Kingdom. The US annual subscription prince is \$89.95. Antreight and mailing in the USA agent named Me Business Ltd. Or Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434. USA Periodicals postage paid at Jamaica NY 11431. Subscription records are maintrained at Haymaried Media Group, Teddington Studios, Broom Road, Teddington TW/1198E. Air Business Ltd is acting as our mailing agent. ing is published 12 times a year by Haymarket Consumer Media

haymarket'

STOP AND GO / Hans Seeberg / 04.2012

Love him or hate him, Michael remains the driver to beat



So another season is under way and as it's been widely pointed out, a quarter of the grid are world champions. This is the first time it's ever happened and it's massively exciting for fans, but there's one man who's a bit nonplussed by it all. "It's a cool statistic," shrugged Michael Schumacher as I interviewed him for this month's cover story, "but at the end of the day that's all it is – a statistic."

In one respect that's just typical Schumacher, but as our chat went on it seemed to be symptomatic of Michael's current state of mind. I was struck by just how much he still wanted to win, his sheer determination, the fact that racing and winning is what he does. He doesn't care how many other world champions are on the grid - why should he? The other five have won seven titles between them, the exact number he's won by himself. For most people that would probably be enough to make them happy just to be competing on the F1 grid, but then Michael Schumacher is not 'most people'. When you watch him this season you can be sure he'll be trying his hardest, wringing the neck out of that Mercedes F1 Wo3 in the pursuit of more greatness. It is very hard not to admire him for that.

I'm glad it was the most successful F1 driver ever who was the subject of my last ever feature for F1 Racing because, after four years as editor, I'm leaving. Unlike an X Factor contestant, I'm not going to say it's been an 'emotional journey' - it's simply been a fantastic job meeting some brilliant people and working with a truly talented editorial team, and if you've bought the magazine over the past four years and enjoyed it, thank you very much. In the words of Ron Burgundy: stay classy.



Heikki Kovalainen sits down in front of a massive vase of citrus fruits as features ed Jimmy puts your questions to him (p40)



The Senna name is back in a blue and white Williams. Bruno tells news ed Jonny about the journey that led him there (p50)



Editor Hans gets the full tour of Marussia's new, swanky - and now fully amalgamated - HQ in Oxfordshire, courtesy of Pat Symonds (p62)

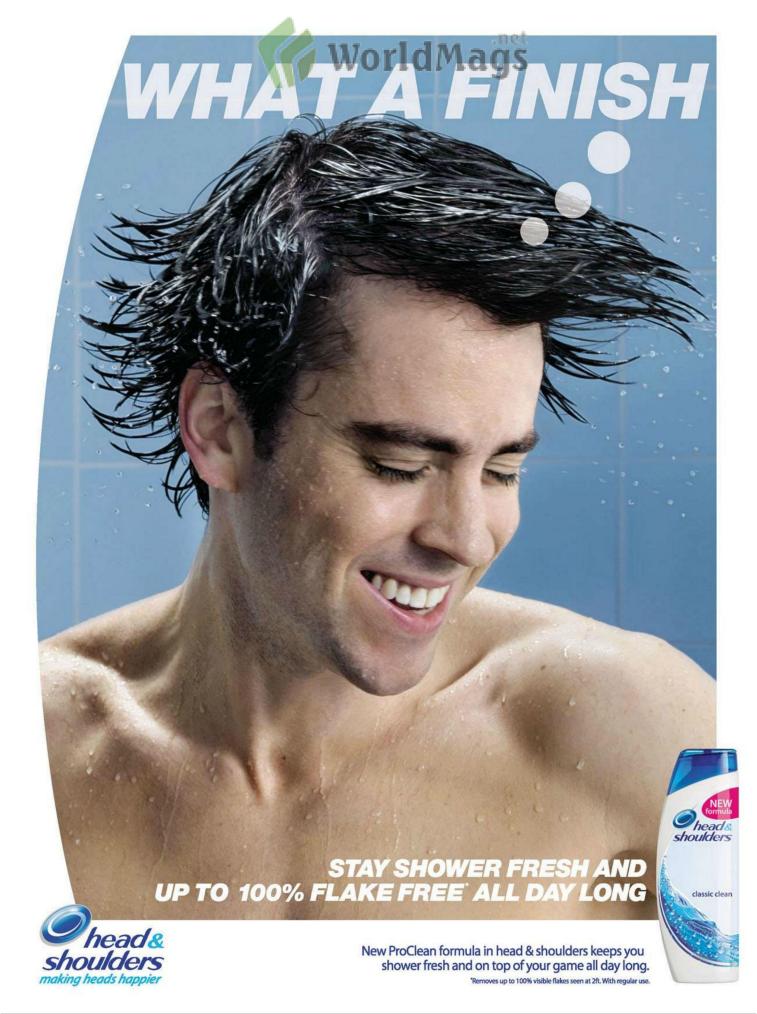


Maurice Hamilton chats to F1 race director Charlie Whiting over a stroll and lunch in Monaco. Get the lowdown on their natter on page 90





cial thanks to Tom Webb, Christian Clogger, Anna Goodgum, Leslye Kellner, Steve Cooper, Claire Will Special transis to Iom webo, Unistan Llogger, Anna Goodorffu, Lesiye Reliner, Steve Looper, Laire 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, Eric Silberman, Fabiana Valenti, Hanspeter Brack Heike Hientzsch, Maria Serrat, Tracy Novak, Barbara Proske, Chris Hughes, Isabelle Kaufmann, Diana Kay, Ron Burgundy, Champ Kind, Brick Tamland, Brian Fantana, Veronica Corningstone, Nigel Tufnel, David St Hubbins, Derek Smalls, Viv Savage Plymouth Argyle FC No thanks to Massive weasels





WIN THE ULTIMATE F1™ EXPERIENCE.

Enter our prize draw to win exclusive Formula One Paddock Club™ tickets to the 2012 FORMULA 1 SANTANDER BRITISH GRAND PRIX. Arrive in style by helicopter, rub shoulders with F1™ royalty, experience the excitement of a live F1™ race and go behind the scenes on a garage and pit lane tour.

For more information blipp this page or visit www.facebook.com/LGUK















It's a sport - not a beauty contest

Many people have criticised the 2012 noses, branding them 'ugly'. But F1 is not a beauty contest - it's a competition of technological brilliance. Over the years, there have been worse-looking cars than this year's. The Ligier JS5 from 1976 is one of many that was far less easy on the eye then the likes of the F2012, but fans continued to watch every race weekend.

I am no fan of the new noses. They lack the sleekness I am used to, but I did not start watching F1 because of how the cars looked. All that matters, is what they can do out on the track. Once the season gets under way, the action will take precedence and the fact that the majority of the cars are not 'pretty' will be completely forgotten. Surely the safety of the drivers and the sport as a whole is more important than what the cars look like?

Christina Eades

Warwick, UK

F1R: The Ligier JS5 makes our list of F1's ugliest cars on page 98, Christina. But it did score three podiums... which just goes to prove your point!



SILVERSTONE STAR PRIZE

Christina Eades wins a Silverstone Single-Seater Experience. For more details visit www.silverstone.co.uk/ experiences. Hotline number: 0844 3728 270



Tchau, Rubens!

For the first time in my 19 years of watching the sport, the excitement of a new season is tinged with a strong sense of sadness that my hero, Rubens Barrichello, will be absent from the grid.

I first started watching F1 back in 1993, deciding that I wanted to support the underdog who, that season, was Brazilian rookie Rubens in his Jordan. I've stuck with him ever since and I'm not ashamed to say that in 2000, when he scored his first win at Hockenheim, I sat watching in my student digs, crying along with him.

He may not go down in history as one of the sport's all-time greats but he always seemed like a hardworking, genuine guy. Good luck Rubhino from all your fans.

Melissa Beck via email

Sky: it's great value

In your March interview with Martin Brundle, you say you have to part with "the best part of £40 a month" to watch Sky's F1 coverage, despite Martin correctly stating "It only works out at about £1 per day."

The cheapest Sky F1 package is £30.25 per month - about £1 per day. That lets you see launches, testing and historic races - and you can watch and record all practice sessions in HD.

So for that £1 a day, I think we will be in for a treat throughout the season. It's just disappointing that the theme music isn't quite what anyone was expecting.

Michael Logan via email

Sky: it's too much

As a longstanding fan of Martin Brundle's commentary skills, I was dismayed by the flippant remarks he made in your March issue.

So. I'm irrational because I was happy with the 'free' coverage provided by the BBC? Well, technically it wasn't free as I pay a yearly licence fee. I can't afford the extra £30 a month for Sky: £1 a day is a lot of money to a home-owner with a yearly salary of £17,000.

People in my situation have been overlooked. I wish Martin well, but he should realise that some of us fans had to be and crucially were content with a pizza from Asda rather than Pizza Express.

Deb Jones Birmingham, UK





News. Opinion. Analysis. Now

Austin track set to be ready ahead of schedule

Going off the picture above it looks as if there's still a lot to do, but F1's newest circuit is planning to be ready for action in less than 200 days

The architects of the new Circuit of The Americas track in Austin have told *F1 Racing* that the facility could be completed as early as September. The penultimate round of this year's world championship is scheduled to take place at the Texan venue on 18 November, but a number of disputes have threatened both the race and

the completion of the track. And despite former promoter Tavo Hellmund filing a lawsuit against a number of parties involved in the grand prix, the managing partner of circuit architects Tilke, Peter Wahl, has said there will be no more delays.

"Work is progressing tremendously. The earthworks are finished and we're already doing

a lot of work on the buildings. My opinion is that we will be ready earlier than proposed – maybe by late September. The Americans have put a lot of big machinery into it – what we did in India with many people we've done here with machines. But we still have 500-600 people working on site 24 hours a day in three shifts."



50 YEARS OF SUZUKA

The Japanese track kicked off its 50-year anniversary with a display of classic F1 cars



25 **ARE YOU SITTING COMFORTABLY?**

If not, you might be interested in one of these luxurious F1-themed chairs



Currently the pit building and medical centre are still under construction while the media centre is being finished. Grandstand foundations have been laid and the laying of drainage pipes has been completed. The track layout has been excavated and topped with a new soil to prevent problems with the track surface arising.

"They have what is known as 'expansive soil' in Texas," explains Wahl. "It means that when it gets wet it expands, so we changed the soil so the track won't get bumpy in the future."

But even though the earthworks are complete, Wahl says the track surface won't be going down just yet: "The track surface will be the last thing we do because we'll still have heavy traffic on the site, which could destroy it. To put the track surface down, we must have the layers beneath in place, as well as all the curves, run-off areas

and cabling. Then we can start to lay the last layer in July-August. We should get the FIA homologation in September."

The Circuit of The Americas will be the fourth Tilke-designed track to join the F1 calendar in four years, following in the footsteps of Yas Marina in Abu Dhabi (2009), the Korea International Circuit in Yeongam (2010) and the Buddh International Circuit in New Delhi (2011). They may not be to everyone's taste but Wahl insists that, as a company, Tilke always asks the right questions before designing a circuit:

"We always think 'What can we do to encourage overtaking?' and 'What can we do to challenge the drivers?' I think the drivers all liked what we did in India. We're trying to improve from track to track and to learn from the people who criticise us. I'm very optimistic



It's not what you expect to hear with a new circuit - but this one really will be ready in time

that Austin will be a really good track."

There'll be no time for Wahl to rest once Austin is complete - his attention will then turn to the New Jersey street circuit, which is scheduled to host F1 in 2013. Work on that track is expected to begin this summer.

PITPHS5 / Classic cars take to the track for Suzuka's golden anniversary



Suzuka, one of F1's most iconic circuits, celebrated its 50th anniversary in March with a parade of classic F1 cars. Created by Dutch circuit designer John Hugenholtz as a Honda test track, the Japanese race course was opened in 1962 and has since gone on to host 23 F1 GPs, many of which have been end-of-season title-deciders.

To celebrate this proud legacy, circuit organisers invited a host of popular drivers to drive the legendary figure-of-eight layout in cars significant to Suzuka's heritage. Among them were Japan's only ever F1 podium finishers: Takuma Sato and Aguri



Suzuki in the Larrousse he took to third in '90

Suzuki. Sato lapped the track in a McLaren MP4/5, the model that team-mates Ayrton Senna and Alain Prost were driving when they collided at that infamous 1989 title-decider. Suzuki, meanwhile, was reunited with the Larrousse Lola 90 he took to third place in Japan in 1990. Also present were Jean Alesi and Satoru Nakajima, who both drove a Lotus 101, and Shinji Nakano who drove a Minardi M192.

Who knows, perhaps in another 50 years, we might see a 74-year-old Sebastian Vettel driving a Red Bull RB7 at Suzuka's 100-year anniversary celebrations.



Satoru Nakajima: reunited with the Lotus 101

When did this year's GP tracks first open?

Albert Park, Australia **1996**

Sepang, Malaysia 1999 -

Shanghai, China 2004

Sakhir, Bahrain 2004

Circuit de Catalunya, Spain 1991

Monaco **1929**

Montréal, Canada 1978 •

Valencia, Spain 2008

Silverstone, Great Britain 1947

Hockenheim, Germany **1932** Hungaroring, Hungary **1986**

Spa, Belgium **1922**

Monza, Italy 1922

Marina Bay, Singapore 2008

Yeongam, Korea 2010

New Delhi, India **2011**

Yas Marina, Abu Dhabi **2009**

Interlagos, Brazil 1940





/ Introducing the DRS-activated F-duct / A chat with Maria De Villota



DRS F-duct is 2012's 'must-have' device

Those engineering clever clogs at Mercedes seem to have to started a new design trend

Barely a year goes by in F1 without the introduction of an 'essential' new technical development. In 2009 it was the double-diffuser; in 2010 it was the F-duct and last year it was the off-throttle exhaust-blown diffuser. This year it looks like Mercedes' innovative DRSactivated F-duct will be the system everyone wants to copy.

Pictures have shown that the Mercedes F1 W03 features a slot in the rear-wing endplate that is exposed when the DRS rear wing is activated. It is thought that air is fed through this exposed slot and then diverted in such a way that it helps stall the rear wing.

Stalling the rear wing helps to boost straightline speed by reducing drag, and the FIA do not consider the Mercedes device to be against the rule, despite concerns from rival teams.



This slot in the rear-wing endplate is exposed when DRS is activated, and stalls the wing

Use of the DRS is limited during races, but drivers may use it as often as they like during qualifying. So if Mercedes' system works as we assume it does, it will offer a very useful speed boost.

You can now expect to see the other teams experimenting with other passive F-duct systems as the season progresses.

FIVE MINUTES ON THE PHONE WITH... MARIA DE VILLOTA

MARUSSIA'S NEW TEST DRIVER



Congratulations on your deal with Marussia, Maria. What are you hoping to gain by joining

up with the team?

Plenty of experience. There is such a lot to learn in F1. This year I'm focusing on trying to get as much information as possible about how the team work with the car. I'll also be doing some simulator work and then later in the year I'll be doing the Abu Dhabi rookie test.

Will you be with the team at every race?

Yes, I'm going to be at every single grand prix this year.

You tested a Renault R29 F1 car last year - what was that like?

It was just amazing. I did more than 180 miles in it and it was fantastic. A Formula 1 car is so responsive - the sensation I had from driving it was like nothing I'd ever felt driving a car before. With other cars I've driven I've had to be quite aggressive, but with the Formula 1 car I could drive it much more smoothly.

You probably can't wait to do it again, can you?

No, once you try it, you definitely do just want to do it again.

You are currently the only female driver in Formula 1. Does that present any advantages or disadvantages?

Well, there are two sides to it. The good thing is that you do stand out, so you often get more interest from the media and sponsors. On the other hand, you are always being interrogated and you always have to prove that you deserve to be where you are. It's not always good to be different. But I've been doing this my whole life and I'm used to being around men all the time.

Your dad, Emilio, raced in F1 in the late 1970s - has he given you any advice?

The one thing he told me was not to smile too much. It sounds weird, but I'm a happy, easy-going person and he didn't want people in F1 to think I'm not serious. In actual fact, I'm really focused and serious about my work.



De Villota got in over 180 miles of testing with the Renault R29 last year

F1 Mastermind

Your chosen specialised subject: the world's greatest sport



- 1 At 43, Michael Schumacher is the oldest driver on the 2012 grid But who is the second oldest?
- 2 Who was the first American to win a world championship GP that was not the Indianapolis 500?
- 3 Alfa Romeo won their last race as an engine manufacturer at the 1978 Italian GP. What was the driver/car combination?
- 4 What was Jaime Alguersuari's highest ever GP finish?
- 5 Which Pedro raced for Lotus and Minardi in the 1990s?



- 6 Ayrton Senna and Alain Prost dominated the 1988 world championship - but who came third in the final standings?
- 7 In what year did Mexico last host a world championship GP?
- 8 Which driver scored BRM's first victory back in 1959?
- 9 Which car has won more races - the Red Bull RB7 or the Williams
- 10 Who am I? I'm an Italian racer who started six races for Simtek between 1994 and 1995



THIS BOY **CAN DRIVE**

Keeping an eye out for the Hamiltons of tomorrow



Oliver Webb Who is he?

A 21-year-old British racer from Knutsford, Cheshire. He recently moved to Indianapolis to race in the US Indy Lights series, the tier just below IndyCar.

How good is he?

He's been at the sharp end in pretty much every junior category he's raced in, notably finishing third in the 2010 British Formula 3 series behind Jean-Eric Vergne, who's recently been given a Toro Rosso drive. Last year, he scored a podium in his very first Indy Lights race in Edmonton.

Anything else we need to know about him?

In his spare time, Webb works as a racing instructor, is the official test driver of the BAC Mono supercar, and has also modelled for Top Man and Spashion.

F1 chances

Webb came very close to an F1 third driver role for 2012 but, in the end couldn't get the budget together. As a result he's now turned his attention to making it in IndyCars, although as he told us: "F1 is always a strong option - I'm just taking a different route there."

STATS

Rubens aiming for **US** success

After 19 seasons in F1, Barrichello moves to IndyCar this season. But can he join this select group of drivers who have scored wins in both F1 and America's top tier?



Mario Andretti

≪Won in F1 1971, 1976, 1977, 1978

>>> Won in IndyCars 1965, 1966, 1967, 1968, 1969, 1970, 1973, 1978, 1980, 1983, 1984, 1985, 1986, 1987, 1988, 1993





Nigel Mansell

Won in F1 1985, 1986, 1987, 1989, 1990, 1991, 1992, 1994

>>> Won in IndyCars





Emerson Fittipaldi

Won in F1 1970, 1972, 1973, 1974, 1975

>> Won in IndyCars 1985. 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995





Juan Pablo Montoya

Won in F1 2001, 2003, 2004, 2005

>>> Won in IndyCars





Jacques Villeneuve

Won in F1 1996, 1997

>> Won in IndyCars 1994, 1995





Graham Hill

≪ Won in F1 1962, 1963, 1964, 1965, 1968, 1969

>> Won in IndyCars 1966





Jim Clark

≪Won in F1 1962, 1963, 1964, 1965 1966, 1967, 1968

>> Won in IndyCars 1963, 1965





Dan Gurney

Won in F1 1962, 1964, 1967

>> Won in IndyCars 1967, 1968, 1969, 1970



TECHNOLOGY OF CHAMPIONS

Mobil 1[™] Oil: An Aerodynamic Aid

With exhaust-blown diffusers effectively a thing of the past, the Mobil 1 engine oil in the Vodafone McLaren Mercedes MP4-27 race car has enabled the team to increase rear downforce by improving aerodynamic performance.

Quest to be the Best - Martin Whitmarsh, Team Principal, Vodafone McLaren Mercedes, recently commented at the launch of the MP4-27, "While there are clear visual changes to this year's car, there's greater change beneath the skin, with lots of fresh thinking applied." With no stone left unturned in the quest to be the best, Mobil 1 engineers have developed a breakthrough engine oil for 2012 that allows a significant increase in the engine operating temperature.

Cool Performance - The MP4-27 uses oil and water radiators to help cool the engine. Located in the right-hand side pod, the oil radiator and Mobil 1 technology provide an almost equal share of the engine cooling requirement.

Running Hotter - There are several advantages of being able to run the engine hotter. Drag can be reduced by re-optimization of the radiator and aero packaging. Increased rear downforce can also be achieved through aerodynamic improvements to the exit ducts.

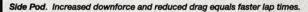
Grand Prix Engine Oil Cooling Package Explained. The Mobil 1 engine oil flows through the radiator cooling down by approximately 40°C, whilst the air channelled through the side pod inlet heats up about 75°C.

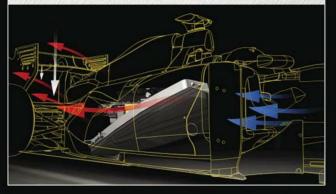
In to Win - The excellent thermal performance of Mobil 1 technology is one feature that allows both higher operating temperatures whilst still protecting the engine and is a real advantage. When the winning margin can be fractions of a second, using the right engine oil can make the difference.



Vodafone McLaren Mercedes Powered by Mobil 1 Engine Oil

Race Technology in Your Car - The tough testing ground of Grand Prix racing provides the ideal environment for Mobil 1 engineers to develop advanced engine oils which can help optimize the performance of your car. Similar to the advancements in Grand Prix race cars, recent developments in road cars often put increased pressure on the oil in your car to perform. Mobil 1 synthetic engine oils are formulated to help keep your vehicle running like new. For more information on Mobil 1, the world's leading synthetic engine oil brand, visit mobil1.com











WorldMags

A SMART SAT NAV THAT TALKS TO YOUR SMARTPHONE



Smartphones are perfect for keeping you connected. That's why the stunning 5-inch nüvi 3590 sat nav with Smartphone Link talks to your Android phone to get the very latest traffic and travel information. Smartphone Link uses your mobile data plan to connect to the Internet and send live updates to your sat nav, keeping costs down. And you get the latest picture of the roads to get home faster.



garmin.co.uk/ontheroad





The Ayrton Legend: part helmet... all chair

FURNISHINGS

Yes, it's a chair. Yes, you sit in it

...but if you also think it looks like Ayrton Senna's race helmet, you'd be right

No, your eyes are not deceiving you: you are looking at a chair modelled on Ayrton Senna's iconic helmet design. The Ayrton Legend art ball chair is a limited-edition chair produced by motorsport-mad French furniture company Racing & Emotion.

If you like the sound of an F1-themed chair but you weren't a Senna fan, worry not:

– the company also make chairs inspired by Niki Lauda's Ferrari 312T, the McLaren MP4/4 and the Lotus 25 to

name but three. All are constructed from steel and fibreglass before being hand-painted and finished with

luxurious leather padding.

Be warned though, they're not cheap: the ball chair costs a bank-balance-bothering £2,484. But if you can handle a price tag like that, you might be interested to know that each design is also available in a slightly more traditionally chair-shaped form (see inset), although this costs a whopping £2,900. For more information visit www.racing-emotion.com.

STATS

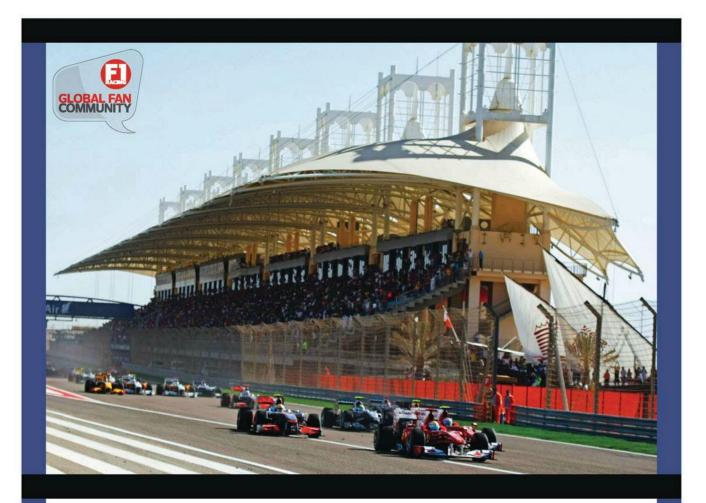
HRT's revolving door keeps revolving

This is the Spanish team's third season in F1, yet they've already been through an incredible eight different race drivers. Here's how they compare to other squads over the same period...

Red Bull – 2	McLaren – 2
Webber, Vettel	Hamilton, Button
Ferrari – 2	Mercedes – 2
Massa, Alonso	Schumacher, Rosberg
Force India – 4	Caterham (formerly Team Lotus) – 4
Sutil, Liuzzi, Di Resta, Hülkenberg	Trulli, Kovalainen, Chandhok, Petrov
Toro Rosso – 4 Alguersuari, Buemi, Ricciardo, Vergne	Williams – 4 Barrichello, Hülkenberg, Maldonado, Senna
Marussia (formerly Virgin) – 4 Glock, Di Grassi, Pic, D'Ambrosio	Sauber - 4 Heidfeld, Kobayashi, de la Rosa, Pérez
Lotus (formerly Renault) – 6	HRT – 8
Petrov, Kubica, Heidfeld, Senna,	Senna, Chandhok, Yamamoto, Klien,
Grosjean, Räikkönen	de la Rosa, Liuzzi, Ricciardo, Karthikeyan



PITPRES / The F1 Racing Global Fan Community on... The Bahrain GP /



Bahrain: fans say F1 should steer well clear

We asked the Global Fan Community what they thought, and the results were conclusive

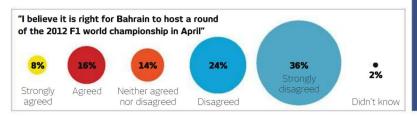
It's one of the hottest topics in F1: should the Bahrain Grand Prix go ahead as planned on 22 April? Last year, race organisers took the decision to cancel the grand prix after significant civil unrest in the country. The Bahraini organisers now believe the time is right for the Sakhir circuit to host F1 again and they have been backed by United Nations war crimes expert, Mahmoud Cherif Bassiouni. But others, including a prominent group of British politicians and numerous human rights organisations, believe that this year's race should not go ahead.

In order to represent the fans' view of the situation, we asked *F1 Racing*'s Global Fan Community whether it is right that Bahrain will host a round of the 2012 world championship. Analysis of the results revealed that only 24 per cent of the 10,000 people who responded to the poll either agreed or strongly agreed that the race should go ahead. Conversely, 60 per cent of fans either disagreed or strongly disagreed that Bahrain should hold a GP in April. Sixteen per cent had no view either way.

We then asked Global Fan Community members who they felt should decide whether F1 should race in Bahrain in 2012. Some 44 per cent thought the sport's governing body, the FIA, should make the decision, with 37 per cent saying the teams themselves should decide. But only eight per cent of fans polled thought that the decision should be made by Formula One Management, with fewer still (seven per cent) believing that the responsibility lies with the Kingdom of Bahrain itself.

As F1 Racing went to press, the race was still on the calendar, but you can expect the debate to rumble on. To read more about the situation, turn to our feature on page 46.

• To find out how to join the F1 Racing Global Fan Community, turn to page 45



/ F1's international expansion / Vettel and Red Bull's biggest threats



"We can't lose any more GPs in Europe"

So say the Global Fan Community, concerned by F1's more international outlook



The past decade has seen
F1 migrate further and further
away from its traditional European
heartland in favour of races in Asia and
the Middle East. But with the number
of races set to remain at 20 and new GPs
planned in Russia and the USA over the
next couple of years, something's got to give.

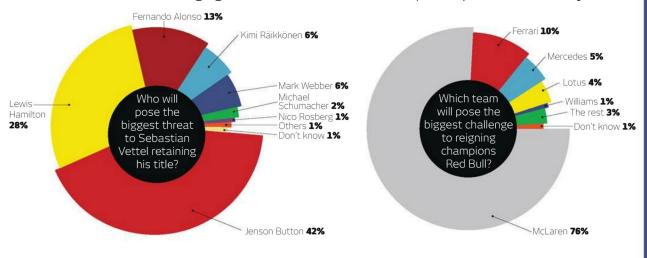
According to members of *F1 Racing's* Global Fan Community, the sport cannot afford to lose any more European venues. A staggering 79 per cent of the 10,000 people who responded to our poll either disagreed or strongly disagreed with the notion that F1 can

afford to lose more European races in order to visit new markets around the world. Only 14 per cent agreed that further European races could be jettisoned, with a further seven per cent of you unsure about the situation. And the majority of fans polled (57 per cent) thought that the USA should host only one F1 round per season – an interesting result, given that New Jersey is set to join Austin on the calendar in 2013.



