

TITLE SHOWDOWN SCHUMACHER ON 2008

F1

RACING

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**'Me racing
Lewis? There
would've been
some good...
manoeuvres'**

WORLD EXCLUSIVE

SCHUMACHER

On Lewis, Felipe and the best F1 season in years



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WORLD EXCLUSIVE

LOOK WHO'S TALKING

**Funny, warm and charming:
prepare to meet the Michael
Schumacher you never
knew existed. He's got a few
things to say about the 2008
Formula 1 season, too**

WORDS HANS SEEBERG
PICTURES SAM BARKER

Michael Schumacher is laughing. *Really* laughing. Having only ever seen his satisfaction expressed in either a victory jump or that little turned up grin he does, this is an unexpected development and, whisper it, *a bit disconcerting*. And yet he keeps going. The source of amusement is Michael's tale of his increasing success at beating Bernie Ecclestone at backgammon. "Lately I've been taking some money off him – he doesn't like that very much," grins the man who pulverised the F1 field to the tune of seven world championships. It's all very

confusing really. Michael Schumacher's not supposed to be funny, is he?

Well, the old one didn't show this side much, but today's Michael Schumacher is a different kettle of fish. The jovial, relaxed side was always there, of course – drivers like Rubens Barrichello will always attest that Michael was "good fun with a wine in his hand" – but his systematic pursuit of sporting perfection meant that intense, sustained concentration was all the world seemed to see. Now, it appears, he can be himself. Gone is that uptight arrogance critics would roundly accuse him of; the 2008 version is friendly, funny... even ➤

charming. He hasn't exactly turned into a stand-up comedian who'll dish out bear-hugs and high-fives to passing strangers, but there's a warmth and ease about the post-F1 Schumacher that's incredibly hard to dislike.

Schumacher greets *F1 Racing* in Dubai, where he's come to officially launch 'The Michael Schumacher World Champion Tower' – a wharf skyscraper where the super-rich will be able to live in unrivalled plushness. He offers forth his right hand to deliver the sort of granite-like handshake you'd expect. Even shaking hands with him is a bit surreal. This is the same hand that was on the wheel for every one of those seven titles. The same hand that guided every one of those staggering overtaking manoeuvres. The same one that even helped to carry out each of the controversial punts that would make him a pantomime villain in Britain. But if the handshake wasn't a small clue to Schumacher's current physical state, it's clear he's kept himself disgustingly fit. You obviously don't lose the buffness required to win multiple F1 titles overnight, and this is not a chap who's going to turn up at races with a heaving gut hanging over his jeans like some bloated ex-footballer. When you're the most successful exponent of your chosen field ever to have walked the earth, some standards clearly never leave you.

So in a crisp white shirt sufficiently unbuttoned to reveal a rather rock star-ish

But it just makes me happy – it's a nice sport which gives me a certain amount of competition, but I know that I'd never be competitive enough to win championships. Well, not big ones anyway...

What are the other racers like with you? Do they all want to take you out because you're Michael Schumacher?

[Laughs] I don't think so. I mean, motorbike racing is very different – it's not wheel-to-wheel, it's body-to-body, and everyone knows that if you fall off it hurts. So the people I race against are definitely tough, but they're tough with everybody.

What do you miss most about F1?

Seeing my friends – there are a lot of guys I've played football with, had great parties with and had bad moments with too. We've shared many amazing experiences, so every time I see them it's great for all of us. But I don't go to a lot of the overseas races, so I don't see them for quite a while sometimes.

You're often seen on the pitwall at grands prix. How does it feel to be there and not behind the wheel?

Interesting. I know exactly what situation the guys are in and what they're supposed to do. It's amazing to see it from the other side – especially with the knowledge I have. Sometimes in a race if there's been an error

Which trophy do you value the most?

The one Bernie gave me. I don't know how long it's been in Formula 1 but it's the original trophy that goes from one winner to the next. After I won my second championship with Ferrari I said to Bernie, 'Right, when I win my third title, I'm going to keep this.' He just said, 'OK, no worries.' So I've got the original trophy at home.

Did you ever think the Ferrari empire would grow as it did?