Button will push Vettel hardest in 2012

That's what you lot reckon anyway – and you can't really see anyone other than McLaren challenging Red Bull's constructors' championship dominance this year

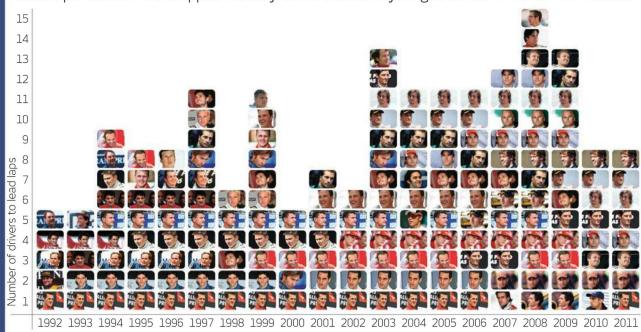


PITPRSS / Lap leaders, season by season / McLaren's paintjob short cut

STATS

Leaders of the pack

There are more races now than ever, but as this graphic shows, the number of different race leaders per season has dropped recently. Could that be anything to do with a certain Mr Vettel...?



TECH

The secret of McLaren's shiny cars

They keep their chrome looking sleek between races using er... stickers

For several years now, McLaren's chrome paintjob has been one of the most attractive in F1, but have you ever wondered how they keep it looking so smart? During an average grand prix, the paintwork picks up all sorts of chips and scratches and normally these would be either polished out or touched up in the factory paintshop afterwards.

But more and more back-to-back flyaway races have been added to the calendar, which has resulted in fewer opportunities for the team to return their cars to the factory for a touch-up. So McLaren turned to their coatings partner, AkzoNobel, for a solution: ultra-thin high-tech stickers that perfectly match the colour of the bodywork.

"Most people don't realise how much work occurs between races to prepare for the next one," says Jim Rees of AkzoNobel. "Not only do the cars suffer cosmetic damage, but they are set up differently for each track. That means there may be holes in the bodywork, rivets that are exposed, or other imperfections. After some races there's no time to return the car to England, but by using our Stickerfix technology, McLaren are able to ensure that the car is aesthetically perfect and aerodynamically slick."

Jenson and Lewis's cars might look a bit worse for wear after the Chinese GP, but thanks to those helpful chaps at AkzoNobel, they'll look as good as new for Bahrain.





Painstaking work is afoot as McLaren start sticking their special stickers...



EXPERIENCE 5Gs FROM YOUR SEAT



With Formula 1" FanVision', you can pull up a live broadcast feed, 10 channels of on-board cameras, team radios, real-time telemetry, audio commentary, driver data, and more-in the palm of your hand, anywhere at the track.

Go inside the 2012 Formula 1[™] Santander British Grand Prix with FanVision*.

Visit FanVision.com/F1/UKapr to order online and save!

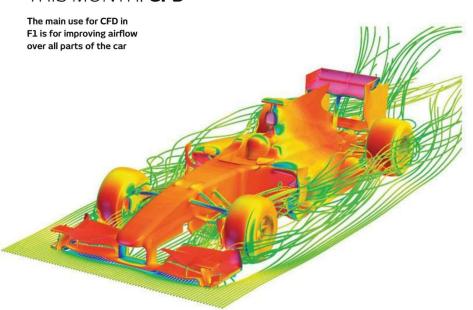




Pat Symonds' TECHNOLOGY MASTERCLASS

Lifting the cloak of secrecy on F1's complicated parts

THIS MONTH: CFD





CFD... what does that stand for and what does it actually do?

It stands for Computational Fluid Dynamics. All systems in nature obey certain laws of physics and if these can be expressed or modelled mathematically, then the governing equations can be solved and behaviour predicted. In Formula 1,CFD solves equations to determine the flow regime of air passing over the car.

So really, it's just maths?

Yes. To be accurate you must determine the flow with precision. This is done by constructing a virtual mesh around the car and solving equations for each point in the mesh. For a full-car study, there are around 300million points meshed around the virtual model, and each needs to be solved iteratively until the solution converges. In other words, the calculations are done over and over again with the results of each calculation determining the starting point for the next calculation until the result no longer changes. When this happens the solution is said to have converged. This can take between 1,000 and 1,200 iterations.

Is a supercomputer needed for this?

Definitely. Supercomputer power is measured in teraflops – these refer to how quickly a computer can carry out a mathematical operation. A one teraflop computer can do 1,000,000,000,000 (a trillion) operations a second. F1 teams have machines ranging upwards from 20 teraflops. Marussia have one of the best (read more about it on page 62), which is within the top 300 most powerful computers in the world.

How long has CFD been around?

Teams started using CFD in the '90s, but things were very different then. The codes they used were much simpler as the computer power was not available. They were used for optimising rear wings and other relatively simple tasks.

So how is CFD used in F1 now?

It's mostly used to improve aerodynamics, but can be applied to any form of fluid flow. Teams will use CFD techniques to study water flow through radiators and the oil flow in the gearbox to ensure all areas are lubricated correctly. They even use CFD to study the effects of fuel sloshing

in the tank. Engine manufacturers also use CFD to study the way an engine breathes and how the fuel mixture is distributed in the cylinder to optimise combustion efficiency.

At what stage is CFD used?

hours to solve just one configuration

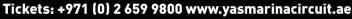
Teams work in different ways. Most use windtunnels as the final arbiter of how to develop aero, but will use CFD to aid their understanding. With windtunnel testing, a component may give more downforce but it may not be obvious why: CFD visually presents what is happening. The best approach is a combination of CFD and experimentation.

What are the advantages and limitations of using CFD?

CFD is cheaper than windtunnel testing. The limitations are accuracy (although this is improving) and the time it takes to complete a run. One configuration can take around 18 hours to solve on even a very powerful computer. To map each ride height then takes a further 18 hours whereas a windtunnel will complete a full scan of ride heights and attitudes in 15 minutes.

Turn to page 108 for Pat's analysis of the Australian Grand Prix >











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



IndyCar was the right move for Rubens

I don't think that Rubens Barrichello had any more avenues open to him to continue in Formula 1. After Ferrari he went to Honda, which was a slight step down, and then he went to Williams. Once you start going backwards, if the only opportunity left open to you is a seat at HRT, it's probably better just to quit.

He's now switched from F1 to IndyCar and that's better than doing it the other way around. After I left IndyCar, it split into two series and that diluted the calibre of the drivers, but now it is on the up again. There is still a single chassis, but the engine formula has opened up, there are more road courses and it's getting back to what it was like 20 years ago - which is great.

But if Rubens thinks that because he's driven in F1 then it's going to be easy to drive those cars, he's wrong. They are quite a handful: the



steering is heavy and it's hot and humid in the Midwest during the summer months, so the racing can be very physically demanding.

Competing on an oval is different to anything else in motorsport, because the speeds you race at are so extreme. On oval tracks, you have to take a risk as that's the only way to go fast, but how dangerous it is also depends on how stupid you are when you drive on them. You can very easily get caught out and end up in the wrong

place at the wrong time - and there'll be nothing you can do about it.

The cars are staggered and you have to steer to the right in a straight line because of the way they are set up to turn left. Also, you have a spotter talking into your ear the whole time and telling you about traffic, which some drivers hate, and it can be hard to get used to. It'll be interesting to see how Rubens gets on this year and I wish him luck.



Can another driver win on his F1 debut?

I always enjoy Melbourne as the first race of the year and it's great to see who is quick and who isn't, because winter testing can be confusing. After testing in cold weather in Europe all winter, it's nice to enjoy some warmth. I liked Melbourne and qualified on pole there on my debut.

Lewis came close to winning his debut race in 2007 and I



nearly did it in 1996. While no one has done it since 1961, I'm sure it will happen again. You can have one of those races

with odd weather, which can throw up a weird result - that could happen to someone on their first race. However it would need to be a new driver at a top team; and you only get that when a driver's had good experience in another category. So the top teams would need to take a risk, like Williams did with me and McLaren did with Lewis.

THE















F1 gets a full-time female test driver

I see Marussia have appointed Maria de Villota as a test driver. Talentwise, there is no difference between male and female drivers, but women are sometimes used for the wrong reasons in racing as people think they might be able to make some money out of the publicity. There are some good female racers out there: Danica Patrick has succeeded in the US

MURRAY WALKER

I have a boundless admiration for those F1 commentators who entertain and inform us so well...

I make no apology for returning to the subject of F1 on television. It's the way the vast majority of us follow the races we're so passionate about and, thanks to brilliant technology, we see them in penetrating detail with the added benefit of commentators explaining exactly what's happening. I say 'explaining' because as Jonathan Martin, BBC TV's former head of sport, always used to say, F1 is the most difficult sport of all to commentate on.

Unlike football, tennis, swimming and most other sports of which we usually have some personal experience and where what is happening is obvious, racing a Formula 1 car is something we've never done. It is immensely complicated and it depends on the car and a raft

of back-up personnel as much as it does on the driver and it takes place over a large area only partly seen by on-the-spot spectators. Believe me, trying to clarify all of that in the commentary box can create some really tense situations.

Nowadays there are two commentators, one a 'colour' man (Ben Edwards/David Croft) and the other an ex-driver with the immense authority of having done it (David Coulthard/Martin Brundle). But when I started out, it was just me doing the talking until, in 1980, I was joined by the inimitable, outspoken and often outrageous James Hunt. We were chalk and cheese; oil and water. I was old enough to be his father, we had totally different characters, backgrounds and attitudes – and each of us almost certainly felt

that what we wanted to say was much more interesting, relevant and entertaining than what the other chap was saying. There was, however, a problem. To prevent us both talking at the same time we shared a single microphone, the possession of which often led to some pretty dramatic confrontations.

I always stood up to do my stuff with James sitting beside me. One year, when I was commentating at the British Grand Prix I was in full flow, with the adrenaline pouring out of me by the bucketful, when James, feeling perhaps that I'd been going on long enough, gave the microphone wire a colossal tug, fielded the mic and started talking. I was incandescent with rage and pulled my fist back to give the upstart beside me a fourpenny one but, as I did so, I looked across the box to see our producer, Mark Wilkin, shaking his head and wagging an admonishing finger. So I managed to hold fire, thereby preserving my job and avoiding a nasty scene involving blood on the floor!

The first year we went over to Australia we had a very tough Aussie producer who joined us in the box for our first session. At one point I handed the microphone to James who put it down and said "I've got nothing to say."

"Pick the effing thing up and say something!" said the producer – which James grumpily did.

When the session was over, James announced: "I've never been spoken to like that in the whole of my life and I don't like it." "As far as I'm concerned, you're a hired hand and if you don't like it you can eff off!" replied the producer. Funnily enough there was always a rather strained atmosphere between them thereafter.

As far as I'm concerned there's no such thing as a dull Formula 1 race because there's always something interesting going on if you know where to look for it — but I will admit that there can be some processional races that are harder to invest with any sense of excitement. It was on those occasions that I always knew I only had to say something complimentary about Riccardo Patrese, who James detested, and he would promptly gesture for the microphone and pour vitriol and bile upon the unfortunate Riccardo. That always got things going! Then there was the time that James didn't turn up for the whole of the rain-lashed Belgian Grand Prix, which had us frantically dragging anyone who retired into the



"One commentator is always an ex-driver with the authority of having done it – like David Coulthard or Martin Brundle"

Forthright chatter from the legend of F1



"Having failed to turn up to commentate on the Belgian GP, James, who wasn't averse to female company, said, 'Sorry. I was in bed with a tummy upset.' That's the first time I've heard it called that!"

commentary box to tell us what had happened to them (I'm pretty sure that this must have been the first time Martin Brundle ever held a microphone in his hands). "Sorry," said James, who wasn't exactly averse to female company. "I was in bed with a tummy upset." 'Well now,' I thought to myself, 'that's the first time I've heard it called a tummy upset!'

I think it can now be told that back in those days we weren't actually at some of the long-haul races but were commentating from Television Centre in Shepherds Bush, which led to my use of statements like: "I can't see the pits from my commentary position." Perfectly true, but perhaps a trifle misleading. Anyway one year when, unbeknown to the viewers, we were doing

"I used to make mistakes myself. At the 1980 South African GP I announced: 'Now Surer is as close to Laffite as Laffite is to Surer!" the South African Grand Prix from London. James, who had a forthright opinion about everything, started banging on about the evils of apartheid, which didn't seem relevant to the action and was certainly liable to cause a bit of political bother. So Mark Wilkin passes him a note on which was written "Talk about the race." James looked at it and explosively announced "Anyway, thank god we're not there!" Thank you James. We'll let you know...

I'm telling these stories about James, but I do have to admit that I wasn't without fault myself – and I did have a reputation for making mistakes. I used to protest that I didn't make errors - I made prophecies that immediately turned out to be wrong. "Its very clear that, at this stage of the race, Nigel Mansell is not going to make a pitstop." And then of course, he did. "There's nothing wrong with the car except it's on fire," and "Tambay's hopes, which were previously nil, are now absolutely zero." Plus gems like: "And now Surer is as close to Laffite as Laffite is to Surer!"

It's all a lot more serious nowadays but I have a boundless admiration and respect for my successors who entertain and inform us so well. Long may they continue to do so. 3



THE ULTIMATE VIP NIGHTLIFE EXPERIENCE 2012 • MONACO

Now that was a car

No2: The Lancia D50

The perfect car for a dip in the Monaco harbour...

When you look at the D50's record you may think that it's unworthy of joining the pantheon of legendary cars in F1's hall of fame. But to overlook it for its lack of wins would be unfair given that the car featured some of the most innovative ideas F1 has ever seen. Italian designer Vittorio Jano – the man behind the fabulous Alfa Romeo 158 - was charged with building Lancia's first ever F1 car, but an unusually long gestation period had left people wondering if the D50 would ever see the light of day. When it was finally unleashed at the 1954 Spanish GP, a mere ten months late, it was noticeably different.

On first viewing you might think: 'Has that car got saddlebags?' The answer is 'Yes.' Jano had chosen to house the fuel in large panniers that ran along the sides of the car between the wheels, rather than placing a tank behind the driver at the rear of the car as was the norm. This improved weight distribution and the car's handling since the weight of the fuel wasn't acting on the rear of the car. The panniers also had the knock-on effect of improving aerodynamics by cleaning up the area between the wheels usually occupied by turbulent air.

Another trick was the use of the compact V8 engine as a load-bearing part of the chassis that, when angled, meant the driveshaft could pass down the left side of the cockpit, letting the driver sit lower in the cockpit for an added weight-distribution advantage. On track, the D50 was fast but unpredictable - Alberto Ascari followed up pole in his first race by crashing out of 1955's first two GPs - the second time into the Monaco harbour.

A week after that watery shunt, Ascari was killed in a sportscar crash and Lancia, on the verge of bankruptcy, cancelled the F1 project, leaving Ferrari to collect the assets. A year later, Juan Manuel Fangio collected the title. The car he was driving? A Ferrari-badged D50...



D50 tech spec						
Chassis	Aluminium	Transmission	5-speed manual	Drivers	Alberto Ascari, Luigi	
	body on	Wheelbase	228cm		Villoresi (both Lancia	
	tubular frame	Weight	620kg		D50), Juan Manuel	
Engine	2.5-litre	Wins	0 (as Lancia D50)		Fangio, (Ferrari D50)	
	Lancia V8		5 (as Ferrari D50)	Years raced	1954-55 (Lancia D50)	
Power	260bhp				1955-57 (Ferrari D50)	

PICTURES JAMES MANN

"THE BEST RACE I'VE BEEN TO



Passion, drama and excitement from your greatest grand prix moments

WATKINS GLEN 1976 / Steve Norton / 48 / USA

"Jacky Ickx crashed right in front of us best race event ever!"



"It was the week before the US GP East and my brother had no one to go with. I was only 13 but my 22-year-old brother perked up when I said I'd like to go. The next thing

I knew, he'd borrowed a friend's BMW and we were off.

"Friday practice was cold and rainy. We were hanging around the pit entrance when we realised there was no one watching the gate. We slid in and I got a few pictures with my trusty old Instamatic X-15 before getting autographs from Mario Andretti, Ronnie Peterson and Niki Lauda

"Saturday was all but washed out, but Sunday turned out warmer and we watched as Jacky Ickx crashed right in front of us down at the Boot. Best race event ever: I've been a fan ever since. Thanks bro!"





James Hunt won the race for McLaren

Jody Scheckter was second and Niki Lauda came third

Eleven of the 26 cars retired from the race



"It was surreal to step onto the track afterwards"

"After a long time spent wondering what it would be like to watch an actual F1 race live, I finally got the chance to go and see the 2011 Singapore GP.

"Having visited the track the previous two years to watch practice and qualifying sessions, I had an idea of what to expect, but it was still great to

soak up all the atmosphere around Marina Bay from various parts of the track

"On the Sunday, my friend and I decided to watch the action from the Turn 13 hairpin, thinking this would be a place where something would be likely to happen and something certainly

on Friday and Saturday.

did! On lap 11, Bruno Senna tried to overtake Vitantonio Liuzzi at the hairpin, but he misjudged it and stopped just in front of the barriers. It gave me the opportunity to snap a picture of him trying to find his way out of that sticky situation.

"Everyone was in high spirits following the race, and it was surreal to step onto the track knowing that the guys had all been racing on it just a few minutes earlier."



"I went to one of the most infamous races of all time"



"My friend, Chris Hara, and I went to one of the most infamous races of all time the 2005 US GP. The crowd was stunned when all the cars on Michelin tyres pulled

into the pitlane for safety reasons before the start of the race. It didn't do F1 any favours in America, but I got to see a Jordan driver on the podium [Tiago Monteiro] and listened to 100,000 people yell 'Bullshit!' all at once..."





"Senna misjudged an overtake and stopped at the barriers"

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



















A Master Redefined.

Autoglym Super Resin Polish has been the UK's leading car polish for over 25 years. In 1986 it heralded a revolution in car care and now the all-new formulation is once again raising the standard. The new advanced Autoglym Super Resin Polish boasts unparalleled performance: an even deeper shine, superior beading and unprecedented durability. The pinnacle in car care.

The new formulation surpasses its multi-award winning predecessor and all known rivals. It delivers more than twice the durability of its closest competitor. A testament to Autoglym's unbeatable quality is exclusive recommendation by an ever increasing number of the world's leading car manufacturers, including Jaguar, Aston Martin Lagonda and Bentley.

To experience the ultimate results, ask your retailer for the limited edition Autoglym Super Resin Polish packs that include a complimentary premium Autoglym Hi-Tech Finishing Cloth.







Heikki Kovalainen

He can confirm that he'd sign Fernando Alonso and Jenson Button if he owned his own team. As he can also confirm, it's quite awkward when you meet Jean Todt in a lift and he doesn't actually have a clue who you are...

WORDS JAMES ROBERTS PORTRAITS GLENN DUNBAR/LAT

It's decidedly chilly on this crisp Barcelona morning. We're just a few days into the 2012 F1 season and the second day of testing is just about to commence at the Circuit de Catalyuna. Strict testing rules mean that only one car from each team can run on a single day and today it's the turn of Caterham new boy Vitaly Petrov to clock up some mileage in the CT01.

That means, post-tech briefing, the team's other driver, Heikki Kovalainen is free to take your questions on life at Caterham, the pressure of formerly being team-mate to both Fernando Alonso and Lewis Hamilton – and what it was really like to work with Flavio Briatore.

The heaters are turned up high in Caterham's tidy motorhome; Heikki takes off his jacket and eyes up the question cards. He's very happy with the running in the new car so far and ahead of the first race is buoyant about the CTO1's

potential. Of course, no one quite knows where they sit in comparison to the opposition, until they get to Australia. But, for now, in the cold pre-season, Heikki chats warmly as he turns over the first card...

How do you rate your chances of scoring points for Caterham this year?

Cynthia Mathews, Singapore

I think the chances are better than in our previous years as Lotus. I think it's hard to say exactly where we are at the moment; we don't know if we are close yet or not. I think we've made some progress, but apart from that it's hard to say. The new car feels better thanks to the regulation changes, but we still need to work a bit harder at the front to make the car sharper into the corners, although that's less of an issue — it's the rear that's the struggle.

Most people believe Fernando Alonso to be the best driver in F1. As a former teammate of his, what do you think it is that sets Alonso apart from the rest?

Michelle Slater, UK

I don't believe that Fernando Alonso is the best driver; I don't regard any driver as the best. They all have to be beaten and any serious race driver has to take that view. He could be the second best... he has a lot of experience and when I was his team-mate, it was clear that he was a very quick, naturally talented driver. He's a hard worker and he's very good at setting up his car – he's probably better at setting up his car than any other driver who's ever been my team-mate. He's very good at getting everything out of the team and the group of people he's working with and that's something that I learnt from him when I was his team-mate.

world Mags



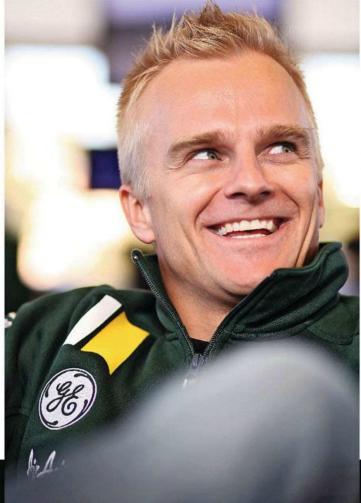
Air Asia

CATERHAN

RENAULI









If you could manage your own F1 team, which drivers would you hire?

Jack Leslie, UK

I would hire Alonso, but the second choice would be a difficult one. If I couldn't hire myself, then Jarno's free... no, maybe it would be Jenson Button. They would work well as a team and Jenson is mature enough to work with Fernando. So those two.

What are the pros and cons of racing at the back of the field after you've raced with a top team?

Dani Damah, Lebanon

Well the pros are that you can make yourself relatively good. You can drive the car as hard as you can and then people in the paddock will take notice of that. If you are in a top team and you struggle, you'll immediately put yourself in a risky position and people will regard you as an average driver. In my McLaren days my career was at a low point - that was a tricky moment. People thought that it was a failure because it didn't quite work out as it should have done. But since then I've changed a lot of things and feel like I've been able to turn it around. It's still working well at the moment and the plan is to get back on top. The cons are not being able to compete with the world's top drivers at the front of the field. That's what I miss.

What was it like to work for Renault boss Flavio Briatore?

James David, UK

It was good to work with him, I enjoyed it and I think he was a very good leader. He was tough at times and I think I wasn't strong enough to handle it at the time. But I learned a lot from him and I think that I would now be able to handle that type of environment. I liked working with Flavio; he picked me from the early stages of my career and he helped me with the Renault young driver development programme and he was someone who could really push the team forward. He was a bit of an old-school guy who really pushed people and you just had to be strong enough to take it. As a character, I'd say he's missed by F1, but I don't know if it's in his plans to return.

What inspired you to be an F1 driver?

Callum Barnard, UK

It was because I wanted to drive the quickest cars in the world possible. That was my only motivation. I could easily have turned towards rallying. I nearly pursued that as a career because I was really into rallying when I was younger. But once I'd started karting, I decided to go the single-seater route instead. But speed is still my motivation. Actually, my dad races: he does the Legends championship in Finland and he also did a little bit of rallying, too.

car is not perfect? Thierry Sposito, France

No, Mike doesn't cry. He is a very strong leader and he's very good at what he does, putting a group of people together and giving them a lot of responsibilities. He knows exactly what he wants from the team and no, he certainly doesn't cry. He doesn't really even ever get mad; he's just very demanding. When things go well, he's the complete opposite, he'll be the first person to come and say: "Well done!"

If you were offered a drive at McLaren again, would you take it or not?

Sophie Tolley, UK

I suppose I would have to consider it. I have nothing bad to say about them; I think they're a great team and all I can say is that I would be stronger now than I was when I first went there. I would be able to get more out of the team and more out of the car - but I haven't had any talks with them about returning.

Who would you say is the better drummer: you or Eddie Jordan?

Yusuf Meral, Turkey

I think Eddie is probably the better drummer and I'm the better racing driver. I never played with him, but I have played with some other musicians - I'm just an amateur really.

Out of all your F1 team-mates, who has been your toughest opponent?

Craig Ames, UK

On the race track I'd have to say Lewis Hamilton.

Being Finnish, have you ever been tempted by the World Rally Championship?

Billy Egerton, Ireland

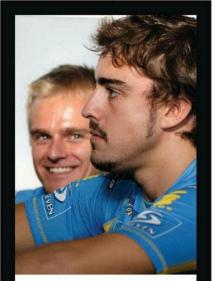
Yes, I was tempted by WRC. I still enjoy watching the events and it's something I think I would like to do, but there is no time to do it at the moment. And you saw what happened to Kimi: it's hard to change disciplines like that. It's tough at the top level of a sport and people put a lot of work into it. If you're not used to it then it's hard to succeed. Kimi wasn't missing much, but he looked average. He never really got the chance and it's hard to compete against the best people in the sport who have been doing it for many years. If you put Sébastien Loeb in a Red Bull F1 car he'll be last, probably not by a big margin, but just four or five seconds is enough.

Is it true that as a Scandinavian you can drink your own bodyweight in vodka?

Matt Pegler, UK

[Laughs] No, I can't drink my own bodyweight in vodka! I actually haven't drunk any alcohol since last Easter, so I'm teetotal.

Does Mike Gascoyne cry a lot when the YOU ASK THE QUESTIONS



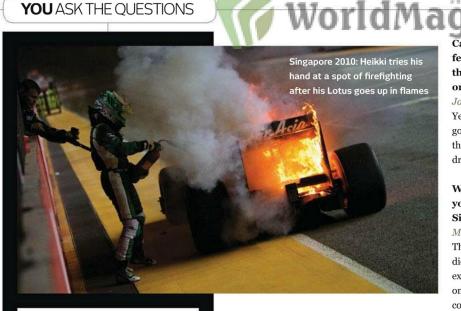
"Of all my Formula 1 team-mates, out on the race track, I'd have to say that Lewis Hamilton has been my toughest opponent"



Did you feel that during your time at McLaren, the odds were stacked in Lewis's favour or were you always treated as a true equal?

Richard Chernick, UK

When I joined the team, Lewis was the one who was already established at McLaren. It was as simple as that really and I have nothing bad to say about the team. Perhaps there were some occasions in qualifying when we might have been a few kilos different in strategy, but the problem was that I didn't enforce my own position strongly enough. But I don't want to get into all that to be honest, it was a long time



"Winning the Race of Champions was a pretty good moment - it was such a surprise. I beat Michael Schumacher and was faster than Sébastien Loeb in the rally car"



ago. I would say that in F1 you have to be strong and you have to stamp your authority yourself.

Apart from the colour scheme, you've roughly kept the same helmet design since your F1 debut. Do the three bands on the side have a specific meaning?

Benjamin Vinel, France

The idea for the design actually comes from JJ Lehto. He used to race with a similar design and I used to support him when I was younger and

so I used a similar style - that's how it all started. So my designer has continued to follow a similar route.

Will you be having a few vodkas with Kimi this season?

Philip Cambridge, UK

No I won't because I'm not drinking alcohol, but I'd be happy to have a party with him. I've never been a heavy drinker to be honest.

Tell me, did the car feel strange on the lap before your wheel exploded in Barcelona 2008, which caused you to crash heavily into the tyre wall?

Ales Horvat, Croatia

No, it didn't. I don't really remember, actually. I recall starting the lap and rounding the last corner. I think Lewis and Robert Kubica went into the pits and I was leading the race and had two or three laps worth of fuel to carry on, push and try to gain some ground. And then the next thing I remember is that I was in hospital after blacking out for a few hours. So there was no warning, it was an instant failure that took me into the wall. If there was any warning, I would have slowed down.

How did you feel when Mark Webber crashed and launched over the top of you at Valencia back in 2010?

Bethany Andrews, UK

When it was happening I was fighting Mark and defending a little – but not too hard – although I didn't want him to just drive around me. I didn't see what happened to him at all, I spun around, I know that the car was damaged and I drove back round into the pits and I said to the team, "He ran into me!" It was only when I saw the video later that I went, "Wow!" So I didn't feel much at all really - it was just a bump that spun me around.

Can you see why Lewis and Fernando fell out? You've worked with both of them, so are you able to shed any light on their relationship?

Jay Carter, UK

Yes, I can see why they fell out - but I'm not going to tell you why. I think everyone can draw their own opinions and I don't really want to get drawn into it, as I'm friends with both of them.

What was going through your mind when your car caught fire during the 2010 Singapore Grand Prix?

Michael Gillespie, UK

The priority was just to stop the car because I didn't want to go through the pitlane in case it exploded. It actually looked a lot more dramatic on the outside then it did on the inside - I couldn't even feel any heat. It was just an oil line that had broken.

I've heard that you are a big fan of Nightwish. What other Finnish bands do you listen to?

M-P Eloranta, Germany

My music taste goes from one extreme to the other. I'm a big fan of Nightwish and Nickelback, but I've also been to Lady Gaga concerts twice - she's really excellent live. But I'm more a fan of rock and heavier sounds, like Metallica.

What has been your career highlight? Winning a Formula 1 race or kicking butt in the Race of Champions?

Francois Viau, Canada

It was winning a Formula 1 race, for sure. Winning the Race of Champions was a pretty good moment, it was such a surprise, as was the F1 race win because I was actually settled in second place behind Massa, about 13 seconds behind him, and I thought the race win was over. In the Race of Champions I beat Michael Schumacher and was also quicker than Sébastien Loeb in the rally car. After the event I went back to the hotel, got into the lift and Jean Todt, who was boss of Ferrari at the time, got in at the same time - he looked at me and said, "What's your name again?" I said, "Hi, I'm Heikki Kovalainen. Nice to meet you."

Are you the best golf player on the grid?

Anders Holmberg, Sweden

I believe I am, yes. Rubens Barrichello played off a ten or 11, while I play a seven now. I played Rubens in Abu Dhabi at the end of 2010 and he beat me then, but now I would say that I'm a step ahead of him. Although maybe he has more time to practice now that he's out of F1. Also on the grid, Lewis plays off a handicap of about 15 or 16 and Fernando about 20. I'm not sure about anyone else. Our truckie at Caterham, Jon Daly,

You've raced for Renault, McLaren and now Caterham. Can you tell us about the cultural differences between the teams?

They are all great teams, whatever people might say from the outside. They are all very friendly and very professional. McLaren are a huge team

and Renault are slightly smaller - you

can see the differences at the factory and the way the teams react to trouble. I mean McLaren can also design and build a new car if the first one isn't so good; other teams can't do that.



is very good – I play with him quite often – and also John Massey over at Lotus. He's great; he plays off six.

What was the secret to outqualifying F1's qualifying specialist Jarno Trulli?

Chris Thompson, UK

I don't think that there is any particular secret. The performance level is where it should be and if there is any one reason, I think it's because I can set up my car better now and know what I need to do to get it working. I'm also sharper at making decisions that will change the car and get the balance right. But now, I have a new team-mate for this year. As with any other teammate, I suspect we'll work together to push the team forward, but also I'll try to beat him as well. I expect him to be strong, so I'm not going to leave any margins and I want to try to stay ahead. It was a team decision and I'm just getting on with my job regardless.

There have been quite a few Finnish racing drivers over the years. Do you think that Finland deserves to have its own Formula 1 race, too?

Linda Hardy, Australia

I don't know whether it's a realistic prospect or not. I don't know if we deserve it more than anyone else. At the moment, we don't have a track that is up to the required standard – we have a short summer, too.

Have you ever wanted to drive your father-in-law's TVR Tuscan Challenge car?

Matthew Jameson, UK

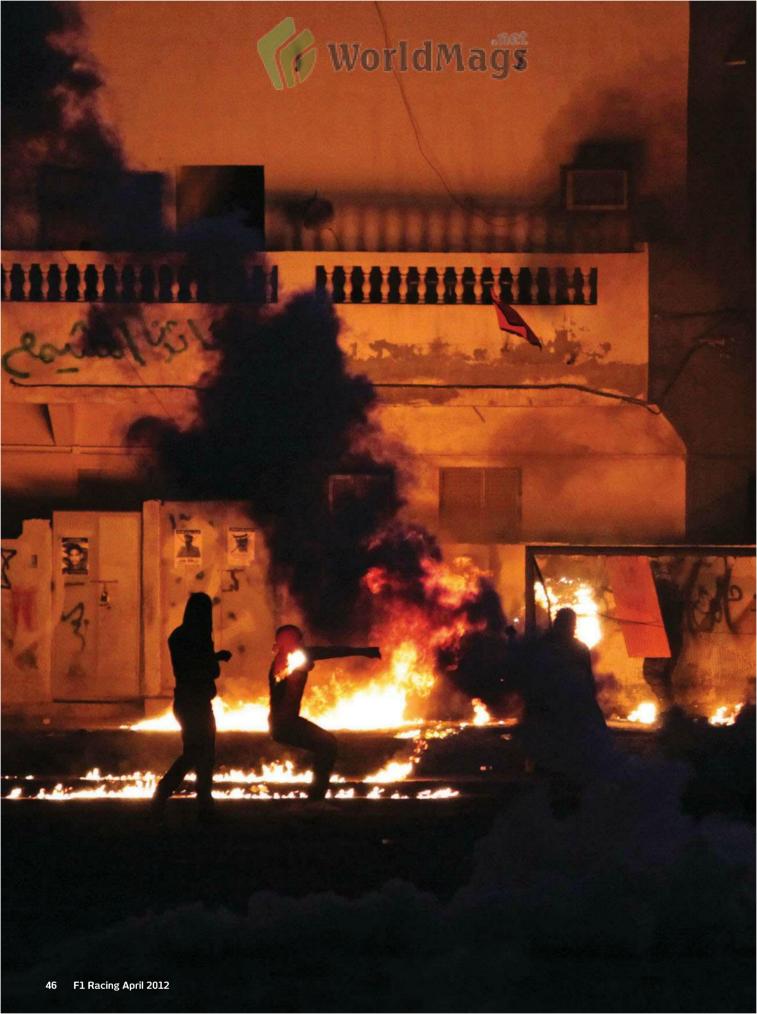
No, not really. They were great cars, but I've never really been into endurance or GT racing and I can't see myself participating in something like Le Mans – I'd much rather go rallying I think. My father-in-law, Steve Hyde, probably knows how to drive those cars much better than I do – but head-to-head, over one lap, I'd like to think that I could beat him.

JOIN OUR READER PANEL

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



Scan this code with your smart phone and you'll be taken to our Global Fan Survey page



Not exactly Monaco, is it?

Bahrain's inclusion on the 2012 calendar raised eyebrows back in December; continued unrest meant this was the scene as recently as a few weeks ago. But as a fan of both the country and the race, F1 journalist David Tremayne argues the sport should leave it a while before it returns...

few years back, my colleague Joe Saward and I had an interesting experience in Bahrain. The incident took place on the Saturday night as we were attempting to make our way back to the Elite Suites Hotel, out near the reclaimed land by the coast, just downtown from the airport. Our route was continually blocked, and it was clear that some sort of trouble was occurring.

We'd got used to the odd rubbish-bin fire on the wasteland around the hotel as part of a regular but low-key Shia protest against the ruling Sunnis, but this was clearly something bigger and every street seemed to be occupied by police roadblocks. Then Joe noticed that one Range Rover seemed to be getting through the traffic more easily than others.

At the next block he jumped out and spoke with the guy at the wheel, before jumping back in and commanding breathlessly: "Follow that car!" Amid a lot of kissy-kissy stuff between our new guide and the cops, we made it home quite quickly as the rest of the traffic stream fell behind, its progress still obstructed. After we pulled up outside the Elite Suites, I got out of our car and went over to thank our new friend. He was a smartly dressed fellow, who looked like he might wield plenty of clout. "My friend and I have had a lot of fun trying to figure out who and what you are," I said, and he grinned as he simply replied: "Enjoy your stay in Bahrain."

Last year the humour suddenly went missing as the situation between the ruling Sunnis and the repressed Shias finally boiled over and things became very ugly indeed. Another friend

was over in Bahrain for the GP2 races that preceded the grand prix, as the rebels were ramping up their protest action, and he told me a very different story of tension and injured people. "I was talking to a young Englishwoman at the airport as we prepared to leave. One of her arms was in a sling and I asked her how she'd broken it. She told me that she and her boyfriend had been standing innocently in a crowd when the police started indiscriminately firing rubber bullets at them."

o should F1 go racing in Bahrain this year after last year's race was postponed and then cancelled, and when things are still very precarious and demonstrations marred by violence have continued? It's a question that's almost as tricky as the political situation itself. I love Bahrain, and some of the reasons for that are personal. But I confess that I didn't always 'get it'. When we first visited in 2004, my mind was full of hackneved mental images which, if they didn't amount to prejudice, were at least tainted by pre-judgement - if you get the semantics. But gradually I came to like the place, then to love it as the memories built up.

In 2008 we went out a week early as Joe and I were attending the first Middle East Motor Sport Business Forum with another friend. It was a grim week, because our close family friend David Leslie had been killed the day I left for Bahrain. But I drew heavily on the massive enthusiasm that the Bahrainis and many other Middle Easterners who spoke at the forum evinced for the sport. Their ancient world was F1's new





PERFECT





NOE

EQW-M1100DB





The solar powered Edifice EQW-M1100DB offers a lifetime of use without a change of battery, a 3D chronograph and is equipped with Wave Ceptor multi-band 6 radio-controlled technology for perfect timing wherever you are. For stockist information please visit casioracing.co.uk

www.casioracing.co.uk





world, and I started to get the feeling that we were witnessing the start of something big and exciting. All the people we spoke with while we were there had exactly the same feelings for motor racing as we did, and their burgeoning passion for it was endearing.

Fast forward to the days following the 2011 Canadian Grand Prix. I had a telephone conversation with Bernie Ecclestone, who was the one who finally advised the Bahraini organisers that they should cancel their race. He was, as ever, on amusing form. "I'm thinking of making my own fact-finding trip out there," he told me. "Maybe taking some journalists." "Well," I replied, "make sure they're UK-based, because we seem to be the only ones in the world who care one way or another about all this." "Yeah, maybe you could come out with me," came the response. Hmm...

But we all accept that the reality in Bahrain isn't at all funny. Most of us will have read or at least seen extracts from the 478-page report by the Bahrain Independent Commission of Inquiry that was released last November, and its scathing findings have been widely reported. And many of us will have heard Bahrain's very well-constructed defence, which has gathered pace recently, with tame journalists pumping out copious rebuttals of the world's perceived view.

Much has been made of the fact that the political situation in a number of countries that F1 visits could be deemed as being as troubled as Bahrain's. China doesn't have such a great human rights record, and nor does the US if you believe all the stories about Guantanamo Bay. And it's not as if F1 hasn't gone to some iffy places in the past. It raced in Spain when it was under General Franco's dictatorship; under similar regimes in Argentina; and also in South Africa when there was still the possibility of violent uprisings as apartheid reached its unpleasant zenith.

If the argument is solely that sport should be above politics and that Formula 1 shouldn't be seen to race in countries run by notorious or infamous regimes, then a lot of places F1 visits should also be subjecting themselves to careful self-scrutiny – and Bahrain shouldn't be singled out. But to me that isn't the point, even though many of the stories about numerous abuses of human rights are outrageous and unpalatable. Like I said, that isn't exclusive to Bahrain. It's the possibility that the dissenters could resort to violence at the race to make their point.

The myriad dignitaries, team principals and drivers will all be cosseted, just as they are when they are kept away from the rabble by flying first class. And this time they're going to be very heavily protected. So I think we are unlikely to see a repetition of Juan Manuel Fangio's

extraordinary kidnap by Cuban rebels back in 1958 – or what may have been an attempt to do the same to Jenson Button in Brazil in 2010. But what about everyone else? F1 is my job and my passion, and if it's my decision whether to go or not, then of course I will. It goes with the badge. But I have the freedom to make such a personal decision because I work for myself. My concern is for the foot soldiers who perhaps don't get that choice. The mechanics. The teams' lower managers and public relations people. Some of my fellow journos.

Over the past decade there have been many gunpoint hold-ups of team personnel at Interlagos in Brazil, most recently involving the Toyota and Sauber teams. All of us are minions in the overall scheme of Formula 1 things, but perhaps not to angry men with guns who don't know enough to make such distinctions and might therefore simply seek out anything or anyone to do with the big event to exploit in order to ram home their point.

And that's my point. I think that's the critical difference right now between Bahrain and anywhere else in the world that you might care to accuse of similar moral and political issues. The fact is that Bahrain's rebellion is still active, and that going to the heart of the uprising would be akin to Formula 1 sticking its head into a lion's mouth. That's my primary cause for concern, and the reason why we should leave it a few more years before we return.

• A spokesman for the Bahrain International Circuit told F1 Racing: "As far as we are concerned, there are no problems and F1 visitors will be made extremely welcome. As it would in any year, the BIC security team will ensure safety is maintained in and around the track and will coordinate closely with the relevant government authorities." A spokesman for the Bahrain Embassy told us: "We would like to reassure you that it will be extremely safe for you to travel to Bahrain any time throughout the year."



"My concern is for F1's foot soldiers who don't get a choice about going to Bahrain

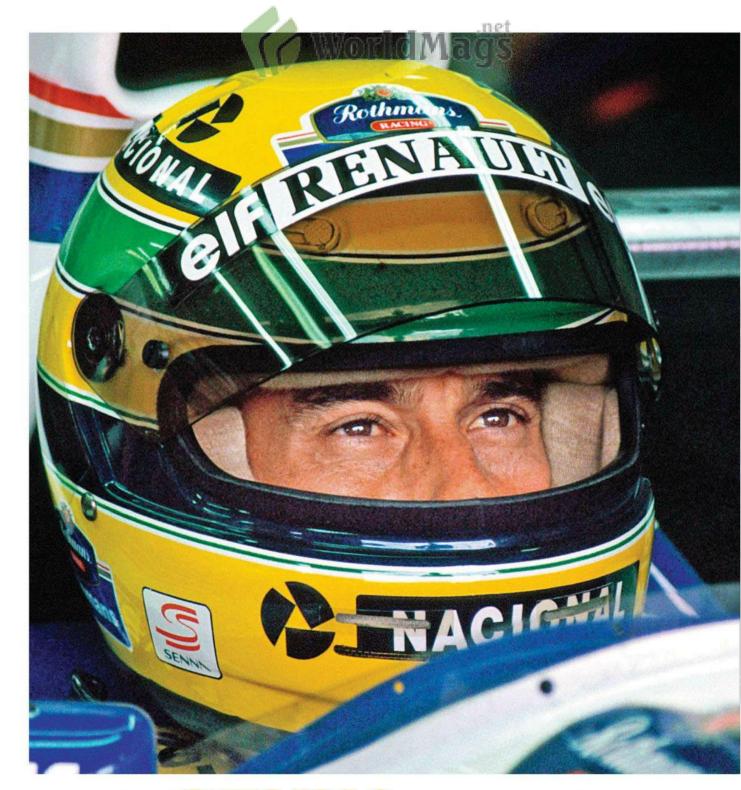






Despite scenes like the one shown above, race organisers insist security will be maintained at the GP

HOTOS: CHARLES COATES/LAT; STEVEN TEE/LAT; REUTERS/HAMA



THE SENNA NAME IS

F1 Racing catches up with Bruno and finds a driver itching to prove himself...

WORDS JONATHAN REYNOLDS PORTRAITS GLENN DUNBAR/LAT; SUTTON IMAGES



BACK AT W

and eager to start a fresh chapter for his family name and a familiar team





"I went to the Williams factory museum and there were cars I'd seen racing when I was a kid. It gave me the tingles"

imilar words to those written above will have been uttered by many of the visitors lucky enough to have been shown around the treasure trove of cars at Williams' Grove headquarters, but few would have felt the weight of history quite as strongly as this particular visitor. This is a man whose uncle had made exactly the same pilgrimage 18 years earlier, similarly full of hope and expectations and, like him, with a contract to drive for the legendary team in his back pocket.

Tragically, that promising relationship was to end just three races in. At the time it seemed inconceivable that anyone from his family would ever want to step foot in a racing car again – let alone drive in F1 – and yet 6,470 days on from that terrible day in May 1994, Williams confirmed that Bruno Senna would race for them in 2012.

"I tell you what," says Bruno with a smile and a disbelieving shake of the head, "I knew coming into motor racing would lead me to walk common paths with Ayrton, but it's a very strange feeling when I get to race for the same teams that he raced for, and with the same colours."

But the strangeness of the situation extends beyond Bruno following in his famous uncle's footsteps and donning the Williams blue and white (ironically after racing, like Ayrton, in Lotus black and gold), as he's joined a squad that still employs many of the staff who worked with Ayrton in 1994 – not least team principal Sir Frank Williams. "When I joined the team, I did two days of factory tours to get to know everybody because there are 500 people," recalls the 28-year-old. "Some people had photos of Ayrton from when he came to do a factory tour back in 1993/1994. It was such a strange feeling knowing that some people had been there when Ayrton was here and had got to know him."

There's that word again: 'strange'. But if it all feels a little strange to Bruno, it must surely have felt even stranger for his family, seeing him join a team with which there's such an emotional connection. After all, the car has carried Ayrton's famous double 'S' motif as a memorial ever since Imola.

"I believe that things happen in life for a reason, but there is no negativity from my family – they are thrilled about it," Bruno says. "From my perspective it was purely a racing deal; it's my racing career. But as soon as you are past that then you remember the history — and everyone in my family was thrilled that we managed to secure the drive here. Things didn't end up so well in the past but it's a great chance to start afresh and create a new, good chapter."

Part of the family joy may have been down to the fact that Bruno's not exactly had an easy time trying to land a secure F1 seat. It all started back in late 2008 after Senna finished a close second in the F1-supporting GP2 series. His manager, Chris Goodwin was desperately trying to persuade F1 teams to give the young Brazilian a chance. Unlike many of the rivals he'd beaten that year, Senna, contrary to popular belief, didn't have the budget to buy an F1 test and so when he was offered an opportunity to test with Honda he grasped it with both hands, lapping only marginally slower than regular driver Jenson Button. A race drive with the team looked a certainty until Honda pulled the plug, leaving Ross Brawn to pick up the pieces and turn them into Brawn GP. Given the upheaval, it wasn't surprising that Brawn ultimately decided to plump for the experience of Rubens Barrichello over the unproven Senna. The fact that it was Senna who finally ushered the veteran Brazilian out of F1 somehow seems quite apt - after all, to lose out to Barrichello twice would surely have been a particularly bitter pill to swallow.

"Yeah, I think if I hadn't got a race seat this year it probably would have been game over, so it was very important I was able to get it," says Senna candidly. "It's a bit unfortunate that Rubens and I have fought for the same seats twice now. We're friends and even after this we're still friends. There are absolutely no personal feelings involved — it's just sport. We both know how Formula 1 works and how one person coming in will mean one person going out. On the day they confirmed me, I called him for a chat. It was a bit of an awkward chat — like talking to someone who had just been dumped by their girlfriend or something — but in the end a good relationship prevailed and he wished me well."

The Senna camp began discussions with Williams at the Japanese Grand Prix back in October and although the team were interested in the Brazilian, team principal Frank Williams felt "it was essential that we spent as much time with him as possible to understand and evaluate him as a driver" before offering him a contract. With testing restrictions in place it was impossible for Williams to







"When Williams confirmed me, I called Rubens for a chat. It was a bit awkward"

evaluate Senna out on track so, instead, they put him through a whole host of physical, theoretical and driving tests. The team were impressed with what they saw - on the simulator he proved to be fast, consistent and capable of delivering excellent technical feedback. This was of crucial importance; when Brawn rejected Senna in favour of Barrichello, he cited the elder Brazilian's superior technical ability as one of the main reasons. As a consequence, Goodwin advised Senna to spend 2009 in sportscar endurance racing, honing his



Senna and Barrichello: still mates, even after Bruno nabbed Rubens' drive at Williams

technical understanding. It seems to have done the trick. At the pre-season Jerez test, Williams' chief operations engineer Mark Gillan described Senna's feedback as "excellent, very precise" and "as good as I've seen". Perhaps the team won't miss Barrichello's experience too much this season after all.

"They knew I could go quickly because I'd done a good job in a few races last year, but they wanted to get to know me better," says Senna of his pre-contract tests. "They tested me in terms of my knowledge. I had lots of meetings with all the engineers and they tried to extract whatever they could from me. I think what they found is that I'm not a rookie driver any more - I have quite valuable experience."

Indeed, Senna is far from being a rookie. Going into this season he'd started 26 grands prix for HRT and Lotus-Renault, but remember that when Sebastian Vettel was 19 he was scoring his first F1 point whereas Bruno didn't start racing cars until he was 20. And even though 2012 is his third season in F1, it's the first year he'll start a season with an extensive pre-season testing programme behind him.

"I think this is the real start of F1 for me," he says. "I've had two chances so far, one of which was a complicated one with a team who lacked structure, then last year with Lotus-Renault I had a car that I could score points with on occasion. I took the most out of these opportunities but now it's a time where the preparation is the right kind of preparation. I started the season on the same level as everybody else. From here I, along with everybody else, can check my performance and understand what kind of results I am capable of delivering."

Double-gold-medal-winning sprinter Michael Johnson is here to help

On 1 August 1996, sprinter Michael Johnson broke the 200m world record on his way to two gold medals at the Atlanta Olympics; two months on, Damon Hill took the drivers' title for Williams at Suzuka. On the face of it, these are two unconnected events, yet just over 15 years later Johnson has long since retired, while Williams have slipped towards the back of the F1 grid.

Unlikely though it may seem, Formula 1 fan Johnson now finds himself in the thick of the top tier of motorsport as he plays his part in trying to return a once-dominant team back to the top of the sport. His company, Michael Johnson Performance, have been brought in to help improve the speed of Williams' pitstops, and he duly spent time at the Grove factory back in January seeing where he can help their pit crew save vital time.

"We spent time learning about the stops and the crew to formulate a training programme to make them faster," says Michael. "Look at the movements required and you'll see that there's a lot of athleticism needed to execute them. Our objective is to minimise fatigue by the time each pitstop in the race comes around."

Williams aren't the first team to do this –
McLaren and Red Bull both have fitness
programmes for their mechanics – but the
team are hoping that a proven

winner like Johnson can help with an area that's critical for all teams. So what are his specific targets – beating Mercedes' sub-three second pitstop of last season?

"I'm focused on consistency," he says. "I don't want the crew to be focused on a particular time, but rather on setting good times from stop to stop. People don't talk about consistency because consistency isn't sexy. It's one thing doing a really fast stop, but it means nothing if only 15 per cent of the rest of the stops came even close to it."

For Johnson, going from being a fan to working with a team has made him see F1 from a different perspective. "When I see a pitstop now, I think, 'Yeah, I see some wasted motion there," he confesses. "We've been thinking about the number of steps a guy takes to change a wheel and that kind of thing: it's different when you watch it from that perspective."

Teams will spend £10million to gain a tenth of a second, so it's no wonder Williams have brought in Michael Johnson to stop them wasting a few seconds on a pitstop. He nods. "So by that calculation we should at least be worth a couple of million, right?"



When Ayrton Senna joined Williams they'd just ended a season of utter dominance, in which they'd won ten of 16 races (Senna won five of the other six for McLaren). The Williams his nephew has joined couldn't be in a more different position, following their worst season in 33 years.

"When we started speaking to them we were aware of the year they were having and that it was not particularly great," says Bruno. "I think everybody is very conscious that they have to give everything otherwise it's going to get ugly. The pressure is on for everybody – the team and me. It feels like things have been given a nice shake-up. We hope the pieces fall in the right places and then we can build from there."

The pressure is certainly on for Senna and his GP2-sparring-partner-turned-team-mate Pastor Maldonado to lead the team out of the doldrums, but you get the sense that after dealing with the pressure that comes from his family name, Bruno is more than capable of coping.

"In fairness, the biggest pressure I have is my own expectations of my performance," he reveals. "Whenever I feel I have underperformed I'm very tough on myself and I don't think other pressure is anywhere near as relevant as that. Of course there is outside pressure and expectation but that's been there ever since I started racing. I stopped caring about that a while ago now."

Before the season, Senna linked back up with renowned driver-coach Rob Wilson who helps drivers hone their skills at the wheel of a road car. Other drivers can be very reluctant to talk about such things, as if admitting that there's room for improvement is some kind of fault. But again, Senna doesn't seem to care about those perceptions, particularly as the skills he's been honing could prove vital under current regulations:

"If you're open-minded there are always places to improve. I got a lot out of working with Rob. I first met him when I came to Europe in 2004, before I did Formula BMW. Back then, I wasn't totally fluent in English so it was hard to pick up everything he was trying to get across. Now I'm more experienced, the days I've done with him have been much more valuable. We've worked a lot on understanding the car's platform and trying to extract the most out of it without damaging the tyres. He knows I can drive quickly and he doesn't need to teach that, but there are a few areas that can always be improved so we've been concentrating on those."

Williams are confident that the FW34 is a step forward compared to last year's disappointing FW33, but in the current F1 climate it's very rare for a team to jump forward more than a place or two in the general running order. With this in mind, what kind of expectations do the team have of Senna for the coming season?

"Only to take 100 per cent out of the car every race, be fast, not make any mistakes – just easy stuff like that," he jokes. In reality though, he knows that's exactly what they will expect. But then, as Bruno says: "They wouldn't have given me the chance if they didn't believe I could do it."

Who knows, perhaps one day when the FW34 joins the illustrious cars in the Williams museum, it will also have the kind of history that makes people get the tingles.





Malaysia is one of the toughest races of the season, with temperatures reaching 50°C inside the cockpit. As drivers routinely lose up to six kilograms through sweat, dehydration can seriously affect performance. So how do they prepare to cope with the heat?

WORDS MATT MAJENDIE



he temperature gauge on the wall of the medical centre at the Sepang International Circuit rarely drops

below 35°C and often edges towards 40°C over the course of the Malaysian GP weekend. Inside the cockpit, things are significantly hotter, with the mercury on the thermometer teetering around the 50°C mark for the duration of the race – and that's in addition to about 75 per cent humidity.

As a result, an F1 driver can lose up to 6kg in weight over the course of a race that lasts a little more than an hour and a half – and all of that simply through sweating profusely in the searing heat.

Along with his peers, Vitaly
Petrov has grown accustomed
to having to drive in high
temperatures at races such as
Bahrain, Singapore and Malaysia.
He's not prone to exaggeration,
but Caterham's Russian driver
likens the experience of driving in
such hot and humid conditions as
verging on the impossible.

"In the heat, it's just so hard," he explains. "You can't breathe properly. There's no time to relax, you're trying so hard to concentrate on not making mistakes. You try to brake late but everything's so tiring; everything is very, very tough."

The humidity of Malaysia and Singapore adds a further dimension to the drier heats of, say, Bahrain or Abu Dhabi, which Petrov describes as "tough, but not too tough".

"Malaysia is very, very tough the hottest race on the calendar — but, for me, the toughest race is Singapore. Both are very hot and very difficult to drive. At times, it's impossible. The heat is something else. It's so difficult in an F1 car."

Each driver has a drinks bottle stashed in the cockpit of the car. Attempts are made to keep it as cool as possible – invariably it is filled with ice before being placed in the car during the final stages of preparation but, because of the temperatures in places like Malaysia, it heats up in no time.

Williams driver Bruno Senna admits: "In a hot race, the water bottle is not the most pleasant thing to drink from. Imagine you're having an electrolyte drink at the temperature of hot tea. That's what it's like, really.