I don't think anyone could've estimated what we achieved. [Pauses] My heart is still Ferrari, and I always cross my fingers for their drivers.

The change in Schumacher's tone of voice says it all. Ferrari is a subject that remains hugely important to Michael, and the bonds he forged there while he was busy redefining what the modern Formula 1 driver could achieve are still strong. Yet he's not just tied to them emotionally – his continuing advisory work on both road and race cars not only keeps him busy but maintains a closeness to the world that used to revolve around him.

It's a world that's changed significantly since he retired at the end of 2006. The famous Ferrari racesuit had barely been hung up five minutes before Lewis Hamilton arrived, giving Formula 1 a new star. A new breed of driver began to emerge, with Robert Kubica and Sebastian Vettel leading the pack. Fernando Alonso, the man Schumacher couldn't crack in his final season, found his own nemesis and ended up at a less-competitive Renault team. And Ferrari? Fresh from a perhaps unexpectedly successful 2007 after the departure of Schumacher, Jean Todt and Ross Brawn, this year has been a bit more patchy. Gone are the times of wrapping up the drivers' title by July like the good old days of 2002; in their place have come the odd exploding engine and that pesky pitlane traffic light contraption.

On top of all this has been a brilliantly simmering championship battle between Hamilton and Schumacher's close friend Felipe Massa, with the strangely off-form Kimi Räikkönen some way off the pace. Schumacher ponders the topic of Ferrari thoughtfully. He's not laughing now. But then seeing the people you love struggle is no laughing matter.

It's been a difficult season for Ferrari, hasn't it?

You know, at the end of the day, that's racing. You have your ups, you have your downs. But ultimately, Ferrari have been fighting for the championship every year since 1997, and I think that's a great achievement in itself. When you consider now that Ross Brawn is gone, Jean Todt's not full-time there now, I've gone as well... ➤



Michael now looks back on all the records he set in F1 with pride

in strategy from another team, you sit there thinking, 'Why didn't they see that? Why didn't they act on that information?' But sitting on the pitwall makes you understand why it's so difficult. What you know in the car relies on the pitwall, so it's a tough job.

While you were racing you said records never mattered. Do they now?

They're very nice to look back on, I have to say. I always said that I didn't care at the time, and I didn't. But I'm very proud now.

"There were a few possibilities for me to return, but I made the right decision"

crucifix, Michael Schumacher casually plonks himself down on a brown leather chair and inadvertently starts to reveal the likeable bloke he always was.

So Michael, what's life been like since retiring from Formula 1?

It's been interesting. I'll be honest, there were a few possibilities for me to return, but there was never really a moment where I doubted I'd made the right decision to retire. I love my freedom. I'm still involved with Ferrari on the racing and road car side, and I've been doing a lot of motorbike racing too.

Tell us about the bike racing. How weird is it go from someone who totally dominated the field to being just another competitor?

I just love the sensation of riding bikes. I'm a beginner, and that means I really have to look at what's behind me, not in front of me.



there've been very important changes, and yet Ferrari is still fighting for the championship. That shows what kind of a group we've formed over the years.

Which drivers have surprised you during this season?

Well... in a way I think you have to talk about Felipe Massa. Not that he surprised me, but he's really showed what he's capable of and what I knew was there all along. I suppose some people just needed longer to see his skills.

How do you think Ross Brawn is doing at Honda?

I think he's the right guy for this kind of project but it's a tough project. Very tough. If he can't do it, nobody can.

What do you make of Sebastian Vettel? Is he the next 'you'?

I have to say, it's interesting and very satisfying to see his development. I've known him since he was a kid, and he's great to watch. I don't think it's fair to make the comparison with me, though – Sebastian will always be Sebastian. He might become better than me and he might not.

What's that pressure of having your own country behind you like?

I never really thought about it, actually – I was just happy that people were interested at all! I think I didn't feel it during my career because I was just too focused. ➤

SCHUMACHER THE BUSINESSMAN

GOODBYE TO F1. HELLO TO THE LUXURY SKYSCRAPER BUSINESS

What do you do when you've won 91 grands prix and become the most successful person to ever compete in your chosen sport? That's right, you build a luxury skyscraper.