"But you still have to drink it to avoid dehydration and overheating. There's a very real danger of both at a circuit like Sepang, which is a very high G-force track where you're being made to work hard the whole time. For sure, it's one of the biggest challenges of the season, but it's one we're all prepared for. You have to be if you want to be a racing driver."

Preparing for a challenge such as this is no easy task, according to Martin Poole, one of the cofounders of Pro Performance, who act as official sports scientists to the Caterham race team.

In fact, Poole goes as far as to say "you can never fully prepare for it". At the company's Surrey headquarters, they boast a heat chamber, complete with a bespoke steering-wheel, in which drivers can simulate any level of heat in a bid to recreate a particular race's climate.

"Training in any kind of heat or, say, the heat chamber, can't teach the body not to sweat or to sweat less but it gets the body used to working in a hot and humid environment," Poole explains.

Whether they're in a heat chamber or at the pre-season test in Barcelona, the drivers the required nutritional programme for each driver.

WorldMa

F1 drivers tend to have a punishing winter training regime focused on their aerobic fitness, which is of particular benefit at hot and humid races.

As Poole points out: "If a driver has an advanced level of aerobic fitness, he is better equipped to deal with the heat because his body will not need to distribute as much blood flow to the skin, which means more oxygenated blood is available to working muscle tissue and the brain. Also, the level of blood plasma is higher, which increases the viscosity of the blood, meaning a greater volume is available to be used around the body."

The pre-race preparation begins in earnest a week before a race with a diet that's easier to digest and an increased fluid intake to ensure drivers stay as hydrated as possible. In fact, watch any footage of a hot race weekend and the F1 drivers will be seen walking around with a bottle of drink in their hand or with their physio carrying one for them.

Dehydration is a very real danger to an F1 driver. Poole explains: "Dehydration affects decision-making a lot more because less blood is going to the brain." This can manifest itself in drivers losing peripheral vision, which can be hazardous at high speeds. "I've heard drivers mention loss of peripheral vision, but the other effects of dehydration are that

is fairly minimal during a race.
Their physios are always at pains to encourage them to drink more, according to Poole but, with so much going on in the cockpit of an F1 car, drinking tends to come low on a driver's list of priorities.

Of his own in-race drinking regime, Petrov says: "You don't get enjoyment from a drink in a race: it just stops you having a dry mouth. My physio puts different things in it like electrolytes to help with conditions but whatever he puts in, it becomes a hot drink. They tell you to drink lots of it and I try."

Poole adds: "Our drivers never drink as much as we'd like them to in the car, which makes their pre-race nutrition vital in terms of ensuring they have the reserves they need to get through the race."

At a race weekend, drivers need to strike a balance between staying out of the heat and acclimatising. Their preparation can be as simple as standing out of the sun under an umbrella or else wearing a 'cool vest', which tests have shown reduces heat production during a race and can improve performance by as much as five per cent.

As Poole explains, "This may sound like a small percentage but it can make or break a driver's race."

Drivers also get help in the hot conditions from the outfits they are wearing. While their fire-proof Nomex race suits might look unfathomably hot for such temperatures, they actually play a key role in keeping a driver cool.

DuPont Personal Protection, who make the Nomex suits, have tested them on fighter pilots and firefighters to ensure they are up to the rigours of F1. The garments are crafted following what the company calls a 'sweating torso test' to enable them to see how a driver might function under heat stress.

DuPont's Andreas Fries explains: "We've done a lot of research into what heat stress means for decision-making capabilities. Normally the core body temperature is 37°C – that's the stage when your brain functions well. A 0.5°C rise has a five per cent effect on that, and by the time you get to 38°C, it will make you go

"Normal core body temperature is 37°C. By the time you get to 38°C, you'll go from being a controlled person to a completely uncontrolled rocket"

Pro Performance work with will have a sweat patch attached to their body to measure how their body deals with heat at different times.

Sweat analysis is carried out as well as urine and saliva tests, which are sent to a lab for more indepth analysis and, from that, Poole can map out both their decision-making and their reactions become slower," he adds.

The task of avoiding both dehydration and overheating is mainly done before the driver enters the car, through their physical regimes, their diets and the amount of fluid they have taken on board. In fact, the amount they drink



Extreme heat doesn't just mean personal discomfort. It can lead to dehydration, which impairs decision making, slows reactions and can also cause a loss of peripheral vision



WorldMags





from being a controlled person to a completely uncontrolled rocket."

It might look like a thick material, but Nomex, which was first launched commercially in 1967, is designed to keep the heat out – in its most extreme form, fire.

"Also its molecular structure means it gives a lot of surface for evaporation to keep the driver cool," says Fries. "Take, for example, a cotton suit. While wearing that, a driver might say 'I'm feeling nice and dry.' But a driver in a Nomex suit will feel even cooler as the water will evaporate quickly rather than just being absorbed."

However impressive the capabilities of Nomex and however

fit, well-hydrated and well-prepared the drivers are for the high temperatures of races like Malaysia, the reality is that a race in extreme heat is immensely tough.

As far as Martin Poole is concerned, he is at least marginally in awe of how the human body functions under such circumstances. "It's amazing how the body reacts under such stress," he states. "I heard of one boxer who could lose a stone, then put it back on again within 36 hours. Obviously I wouldn't recommend a driver doing that but, when talking about losing 2-6kg in fluid in a race, it shows just what the body of an F1 driver is capable of."





years and counting...

Incredibly, McLaren haven't won a constructors' title in over a dozen years, yet they've come close so many times. Can they reverse the trend in 2012?

WORDS JAMES ROBERTS PICTURE CHARLES BEST





Constructors' championship finishing positions for McLaren and Ferrari over the past 13 seasons...







At the end of the 1998 season, a very interesting statistic cropped up – both Ferrari and McLaren were tied in the number of constructors' titles they had won: eight apiece. Leading the all-time winners' standings were Williams, who had scored nine teams titles. Flash forward 13 years and the story is very different indeed. Neither Williams nor McLaren have added to their tally, yet Ferrari have scored a further eight titles, taking their total to 16.

Williams' downfall has been well-documented; going into 2012 it has been over seven years since they last won a grand prix. But McLaren's story is rather different. In the 13 years since they last won the constructors' title, they have won two drivers' championships (Häkkinen in

1999 and Hamilton in 2008) and have finished as runners-up in the constructors' standings seven times. They were even on course to end the drought in 2007, but were stripped of their points following the 'Spygate' scandal.

Luck may not be on the Woking team's side, but with impressive facilities, top-line sponsors, a decent engine and two of the best drivers in F1, it's almost inconceivable that they haven't won the title in so long. So what's going on?

"We ask ourselves that question every week," replies McLaren Racing's managing director Jonathan Neale. "I think we are nearly there... if you look at our history of race wins then we are consistently getting better. Some teams come and go, others nick championships from us and we've missed it on other occasions by just a couple of points. Formula 1 is hard and we enjoy the fact we are consistent winners over the long term, but our goal is to win both titles."

There have been occasions when McLaren have come very close to securing the crown: they were a mere four points off Ferrari in 1999 and just nine points behind in 2005. Even in 2010 under the new points system they finished on

454 points, second only to Red Bull's 498 tally. Yet despite having some of the best engineers in the pitlane and years of racing heritage behind them, the fact is that as F1's technical regulations tighten, the competition gets closer.

"I was looking at a photograph recently of about 30 people standing around one of our cars with Ayrton Senna in the foreground," says Neale. "The team had just annihilated the competition that year and I asked one of our mechanics, who was working with us back then, what it was like to get an edge with someone like Ayrton Senna in the team? And he replied, 'Yeah good, and the extra 100bhp in the back of the car helped, too!'

"Can you imagine a Formula 1 season now

where you could get away with an extra 100bhp or 60 points more downforce or a suspension mechanism that provides twice the grip? The reality is that this isn't the way the sport is run now;

we'll see the top four or five cars separated by just 0.15 per cent. Look at any product in the world where you compete against your opposition within a 0.15 per cent margin and you can see how hard it is."

Tiny margins, a loose wheel at a fumbled pitstop, a moment's misjudgment by a driver, a small failure that costs points, a malfunctioning DRS, a manufacturing fault or a design error. All of these things add up; everything must be right if you want to win the world championship.

As Ron Dennis told me on many occasions, continues Neale, "Formula 1 is a meritocracy and you earn your right to be the best. Formula 1 is about being good at everything. But if anyone knows the answer to why we haven't won the constructors' title in such a long time, then I'm prepared to listen..."

They need that answer quickly, if they want to start closing down that wins tally to Ferrari.





Ferrari McLaren







Barcelona - 13 May

SPANISH GRAND PRIX

Wide Selection of Weekend Longer Tours by Air



LE MANS 24 HOURS Self-Drive Packages with

Hotel or Camping Coach Tours & Paris Stop-Overs



Monte Carlo - 27 May

MONACO GRAND PRIX

Full Programme of Arrangements including Flights and Hotels



BRITISH GRAND PRIX

Nationwide Coach Service

Tickets, Hospitality, Hotels & Helicopters



ITALIAN GRAND PRIX

Weekends and Longer Tours Based in Como

Montreal - 10 June

CANADIAN GRAND PRIX

4 Nights in Montreal Montreal & Niagara Holiday



EUROPEAN GRAND PRIX

Stay in Valencia Weekends & Longer Tours



GERMAN GRAND PRIX

Heidelberg based Tours by Coach or Air

Self-Drive Packages



HUNGARIAN GRAND PRIX

Weekend By Air Budapest & Vienna 2-Centre Holiday





SINGAPORE GRAND PRIX

Spectacular Night Race **Direct Flights** 5 nights in Singapore

Delhi - 28 October

INDIAN GRAND PRIX

5 Nights in New Delhi

Scheduled Flights

ABU DHABI GRAND PRIX

Stay in Abu Dhabi City or the Oasis Town of Al Ain

Spa - 2 September

BELGIAN GRAND PRIX

Le Mans Tours 2012

Selection of Tours by Coach, Air or Eurostar

Self-Drive Packages

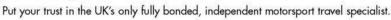
Austin - 18 November

UNITED STATES GRAND PRIX

Texas Hosts F1's Return to America

www.motorracinginternational.uk.com

The 20th edition of the MRI Tour Collection is now available. Visit our website for full details. As ever, we will be featuring each and every round of the F1 World Championship and the Le Mans 24 Hour Race. A small selection of our vast choice of travel arrangements is outlined above.









ven if you work in F1, it still has the ability to surprise you. You know: properly stop you in your tracks and make you shake your head and marvel about the lengths its participants

will go to simply to chase the tiniest advantage over their equally meticulous rivals. That point arrives as Pat Symonds is showing *F1 Racing* around the new race bays at Marussia's factory in Banbury, Oxfordshire – part of the complete overhaul of the team's headquarters.

"I often quote the fact that running an F1 team costs about £1,250,000 a week even before you start putting performance on a car," explains Pat, "and that's just to build the cars, take you racing and pay for travel. It's the money you spend beyond that that makes you go quicker."

Out comes the iPhone. The right forefinger hurriedly presses the calculator icon. "Right Pat, so even accounting for the summer shutdown, you're still looking at spending over £60million a year just to exist and compete?"

It certainly is an awful lot of money to spend – especially just to come last. Marussia are hoping that their remodelled factory will help them at least start moving in the right direction.

It would be fanciful to suggest that reorganising some premises could revitalise a team's fortunes, but what Marussia have done is slightly more than a lick of paint and some new lamp shades. One of the biggest problems the team faced in their Virgin Racing days was complete geographical chaos: the race team were based near Sheffield, the design office was in Bicester and the marketing team were located in central London. Saving time in F1 isn't just vital out on the track – it's important in every aspect of the operation. And when Pat was drafted in early last year to look at how the team could improve, his first recommendation was simple: get everyone under one roof.

"I was shocked at what I saw," says Pat.

"There was no way we could exist with a race team in Sheffield, a design group in Oxfordshire and a marketing team in London – it was just a recipe for disaster."

So how did it work, then?

"Well, it didn't is the answer. It totally turned into a customer/supplier relationship, and that's not the way to go racing. I was a little bit surprised — it was a bit different to what I was used to. It was stunning to see just how little interaction there was: the communication simply wasn't there."

Communication, so vital to an F1 team, isn't going to be a problem any more. A huge open-plan office, which looks a bit like an F1 call centre, is now home to the aerodynamics, design and stress-analysis departments, but the meticulous way Pat has arranged even their seating positions shows just how lucky Marussia are to have a man of his experience on board. Aero sit around the outside of the office, with design forming a loose ring inside them. This 'outer layer' of design works on body parts, meaning they are close to the aerodynamic colleagues they will need to liaise with most. Inside this circle of designers sits another group of designers who work on internal parts. "The idea is that if anyone has a question they only have to swivel round in their chair and they can ask the nearest person," Pat points out.

The question is, how much was the previous setup contributing to a situation that's meant this team have spent the end of the last two seasons staring up the constructors' championship table at HRT? "I think it was one of the things that was contributing to a lack of performance," agrees Pat, "but I think that the knowledge of how to extract performance from a modern F1 car wasn't really there within the group – the experience wasn't there."



The car: should do better now there's a windtunnel



The factory: run by the experienced Pat Symonds



The team: they all sit in the same building now

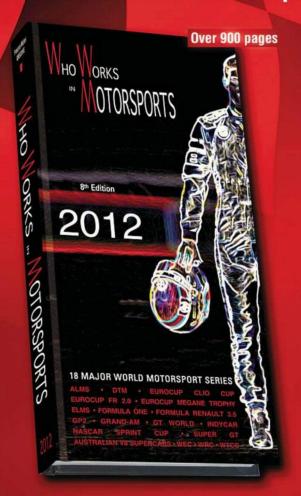




Your Access to a fast moving world

The only reference books that keep you updated with motor racing

Formula One - Motorsports - Motorcycle Racing





Each new edition 100% researched & updated !

In depth information on the major players of the 2012 field.

Teams, drivers, engine manufacturers, cars, key people, sponsors & suppliers, media, marketing & PR, organisers, circuits, officials, etc. Companies and key people with contact details, addresses, websites, logo, color portrait pictures and a lot more.

MHO ORKS
"NOTONCYCLE
RACING

2012

ORIGINATION PROPERTY
FIM WORLD CHAMPIONSHIPS

Tel: +44 (0) 20 71930 686 - Email: orders@whoworksin.com

Order now on our secure website - www.whoworksin.com

"How much does it cost to run a football team these days? Anything that's competitive is expensive"

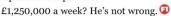
Inevitably, a lack of experience is linked to the team not having enough people. "We're small and lean, but we need more staff," Pat concedes. "We've got about 170; by the end of 2012 we're looking to have just over 200. A lot of other teams like Force India and Caterham are around the 300 mark and I think that's a good number - I don't have ambitions to go much higher than that. I think that with 300 people you really ought to be challenging for the podium."

But you hear stories about how Red Bull have got around 650 people - what do they all do?

"I don't know," laughs Pat. "I came from a team who had 550 - we brought it down but I think Lotus are back up to that number now. Our aero department here will have 42 people by the end of 2012 if all goes to plan, but it's not enough. It's nowhere near the levels of Lotus and Force India. That said, if someone said to me, 'Here's another hundred people,' I'd say, 'Shit! I can't handle that at the moment!' I want to ensure that what we do, we do properly. You can't have a scattergun approach, along the lines of: "Ooh, we'll have a new front wing for Barcelona and a new front wing for Monaco," it's ridiculous. It's about setting realistic targets, seeing where our performance is and seeing what the best value for resource is - and that was an approach that hadn't been taken before."

Going back to that you would have thought that a lack of it at this end of the grid would frustrate someone who oversaw back-to-back world championships for Fernando Alonso in 2005 and 2006 something that would have been impossible to achieve without sufficient funds. But Pat takes a different view of the situation. "I think that was one of the things that frustrated me about Renault, actually. I think back to Benetton and that was a really lean operation, as were the early days of Renault. When we won the championship in 2005 we were still a really lean team, and then we just started to bloat a little bit. The figure I gave you earlier about what it roughly takes a week to run a Formula 1 team is one thing but, like I said, it's the money you spend beyond that that makes you go quicker. The thing is, if you spend £10million on top of that, you'll get a lot of performance - but the next £10million won't get you as much, so the curve of performance against spend really starts to flatten off. The teams at the top are spending huge amounts to get tiny little increments, and it really is tricky to match that."

What Marussia will be trying to do this coming season is to at least overtake HRT, with 2013 targeted as the year where more significant improvements will be made. It will at least be easier without three separate offices, but the money spent even at this end of the grid will still be huge. "It's all par for the course, though," reasons Pat. "You could apply the same argument to other sports. How much does it cost to run a football team these days? When there's an environment where money can assist success, you're going to have a system that tends towards spending a lot of money. Anything that's competitive is expensive."





OTHER PRICEY **EQUIPMENT YOU NEED TO RUN AN F1 TEAM**

A model car that costs more than a GP2 car for starters...



A COSTLY WINDTUNNEL MODEL

"This is the second most expensive racing car you're ever likely to see," says Pat as he shows us Marussia's 50 per cent windtunnel model. "This costs more to make than a GP2 car. It's got an aluminium spine running through it that's packed with electronics - that alone cost about £250,000 to make. When it's in the windtunnel it moves around and all the suspension moves with it - motors are moving everything. At the same time, it's taking really accurate measurements of 128 different pressures around it. The 'clothing' costs around £170,000, so you're looking at well over £400,000 to build a windtunnel model from scratch."

A FAIRLY HUGE SUPERCOMPUTER

"Someone asked me the other day how powerful our supercomputer was," laughs Pat. "I looked online and I reckon it's about the 277th biggest in the world - although that'll probably have changed by next week. This thing uses so much power that we can't run it off the mains - there's simply not enough power coming into the building. We've got a huge generator the size of half a lorry container outside that does nothing but power this computer. The useable capacity is limited by the regulations but, ultimately, we don't make use of this machine's capacity. It's not that we don't have the hardware, it's that we don't have enough people to run it."



NSET: STEVE ETHERINGTON/LA

Dreamdebuts

At the season-opening Australian GP, Jean-Eric Vergne and Charles Pic made their maiden Formula 1 entrances. But how have their performances ranked in the history of the sport? We remember ten of the best rookie appearances...

WORDS JAMES ROBERTS

France 1961

Giancarlo Baghetti

Grid: 12th Race: 1st

Ferrari decided to enter a fourth privateer car for this race and up stepped 27-year-old Giancarlo Baghetti. The Italian had already competed in – and won – two non-championship F1 races at Syracuse and Naples. Baghetti duelled for the lead with Dan Gurney and, on the final lap, pulled out of the Porsche's slipstream to take a thrilling victory and become the only man to win on his world championship debut.







Mario Andretti

Grid: 1st Race: DNF

Mario Andretti made his long-awaited F1 debut for Lotus at the 1968 US GP, although he had been due to race a month earlier at Monza. His plans were scuppered when, after qualifying, he flew back to race in the US but was banned from returning to Italy because of a rule preventing drivers from competing in two events in 24 hours. At Watkins Glen he beat Jackie Stewart to pole but was robbed of a podium when the clutch failed on his Lotus 498.



Jackie Stewart

South Africa 1965

Grid: 11th Race: 6th

The 1965 F1 season got off to an early start when the first race was held in East London in South Africa on New Year's Day. The race was an all-British podium with Jim Clark winning from John Surtees and Graham Hill. Finishing in the points in sixth position was a young Jackie Stewart. The BRM driver then scored points in the subsequent five world championship races and was a grand prix winner before the year was out. A star had arrived.

Argentina 1972

Carlos Reutemann

Grid: 1st Race: 7th

When Bernie Ecclestone bought Brabham, he immediately employed rising star Carlos Reutemann. The Argentine had already starred in a couple of non-championship races and delighted the locals when he



placed his BT34 'lobster claw' Brabham on pole at the Buenos Aires track. Suffering from tyre wear, he slipped down the order and ultimately finished seventh.

Argentina 1980

Alain Prost

Grid: 12th Race: 6th

After McLaren endured a woeful 1979 season, they decided to bring in some new blood in the form of French youngster Alain Prost. Partnering John Watson, the F3 champion impressed on his debut appearance by scoring a point with sixth place at the season-opening Argentine Grand Prix. He went one better at the next race in Brazil by taking fifth, demonstrating to the world the talent that would help him claim four world titles.



Brazil 1989

Johnny Herbert

Grid: 10th Race: 4th

The year before his F1 debut, Herbert had broken his feet in a terrifying F3000 shunt at Brands Hatch. Still in great pain, he somehow managed to haul his Benetton into a fine fourth place at the 1989 season-opener in Rio. "There was a massive bump before the hairpin and I let my foot flop around the car and when I hit the bump it would smack on the side of the cockpit," Herbert recalls. "It hurt like hell, but it enabled me to overcome the pain because it desensitised it..." In a word: brave.



Japan 1993

Eddie Irvine

Grid: 8th Race: 6th

Having raced in Japan for a number of years, Eddie Irvine was given the call-up at Suzuka to race for Jordan at the end of the 1993 Formula 1 season. In wet conditions he remarkably unlapped himself from race leader Ayrton Senna, which sent the Brazilian into a post-race tantrum. He sought out Irvine afterwards, gave him a piece of his mind – then thumped him one.



Kimi Räikkönen

Grid: 13th Race: 6th

He'd spent his youth in karts, but Kimi Räikkönen had only one year of Formula Renault behind him when he was sensationally given an F1 drive. At the time, many doubted the wisdom of giving the Finn a superlicence to race in motorsport's top tier, but he dumbfounded his critics with a points finish in sixth for Sauber.



















Australia 1996

Jacques Villeneuve

Grid: 1st Race: 2nd

With thousands of miles of testing under his belt, the Indy 500 winner was well-prepared for his Formula 1 debut at Melbourne in 1996. He sensationally planted his Williams on pole position

and seemed all set to become the first driver to win on his debut since Giancarlo Baghetti 35 years earlier. But then he ran wide, damaged his car and handed victory to team-mate Damon Hill.



Australia 2007



Lewis Hamilton

Grid: 4th Race: 3rd

It helps if a rookie is given the tools to win a race and when Lewis Hamilton stepped into the 2007 McLaren, he certainly had a top-line car. Fourth was a great qualifying effort but, even more spectacularly, he managed to muscle his way past two-time world champion team-mate Fernando Alonso at the very first corner. That's one way of making your mark in the sport: a podium place was a very just reward.

HOTOS: LAT ARCHIVE; ROBERT CIANFLONE/GETTY IMAGES; MARK THOMPSON/GETTY IMAGES; PASCAL RONDE









car, but I'm dying to know one thing straight away: "Do you mind being chauffeur-driven, Michael, or would you rather be driving yourself?"

"Well, if the driver is good, it's no problem," he responds with a knowing smile. "We'll find out. I'm pretty sure he's trying his best."

It seems that whenever Michael Schumacher and driving are involved, there's always pressure. Even if it's not actually him behind the wheel.

There might be just one world champion tucked safely behind a seatbelt in this car, but in 2012 Michael is joined by a further five of them on the Formula 1 grid – the first time in the sport's history there have been that many. Unsurprisingly for such a hardened competitor, Michael seems reasonably indifferent to this development. "It's cool and it's a nice statistic," he shrugs, "but at the end of the day that's all it is – a statistic. All these competitors who don't have any world championships under their belt are obviously out there trying to get one and, from their point of view, you don't really care if there's someone out there who's won a world championship – you just want to beat them. I was the same before I won any of mine."

He admits that having six world champions will be "a great show for the fans", but stops short of agreeing that it makes this the toughest era of F1 there's ever been. "I'm not really sure it's tougher because of it. We're always very dependent on the car and there's a big proportion of possibilities open to you according to the machine that you have in your hands. Yes, the drivers can make the difference but if you look at the field, you have such a high quality of drivers who haven't got a world championship under their belt. They're really highly talented and could easily win one."

This time a decade ago, Michael Schumacher was about to embark upon a season in which he would win the title with six races to go — one of his many records currently being eyed by a certain other German driver. Whether down to equipment, age or an increase in the number of high-quality competitors out on the track, Michael has not been able to dominate the sport this time around. Surely he must notice that there are more good drivers around him now than during his first F1 stint?

"Hmmm... that's a good question," he ponders. "At the end of the day, you probably should say no, because it's only the best who ever make it to Formula 1 anyway.

It's difficult for me to remember all the drivers that have been next to me in my career in the sport... probably there is a higher quality or a closer density of drivers now, but at the end of the day there's usually only maybe a maximum of three people who'll fight for the title. It's never the whole bunch of you who does so."

Fighting for the title was something that was high on the agenda when Schumacher announced his comeback ahead of the 2010 season; sporting romantics couldn't wait to see whether a legend on the wrong side of 40 could teach a lesson to the likes of Sebastian Vettel and Lewis Hamilton,

drivers who were aged four and six respectively when Michael made his Formula 1 debut at the 1991 Belgian Grand Prix. After two seasons, he has not quite been able to do so yet, and it's tempting to think that the man who's achieved so much in the sport is simply happy to be back competing at the highest level, safe in the knowledge

I'M FROM THAMES VALLEY POLICE.
CAN I ASK YOU WHAT YOU'RE
DOING HERE, PLEASE?"
"I'M WAITING FOR SOMEONE WHO'S
COMING IN ON A PRIVATE JET."
"I SEE. WHO'S THAT THEN?"
"I'M NOT SURE I SHOULD SAY.
I'M INTERVIEWING HIM FOR
A MAGAZINE."
"I SUGGEST YOU TELL ME WHO
IT IS, SIR."
"OK... IT'S MICHAEL SCHUMACHER.
YOU KNOW, THE F1 DRIVER."
"RIIIIIGHT... CAN I TAKE YOUR
DETAILS PLEASE?"

Reading the above exchange back, I can see why the plain-clothes detective inspector from Oxfordshire Constabulary was dubious. No doubt they get lots of people loitering outside this particular private airport, waiting to hassle Elton John or Simon Cowell as they enter the country by sidestepping the hideousness of Gatwick or Heathrow. Even so, as someone who has previously been arrested and briefly imprisoned for a minor speeding offence while on a trip to the new Austin Grand Prix circuit, I'm starting to think that being quizzed by the police is something of an occupational hazard if you work for F1 Racing. Maybe I should just start hacking phones for tabloid newspapers and be done with it.

It had all seemed so simple. Meet Michael Schumacher at an airport near Oxford, get in his chauffeur-driven car and interview him on the way over to Mercedes HQ in Brackley half an hour away, where Michael would be surveying the new F1 W03 ahead of driving it in Barcelona. Unfortunately, as the policeman is taking down my particulars, he is clearly beginning to doubt my version of events. And that's why I have never been happier to see a huge silver Mercedes E-Class pull up and have Michael's manager wind down the window and usher me towards it.

I get in. Sitting in the back seat, resplendent in a thick white polo neck, smart jeans and very pointy brown shoes, Michael offers a handshake that is solid but not intimidatingly vigorous. "Hi, how's it going?" he smiles. We exchange pleasantries, although I decide to save the police story in case we get stuck in a traffic jam and I run out of questions. To that end, I'm clutching three sheets of A4 paper that are crammed with a list of things to ask the most successful person ever to have driven a Formula 1

Let us remind you, Michael...

During his entire career, up until the end of the 2011 season, Schumacher had competed against a total of 142 drivers in his 286 GPs







that he has nothing to prove. "No, I'm certainly not just happy for that," is Michael's immediate and firmly asserted response. "I'm only really happy if I'm able to win races and, hopefully, a championship."

Even so, such is the competitive nature of F1 that Schumacher hasn't been allowed to set his sights solely on catching the cars in front of him some of those good young drivers he just mentioned have all been queuing up to give his reputation on the track a good kicking. I remember being in the paddock after the 2010 Chinese GP and watching Vitaly Petrov run past me, hug a Russian F1 TV presenter and scream, "Did you see me overtake Michael Schumacher?" Passing a seven-time world champion

> means a lot to a younger generation of drivers who grew up routinely mesmerised by his ruthless mastery. Surely Schumacher can feel how much it means to them? "I do feel that, yes," he says. "When I came back, there were a couple of young kids who got a particular satisfaction out of fighting with me... I should probably be proud of that." His mouth curls ever slightly to one side, forming a mischievous grin.

It might just be that one of those 'kids' he's talking about could be Lewis



SCHUEY ON...

"It is a long season now, yes. Is it too long? I think it's kind of on the limit, especially for mechanics and engineers. For drivers we're in the fortunate position of being able to fly home after a race and stay there in between, whereas these people work all weekend and then they're in the office first thing on a Monday morning to prepare for the next race. As drivers we have more freedom in that respect. From my point of view it's okay - but it's on the limit."



Schuey teaches Lewis a lesson at Monza 2011: "It gave me satisfaction to show him that when things are more equal you have to work a bit harder"

Hamilton. At the time of Schumacher's first retirement at the end of the 2006 season, F1 was a Lewis-free landscape; but just months later, fans were mourning the fact that they'd never get to see Hamilton pitch his raw talent against the man who had dominated the sport in a way that had never been seen before. Fast forward to Monza last year and we were finally treated to our first proper Schumacher vs Hamilton battle, with the wily old master somehow managing to keep Lewis at bay for eight gripping laps. Surely he must get an extra buzz of satisfaction in competing like this with one of F1's new stars and proving he's still equal to the best the sport currently has to offer? Michael ponders for a second. Then he says this:

"There was particular satisfaction in that sense, and it was in the first year I came back at one of the winter tests; Lewis was clearly in a car that I wasn't able to match - he was about two seconds a lap quicker during the test. I don't know if he was at a slightly different stage of tyre life,

but he came up behind me and was so desperate to pass me... I was just doing my programme so I didn't want to be disturbed; there was no reason to make room... but he was pushing so hard and, for him, it was almost like he was proving a point. When he then finally got past me, because I couldn't do that much more than I was doing, I could feel that he was particularly satisfied that he had been able to prove a point to me - although it was only in testing.

"When Monza last year came, and it was the first time that we maybe had a little more equal conditions... yeah, it sort of gave me satisfaction to think about that moment, and to show him that it's maybe not always as easy as it has been in testing, and that when things are more equal you have to work a bit harder than he did."

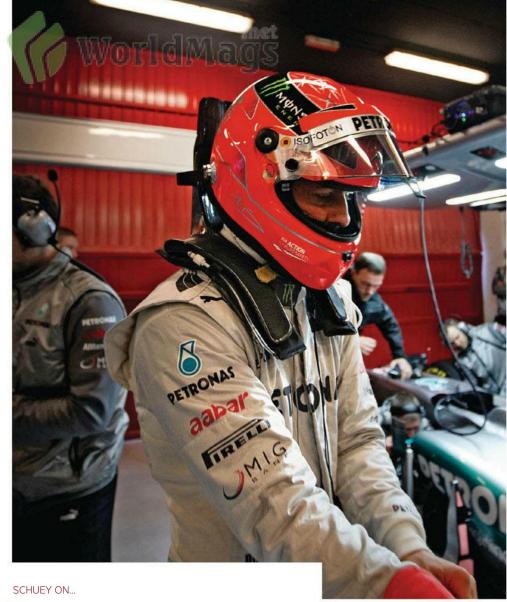
If you had any doubts about Michael's commitment to competition even at the age of 43, that paragraph should be enough to dispel them.



last interviewed Michael Schumacher for F1 Racing at Silverstone last year, to commemorate the 20th anniversary of his debut at Spa way back in 1991. As part of that issue we'd interviewed drivers like Mika Häkkinen, Jacques Villeneuve and Juan Pablo Montoya - people who had experienced great battles with Schumacher and managed, with varying degrees of regularity, to get the better of him. The surprise came from the likes of Villeneuve and Montoya, guys who had not only fought hard with Michael but had been routinely critical of his often controversial tactics. Two drivers who'd so freely vented their criticism in Schumacher's direction now had a

completely different perspective on racing him thanks to the passing of time; when Juan Pablo admitted that racing Michael had made him a better driver, we almost dropped the phone.

When I relay their fondness for these fierce fights to Michael, he pauses for a moment. "I know what you mean, and I know what they mean," he says. "It makes me proud." I explain that the reason why they said they were so fond of looking back at these rivalries was because they felt it was more satisfying beating him than anyone else, because he was the



THE BENEFITS OF DRS

"Some people criticise DRS, but what I would say is, 'What did you think about Monza last year with me and Lewis? Or Korea with Webber and Lewis?' There are circuits where DRS makes it a bit too easy, but if you have two cars that are reasonably equal - such as myself and Lewis in Monza - without DRS there wouldn't be anything - just two cars driving behind each other. It would be a procession. DRS does make for special excitement. There are times when it is relatively easy - maybe one driver has a fresher set of tyres than the guy in front, but he'd go past him anyway. I'm pretty sure the FIA will take all the experience from the first year of it and adapt it to make DRS even more exciting, but to me it's an absolute plus to Formula 1."

best. Driving against the best is something that resonates with a man so driven by competition.

"That's the reason we all want to be in Formula 1," he agrees. "I mean, it really is only the best who ever get into it. If you look at motorsport, there's no other category that can say there's a better quality of driving; I don't mean rallying or saloon cars because they're different areas, but in formula racing this is the pinnacle. When I arrived in Formula 1 with the Prosts.

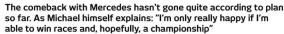
Mansells and Sennas and so on, I understood that I was able to battle with them and the next objective was to try to be better than them. If you achieved it, it was great. One of the highlights of my career was certainly that race in Brazil in 1994, when I was able to beat Ayrton and put him under such pressure that he spun off. It was a great satisfaction, because he'd been the absolute number one. I think it's understandable for the other guys you mentioned to feel satisfied when they were able to beat me, because I'd been reasonably dominant for a while."











So as someone who has won titles at the last race of the season (2000 against Häkkinen) and with nearly half the season to go (2002), which is the more satisfying? "In the end it doesn't really matter," shrugs Michael. "All the while you could still mathematically lose a title you haven't won it, and when you mathematically have won it that's when you get a great satisfaction. However many races

there are to go is a bit of a secondary thing." The message is clear: winning is equally satisfying no matter how it's achieved. Winning is the objective.

Happily for Schumacher, winning is also something he's done rather a lot of in Formula 1 - 91 times, to be precise. Statistically there can be no argument that he is the best of all time, but the notion of being the best is a thorny issue with F1 drivers. Only 24 people in the world at any one time can race in Formula 1, making it a pursuit that goes hand-in-hand with a certain amount of ego. When we interview drivers and ask them if they're the best on the grid, a common response is that they think they are because they have to think they are - if they don't believe it, they might as well pack up and go home. Michael looks visibly shocked by this revelation:



"I guess I'm very different to these other guys then. I've never believed I'm the best and I never would do. I'd feel far too arrogant to say so. I had a feeling - especially in the start of my career, before I could prove myself that I had many reasons to be happy with what I'd achieved already from where I'd come from. What came on top was just an extra, a plus that gave me even greater satisfaction."

Seven world titles is certainly a

nice 'extra', although now, of course, the whisper is of whether Sebastian Vettel can match - and ultimately beat - Schumacher's incredible haul. Niki Lauda, for one, thinks he can; Michael seems comfortable either way. "I've known Sebastian for a long time," he smiles. "I always kept myself informed about how things were going for him, and when I stopped racing, we had a few phone conversations about what I thought was the right thing for him to do at certain moments. We have a close and honest relationship, and that's good to have. It's nice to see how he's progressed, and how he's achieved his wins and championships." How would you feel if he did end up winning eight world championships? "I mean, imagine... he's my friend... I would be the most satisfied person if it was him who did it."

Where discussing Vettel and his other current rivals in more detail is concerned, Schumacher is reticent ("I'm still fighting them, so I wouldn't want to give them too much credit," he laughs), although as a champion who has come back to the sport he seems intrigued by Kimi Räikkönen's decision to return. "I was pleased when I heard he was coming back," says Michael. "I know Kimi reasonably well, he's one of the world champions that we have and he has, how do you say... quite a big character. To have people like him in Formula 1 is what makes the sport live. He's known as one of the best drivers around, and the better the quality out there, the better your own satisfaction if you can beat the other guys."

Was he surprised by Kimi's return? "In this respect I don't think it's easy to follow his ambition, but Kimi is very much a person of his own. He's a very different character to most people I know, and it's certainly very difficult for me to form an opinion of what's going on, why he did what he did, why he came back... I just enjoy driving against him and I like him as a person. I'm happy for him." There's every chance that with Mercedes and Lotus being the strongest teams outside of F1's top three, Michael will get to remind himself how much he enjoys driving against the enigmatic Finn.

And so, at the age of 43 – 19 years older than the current world champion – Michael Schumacher is once again pursuing greatness in 2012. With all the sacrifices that must be made to simply stay at this level of motorsport, let alone be successful in it, you may well ask what sort of toll it takes on his body and mind, and quite why he still has a need to do it.

"I sometimes ask myself the same thing," he laughs... before a short pause. "Then I find myself on a kart track, driving around and racing people... and it occurs to me that it feels totally natural. It's what I do and it's what I love. It's just easy for me: as soon as I'm in a kart or a car I just want to be the quickest that I can be and I just want to beat whoever's there. That's just a natural gift that I have." The dedication to keep on going, year after year, must simply be huge. "Well, that's one part of it. It's a mixture of things, really. I think if you keep on doing something, you have to be dedicated... maybe addicted to the fun that the cars provide, for going for the competition and to be better than the others."

There it is again – the need the very top drivers have to compete against the best there is, to try to prove that they're the number one. When so much of your life is centred around being ultra-competitive, losing must be extremely hard to take. I ask Michael whether it takes him a while to reconcile himself to losing or whether he can compartmentalise it quickly and move on. "I think I'm a good loser... luckily I haven't lost that much," he laughs. "But it's something that I learned pretty early. To me it makes life a lot easier if you can be happy for other people."

A sign reading 'Mercedes AMG Petronas Formula 1 Team' shows we're nearly there. One more question... "Michael, what is your legacy to F1?"



He pauses, mulling it over as we pass through the team's security control and make our way towards the grand reception. "I guess it's been explained by the competitors you mentioned earlier," he says, meaning the likes of Häkkinen and Villeneuve, "and the satisfaction they had in fighting against me. At any time and any moment I give the maximum to stay where I want to stay, which is at the front. Whoever manages to beat me, they can truly say that they have done that by fighting against somebody who never gives up."



,net

Even if you're a seven-time F1 world champion, you still need to unleash your inner mechanic...

You drive the fastest cars on earth in your day job, Michael. What do you still love about karting?

I love the fine-tuning of a kart. Driving it is one thing, but to work on it and make it the quickest kart is the big challenge. I can do that by myself or with one of my friends; I do meet up with all my friends from the past. It's funny that most of them are now retired kart drivers or mechanics running their own team, and I'm racing against their sons. But I don't care. I like the competition because it's at a high level – those karting kids are very special. It's great being active in terms of checking tyre pressures, checking the engines, changing the ratios and being involved more deeply than in F1. It's just natural to me. I love it. Yes you meet your engineers in F1, but you don't physically touch the car.

Are there any kids there who are good enough to beat you?

Oh yeah – it's difficult for me to beat them, because they're doing it all the time. I'm just proud I can still keep up [laughs]. We had a race last year with all the champions and I managed to come fourth – for me that was a big success. I was just behind the current world champion.

Has karting changed much?

It's become a lot more professional. I know kids that finish a race on Sunday evening and then go straight to the next racetrack where they're driving the following weekend and practice all week. They just keep doing that all year long.

Driving an F1 car is the ultimate in racing in terms of speed and aerodynamics. How can karting still give you a buzz?

In certain moments of course it is slower, but whenever you drive something to its limits, it feels pretty fast. In karting, the run-off is smaller, your wheel-to-wheel contact is much closer – it's intense. You sit so low that your arse is scrubbing the ground and occasionally it gets hot... this happens in F1, but you don't notice as much because you're surrounded by a monocoque.



It's a sight you'll see a lot this year: that red helmet poking out of the top of that silver Mercedes, its driver looking ahead, never giving up. But just like the chauffeur, no doubt relieved as he stops the car and watches in his mirror as a seven-time F1 world champion climbs out, there will be pressure on Michael Schumacher this year. He may not admit to thinking he's the best driver in F1, but he wants to prove it.

International Motorsport Events: Race Tickets, Hospitality & Travel

Select Motor Racing.com

● Formula One ● Le Mans 24hr ● WRC ● MotoGP ● Superbikes ● Historic

Run by Fans for Fans

Join us for the F1 Mugello Test - Team Packages available

Go to our website to
WIN A TRIP to the
Belgian GP



FORMULA ONE GRAND PRIX

- Race Tickets & Hospitality
- Choice of Hotel
- Circuit Transfers
- UK Travel Team to look after you throughout the Tour

TRAVEL PACKAGES

- Go-By Air with Airport Transfers
- Holiday Coach Tours from the UK with free excursions

PARC FERMÉ HOSPITALITY

- Monaco GP Yachts, Apartments and Amber Lounge
- Canadian Grand Prix
 Niagra Falls tour option
- Singapore, India and Abu Dhabi GP Amber Lounge and VIP Packages
- All F1 events F1 Paddock Club and Circuits Hospitality
- VIP Travel Packages with Private Transfers

LE MANS 24 HOUR

- Race Tickets & Hospitality
- Circuit Camping
- Self Drive Packages
- 15 Coach Tour options
 Night Qualifying with Drivers
 Parade and Circuit Excursion
- Coach Tour prices from £149

HISTORIC TOURS

- Monaco Historic
- Le Mans Classic
- Goodwood Festival & Revival

contact us on +44 (0) 1451 833 721 or email enquiry@selectmotorracing.com



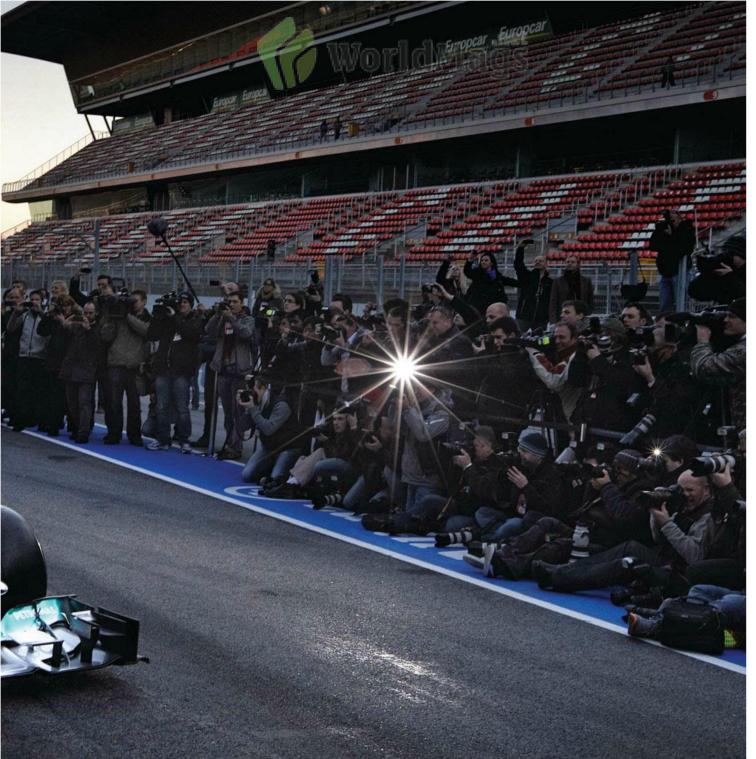


Testing times

Mercedes were the last big team to launch their 2012 car, but will their late gamble pay off? F1 Racing visits Barcelona for the launch of the new F1 W03

WORDS JAMES ROBERTS PICTURES STEVE ETHERINGTON/LAT

German efficiency dictated that everything ran with metronomic precision. We were ordered to take our places in the Barcelona pitlane at 8.20am where the shrouded F1 W03 was to be wheeled into view. Seconds later, Michael Schumacher and Nico Rosberg appeared in two brand-new SL63 AMG roadsters, silver and sleek. The three-pointed star had produced another tidy *autobahn* coupé. Alas, the same could not be said of their 2012 F1 car. As its covers were peeled off, Ross Brawn murmured: "Shame about the nose... but never mind."



A full two weeks after the appearance of the Red Bull RB8 and McLaren's MP4-27, Mercedes - with their awkward-looking stepped nose have opted for a very different approach with the timing of their car's debut, and it could prove to be a Ross Brawn masterstroke. After two weeks of extra windtunnel- and rig-testing time, could this tardy debut provide a strategic advantage?

One thing is for sure: the Stuttgart paymasters are going to be demanding success after two years in the wilderness – otherwise the spending will quite simply stop. Mercedes are not in the business of failure, so Brawn has two objectives in 2012: to win for Mercedes and to record

another win for Michael Schumacher. Their hopes of success rest in the F1 W03.

Although today, 21 February, is the official launch day, this is not the first time the new Mercedes has turned a wheel. Significant mileage was put on 2012 parts, including the new KERS unit, at the first Jerez test in early February in last year's car. Then, just down the road from their Brackley base, the new car carried out a shakedown and 'filming day' at Silverstone the previous week, during which teams are allowed up to 62 miles of running.

Two days before the impressive pictures of Michael and Nico peeling off the black shroud

are beamed around the world, the F1 W03 was again pounding around the test track at full tilt. Mercedes had taken the decision to miss the final day of the group test in Jerez and to swap it for a private day in Barcelona. This was a chance to hammer the car on low fuel at full-speed, to measure tyre wear in total privacy. Top teams never reveal their true pace in group tests, so this was a clever ploy, taking them away from the timings of public stopwatches.

In Jerez, Merc ran the new 2012-spec tyres, using a known quantity in the shape of last year's machine, then ran a back-to-back test on the new car, which immediately gave them 👈

a handle on the new car's characteristics. And with tyre wear being a key fault on last year's machine, particularly at the rear, this is a critical area for the team to nail for 2012.

A day after the private test came another filming day and another 62 miles, so by the day of the actual 'launch', the F1 W03 already has some 310 miles on the clock. Not bad, eh?

During the first testing runs, every team completes a systems check, particularly for cooling and hydraulic issues and will then ensure the car safely completes a number of laps without literally falling to bits. Then, layer by layer, items on a check list are ticked off to ensure everything works as the team had hoped.

"When we first run a new car, the main thing we do is to check that it behaves as we'd predicted," explains Mercedes' technical director Bob Bell. "Before it hits the track we subject it to rig testing in the factory to ensure it correlates with our predictions, such as ride-height characteristics under load. When we get to the track, it is just an extension of that process."

Cars will carry a number of strange-looking instruments during testing, including pitot air-pressure measuring devices to ensure the correlation between prediction and reality is accurate. From there, aero work, race simulations, tyre-degradation analysis and, ultimately, performance, are engineered into the car. Teams can get an idea quite early on as to whether they have a solid base to work on, or

that they'll be condemned to a season of misery. Last year Mercedes headed off in what turned out to be completely the wrong direction. The rest of the season they spent playing catch-up:

"When we ran the 2012 car for the first time, we had to make sure it was functioning in the right way as last year we were playing catchup with deficiencies in the car from day one," continues Bell. "What we showed over the course of 2011 was that we were able to develop our car at a rate that kept pace with the front-running teams, albeit with a fairly constant offset.

"So our target for this year was to ensure we didn't start the season with such a sizeable offset. We're comfortable we have dealt with many of the problems, but there will be some question marks over tyre degradation when we get to some of the hotter tracks. We'll never get a complete picture, but we are confident we're on top of a lot of the issues we had last year."

Bob Bell joined the team as technical director in April last year and, over the past six months, he has been joined by two more heavyweight technical figures: Aldo Costa and Geoff Willis. Former Ferrari man Costa is effectively in charge of mechanical design and engineering, while Willis oversees aero and vehicle dynamics as well as developing the simulator. There is now optimism that Mercedes have turned a corner, but in the harsh light of the winter-testing sun,

it's impossible to tell yet whether their late gamble will prove to be a strategic success.

"Ultimately I'm responsible in the respect that if the car doesn't perform from a technical point of view, it's my neck on the block," says Bell honestly. "But I wouldn't be vain enough to claim credit for its success. We took this late approach to try to find performance as clearly that was where we were weak. So we did everything we could to give our aerodynamic and vehicle dynamics people the maximum amount of time to develop the performance in the car, while minimising the production requirements of this time of year. I haven't seen anything yet that says it was the wrong thing to do and I'm convinced it was the right thing for us."

Launch season is a time of

paranoia, nervousness, excitement, fear and stress. Have any teams discovered anything in the regulations that others have failed to exploit? Why don't the simulations correlate with what the car is doing on track? Why do the gearbox or hydraulics keep costing mileage? And just how quick are the opposition in the garage next door?

Amid all the unknowns, one thing is guaranteed: the beaming smiles of both drivers every year as they peel the covers off their cars for the cameras – no matter how ugly it looks. But the real test is whether they will still be smiling at the end of the year...

"In 2011 we developed at the same pace as the frontrunners, albeit with an offset. Our target now is to lose that offset"







Show your team's strength by playing against Johnny Herbert or your mates in your own private league





PREDICTOR.CASTROLEDGERANKINGS.COM





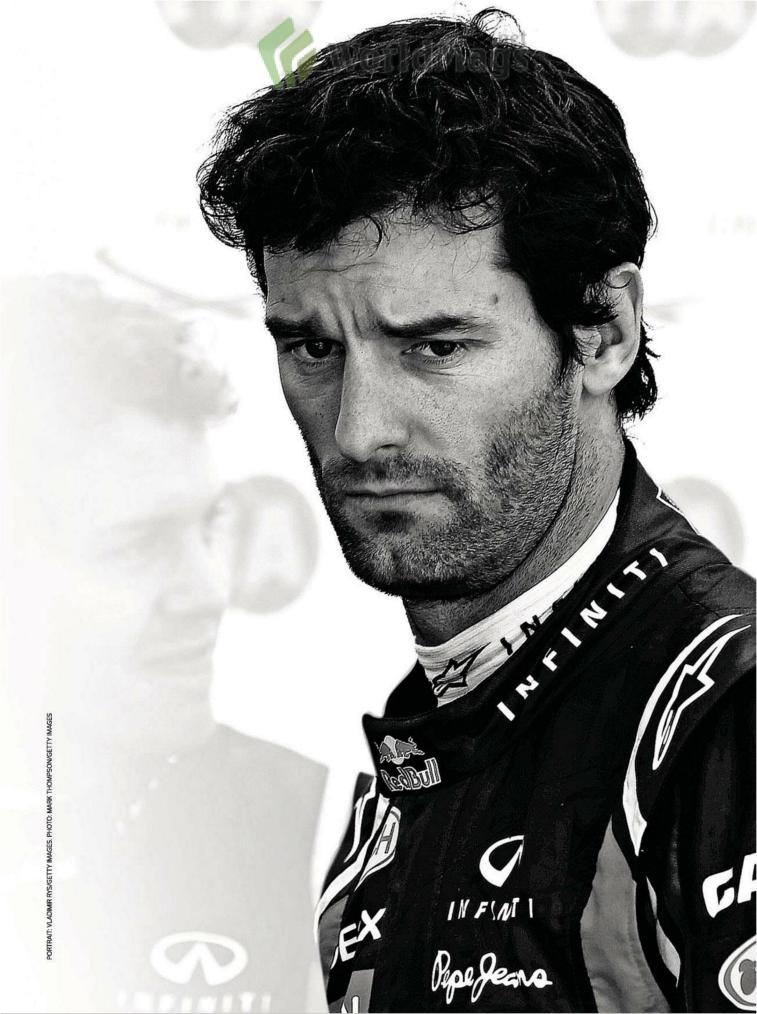


If you thought you were fed up with the sight of this finger, imagine how Mark Webber feels

After coming so close to glory in 2010, the Australian racer was on the receiving end of a bit of a pummelling last year. And, as he tells *F1 Racing*, he'd rather leave the sport than just make up the numbers

WORDS IONATHAN REYNOLDS







an you imagine a driver having to endure a more psychologically challenging season than Mark Webber did in 2011? While his team-mate. Sebastian Vettel, thrust index finger after index

finger into the air following yet another pole position and/or race victory, Webber, driving what was widely accepted as the class car of the field, managed just three poles and a solitary race win. Webber ended 2011 not in the running for the title as he did in 2010, but the equivalent of more than five race victories behind Vettel, leaving the Australian looking visibly drained. And yet ever since the covers came off the new RB8 at Jerez in February, Webber has looked like a new man - upbeat and with more than a little spring in his step.

"It was probably one of the best breaks I've had for a long time," Webber says of the five weeks he spent in Australia during F1's winter break. To an F1 driver, spending five weeks anywhere must feel like a vast length of time given their hectic, globe-straddling diaries. But clearly a lengthy layoff was needed, and not just to recover from 2011. "It was a tough finish to the year in 2010 and the year before that it was surgery," he says, referring to the hospital treatment he underwent after breaking his leg in a biking accident before the 2009 season began. "But I must say that the urge to come back from Australia was incredibly strong quite early on."

Evidently Webber, in the spirit of many of his Aussie sporting heroes, is not one to shirk a challenge and, let's face it, the challenge doesn't get much bigger than preventing your double world champion team-mate from making it three in a row. No wonder he's raring to go.

Webber may be looking forwards now, but it's likely that a significant portion of the time he spent in his homeland was used to reflect on 2011. After all, no driver enjoys being beaten by their team-mate, least of all someone as competitive as this 35-year-old. "It's not easy," he admits, "but it's better than if you get beaten by someone who isn't rated by anyone. Sebastian was the class of the field last year - he was really on fire. He did a great job and the results showed it."

Webber is typically candid about his own performance last year, too: "The first part of the championship wasn't very good - I didn't get the maximum out of the car. But the second half, apart from Monza, was pretty decent. Obviously

I didn't win enough races, which is not always a great feeling, particularly compared to the year before. But, bizarrely, I scored more points than I did the year before, so it's hard. The thing that everyone measured against was Sebastian's dominance so I don't think anyone felt like they'd had their best year. But there were still many positives for me to look at and I felt that my form - particularly on Sundays - was still very strong and that was important to me."

One of Webber's more memorable Sunday performances came off the back of the fiasco that was qualifying in China. In Q1, Red Bull elected to send Webber out on the harder tyre, despite the fact that his KERS wasn't working, and he ended up setting a time only quick enough for 18th on the grid. Team-mate Vettel, meanwhile, started from a third consecutive pole position. On race day Webber responded just as he had at Silverstone in 2010 when he felt marginalised by his own team. Starting on brand new tyres and with the now-functioning DRS as

'I scorec more points did the vear before'

a handy ally, he battled through the field to finish just behind Vettel in third place. The sense of relief afterwards was palpable, perhaps because, despite the tyres and the KERS woe, he knew he should have qualified higher.

But then on the whole Webber struggled to match Vettel all season on Saturday afternoons. The general consensus was that this was down to the fact that the German had got to grips with the unusual driving technique demanded by the off-throttle exhaust-blown diffusers better than his older team-mate. It's a theory that the man himself seems to go along with.

"The cars are certainly more conventional now that blown diffusers are banned. Last year's cars were unique in terms of how they worked. The aerodynamics of the car were, for want of a better word, quite sophisticated. I wasn't superslow in them but on Saturdays I couldn't really get the most out of it. Let's see how we go this

year with the change in the rules because it's not a small change. These things can have an effect on driver preferences and feeling. If I had a choice, I would take how the cars are now."

On the three occasions when Webber did get the most out of the car in qualifying - Spain, Britain and Germany - he failed to capitalise on it in the race. He started from pole at all three GPs, but bad starts meant he fell back, making life hard for himself. Even with the DRS, getting stuck behind a slower car for just a few laps can ruin your race, especially when your team-mate is running in clean air up front. So improving his starts must be on Webber's 2012 to-do list?