In three years, you'll be able to buy a swanky apartment at the Michael Schumacher World Champion Tower in Abu Dhabi. Built by PNYG, the people responsible for the Water Cube at the Beijing Olympics, it's the first of seven skyscrapers around the world to commemorate his seven F1 championships. And, like on the track, he's not doing things by halves: you'll be able to park your yacht outside (making it the world's first wharf skyscraper), the underground car park is set in an aquarium and there's tennis courts and a driving range 115 metres in the air. So how does it feel to be Michael Schumacher the businessman these days?

"Not much different than in the past," ponders Michael. "I've had business partners in my old life and now I have business partners in my new life, and I think the Michael Schumacher World Champion Tower is a continuation of my time in F1. You just go into different areas in your life, but it's really interesting and very rewarding. If you look at what we're building, it's going to be amazing to come here in three years' time and see this tower that's named after me. It makes me really proud. I can't wait to come and spend some time in one of the apartments."

Michael Schumacher,
Dubai, October 7 2008





"If Lewis had raced at the same time as me, there would have been some exciting overtaking manoeuvres"



Would you like to have raced against Lewis Hamilton?

Well, I raced against some pretty good guys: Senna, Mansell, Prost... Lewis is a great driver but he's still pretty new in the business. But of course, I think it would've been very interesting to see what would've happened if Lewis had started in F1 at the same time as me. I think there would've been a lot of exciting manoeuvres...

What have you made of the new circuits, like Singapore and Valencia, that have been introduced this season?

I don't know, I haven't raced on them.

As a viewer...

[Pauses] Some have been exciting, and others... a bit more boring.

Next year Formula 1 will have a host of new regulations. What do you make of them?

Hmm... that's a good question. When you look at the ideas behind it all, I think it's a step in the right direction. You can question whether some things are necessary or not, like KERS, but I think we'll only be able to answer that in the future. But reducing aerodynamics and increasing grip should improve the show.

It's been a brilliant battle between Lewis and Felipe this year. What's it like to be in the middle of a championship battle?

It's very... intense. Every minute of your life is about just that one thing – both your professional life and your private life. Felipe and Lewis will just be thinking, "What is the next thing? What have I got to do? What will happen?" Seriously, they will be permanently focused and they won't be thinking about anything else. Nothing. ➤

What was your relationship with Bernie Ecclestone like?

I don't think I really have a *relationship* with him – certainly not a private one. But every so often we see each other at a race. It's pretty casual, I would say. The good thing is that you can have a joke with Bernie – he's a very funny guy.

You completely rewrote the record books on what one man could achieve in Formula 1. Will there ever be another seven-time world champion?

You know what? Records are there to be broken. Sooner or later I think someone probably will.

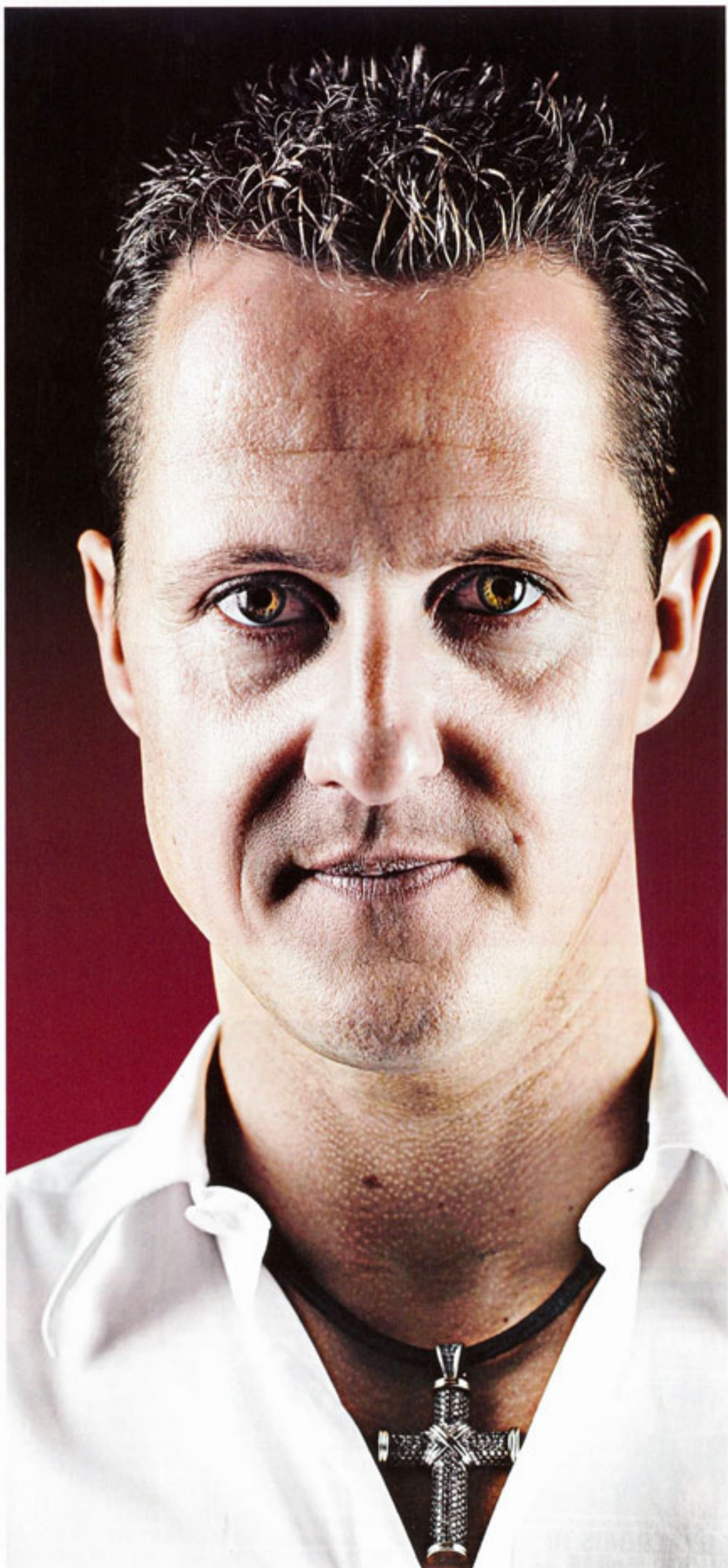
This last answer is given with a calm shrug, and is, in its own way, quite surprising to hear. Michael Schumacher, the man renowned as one of the most ultra-competitive drivers ever to race in Formula 1, does not seem that interested in guarding his record. It's yet another surprise, but it feels like Michael's love for the sport he's left behind is such that he'd be perfectly happy for someone to get eight world titles as long as Formula 1 benefited. He's a man sufficiently at ease with his achievements and happy for life to have moved on.

Not that he's gone completely soft, you understand. Fear not, Schumacher fans: the

“A title battle is very intense – every minute of your life is about that one thing”

competitive streak is still in there, alive and well. Get him talking about Ferrari, Felipe Massa and Sebastian Vettel and he's just like any other F1 fan out there... willing his chosen team and drivers on, agitated and animated, pumping his fists when they win and deflated when they lose. The motorbike racing is just a natural progression for someone who's spent most of his life trying to beat people on race tracks – it's something you just can't stop. The difference now is that it's not so all-consuming for him.

It's often said of professional sports stars that they don't know what to do when they've retired. Having lived a surreal life in faceless hotel rooms dreaming of their own greatness above all else, normality can leave them aimless afterwards. Not Michael Schumacher. Family man, Ferrari consultant, motorbike racer and now ambitious businessman – the greatest driver of his generation couldn't be happier. And it shows. **FO**



PITPASS

The stories that matter from the world of Formula 1 this month

NEW F1 TRACK COULD BE "BEST IN THE WORLD"

Circuit in the Algarve
will host Formula 1
teams this winter and
has an amazing 32
different layouts!





As well as varied track configurations and gradients, Algarve Motor Park will have state-of-the-art pit and paddock facilities

A NEW TRACK IN Portugal's Algarve has been described as "one of the best circuits in the world" and F1 teams will start testing at the Portimão venue this coming winter.