"Obviously if you can lead a grand prix early it makes your life much easier," he reasons. "If you can do that, you tee the races up much nicer."

Of course the races were an altogether different challenge in 2011 thanks to the introduction of Pirelli's swiftly deteriorating tyres. While some drivers struggled to get certain compounds up to the correct operating temperature, Webber's problem was making them last for a whole stint - hence there were several races when he had to stop sooner or more often than Vettel. It's early days, but the indications are that the 2012 generation of Pirelli rubber is a lot more consistent over one stint, which should help the Aussie.

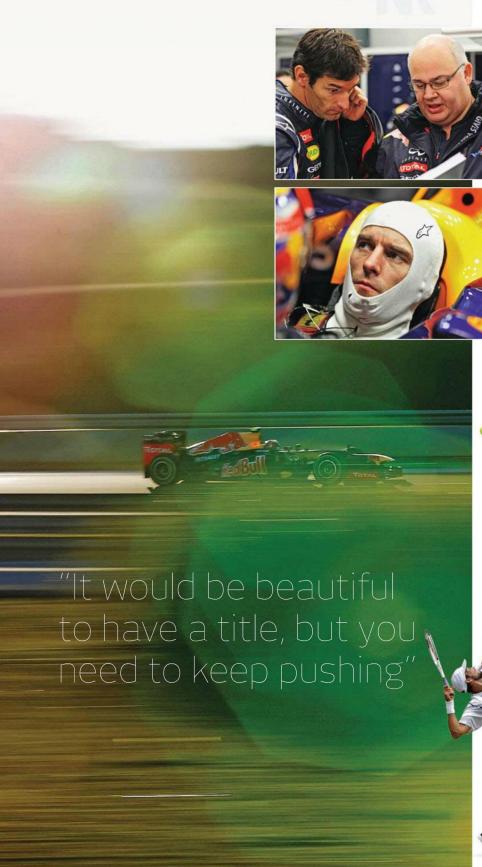
But ask if there are any specific areas that he's identified as being reasons why Vettel was able to get more from the package last term and a wry smile spreads across Webber's face.

"Of course I've looked at many things and we'll see how it goes," he says, keeping his cards close to his chest. "There are loads of things that as an athlete, as a competitor, and as a sportsman you want to keep improving. It's the same for Seb. All of us are looking to continue to improve and that's done in conjunction with the people you work with."

Given the tough season he's been through you might have expected Webber to have changed the people he works with most closely, just as some of his rivals have done when things haven't gone so well. It says much about the man that he's chosen to stick with the same engineering unit that guided him ever so close to the world title in 2010, clearly identifying himself as the reason for his relative dip in performance rather than those around him. In fact 2010 remains the closest Webber has ever got to the world title. How does he feel looking back on it now?

"It was an incredible season. I'm still proud of how I performed that year," he says wide-eyed. "It would be beautiful to have a title, but you need to have your chin up and your chest out and keep on pushing." ->





F1's not his only passion

Mark Webber loves all sports. Whether it's rugby league, football or tennis, he can't get enough of them

"Rugby league was my main sport when I was growing up and I had posters of my heroes up on my wall. They still play a big role in inspiring me and their achievements helped me achieve my goal of getting to and staying in - F1. But I don't think I could have been a rugby player – I don't think I would have been brave enough.

"I dreamed of being a sportsman growing up. Academically it wasn't easy for me at school so I had to pursue other things. But school was fun, I enjoyed it a lot and it wasn't an effort because I got to play sport and hang out with my mates. I loved to play lots of sports. My mother was keen on taking me to swimming carnivals and things like that - the cheaper sports. But my dad enjoyed motorcycle racing - Mick Doohan and so on - and then I got into karting.

"When I first came to England I got into football and at the time I liked Chelsea because of Gianfranco Zola. I thought his name was cool and to watch him on the ball was great. Now, I've got a soft spot for Manchester United, purely because of players like Paul Scholes and Roy Keane. I'm fascinated by football managers like Alex Ferguson and Arsene Wenger and how they deal with all those different cultures among their players. It's interesting how they take 25 egos from so many different countries and get 11 of them playing as a team.

"I've been lucky as an F1 driver to meet other sportsmen and women and find out how they go about things. It's interesting to see how people get the same results from completely different mentalities. Pat Rafter [pictured left], who won a couple of grand slams in tennis, said he never went onto the court thinking he could win.

> "Of the sportsmen I haven't met, I'd love to meet Zinedine Zidane. What he achieved seemed so effortless, so it would be great to see what made him tick away from the pitch."



One of three Apple iPads and one of ten iPad skins



THE PRIZE

is brought to you by AMAS to promote the launch of Kimi Räikkönen's 'ICEONE' Racing game



Visit www.flracing.co.uk/competition and answer the following question:

IN WHAT YEAR DID KIMI RÄIKKÖNEN

WIN HIS FORMULA 1 WORLD TITLE?

A '06

B '07

C '08

Competition closes at midnight on Wednesday 23 May 2012







THE GAME

is available to download for free on iTunes today, just search for 'ICEONE'. The game takes you through Kimi's racing career from karts through to rallying, with four unique race vehicles and 16 tracks. Users get the chance to race head-to-head all around the world.

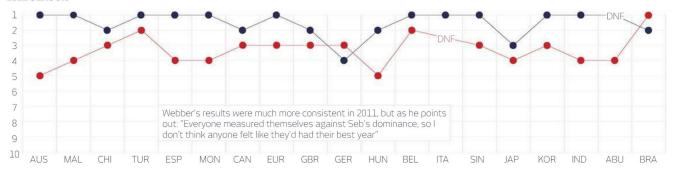




Webber vs Vettel



2011 SEASON



But for how long can Webber keep pushing? Rubens Barrichello and Jarno Trulli both lost their seats over the winter, making Webber the third-oldest driver in F1 behind Michael Schumacher and Pedro de la Rosa. Reading certain sections of the media you'd be forgiven for thinking that this season is something of a retirement world tour as Toro Rosso youngsters Jean-Eric Vergne and Daniel Ricciardo compete for his seat. Clearly Webber is closer to the end of his career than he is to the beginning, but

when asked about retirement, he doesn't sound like a man who is on the verge of walking away:

"What I'll have trouble replacing is the moment the mechanics leave the car on the grid... when they walk away from the car. That's a great feeling," he says. "It's the accountability, the pressure, that challenge, that great buzz... it's a great opportunity to do something special. When you get it right, to hear the national anthem makes you very proud. That's what gets me out of bed each morning, those moments."

Whatever happens with Red Bull next year, Webber has no interest in hanging around in Formula 1 just to make up the numbers — as is evident from the following exchange:

FI Racing: "So now that you've driven for a championship-winning team like Red Bull, could you ever drive for a smaller team?"

Webber: "No."

F1 Racing: "So if you're not in a top team that'll be it for you and F1?"

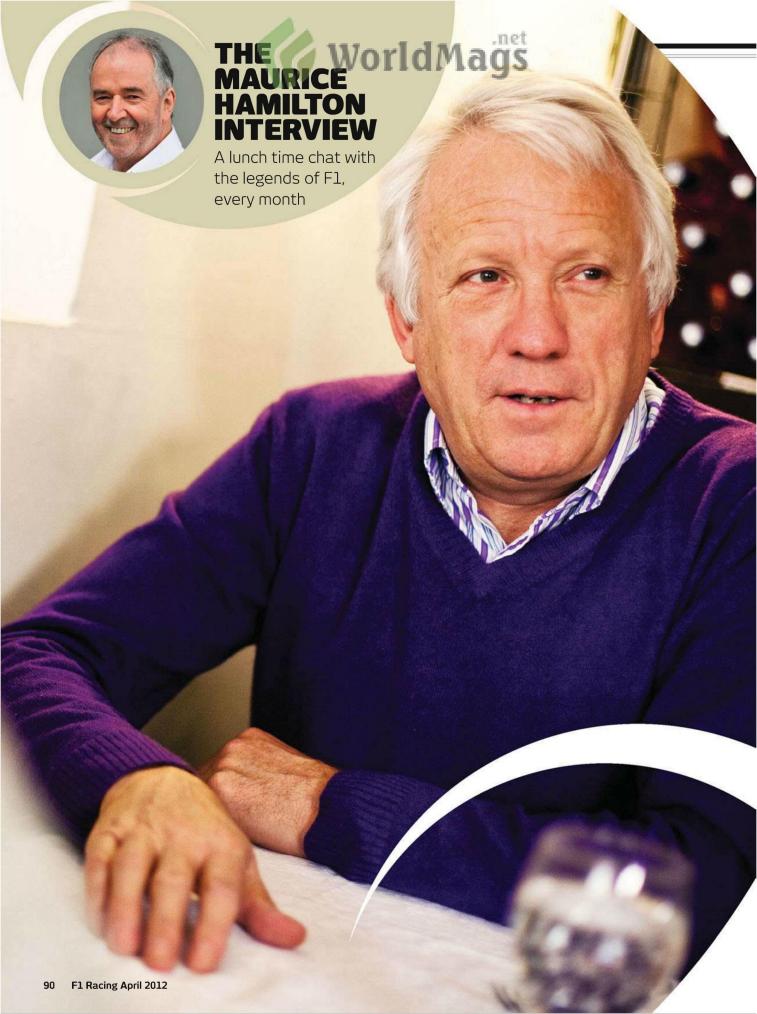
Webber: "Yep."

In any case, for now Webber has both a seat in an Adrian Newey-designed car and a strong desire to achieve at the highest level. "I'm extremely confident in my own abilities and that has helped me for a long time," he announces. "I'm looking to have my strongest season ever this year. There's no reason why I can't do that."

But for all that confidence there's no doubt that Webber has started this season as an underdog rather than as a favourite to win the world title. "Unless you're already the world champion you probably are an underdog," he says matter-of-factly. "But then I could be sitting here with no victories and then I wouldn't be here — I'd be out of work."

1





world/nags

"I didn't see him!" Drivers always say that. But the mirrors are great chunky things. Anyway, drivers have got peripheral vision; if they haven't, then there's actually something wrong with their eyes..."

Having started out as a mechanic at Brabham, **Charlie Whiting** is now Formula 1's race director. "Bernie thought that having been on one side of the fence, perhaps I'd be good at catching the buggers from the other side – that's how it all started," he tells Maurice Hamilton

PORTRAITS DREW GIBSON/LAT

harlie Whiting is motorsport's poacher turned gamekeeper. A former mechanic who helped put F1 cars together, Charlie is now the race director who ensures that they start safely and run exactly as they should from a technical and sporting point of view. Although instantly recognisable at the race track, he has maintained a low profile off it. But it seemed a shame not to tap into his vast experience while lunching around the corner from his Monte Carlo office. Even before the first course at Maison du Caviar, we're off and running at Las Vegas in 1981...

Maurice Hamilton: I hate to remind you, Charlie, but it's now 30 years ago last October that Nelson Piquet won the title in one of your cars.

Charlie Whiting: It's a dreadful thought. Not Nelson winning, of course – but it doesn't seem like 30 years ago.

MH: I was there in Vegas that weekend and I clearly remember you standing on the pitwall to see if Nelson was going to make it to the end of the last lap. I remember writing that your face lived up to your name that day; you were as white as a sheet.

CW: That day in Vegas is still quite vivid. It wasn't an easy race. Nelson was hanging on in fifth place with a one-point lead in the championship. He was completely finished. Even Jonesy [Alan Jones], who was leading the race, had his head hanging out of the car.

MH: The whole season was coming down to this one race and you could lose it within another lap or two because his lap times had gone right off and someone was catching him. And what a weird place to hold a race – effectively a car park round the back of Caesars Palace Hotel. How did you get to being in Las Vegas as a mechanic for the Brabham F1 team?

CW: I lived in West Kingsdown, a little village that's close to Brands

Hatch. Dad was a farmer and my brother, Nick, was very interested in cars. Nick started his own little garage at the age of about 17; he was quite enterprising. I was well into cars and followed Formula 1 as best I could back in the days when you'd struggle to find anything about it in the newspapers. When the British Grand Prix – actually it was called the European Grand Prix then – came to Brands for the first time in 1964, I dutifully sneaked over the fence, as you do, to watch the race. That was it for me; I just wanted to be involved in Formula 1 after that.



WorldMags

"Teams try to pull the wool over your eyes, of course, but you have to try and see through it"

Then in 1968, my brother started doing a little bit of autocross and rallycross and I was helping him prepare his cars; I was about 14 at the time. I learned an awful lot from Nick. After I finished school, I just wanted to work on cars but my Mum wouldn't let me; she said I needed an education. I did five years at a polytechnic and came away with a Higher National Diploma in mechanical engineering. Then, much to my Mum's disgust, I went to work in a garage. I continued doing Nick's cars for him.

MH: Thundersaloons, wasn't it?

CW: Yes, he used to race these Ford Escorts with big engines. They were brilliant cars. Then, in 1976, Nick did a deal with John Webb [of Brands Hatch] to run Divina Galica in an old Surtees TS16. We ran that in '76 and a TS19 in '77 and at the end of that year I went off to work in F1.

MH: So what happened? Did you get a call from someone? Was there an advert?

CW: Divina got a drive in F1 at Hesketh. That didn't last very long. She didn't qualify and then I think we ran Eddie Cheever for one race and

Derek Daly for another. After the Belgian Grand Prix, Hesketh folded. Beaky Sims, who was the team manager, told me that Herbie [Blash, team manager at Brabham] was looking for someone. I went for a chat. They wanted a number three mechanic on the T-car, and I was that man.

MH: So that was right at the bottom of the pile?

CW: Yes. That was in 1978 with the Brabham

BT46 and the flat-12 Alfa engine. It was a lovely
car – we won a few races with it. In 1979, I was
put onto Niki Lauda's car, which, by then, was a
BT48 with the V12 engine; not a very good car.

MH: It pumped out a lot of oil, I seem to recall.

CW: Among other things! Towards the latter part of '79, Bernie [Ecclestone, owner of Brabham] decided to get rid of the Alfas. We built the BT49, which was a wonderful little car with a DFV in it; very easy to work on. I remember testing at Mallory Park and Thruxton and it was stupendously quick. Nelson [Piquet, who had replaced John Watson] loved it. I'd built this BT49 for Niki for the Canadian Grand Prix. He

back in and said the revcounter wasn't working.

I fixed that, ready for the
next session. Where's Niki? His
bag and helmet were on the pit
counter. But he'd gone; retired!

I didn't see him again for five years.

In 1980, I was the number one mechanic on Nelson's car; we came close to winning the championship that year. He won his first race in Long Beach but then Jonesy took Nelson off at the first corner in Canada, the penultimate race, and we had take the restart in his T-car [which was permitted in 1980]. Nelson was disappearing in the lead but then the engine blew up after about half distance.

MH: What was the story with the engine in that car? Was it a quali engine that shouldn't have been there? Can you remember?

CW: That's what I understood. I think we'd got a fairly special engine from Cosworth for qualifying; I wasn't involved deeply in the engines in those days. It was a different engine and the decision was taken not to change it on Saturday night – but suddenly we had to use it and it didn't last the race.

MH: Today, with all the checks and procedures and so on, that sort of thing would never happen, would it? The engine would simply be changed as a matter of routine.

CW: Absolutely. It wouldn't be an issue. Anyway, in 1981, I was made chief mechanic up until 1986 when I was promoted to race engineer on Riccardo Patrese's car.

MH: But the team was starting to go downhill...

CW: Bernie was finding there was too much of a conflict of interest between the FIA – or FISA as it was then – and the teams, so he gave up. He offered to keep me on, doing whatever he could find for me. It was his idea that I could perhaps work for FISA. Having been on one side of the fence, he thought I'd perhaps be good at





catching the buggers from the other side! That's how it all started. When Max Mosley became FIA president at the end of '91, he promoted me to technical delegate. My next milestone was 1996 when I was given the job of starting the races. In 1997, I became race director.

MH: So, given your background, you knew exactly how it all worked, how the mechanics worked, how the designers worked, how the drivers thought. But as you gradually worked your way up, did you feel it becoming an onerous responsibility?

CW: I came in at ground level. As things evolved, we had a few big issues arising in the early 1990s with fuel, for example, and then with the active suspension. We had some fairly big fights on our hands. Then it all became far more complicated, so I had to bring in a few experts. In 1994 there was the traction-control saga and then, of course, the whole business with Ayrton's death at Imola and all the changes that were needed as a consequence of that. We needed to get more

and more specialised in a number of fields to try to keep pace with the technology.

MH: But that's very hard for you, because you are dealing with some of the best brains in the world and it's just you guys. You must have to get up very early in the morning to stay ahead? **CW:** The biggest weapon in our arsenal is

deterrent. A mistake is one thing, but if there seems to be a deliberate attempt at cheating, the consequences could be significant – as we saw with the Toyota rally car [in 1995, Toyota were banned from the WRC for 12 months for using an illegal air restrictor], which, in total, meant two years out of the business for them.

MH: But these guys are going to work right up to the edge of the regs, aren't they? So, when they come to you with a proposal, I know you don't pass judgement, but what can you do?

CW: We give them our opinion. They'll come to us with a scheme and say, "What do you think about that?" and we'll say, "Yeah that should be okay." Of course, strictly speaking, I can't say

whether it is or not. Ultimately, it's up to the stewards. But if an interpretation is needed, we can offer a view that, 99 times out of 100, does turn out to be the definitive view.

MH: There must be times when something comes through and you think: "That's clever. They're right. It's within the regulations...'

CW: The double diffuser was just that. We thought it was legal; it was quite a clever loophole. If we see a so-called loophole, we will always try to close it; we will try to think of an argument to stop it. But it's difficult to actually stop it because the rules are the rules. However, whatever interpretation we try to put on it, it's sometimes not quite enough. More difficult, though, is seeing where it might lead. If you're not an aerodynamicist, you're unlikely to know.

MH: You've got to be a jack of all trades in many ways. You've got to know a bit about aerodynamics; a bit about all sorts.

CW: You don't need to know too much about aerodynamics as such. Bodywork rules are



World Mags

normally about dimensions, that sort of thing. I've not got any great interest in what flow patterns there are or what all these vortices look like or what they do because if it complies with the rules, then that's fair enough. The difficulty we tend to have is in knowing how far they can go. If you say 'yes' to a little slot here, what's to stop them from doing something that goes round and round and then ducts the air through somewhere else that we just wouldn't think of? Nor, in fairness, would the teams necessarily think of it themselves in the beginning, but that's how things tend to snowball and so we do get caught out sometimes.

MH: There's a lot of money at stake for the teams, so they must get quite passionate if you rule against them? Sometimes you must think the world hates you. How do you cope?

the world hates you. How do you cope?

CW: It's difficult sometimes when you feel

a bit sorry for someone who's

a bit sorry for someone who's
developed something,
but you have to say
'no'. Teams
try to pull
the

"I've started over 250 races now – but it's definitely not routine"

wool over your eyes, of course, but you have to try to see through it. I'm not suggesting for one second I manage it every time, but it can be difficult to see exactly why they want to do something; why it's absolutely necessary to have a certain thing on the car.

MH: So you think: 'What's the motive here? They're up to something – what the hell is it?'
CW: You almost have to assume they're up to something

MH: They often are! But that's the name of the game, isn't it? This is the business we're in. It's a deeply competitive game at every level – particularly yours.

CW: Unbelievably so. And just as much on the sporting side. We've only talked about technical matters so far, but it's equally competitive – possibly more competitive – on the sporting

side in the races. All sorts of comments

and accusations fly around when, say, a

driver cuts a chicane. Did he gain an advantage? They say: "We're sure he did this. We're sure he did that."
You check – and, no, he didn't.
We're forever checking things and very often they don't turn

out to be true after all.

MH: At least there's no arguing about DRS; the wing's open or it's not. What are your thoughts on DRS after one season? I know it's been a work in progress and you've

been learning as you go...

CW: I think I'm a bit biased because I consider DRS to be my baby. I think it works exceptionally well. There were a few places where it didn't work well enough – Melbourne was one – purely because the length of the straight wasn't sufficient. What we want to do is make it so that the driver still has to work hard; we don't want to make it easy. In China, we could have had it over the whole straight but it would

have been really tedious. We've got to try to make it a little bit better.

There are a lot of things to consider when you actually analyse it; things like the comparative speed of the cars at the beginning of a sector. You need to see if the guy would have passed anyway without the DRS. You also have the differences between the efficiency of the DRS on one car compared to another. Obviously, as always, the whole setup of a car is a compromise, and some teams go towards the slightly more optimum qualifying performance. If you're a team expecting to qualify at the front, you might do something different to a team who know they are going to qualify at the back.

So we've got to look at all those factors. You can't say DRS didn't work there, because it may have worked for some, but not everyone, just because of how the teams have set up DRS and the car. Overall, I think it has been a success. It got everybody talking and provided a lot more overtaking. It did result in more accidents, but that's going to happen; when guys try to overtake, sometimes they do hit each other. If it hadn't been that close, then they wouldn't have hit each other: that's obvious. I don't think it's anything that's been remotely dangerous.

MH: Have the drivers had to realign their judgment in a way?

CW: The most refreshing thing about 2011 was that it was clear drivers hadn't forgotten how to race. In fact, it was clear that they love it. You could be forgiven for thinking that they'd forgotten how to do it because it used to be much more difficult.

MH: On the subject of racing, can you clarify the rule change regarding the number of moves a driver is now allowed to make?

CW: You saw the business with Michael and Lewis in Monza, where Michael would go into Ascari, move left to defend his position, Lewis would go to the right, then Michael, coming up to the corner, would move back to the right to take his line. It's been an unwritten rule that if you're going to move back, you should always leave room for the car to your right. So, you could say: "Once you've moved, you can't move

back." But, if a driver did move to the left and then moved slightly right - just slightly right - there'd always be someone who'd say: "He moved twice!" So you've got to leave enough space for one to pass if he can and, equally importantly, if a driver moves back in front of another one and that car is a bit late on the brakes, you've got potential for nose-to-wheel contact and flying cars. I think Michael was right on the limit. Now we've made it a written rule, but it hasn't really changed anything. MH: You must've heard all the excuses by now...

CW: "I didn't see him!" Drivers always say that. MH: I sympathise with that a little bit because you surely can't see much from the cockpit these days? There are blind spots with the head protection and the little mirrors.

CW: I dispute that because the mirrors have got bigger over the years; they are chunky great things; you look at how small they used to be. If you can't see what's in these mirrors, you should put them in a better place. It's a standard excuse. He must have known the other driver was there or thereabouts. Anyway, drivers have got peripheral vision; if they haven't, then there's actually something wrong with their eyes. MH: Talking about seeing everything, how did you feel when you were first asked to start a race? There must be so much to take on board. CW: When Max Mosley asked me, I said I'd love to do it. I was very nervous before the first one, which was Melbourne in 1996 when Martin Brundle had that big shunt on the first lap. In those days, we stopped the race rather than use

the Safety Car. So I had to start the race twice! I'm not suggesting I'm not nervous now, because it's a moment of high tension for everyone and there are lots of things to think about. You have to programme the lights; you've got to know exactly what to do within a split second if something happens. There are so many different scenarios; hardly a race goes by without something coming up that you haven't seen before. You have to be aware of what's going on. I don't know how many races I've started now - it must be over 250 - but it's definitely not routine. You still get an adrenaline rush. MH: I was at Monza in 1978, when Ronnie

Peterson had that terrible accident. The press tribune was then in the main grandstand, directly behind the starter's rostrum. In those days they would get a local bloke to turn on the green lights. And this guy was clearly intimidated by Gilles Villeneuve in the Ferrari, sitting on the front row, looking up at the starter and blipping the throttle. He presses the button and, of course, the back half of the field haven't reached their grid slots. Those guys - well, most

Jerez in 1997 when Schuey drove into JV, was the closest Whiting ever saw Max Mosely come to intervening at a race: "I can say, hand on heart, that has never happened" The lights were turned on too soon at Monza in '78, leading to the death of Ronnie Peterson. Race starts are now so precise that Whiting states "It's

of them - see the green lights come on and they floor the throttle while they're still moving forward. No wonder there was chaos at the point where the big wide track hit the bottleneck before the first chicane.

unthinkable that it could

happen now"

CW: It's unthinkable now that that could ever have happened. The drivers come out onto the grid and they all have their routines so perfectly worked out now; they know exactly how long they're going to have to wait, how hot the car has got to be when they get there and they're forever doing clutch bites and burnouts; it's all so precise. But obviously things do still go wrong,

although cars don't stall on the grids nearly as much these days. The drivers at the front know that if they streak away and they then have to sit on the grid for a minute and a half, it's their own silly fault. So now they get their burnouts done and their tyre temperatures right and normally 45 seconds at the most is the longest they will ever have to wait.

MH: During 'Spygate' and all that, there was this 'FIA means Ferrari International Assistance' stuff doing the rounds. How did you feel when people said the FIA was favouring Ferrari? What can you do to show you're actually neutral?



CW: I don't know what more we can do. I think if anyone has got that in their brain, then there is no shifting it, frankly. But I can say, hand on heart, that has never been the case — and nor will it ever be. I know it's not the case, so I'm perfectly comfortable with that. It's completely ludicrous, but I can see why people might sometimes put three things together and say it means the FIA is biased towards Ferrari. But we never went out of our way to do anything special for Ferrari and nor should we. We've tried to be as even-handed as possible. And if we're not, then I think the whole thing would collapse. The trust would disappear. We have to make sure we do our best to maintain that trust.

MH: There is also this idea that Max might have been on the phone dictating what to do whenever there was an incident or something controversial happened...

CW: Again, I can say hand on heart that has never happened; never during a race and never during any stewards' enquiry. The closest I've seen Max come to saying anything was after Jerez in 1997 [when Michael Schumacher drove into the side of Jacques Villeneuve as they disputed the final round of the championship]. Max was in the control tower – not in the stewards' room or Race Control – and he said to the chief steward something along the lines of: "So, a small investigation now?" And the steward said: "No, it was a racing incident." Max left it at that. It had been a question, not an instruction. And nothing did happen at that race.

MH: Was Max good to work with?

CW: Very much so. He was a very good decision maker; very clear about which direction to go. He understood racing and he was very good technically as well.

MH: When you go to the races, you're always there before most of us. I've seen you walking around the track. In Abu Dhabi, on Thursday afternoon, I saw you standing down at the last corner on your own, looking up the straight. CW: Final inspection is on a Thursday; it's a traditional thing more than anything else. Most of the work has already been done; I'll have been round the track on the Wednesday. It's good to have a final look and remind yourself of the detail. In Abu Dhabi, I was probably looking at the pit entry line; we'd made a couple of changes to the last two corners with additional artificial grass. You check things such as kerbs and bollards on corners once it's all done. You check places where drivers might try to cut chicanes and decide what deterrents you need to put in place to make it slower if they try a short cut. MH: What about Korea in 2010 for example? By the time you got there it was done and only then



could you see the effect of the walls being too close at the final corners. People were saying: "For goodness sake, what were they thinking of, allowing this?"

CW: Exactly. Generally speaking, it doesn't happen very much. I've usually got an answer for most of the questions that emerge because it is detailed work. There is an awful lot of work even before I visit a circuit. I went to Delhi six times to make sure there wasn't a repetition of Korea; I only went twice before the 2010 Korean event. I should have gone an extra once or twice. Not that it would have made that much difference because the work was so late; it wasn't really finished. I'd say 2011 was a lot better.

MH: You must work 24/7. Do you get a holiday? **CW:** I do.

MH: But you work through the winter with the sporting and technical regs; that's a lot of pages.

CW: It is, but you don't rewrite the whole thing every year. You're just adjusting them. I chair all the technical and sporting working group meetings. That's when we decide the new rules

and discuss different ways of doing things. That keeps me well up to speed with everything.

MH: Do you enjoy it?

CW: Definitely. I still enjoy the racing. Okay, you're not there to sit and actually enjoy the racing – the two primary objectives are to make sure it is done fairly and safely – but it doesn't stop you appreciating it. Sometimes you get wrapped up in various things and you can't actually see what's happening from the racing point of view. We have all sorts of systems and people who alert us to what's going on at various different parts of the circuit. We've got a very good flow of information.