The Algarve Motor Park was inspected by FIA officials on October 13, who approved the new facility for Formula 1. A number of top teams have been in contact with circuit bosses and will commence testing in December.

The state-of-the-art facility, situated at the southern tip of Portugal, has been visited by a couple of F1 team managers and drivers, who were impressed by its characteristics. One team source described the track to F1 Racing as "one of the best in the world".

The 2.91-mile track passed the approval test – the only recommendation by officials was to reposition a 15-metre section of guardrail further away from the track.

The Algarve circuit has 32 different configurations, enabling teams to work on many different lengths of track. It also has sprinklers built to the side of the Tarmac to simulate wet conditions.

"We've no doubt we have built one of the best circuits in the world," says Paulo Pinheiro, chief executive officer of the circuit. "It has a lot of gradient, it's demanding and it's versatile for any manufacturer in motorsport. If they want a long or slow track, or the opposite to that – they can have it."

The 18-turn venue will host the Superbike World Championship finale in November and its first F1 test is scheduled for the middle of December. If it is successful, Pinheiro believes Portimão will become a major F1 testing venue to rival Barcelona and Jerez in Spain.

The circuit is situated in the picturesque Algarve beach resort region of Portugal and would make a cost-effective option for teams. The area is a popular holiday destination because of its climate, cuisine and sporting facilities, while next to the track are newly built hotels with apartments to rent, a karting circuit and technology park.

Circuit chiefs are targeting an F1 race in the future. "Obviously the ultimate goal is to have a grand prix, but I know that is extremely difficult to achieve, so until then to be an F1 testing venue is very good," added Pinheiro.

F1 has visited Portugal in the past. The streets of Porto held races in 1958 and 1960, with Monsanto Park having the honour in '59. Estoril also held a GP between 1984 and '96.

F1 MASTERMIND

Test your knowledge with our fiendishly tricky quiz



- 01 Which chief designer left Williams in 1996 to join McLaren?
- 02 Which Italian drove for Eurobrun in 1988?
- 03 The Ligier team always had two letters in their chassis designation type (eg JS39). But which driver was the JS in honour of?
- 04 Which drivers are missing from the 1977 Japanese GP podium? (see above)
- 05 Where did Johnny Herbert make his last grand prix start?
- 06 Which team did Tiff Needell drive for in the 1980 Belgian Grand Prix?
- 07 At which circuit was the 1994 and 1995 Pacific Grands Prix held?
- 08 At which grand prix did Robert Kubica score his first F1 podium?
- 09 Before he moved to Lotus in 1969, which F1 team did Tony Rudd work for?
- 10 Elio de Angelis, Nigel Mansell and Roberto Moreno all drove for Lotus in '82. Who was the fourth?



IN ASSOCIATION WITH



Answers: 1 Adrian Newey 2 Stefano Modena 3 Jo Schlesser 4 James Hunt and Carlos Reutemann 5 2000 Malaysian GP 6 Ensign 7 TI (Tamako International) 8 2006 Italian Grand Prix 9 BRM 10 Geoff Lees

ASK F1 RACING

All your questions answered

While looking at a book of statistics, I noticed Alberto Ascari had scored 140.64 points in his F1 career. How is that possible?

Viktor Bognár, Hungary

When the world championship began in 1950, a point given for the fastest lap. But stopwatches were not set to a 1,000th of a second accuracy.

At the 1953 British GP, both Ascari and José Froilán González set identical lap times, so the



Alberto Ascari heads for half a point during the British Grand Prix at Silverstone in 1953

point was shared (0.5 each).

At Silverstone a year later, seven drivers recorded the fastest (1m 50secs) lap. The point was split seven ways (0.14secs each), hence Ascari's 140.64 tally.

Send your F1 conundrums to askf1racing@haymarket.com



Renault's first attempt at a 2009-spec car was never going to make it past the stewards

Renault reveal bizarre 3-seater F1 car

New racer gives passengers the chance to experience the high-speed thrills of Formula 1

RENAULT HAVE BUILT a new car where TWO passengers can strap themselves into the back seats for the ride of a lifetime.

Based at the Paul Ricard circuit, the French manufacturer organises a dozen events throughout the year for people to get a day's tuition behind the wheel of a Renault Megane R26 road car and a Formula Renault single-seater, before they strap themselves into the passenger seat of the 3ltr V10 F1 car.

The machine has been tuned down to 12,000rpm but is still capable of simulating the intense acceleration and cornering force

of a modern F1 car – but currently the estimated £4,000 experience is only available to Renault's sponsors and VIP guests.

Renault aren't the first F1 team to create such a bizarre vehicle. Back in 2001 Arrows built a three-seater, while both Minardi and

McLaren produced two-seater machines. The benefit of the three-seater is that both passengers have a much clearer view of the road ahead. (In case you were wondering, it's not Jean Alesi driving but a friend of his who borrowed his helmet.)



Renault run track days for VIPs and sponsors to experience the intense acceleration and cornering forces of a modern F1 car



THE AMAZING RULES OF F1!

Lesser-known laws of our great sport revealed

2008 Formula 1 Technical Regulations

Article 14, safety equipment 14.3 rear view mirrors

14.3.4 The FIA technical delegate must be satisfied by a practical demonstration that the driver, when seated normally, can clearly define following vehicles. **For this purpose, the driver shall be required to identify any letter or number, 150mm high**

and 100mm wide, placed anywhere on boards behind the car, the positions of which are detailed below:

Height: From 400mm to 1,000mm from the ground
Width: 4,000mm either side of the centre line of the car
Position: 10m behind the rear axle line of the car.

THIS MONTH'S BIG DEBATE



Is Formula 1 heading for a financial crisis?

Yes



Ian Phillips
Director of business affairs, Force India F1

"WE'VE HAD CRISES before – with oil in 1974 and then the financial downturn of the early 1990s – and we've survived them. But it does no harm at all for the business to take a damn good look at itself.

The world is full of excesses and sooner or later all good things have to come to an end. Formula 1 is no different: we should really have looked at costs four or five years ago because life for independent teams, such as Force India isn't easy.

We could save on costs without harming the show and we wouldn't lose a single viewer.

Unfortunately we've already had to spend an absolute fortune on new aero packages and KERS systems for next year and will probably have to do something else again for 2010, which will prove costly. But the proposals I've heard on cost-cutting sound like the right thing to do.

For years we've been trimming bits off here and there, chopping five days of testing, for instance. It does nothing."

No



Adam Parr
Chief executive officer, Williams F1

"EVER SINCE I'VE been in F1 people have been talking about cutting costs. And we've taken a number of steps that have significantly reduced costs.

Looking forward, I believe that the level of spending is still unsustainable and we have to see a world where our revenues are greater than our expenditure.

We need to take action that's urgent, but measured. Those measures need to be well-considered, effective and fair. In an ideal world we'd really have liked a budget cap, and

I don't believe it would have been hard to police.

The problem is that it's hard for some teams to come up with a sensible budget. For our hybrid system we're spending about £1.6million; I know one team has already spent £46million.

But I still think Formula 1 is in fantastic health. The Singapore Grand Prix was a magnificent showcase for the sport – for sponsors, fans – everybody. All we're saying is that we should take action to ensure that it carries on in great shape."

PITPASS



Hands up if you want a say on what happens to our great sport

WE WANT YOUR OPINIONS ON F1

The biggest ever F1 fan survey is your chance to be heard

FORMULA 1 FANS ACROSS the world are being asked for their views on grand prix racing in a new online questionnaire.

The 2008 Global Fan Survey, conducted by *F1 Racing* and ING, is set to be one of the largest polls of Formula 1 fans.

So far tens of thousands of people have entered the survey, which includes questions ranging from whether you believe technology is an exciting or useful aspect of the sport, to whether you think the television coverage is informative or engaging.

The timing is crucial as the teams are currently discussing ways to change the sport. At the Chinese GP, they met to talk

about spicing up the action on Friday, banning refuelling and having shorter races in a bid to make F1 more unpredictable.