MH: Do you have camera angles covering virtually everything?

CW: That's a bit hit-and-miss sometimes because we have to rely on the host broadcaster. What we've got are CCTV cameras – there are about 30 of them around the track – and we have pictures of every bit of track that we can adjust and zoom in on. We've got four or five pit cameras of our own covering the entry and exit

and there are ten on-board cameras at all times; we won't always have the right one on the right car at the right time, but the chances are you'll get what you need.

In 2011, we started what we call the Race Incident System. Using GPS, which we have on all the cars, this system knows what an incident is. So, if the Safety Car is out and the system sees two cars pass, it will flag up 'possible overtaking under Safety Car'. It will then automatically find every image there is of the two cars involved. This saves you having to trawl though the cameras to find the incidents. If we decide there is, in fact, an incident, then the whole thing is sent to the stewards' room and they will have everything. All the images will be ready to go. In the past, I would call the stewards and say: "I think this car overtook that one behind the Safety Car on lap 32," and they would then have to check every camera on that lap and try and find the incident.

MH: Has it been good having an ex-Formula 1 driver on board?

CW: Yes. Very good. It has improved the credibility of some decisions although, of course, not everyone will agree with everything they say. There will always be differences of opinion.

MH: I think it's funny, for instance, that Jonesy should be on the panel given that he, um, squeezed Nelson at the start in Montreal in 1980. But that's why it works; he's been there and done it — so to speak.

CW: A bit like me, really! Which reminds me, I've got a technical meeting in a few minutes, so I have to go. Thanks for lunch.

MH: No problem, Charlie. Thanks for the chat. I'll see you in another pitlane somewhere.

"When guys try to overtake, sometimes they do hit each other"

Lewis and Massa
collide at Suzuka – a
recurring theme of 2011.
Whiting insists that
while DRS did cause
more accidents, "it has
been a success"



And you thought this year's cars were



Forget 2012's step noses – allow *F1 Racing* to present a rogues' gallery of historical F1 howlers, including Ligier's infamous 'Teapot' and a snowplough-lookalike Ferrari, whose only performance of note was killing a rabbit in testing

WORDS ALAN HENRY

eauty may well be in the eye of the beholder – and Denny Hulme once memorably noted that "She'll be the best-looking bloody car if she wins the race!" – but the truth of the matter is that there have been few ugly F1 cars that have been what you might call dazzling successes. Here we take a trip down memory lane to consider a group of machines whose reputation definitely matched their looks. Our selection ranges from Bugatti via BRM and McLaren – who amazingly get two entries – to the absurd-looking Ligier JS5 'teapot' and a prototype Ferrari aberration, which was famous only for an incident involving Jacky Ickx and a rabbit at Monza...



BUGATTI T251 (1956) orldMag

Seemingly made from two different cars: neither of them very attractive

Bugatti were one of the greatest names in racing during the pre-war era, but their star quickly faded in the late 1940s and by the time the novel T251 was wheeled into the pitlane for the 1956 French Grand Prix, the famous French company were no more than a handful of flickering embers. This car offered little hope for a last-minute renaissance, and perhaps the most charitable excuse that could be made for it is that there must have been two designers who started from either end – and they weren't on speaking terms.

We never got to find out if the 2.5-litre Bugatti eight-cylinder engine was any good, but fitting it transversely didn't seem like a brilliant plan. Maurice Trintignant drove the car - one hesitates to say 'raced' - and retired after 18 laps with throttle-linkage problems. And that was that.





Like a big metal anteater with an engine in the back

BRM had enjoyed plenty of success during the early- to mid-1960s with their taut and compact 1.5-litre V8-engined cars. But to meet the challenge of the new three-litre F1 regulations in 1966, their chief designer, Tony Rudd, bit off more than the team could chew by coming up with the enormously heavy and complicated H16 engine which was, in essence, a couple of V8s linked by a common crankshaft.

The BRM P83 that got saddled with this power unit, yielded a career-best second place at the 1967 Belgian GP thanks to Jackie Stewart, but its career was mainly characterised by an archive of photos showing it grinding to a halt at various tracksides, usually spewing oil and water as it went.

FERRARI 312B3 (1972)

"I didn't like it," said Jacky Ickx. Millions of people nodded in agreement

While Ferrari used their 312B2s to battle Tyrrell and Lotus at the height of the 1972 season, back at Maranello chief designer Mauro Forghieri was at work developing a radical-looking new machine.

His prototype B3 was a squat, blunt and angular device, with its water radiators mounted within the heavily sculptured sidepods, all the fuel positioned centrally and an unusual shovel-style nose. Its detractors named it the spazzaneve, the English translation of which is 'snowplough', and its twitchy track behaviour endeared it to neither Jacky Ickx nor Arturo Merzario, who were entrusted with its testing

In fact it was only ever used as a test car - never for races. "I didn't like it at all," remembered lckx - who once memorably struck a rabbit with it during testing at Monza. And when I saw it, I was worried it might bite my leg...



HOTOS: DANIEL KALISZ/LAT; GLENN DUNB,



McLAREN M9A 4WD (1969)

It was four-wheel drive, but unfortunately it looked like this...

At the end of the 1960s there was a sudden proliferation of 4WD Formula 1 cars as designers went further and further in their endless search for improved grip. But the complexities of these systems and the evolution of wider, grippier rubber on the 2WD machines of the time swiftly rendered them superfluous.

Although many people regarded the M9A as the best-looking of the fleeting generation of 4WD challengers, this McLaren was hardly an elegant machine and those drivers who tested it found it difficult to get used to the power understeer, which snapped in whenever a significant percentage of power was being directed through the front wheels. Derek Bell gave the car its sole race outing at the 1969 British GP and it never moved in anger again.

I only saw it close up when it was retired to the The Donington Grand Prix Collection. Interestingly, Bruce McLaren, usually an astute and shrewd engineer, fell in love with the 4WD concept - only for it to fail spectacularly to live up to his hopes and aspirations.

LIGIER-MATRA JS5 (1976)

The only teapot ever to race in F1 - and it managed three podiums

This was a halfway decent Formula 1 car, that marked the grand prix debut of the Vichy-based team founded by former F1 privateer Guy Ligier. The team started life as a single-car operation, with Jacques Laffite driving and power delivered from a shrill Matra V12 that had dominated the endurance-racing scene a few years earlier.

In 1976, the vogue tended to be for high airboxes to improve the ram effect of the engine's induction system, but the Ligier was just absurd. It was nicknamed 'the teapot' because that's precisely what it looked like - although some historians have suggested that it overheated like a kettle, too. I'd tend to disagree there though: the first Formula 1 kettle was the Renault turbo V6, which smoked onto the scene in 1977.







For more information on Whittlebury Park, visit

www.whittlebury.com

JOIN F1 RACING ATTHE BRITISH GRAND PRIX

IF YOU'RE VISITING THE British Grand Prix at Silverstone this year, book your camping space at Whittlebury Park now. Offering direct access to the Silverstone circuit at Becketts and Copse, Whittlebury also provides a range of great facilities. Camping areas are situated next to the circuit entrance and the closest pitch is just ten metres from Gate 8. Plots are positioned across the farm and golf course, and all are within walking distance of the amenities.

Whittlebury Park will be offering a variety of entertainment and dining options to all campers over the course of the grand prix weekend. The legendary beer tent will once again host live music, a barbecue and the opportunity to win some incredible prizes, while the Atrium Club House and the Pavilion will both be serving a range of food and drinks across the weekend.

F1 RACING QUIZ NIGHT

Join F1 Racing on Saturday 7 July for a chance to test your F1 knowledge at our fantastic quiz night. Your host will be the magazine's news editor, Jonathan Reynolds. Tickets* cost just £17.50 and include food and drink - not to mention the chance to win some amazing prizes!



Multitaticky teath beset heateth the Silver attoornips tite

TO BOOK your plot and/or quiz-night place, call now on:

01327 850000

or visit www.whittlebury.com

Follow F1 Racing on Twitter and Park over the GP weekend

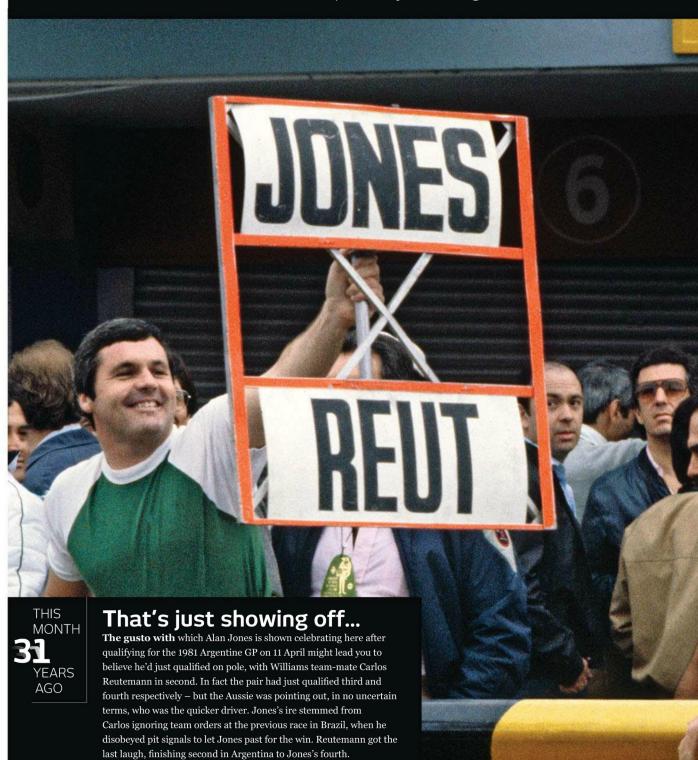
SITE INFO

- Plot size: 6m x 7mPrice per plot: £145 per week
- · One tent/caravan and one car per plot
- Large caravans or extra cars will require larger plots. Phone for details
- Arrival: From 2pm on Tuesday 3 July
- Departure: Monday 9 July
- · Shower and toilet facilities available



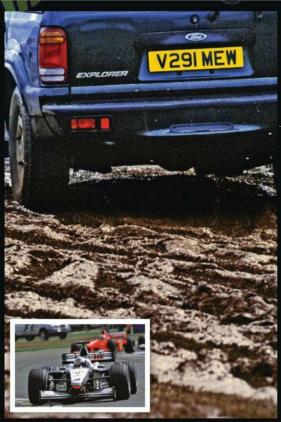
Way back when

Formula 1 occurrences from the month of April, many moons ago...









THIS MONTH YEARS AGO

Typically British

If it's July then it must be the British GP, right? Well, back in 2000 it wasn't. The FIA switched it to April to accommodate other races on the calendar, and the British weather duly turned nasty. Spectator cars were banned on Saturday after chaos in the mud on Friday, and David Coulthard's McLaren got stuck in the mire in practice. Luckily the rain abated for race day, and Coulthard (inset) won his second successive British GP.



THIS MONTH YEARS **AGO**

Now there's a stroke of luck

F1 drivers have, for many years, often tended to live in Monaco – and Gilles Villeneuve and Jody Scheckter were no different when they were Ferrari team-mates in 1979. They regularly drove the 270-plus miles to the Ferrari test track at Fiorano and on one trip on 12 April were accompanied by former F1 Racing journalist Peter Windsor. Scheckter's Ferrari 400GT ran out of fuel on the way back, just as they happened upon another unlucky motorist with a puncture on their Fiat. With Villeneuve (centre) looking bemused, Windsor snaps the moment a happy Scheckter (far right) finds a fuel can in the Fiat.



VODAFONE McLAREN MERCEDES T-SHIRTWHEN YOU SUBSCRIBE TO F1 RACING



ORDER ONLINE AT

www.themagazineshop.com/FONE/M0412P

OR CALL 08448 488 826

When ordering please have your bank account details to hand and quote the promotional code M0412P. Offer ends 30 April 2012



SUBSCRIBE TODAY AND GET ALL THIS:

FREE GIFT

Choice between
FREE Vodafone
McLaren Mercedes
Jenson Button or
Lewis Hamilton
T-Shirt **WORTH £27.95**

GREAT SAVINGS SAVE 17% on the new cover price

SPREAD THE COST

Pay just £23.95 every six issues

FREE P&P

Every issue delivered direct to your door

ISUBSCRIPTION OFFER

I would like to subscribe to F1 Racing, paying £23.95 every six issues and saving 17% on the new cover price. Please send me my **FREE** Vodafone McLaren Mercedes T-shirt in the following style:

· · · · · · · · · · · · · · · · · · ·	The Table 1 and 1
Lewis Hamilton M	□ L□ OR Jenson Button M□ L□
This is a New subs	cription Renewal
YOUR DETAILS B	LOCK CAPITALS PLEASE (must be completed)
Mr/Mrs/Ms	First name
Surname	
Address	
	Postcode
Telephone	
Email	
Mobile	
DIRECT DEBIT DE	ETAILS bank or building society to pay by Direct Debit)
To the manager	Bank/building society
Address	
	Postcode
Name(s) of accou	nt holder(s)
Sort code	

Branch/building society account number



Reference number (for office use only)

INSTRUCTIONS TO YOUR BANK OR BUILDING SOCIETY

Please pay Haymarket Media Group Direct Debits from the account detailed in this instruction, subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may stay with Haymarket Media Group and, if so, details will be passed electronically to my bank/building society.

Signature

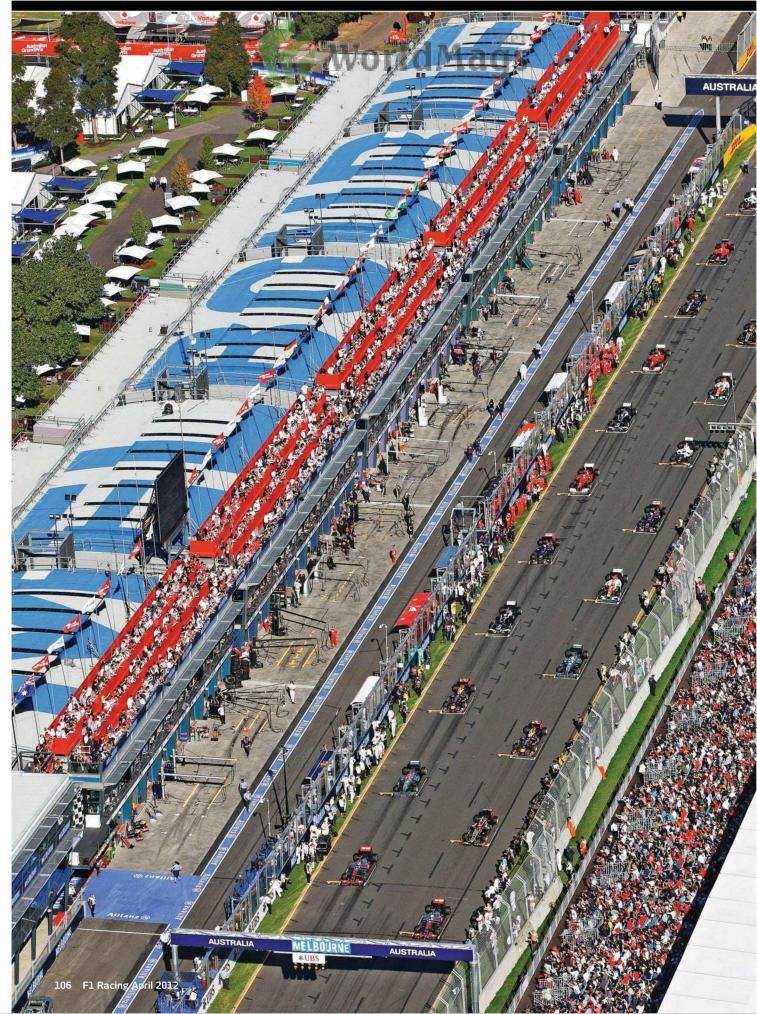
Date

PLEASE RETURN THIS FORM TO: F1 Racing, FREEPOST RSBZ-AUZK-SUHS, PO Box 326 Sittingbourne, Kent ME9 8FA

For special international rates:

Please call +44 (0) 1795 592 990 or visit www.themagazineshop.com US and Canada residents please call 1-866-918-1446

Terms and conditions: This offer is open to UK residents only. Offer ends 30 April 2012. Overseas rates are available on +44 (0) 1795 592 990 and residents of USA and Canada should call 1-865-918-1446 or visit www.imsnews.com for rates. Please allow 35 days for delivery of your gift and first issue. The gift will be sent under separate cover from the magazine and will not be dispatched until your flayment has cleared. Should we run out of gifts, you may be offered an alternative gift – there is no cash alternative. The minimum subscription term is six issues and is non-refundable. Should you choose to cancel your subscription during your first term it will cancel on expiry. Details of the Direct Debit Guarantee are available on request. Direct Debit rates are valid for one year, after which they are subject to change. Should prices change we will inform you in writing. Haymarket Media Group Ltd uses a best-practice layered privacy policy to provide you with details about how we would like to use your personal information. To read the full privacy policy, please witk our weeks tet www.haymarket. com/privacy or call us on 08448 482 800. Please ask if you have any questions, because submitting your personal information indicates your consent. for the time being, that we and our partners may contact you about products and services that will be of interest to you will pone, email and SMS. You can opt out at ANY time by emailing us at datacontroller®haymarket.com or by calling 08448 482 800.





F1 lines up for a new season

It's felt like a long while coming, but F1 is officially back. Let battle commence!

AUSTRALIAN GP

108 SYMONDS' AUSTRALIAN GP DEBRIEF It's all change at the top as Button

beats Vettel to the first win of 2012 **111** THE GP YOU DIDN'T SEE ON TV

The drivers line up on the grid in

Melbourne - but where are their cars?

113 AUSTRALIAN GP STATISTICS

It wasn't the race result he wanted, but Alonso did get the fastest pitstop



PREVIEWS

114 SENNA'S CHINESE GP PREVIEW

Bruno's braced for the culture shock... and those incredibly long corners

116 SENNA'S BAHRAIN GP PREVIEW

Will it happen or won't it? It's back on the calendar for now at least...



119 FRANK WILLIAMS

With a few changes in place, he's much more positive about 2012

121 ALAN HENRY

Those sporting genes seem to run in Lewis Hamilton's family...





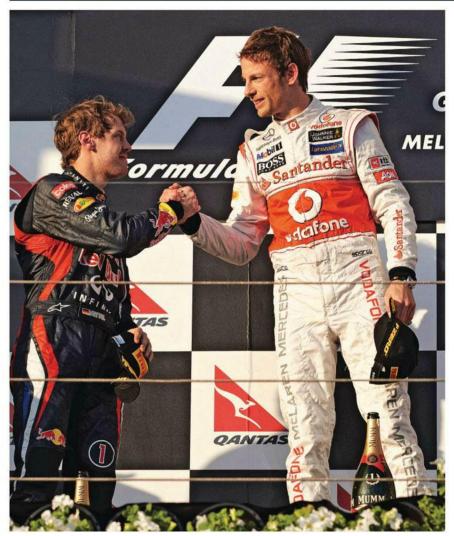


RACE DEBRIEF BY Pat Symonds

Australian Grand Prix

18.03.2012 / Albert Park

Hamilton fails to capitalise on pole... HRT fail to qualify ... Vettel fails to lead a single lap



Start as you mean to finish

Having cut past polesitter Hamilton right at the start, McLaren's Jenson Button held the Red Bulls at bay to take a dominant win

he phoney war that is winter testing gets ever more complicated as teams deliberately seek to disguise the true performance of their cars. It is a routine that serves no purpose and yet is an innate part of anyone with competitive spirit

– and there are few more competitive than the members of a Formula 1 team.

The repetitive exaggerations that were once a feature of every team's pre-season briefings, have now disappeared along with the lavish car launches that became victims of these austere times. Instead there are low-key roll-outs made on the morning of a car's first test and short interviews with reluctant technical staff more focused on political correctness and economic survival than outright competitiveness.

There is no doubt that, the top four teams aside, the economic state of F1 is not a healthy one, and yet, once again, we saw 24 new and immaculately prepared cars emerge for the first practice session of the season. With only three pre-season test sessions this year, you might have expected to witness a lack of readiness, but the superb reliability of the modern generation of cars is a credit to the engineers. Even Mercedes, who chose not to attend the first test with their new car, had mastered its nuances over the course of just seven days of testing.

In spite of the inherent reliability of the cars, teams want nothing more on the first day of the season than good weather and a dry track. For all the miles covered in Spain prior to the first race, nothing can quite match the conditions of a practice session at a GP weekend. And the fickle Melbourne weather was in no mood to pander to the teams wishes as heavy downpours before both of Friday's practice sessions determined that useful running would be restricted and those precious cars, often at this stage without their normal complement of spare parts, would be exposed to the dangers of a wet track.

The Friday weather also robbed the pundits of their first chance to establish the 2012 pecking order as a constantly changing track and hastily concocted practice strategies sought to disguise the true pace for another day. Some late running on slicks in P2 did little to clarify the situation.

There was protest in the paddock on the Friday night. This is fairly usual at the first race as teams try to establish the true boundaries of certain rules. This time the victims were Mercedes, with criticism being directed at their drag-reducing device that relied on the operation of the DRS to alter airflow in another region of the car. Paradoxically, among the most aggrieved were Red Bull – the team so often on the receiving end of similar criticism. But there was some satisfaction for the fan base in seeing Michael Schumacher fastest on Friday at this opening event of the new season.

Saturday was sunny, and the teams were soon into the groove of optimising their cars for both qualifying and the race. In spite of this year's Pirelli tyres being softer than last year's it soon became apparent just how much rear-end grip

the top cars were missing as a result of exhaustgas enhancement of the aerodynamics being deemed illegal. First of the frontrunners to find himself stuck in the gravel was Vettel at Turn 6, having found himself unable to rely any longer on prodigious rear-end grip when the throttle was closed. He was joined in his embarrassment soon afterwards by Schumacher, who also lost the rear end under braking into Turn 9 and was forced to sit out the final minutes of the session.

In qualifying, many questions remained unanswered. Had Red Bull really never run the car on low fuel in testing? Would the fact that Pirelli had narrowed the performance differential between the two tyre types force the front-runners onto the softer tyre for Q1? Each part of qualifying had surprises in store, the first of which was Räikkönen failing to make the cut after a mistake on his outlap and a misunderstanding over how much of the session was left. HRT failed to qualify within the 107 per cent rule, and this time, after unnecessary blocking by both drivers, the stewards did not look upon them favourably.

In Q2 the first upset was caused by Alonso beaching his car in the gravel at Turn 1 after setting a time on used soft tyres that was not fast enough for him to progress to Q3. His stranded car caused a red flag and a wasted run for Mercedes but, at the restart, they made full use of their enhanced DRS system to take the top positions. With Massa languishing in 16th, it was not a good day for the Scuderia.

View from the paddock

A hard winter's work

A stroll through the Albert Park paddock is all the motivation you need to get back in the gym. Everywhere you look, you see drivers who are even fitter and even leaner than last year; people for whom there is no gain without pain.

Jenson Button looks unbelievable. Not an ounce of fat on the boy, and he looks ever so smug when he tells you about the 10km running race he completed in Nagoya, Japan, the weekend before the race in 35 minutes. That's an average speed of nearly 11mph!

Mark Webber is a skinny whippet, having lost two kilos from nowhere over the winter. Nico Rosberg weighs less than last year as well; ditto Lewis Hamilton, Paul Di Resta – who's working with DC's former trainer Gerry Convy this year – and Timo Glock. The Marussia driver even went for a 50km cycle ride on the morning of the race, wanting to take advantage of the late start time.

Tom Clarkson



BELGIUM GP



3 Night Grand Prix Break

Booking Includes:

- Return Eurostar from London to Brussels
- 3 nights hotel in Brussels with breakfast
- Friday Night Welcome Drinks Reception
- Event Pack including earplugs and ticket lanyard
- Sunday return cicuit coach transfer







From £413 per person**

Optional Extras (at a supplement)

- Saturday return circuit coach transfer
- Hospitality
 - Race tickets









ABU DHABI GP

LE MANS 24 HEURES



4 Night Grand Prix Break

- Return flight from London or Manchester to Dubai or Abu Dhabi
- 4 nights hotel in Dubai or Abu Dhabi with breakfast
- Airport & Sunday Circuit transfers by coach
- Friday Night Welcome Drinks Reception
- Event Pack including earplugs and ticket Lanyard

From £769 per person***









Optional Extras (at a supplement)

- 2 Day or 3 Day Grandstand ticket
- Hospitality
- Saturday return circuit transfers by coach









The Airtrack Village Returns

- Choice of Camping Pitch options
- Fantastic location close to the Paddock
- Airtrack Arms pub onsite
- Big screen showing live action
- High quality toilet & shower facilities
- 24 Hour Security
- Live entertainment

From £159 per person****





Optional Extras

- Race tickets
- On site meals
- Guided coach excursion
- Camping equipmentElectric hook up







FOR ALL OTHER 2012 EVENTS VISIT OUR WEBSITE OR CALL US FOR DETAILS



www.thomascooksport.com



0844 800 9900



stores nationwide

FINISHING STRAIGHT

The final part of qualifying was as fraught as it was exciting. After the first runs, Hamilton was on top by 0.7 seconds. His second run could not top this and he abandoned it while Vettel suffered the indignity of seeing Button, Grosjean, Schumacher and even his team-mate (disadvantaged by a non-functioning KERS) beat him. In spite of the softer tyres rolled out by Pirelli this year, the pole time was still 1.4 seconds off that of last year, an indication of the effectiveness of last year's blown diffusers even in their relatively immature start-of-season form.

As the race began, Button made a perfect start to lead Hamilton into Turn 1. The two Mercedes fell in behind Vettel in close formation. Further back there was chaos resulting in the elimination of Hülkenberg, while later on in the lap Romain Grosjean's impressive weekend was halted by the attentions of Maldonado.

Button pushed hard to free himself of DRS danger while Vettel had made it past Rosberg by lap 3. By lap 10, Massa was complaining of his soft rear tyres deteriorating and Pérez had moved from last on the grid to tenth, having started on the more durable hard tyre. Lap 11 saw Schumacher retire from third with gearbox problems, leaving Vettel to chase the McLarens. On lap 16, he and Button pitted with Button

choosing the harder tyre and Vettel the softer. There was little to choose between them with the gap hovering around the 11-second mark. By this point Button was conserving fuel in a big way, making his performance all the more impressive.

Hamilton made his stop a lap later than Jenson and it cost him dearly as he rejoined behind Pérez and Räikkönen but, by lap 21, he was back in second place, albeit ten seconds behind Jenson. Webber was making up for his poor start and was fastest on track at this stage.

Mindful of Hamilton's disadvantage at the first stop, McLaren pulled off a beautifully executed double stop on lap 36. Unfortunately for them, the Safety Car was deployed a lap later to allow recovery of Petrov's Caterham. With Vettel able to stop under the Safety Car, Hamilton had to drop behind the German. Alonso had put in a spirited performance until the Safety Car came out, but ran out of grip at the restart. However a fifth place was probably better than he had hoped for on Saturday night.

While the first race is not always indicative of the year ahead, I think we saw a decent



Button looks pretty happy about his third Australian triumph in four years. Now let's see if he can build on that success

guide to form in Melbourne. McLaren have both qualifying and race pace and also have the psychological advantage of winning race one. Mercedes looked good in qualifying but were hard on their tyres in the race. Red Bull proved deficient in no area, yet were not the dominant force they were last year. And Ferrari have much to do if they want to mount a serious challenge.

The GP you didn't see on TV

Taking you behind the scenes at Albert Park as the weekend unfolded



Forget F1, in 'beach cricket' Webber reckons he's found a sport where he's got a chance of beating Vettel



It's the start of a new term and the class line up in an orderly fashion for the school photo



Urgent last minute deliveries arrive. You know, stuff like Pot Noodles, paperclips, cheap CDs off Amazon...