If you take part in the questionnaire at www.ingf1racingmagazinefansurvey.com, you will be entered into a draw where the winner will receive a signed F1 driver's crash helmet.

The survey only takes a few minutes to complete and the results will be published in a future issue of *F1 Racing*.



News in brief...



DRIVERS CONFIRMED FOR 2009

Speculation that Fernando Alonso was eyeing a switch to BMW Sauber ended when the team announced that Robert Kubica and Nick Heidfeld will stay with the squad for 2009. Williams have also revealed that their line-up will remain unchanged with Nico Rosberg and Kazuki Nakajima staying at the Grove team.



GROOVY GREEN TYRES

The grooves in all of Bridgestone's Potenza tyres were painted green at the Japanese Grand Prix to highlight a new environmental campaign. The 'Make Cars Green' initiative has been launched by the sport's governing body, the FIA, in a bid to reduce the impact of motoring on the environment.



BOOK YOUR COPY NOW

The 1988 McLaren MP4/4 that's featured on page 66 of *F1 Racing* this month is also covered in depth in McLaren's new book, celebrating every model produced by the marque between 1964 and 2008. The 304-page all-colour tome, which has 760 photographs, is available at www.mclarenshop.com and costs £39.95.

PADDOCK SPY

The Canadian GP has been dropped for 2009, but it's given us some great moments



Montreal first appeared on the F1 calendar in 1978 when local hero Gilles Villeneuve took the win



The city's a great place to party, unless you were Mansell in '91 when he broke down on the last lap



Sauber enter the annual team raft race on the St Lawrence river in '94... they sank



1995: Jean Alesi took his only race victory in style



Montreal had groundhogs, beavers and marmots: all roadkill



The surface at Casino Corner broke up this year, but was still one of the best places to watch a race



Accidents and Safety Cars were a regular feature - remember Alex Wurz's barrel-roll back in 1998?