Ricciardo demonstrates more Australian sporting high jinks that don't involve F1



29 JUNE - 1 JULY 2012



For the latest event news follow us on facebook twitter

Admission strictly by advance ticket only • For tickets or hospitality please call: +44 (0)1243 755055 or visit

www.goodwood.com

Australian Grand Prix stats

The lowdown on everything you need to know from the weekend at Albert Park...

THE GRID



1. HAMILTON McLAREN 1m24.922secs Q3



3. GROSJEAN LOTUS



5. WEBBER RED BULL 1m25.651secs Q3



7. ROSBERG MERCEDES 1m25.868secs Q3



9. HÜLKENBERG FORCE INDIA 1m26.451secs Q3



11. VERGNE TORO ROSSO



13. KOBAYASHI SAUBER 1m26.590secs Q2



15. DI RESTA FORCE INDIA 1m27.086secs Q2



17. RÄIKKÖNEN LOTUS 1m27.758secs Q1



19. PETROV CATERHAM 1m29.018secs Q1



21. PIC MARUSSIA 1m31.670secs Q1 *Five-place grid penalty -



DNQ DE LA ROSA HRT 1m17.060secs Q1 Qualifying criteria:

1min 32.214secs (107%)

2. BUTTON McLAREN 1m25.074secs Q3



4. SCHUMACHER MERCEDES 1m25.336secs Q3



6. VETTEL RED BULL 1m25.668secs Q3



8. MALDONADO WILLIAMS 1m25.908secs Q3



10. RICCIARDO TORO ROSSO No time in O3



12. ALONSO FERRARI 1m26.494secs Q2



14. SENNA WILLIAMS 1m26.663secs Q2



16. MASSA FERRARI 1m27.497secs Q2



18. KOVALAINEN CATERHAM 1m28.679secs Q1







DNQ KARTHIKEYAN HRT 1m17.019secs Q1

THE RACE



THE	RESULTS (58 LAPS)	
lst	Jenson Button McLaren	1h34m09.565s
2nd	Sebastian Vettel Red Bull	+2.139s
3rd	Lewis Hamilton McLaren	+4.075s
4th	Mark Webber Red Bull	+4.547s
5th	Fernando Alonso Ferrari	+21.565s
6th	Kamui Kobayashi Sauber	+36.766s
7th	Kimi Räikkönen Lotus	+38.014s
8th	Sergio Pérez Sauber	+39.458s
9th	Daniel Ricciardo Toro Rosso	+39.556s
10th	Paul Di Resta Force India	+39.737s
11th	Jean-Eric Vergne Toro Rosso	+39.848s
12th	Nico Rosberg Mercedes	+57.642s
13th	Pastor Maldonado Williams	+1 lap/accident

13th	Pastor Maldonado Williams	+1 lap/accident
14th	Timo Glock Marussia	+1 lap
15th	Charles Pic Marussia	+1 lap/oil pressure
16th	Bruno Senna Williams	+6 laps/damage
Retire	ments	

Felipe Massa Ferrari	46 laps – accident	
Heikki Kovalainen Caterham	38 laps – steering	
Vitaly Petrov Caterham	34 laps – suspension	
Michael Schumacher Mercedes	10 laps – gearbox	
Romain Grosjean Lotus	1 lap – accident	
Nico Hülkenberg Force India	0 laps – accident	

DNQ	Pedro de la Rosa HRT
DNQ	Narain Karthikeyan HRT

THROUGH SPEED TRAP





Fastest: Lewis Slowest: Nico
Hamilton, 194.96mph Hülkenberg, 146.52mph

TYRE COMPOUNDS USED







Intermediate Wet

CLIMATE	TRACK TEMP
50.110000000000000000000000000000000000	

	7700
Sunny	22 (

28°C
20 0

FASTEST LAP Jenson Button, lap 56, 1min 29.187secs



Fernando Alonso, 21.910secs (entry to exit)

DRIVERS' STANDINGS

lst	Jenson Button McLaren	25pts
2nd	Sebastian Vettel Red Bull	18pts
3rd	Lewis Hamilton McLaren	15pts
4th	Mark Webber Red Bull	12pts
5th	Fernando Alonso Ferrari	10pts
6th	Kamui Kobayashi Sauber	8pts
7th	Kimi Räikkönen Lotus	6pts
8th	Sergio Pérez Sauber	4pts
9th	Daniel Ricciardo Toro Rosso	2pts
10th	Paul Di Resta Force India	1pt
11th	Jean-Eric Vergne Toro Rosso	0pts
12th	Nico Rosberg Mercedes	0pts
13th	Pastor Maldonado Williams	0pts
14th	Timo Glock Marussia	0pts
15th	Charles Pic Marussia	0pts
16th	Bruno Senna Williams	0pts
17th	Felipe Massa Ferrari	0pts
18th	Heikki Kovalainen Caterham	0pts
19th	Vitaly Petrov Caterham	0pts
20th	Michael Schumacher Mercedes	0pts
21st	Romain Grosjean Renault	0pts
22nd	Nico Hülkenberg Force India	0pts
23rd	Pedro de la Rosa HRT	0pts
24th	Narain Karthikeyan HRT	0pts

CONSTRUCTORS' STANDINGS

,	CONSTRUCT	OKS S	
1	McLaren	40pts	
2	Red Bull	30pts	
3	Sauber	12pts	
4	Ferrari	10pts	
5	Lotus	6pts	
6	Toro Rosso	2pts	
7	Force India	lpt	
8	Mercedes	0pts	
9	Williams	Opts	

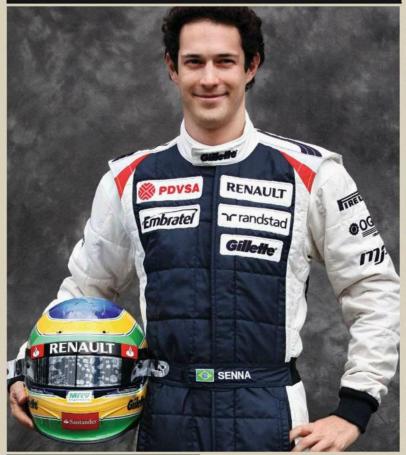
10	Marussia	0pts
11	Caterham	Opts
12	HRT	0pts



For comprehensive F1 statistics visit www.forix.com

The Chinese GP preview

15.04.2012 / Shanghai International Circuit





by Bruno Senna

The city is challenging enough, but the biggest challenge comes from the circuit itself, with those long corners that make tyre management a real headache

When I think about going to China I remember the two different experiences I've had there with F1. The first was in 2010 when we stayed near the track; the other was in 2011 when we stayed in Shanghai itself.

In 2010, I was very aware that I was in a foreign place: it didn't feel very easy because not that many people can communicate with you as they don't speak your language — it was quite a difficult one. But then in 2011 it was much, much better. Staying in Shanghai was actually really nice. There are some good places to visit and some very nice restaurants. It's much more international and cosmopolitan in the city and I'm looking forward to going back there.

Shanghai is a massive place that's out of proportion to any other place in the world I've been to. The streets are so wide and the buildings are set in such huge areas. It's a mad city, but it has a very international feel.

Driving on the roads there... I don't know if I'd call it fun but... well, we almost got involved in a few accidents going from the city to the track. So I'd say the best bit about staying close to the track is that you don't have to drive very much! Generally it is a little bit on the dangerous side when you are being driven around and there's always the risk of an accident, but I guess it's all a matter of personal opinion, really.



"In China, the longer corners make it tougher to locate the apex and the braking point"

There are two quite challenging sections to the circuit: they are Turns 1-4 and Turns 11-13. Obviously cars don't like going around corners and Formula 1 cars are no different — they're just better at doing it. The longer the corner, the tougher it is to locate the apex and the braking point and to attempt to carry more or less speed through it, plus there's tyre wear to consider as well. It makes your life much harder when you are going around corners for longer. It is one of those tracks where it becomes increasingly difficult to take care of the tyres.

I drove there in the wet in 2010 when I finished 16th. It was a tough race. With that car it was difficult enough in the dry... in the wet it was very, *very* difficult. But it's one of those tracks where you can explore alternative lines and that opens up different areas to you. I think the fact that it's got a long straight followed by a hairpin gives it a very different feel.





CHINESE GP SETUP NOTES

Track surface Smooth
Engine severity Medium
Gearbox severity Medium
Brake wear severity Low
Aero settings High
Overtaking opportunities Medium

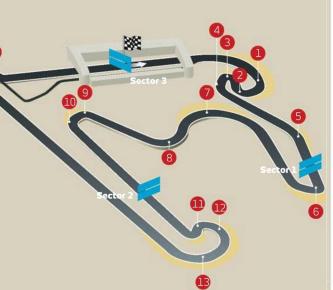
Track evolution Medium

TOP OVERTAKING SPOT

Last year the majority of overtakes were made at the Turn 14 hairpin, after using DRS down the long back straight. But for drivers to get themselves in a position to pass they need to ensure they get a good run out of the cambered Turn 13.

CIRCUIT HIGHLIGHT

The two most exciting corners at Shanghai are the fast left-hander of Turn 7 and the slightly tighter right-hander at Turn 8 that immediately follows. On low fuel and fresh tyres, Turn 7 can be taken flat-out – but with a full tank and worn rubber, it's a much trickier proposition.





All you need to know about China

CIRCUIT STATS

Round 3/20 **F1 debut** 2004

Track length

3.387 miles

Race distance

189.559 miles

Laps 56

Direction Clockwise

Lap record

1min 32.238secs,

M Schumacher, 2004

Full throttle 62%

Gear changes per lap 55

Safety Car probability 43%

Winners from pole 4
Tyre compounds

Soft/medium

LAST RACE

Winner Lewis Hamilton

Runners-up Sebastian

Vettel, Mark Webber

Pole Sebastian Vettel,

1min 36.706secs

Fastest lap

Mark Webber.

1min 38.993secs

Retirements 1

Pitstops 58

Overtaking moves 67

DRS overtakes 37

Weather Sunny, 22°C

PREVIOUS WINNERS

 Lewis Hamilton
 2

 Fernando Alonso
 1

 Michael Schumacher
 1

 Kimi Räikkönen
 1

 Jenson Button
 1

TIMETABLE (UK time)

Fri 13 April

Practice 1: 03.00 - 04.30 Practice 2: 07.00 - 08.30

Sat 14 April

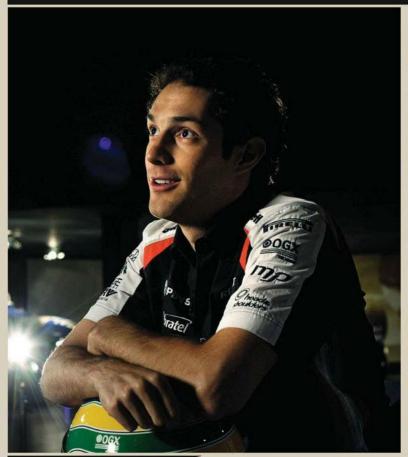
Practice 3: 04.00 - 05.00 Qualifying: 07.00

Sun 15 April

Race: 08.00

The Bahrain GP preview

22.04.2012 / Bahrain International Circuit, Sakhir





by Bruno Senna

There's still a big question mark hanging over F1's attendance at Bahrain this year, but if the GP does go ahead, it'll be back on the old circuit configuration

I've enjoyed my past experiences of racing in Bahrain. I was there in 2007 and 2008 with GP2 and then again in 2010 with F1. I really enjoy Bahrain: I always have a good time in Manama and there are some nice places to go in town. It's one of those places where it's very different, but the people are very hospitable. It's a shame the country is going through such a difficult time and we don't know if we are going there or not.

Of course, Bahrain is where I made my F1 debut with HRT, during a very chaotic weekend. We didn't do much testing at that race because the car was ready very, very late, but we got going and managed to complete more than half of the race, which was good considering that the car had only been through a shakedown in P2 that weekend. It was a great way to come out of the winter, because the odds had been stacked against us, but we still managed to start racing. It wasn't ideal, but it was an exciting time.

When you are immersed in it it's crazy enough but afterwards, when you look back, you think: 'I can't believe that actually worked!' It was a good achievement by the guys in the team that they actually managed to get the car there, but in the end it was a bit of a crazy kamikaze year where anything could happen. But I did enough to earn a chance with Lotus-Renault in 2011 and now a full-time drive with Williams this year.



After the tricky hairpin at Turn 8, drivers must be careful not to compromise their entry into Turn 10

In 2010, I raced on the one-off configuration with the additional section, which, as it stands, doesn't look as if it'll be used again. It only made the racing worse because Turn 4 had been a good overtaking spot, but with the new bit in place it wasn't any more. And driving it wasn't very nice as it was bumpy and very slow. The original layout is much more enjoyable to drive.

Turn 8, exiting the hairpin, is a tricky corner: you struggle for grip and the car wants to understeer, but it's a corner you learn to do very well. Actually Turn 12, the second to last corner, is the toughest because you approach it at high speed from a flat-out right-hander. So you're in sixth gear and you approach while cornering into it; you're never really straight, so when you brake for it you're always under some sort of G-force while making the apex and putting the power down. There are many compromises on that corner: it's very tough.





Bahrain International Circuit

BAHRAIN GP

CIRCUIT HIGHLIGHT

A fantastic place to watch is Turns 9 to 10. Here the drivers have to decide how much speed to carry through the quick left-hander of T9. If they carry too much, they could compromise entry to 10; if they carry too little, a rival could nip up the inside.





All you need to know about Bahrain

CIRCUIT STATS

Round 4/20 **F1 debut** 2004

Track length

3.363 miles

Race distance

191.530 miles

Laps 57

Direction Clockwise

Lap record

1min 30.252secs, M Schumacher, 2004

Full throttle 67%

Gear changes per lap 58

Safety Car probability 14%

Winners from pole 3

Tyre compounds TBA

LAST RACE (2010)

Winner Fernando Alonso

Runners-up Felipe Massa,

Lewis Hamilton

Pole Sebastian Vettel,

1min 54.101secs

Fastest lap Fernando Alonso

1min 58.257secs

Retirements 8

Pitstops 21

Overtaking moves 14

DRS overtakes N/A

Weather Sunny, 36°C

PREVIOUS WINNERS

Fernando Alonso

Felipe Massa

Michael Schumacher 1

Jenson Button

TIMETABLE (UK time)

Fri 20 April

Practice 1: 08.00 - 09.30

Practice 2: 12.00 - 13.30

Sat 21 April

Practice 3: 09.00 - 10.00

Qualifying: 12.00

Sun 22 April

Race: 13.00

Not all MultiCar insurance policies are the same...

With Admiral MultiCar, not only does each car get its own discount, you also get great benefits as standard. You can even start a policy with just one car!

	FIRST CAR DISCOUNT	COURTESY CAR	LEGAL PROTECTION	EUROPEAN COVER
ADMIRAL	STRAIGHT AWAY	INCLUDED	INCLUDED	INCLUDED
DIRECT LINE				INCLUDED
AVIVA				
CHURCHILL				INCLUDED

admiral.com 0800 600 880







Cover you can count on



Uninsured driver cover

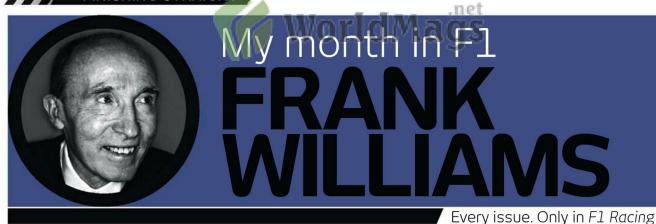
With our comprehensive car insurance, you won't lose your No Claim Discount if, by no fault of your own, you're hit by an uninsured driver. We'll even cover the excess too.

More than one car?

We'll give you a 15% discount on every additional car policy you take out with Churchill for the first year. Subject to minimum premium.

Chat to Churchill 0800 404 8118 churchill.com

 $Underwritten\,by\,U\,K\,In surance\,Limited.$



FW34: LOOKING GOOD

The team did a great job of getting the FW34 ready for the first race. It's a completely new car – very little of the FW33 was carried over. Everyone at Grove has gone above and beyond and I must thank them for that. We may not have collected points in Melbourne, but we gave a good fight. I am very proud of what the team has achieved based on where we were last year.

BRUNO KEEPS HIS COOL

He's done well so far — and I'm not just saying that to please myself or someone else. He's very self-confident and, I would say, pretty quick. Something that stands out about him is that he's very calm. To have a cool head in hot situations is vital for a racing driver; it's the second most important thing after having brilliant pace.

WHAT'S GOING ON AT FERRARI?

I can't believe Ferrari are struggling. The regulations have hardly changed and they're not particularly demanding in terms of aero. Ferrari have been mid-field before, like in the pre-Schumacher era, but I'd be surprised if they'd

"The team did a great job of getting the FW34 ready for the first race"

dropped off that much. They've more resources than any other team so if they have it will only be a matter of time before they come back.

FRIENDS WE RELY ON

It gives me a warm feeling when sponsors commit to us for long periods, particularly when we've been through a rough period, as has been the case recently. We work our whatsits off on the servicing side for sponsors and to have someone like Oris – who have been with us since 2003 – re-sign is a great vote of confidence.

A NEW APPOINTMENT

As of 1 April, my daughter Claire joins the board of Williams Grand Prix Holdings Plc as the director of marketing and communications. People talk about nepotism, but she's the right person to fill the vacancy. She's worked here for years, she's very good at her job, she's part of the furniture and she's part of the name on the door. It was the logical thing to do and it would have been bad judgment to pass her over just because she's my daughter. She's a tough piece of work — I'm told she's inherited that from me! She also gets on well with our chairman, Adam Parr. They understand and respect each other.

A MESSAGE HOME

While on the subject of family, I'm thinking of calling the police to find out where Jaime, my youngest son, is at the moment! He never bloody calls me. If you're reading this column, Jaime, please call your father. Thank you!

F1'S FASTEST FINN

Kimi Räikkönen was fastest on the first and last days of testing. Irrespective of fuel load, that suggests he's as good now as he ever was and it's good to have him back. I like Finns and I'm delighted to say we have one on board in Valtteri Bottas, our third driver. Their car control is amazing: I suppose it's because they spend so much time trying to keep their cars on the road when they're back at home!

A VISIT TO BERNIE'S

I see Mr Ecclestone once a month: he's always been kind to me and I've known him for over 40 years now. This time we discussed who looks quick in 2012 and who doesn't. He ended by saying somethinging schoolmasterly like, "Pull your finger out, Frank; it's time you did yourself some good for a change!"

On my mind this month...

"Bruno Senna has done well so far... what stands out about him is that he's very calm"





"I can't believe Ferrari are struggling. The regulations have hardly changed"

"I see Bernie once a month – this time we discussed who looks quick in 2012 and who doesn't"





"I like Finns and I'm delighted to say we have one on board in Valtteri Bottas, our third driver"

For more information on Williams and what they're up to, visit www.williamsfl.com

You've looked over every price comparison website.







(Applied as an introductory discount. Subject to minimum premium. Offer ends 31.05.12.)

But what will you miss if you don't come direct?

We're not on price comparison websites, so come direct for a quote

0845 246 8795

or visit directline.com



Underwritten by U K Insurance Limited



Breakdown Cover.

With our Personal Breakdown Cover, you're covered in cars you travel in within the UK. And your partner can enjoy the same cover at no extra cost. Cover starts from £35 online.

10% of online Rescue Cover customers achieve a price of £35 or less. Personal Cover is only available for vehicles under 16 years old that are both privately registered and being used in the UK.

Rapid Breakdown Cover

0845 835 3331 greenflag.com Green Flag



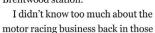
Green Flag Breakdown Cover is underwritten by U K Insurance Limited.

HENRY

Forty years and counting on the frontline of Formula 1

The will to compete is in the genes...

It's stating the obvious to say that motor racing is a sport that attracts remarkably focused individuals who are prepared to work around the clock to surmount any setbacks they may suffer. I was first educated in this reality back in 1966 when, in a previous life, I was studying law as a solicitor's articled clerk with a firm in Southend-on-Sea. One day, I was instructed to take some legal documents to a Mr Sydney Greene, who was to meet me off a train at Brentwood station.





Lewis with his brother Nic. who races in the Renault Clio Cup, despite living with cerebral palsy

days, but it certainly pulled me up in my tracks when I clattered down the steps to the car park to find that this guy was missing his left arm. Having always been brought up to not make a fuss, I breathed deeply and climbed into his Mini Cooper S for the trip to a nearby solicitor's office. I was impressed at how deftly he drove, poking his right arm through the lower quadrant of the steering wheel to reach the central gear lever. We began chatting and it emerged that this was Syd Greene of Gilby Engineering, whose F1 and sportscar team Roy Salvadori drove for in the 1950s. His son Keith, with whom I would become acquainted later on in my career as a journalist, would go onto become an accomplished driver and was briefly team manager of Bernie Ecclestone's F1 Brabham team.

Watching BBC television's emotional documentary about Lewis Hamilton's brother

"Nic reminds us that personal horizons are dictated by willpower and determination"

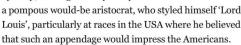
Nic, and his admirable efforts to compete at the wheel of a Renault Clio, put me in mind of Syd Greene. Nic is battling cerebral palsy, but has demonstrated that his will to compete is in his genes just as it is with Lewis. I'm also impressed by the devoted manner with which Lewis has supported his brother's efforts behind the wheel, wholeheartedly offering encouragement without running the risk of in any way patronising his younger sibling. In my experience you just cannot fake laughter - it either comes from the heart or it is just a noise - and the sheer delight that the Hamilton boys radiate, generated by

each other's company, is a true pleasure to watch.

Of course, you have to doubt whether Nic will ever try his hand at single-seaters. But then they said that about the great Lister-Jaguar star of the 1950s, Archie Scott-Brown, who was born with restricted use of his arms, or Alan Stacey who drove for the F1 Lotus team despite having an artificial leg. Nic Hamilton's exploits remind us that personal horizons are dictated by willpower and determination, not always physical capability.

SECRET LIFE **OF BRM BOSS**

The late Louis T Stanley, who married into the BRM F1 dynasty, was regarded by many as



Yet there was much more to Stanley than this as an explosive new book Conspiracy of Secrets, written by his stepdaughter Bobbie Neate, reveals. He was not the man he pretended to be, but the illegitimate son of prime minister HH Asquith and Venetia Stanley, an aristocrat's daughter. Published by Metro Books and available now, this is a truly hair-raising story, which provides a lurid insight into a man who played out the role of one of F1's team-owning grandees for more than a generation. Wow!

FERRARI BRACED FOR UNCERTAIN SEASON AHEAD



Let's be clear; if Ferrari end up scoring only a single grand prix victory in 2012, as they did last year, then there will be blood on the wall at Maranello.

Technical director Pat Fry's downbeat assertion that they are not necessarily confident they can challenge for podium places early in the season will have sent a shiver down the spines of the tifosi. I've always believed that the better Ferrari performs, the better it is for F1 as a whole. But you can only hold your breath for so long...



Alonso in testing: he'll want more than one race win this year

What was the

last thing Bernie said to you?

ROMAIN GROSJEAN Lotus driver, ex-banker and fan of French films (but then he is French)

When was the last time you got angry on the racetrack?

At the karting event at Bercy last December. I took the lead in the final and the guy I'd just overtaken - Jean-Eric Vergne - drove into me and I slipped down the field as a result and finished sixth. I got a bit angry about that.

When was the last time you watched another driver and thought, 'Blimey, they're good'?

I've had two world champions as team-mates in Formula 1: Fernando Alonso in 2009 and now Kimi Räikkönen. They are both impressive; they are both great drivers. I'll never forget the first time I saw Fernando's data at winter testing in Jerez in 2009 because it was very impressive. He was flat-out on every lap and it was interesting afterwards to see exactly how quick he was.

When was the last time you drove a Formula 1 simulator?

I've never driven an F1 simulator because Lotus's is still under construction. But I've driven one in the past belonging to a company called iWay in

Lyon, France, and another belonging to DAMS, although that's more of a video game. I can't wait to drive Lotus's when it's finished because it will be really useful preparation for each race

What is the last thing you think about before the lights go out on the Formula 1 grid?

I'm not really thinking about anything in particular at that moment. The car is in first gear and I'm just focusing on the lights. I'm just willing them to disappear, so that I can get going and hopefully make up a few places.

What was the last movie you saw?

A French film called La Vérité si je Mens! 3. The one before that was another French film, and I saw The Expendables before that. I love French cinema, but I've yet to see The Artist.

When was the last time you worked in a bank?

The last time I went to the bank wearing a suit and tie was two weeks after my first grand prix, back in September 2009.





When was the last time you cried?

When my dog died in September 2010. It was a Jack Russell terrier, a crazy English dog. I really love those dogs.

What was the last song you downloaded?

It must have been Adele because I really like her. But I don't download - I buy CDs.

What was the last thing another F1 driver said to you?

Rather than the last thing, let me tell you one of the first things another driver said to me after my deal with Lotus was announced. I was in the motorhome at the first winter test in Jerez, and Fernando Alonso came up and said "Welcome back, you deserve it!" which was nice of him. It meant a lot. I have a big respect for all the drivers in F1 because I know what it takes to get here. You get on better with some more than others but they're all good and I respect them all.

What was the last thing Bernie Ecclestone said to you?

That was in the stewards' room at Valencia after I was involved in a GP2 crash. He came and told me not to worry. I can't remember exactly what he said, but I know it was something funny. I was surprised to see him and it was good to have him say something fun at that moment because it was a serious situation. It helped diffuse the tension.



Next issue on sale 26.04.2012



Exceptional Tours to F1[™] Races Worldwide

Still thinking about which race to choose this year? Let us share some of our favourites with you!

CANADIAN GRAND PRIX - 10 JUNE

Montreal is a lively multi-cultural city, great for sightseeing and with a well-earned reputation for the standard of it's restaurants. Old Montreal and the port are perfect for daytime browsing and you can shop in the modern commercial centres. In the evenings the French Quarter is packed with race fans enjoying the party atmosphere after a thrilling weekend on Notre Dame Island.

SPANISH GRAND PRIX - 13TH MAY

A delightful and seductive city, rich in architecture and heritage.

Barcelona has a great selection of restaurants, bars and
entertainment to suit all tastes. Grandstands at the

Montmelo circuit offer superb viewing and
a great all-round experience for the spectator.

MONACO GRAND PRIX - 27TH MAY

Always a popular event in the F1 calendar, the combination of a great location, exciting street racing and the prospect of bumping into the rich and famous keeps fans coming back year after year. Our experienced tour guides will be on hand to ensure you have the very best racing experience!



Call us NOW to discuss your plans! 0845 375 0300

www.grandstandmotorsports.co.uk

We look forward to welcoming you on one of our tours in 2012



Imagine taking an already loaded SEAT Leon FR+ with its comprehensive array of creature comforts and handing it to SEAT Sport, a racing team with two World Touring Car Championships under their belt to add a full body kit, bespoke twin sports exhaust and drop it onto a set of iconic BBS® alloy wheels. Finally a decision – do you go for the 2.0 TDI CR 170PS diesel version or its 2.0 TSI 211PS stable mate? Stop imagining, start driving the Leon Supercopa.

- SEAT SPORT FITTED BODY KIT
- 18" BBS® ALLOY WHEELS
- BESPOKE TWIN SPORTS EXHAUST
- TOUCH-SCREEN SATELLITE NAVIGATION
- BLUETOOTH®
- BI-XENON HEADLIGHTS
- REAR PARKING SENSORS
- ESP WITH XDS (ELECTRONIC DIFFERENTIAL LOCK)

VISIT SEAT.CO.UK TO FIND YOUR LOCAL DEALER AND ARRANGE A TEST-DRIVE.

FOLLOW US ON:

SEAT.CO.UK

Official fuel consumption for the SEAT Leon range in mpg (litres per 100km); urban 26.4 (10.7) - 60.1 (4.7); extra-urban 42.8 (6.6) - 83.1 (4.3); combined 34.9 (8.1) - 74.3 (3.8). CO₂ emissions 190 - 99 g/km. Model shown is in 'Speed Blue' custom palette paint.