The 'Wall Of Champions' denied Villeneuve Jr from emulating his dad

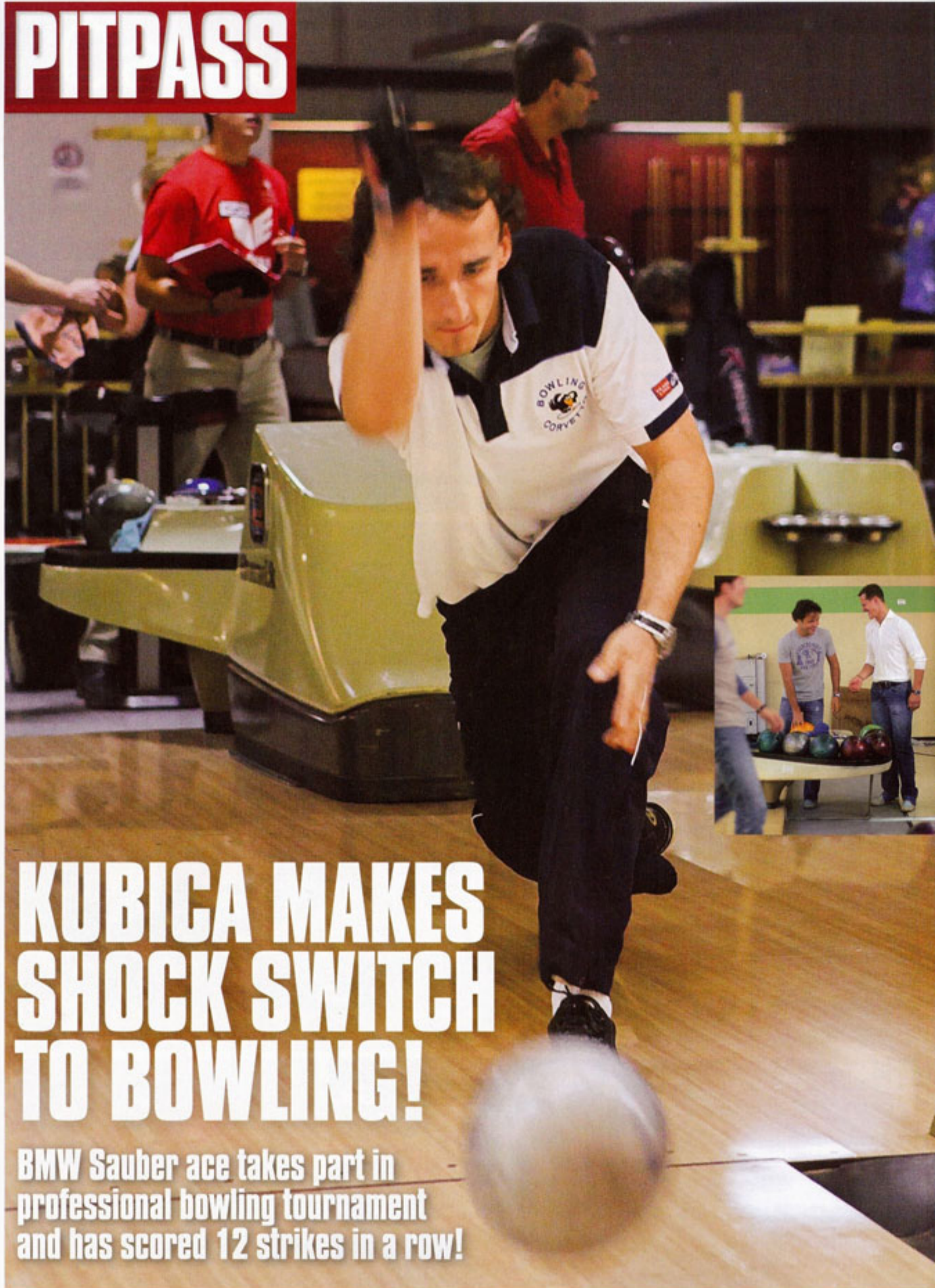


2001: Ralf beats Michael in F1's first ever sibling one-two



In June Kubica returned to the scene of his horrific '07 crash to win

PITPASS



KUBICA MAKES SHOCK SWITCH TO BOWLING!

BMW Sauber ace takes part in professional bowling tournament and has scored 12 strikes in a row!

IN AN UNBELIEVABLE swap of sporting disciplines, Robert Kubica has started to compete in professional bowling tournaments in between grands prix. And the driver's skill and precision could pave the way for a second career after his driving days are over.

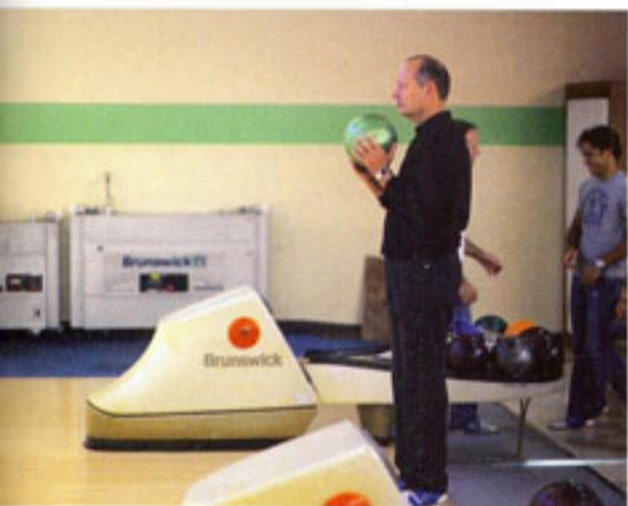
A week before the Japanese GP, Kubica took to the lanes at a venue in Austria. But this wasn't any run-of-the-mill bowling alley overflowing with beer and burgers, this was the prestigious Columbia 300 Vienna Open where over 300 professional bowlers from 28 countries fought for honours.

It's the second European tournament that Kubica's entered this year, following his appearance in the Storm San Marino Open, where he finished 191st. Sadly, he pulled out of the Vienna event early because he had to fly to Fuji.

Kubica's current form at knocking down the 10 pins is as handy as his ability behind the wheel. He recently scored a 300-point maximum (12 strikes in a row) and took an impressive 1,022 points from just four games.

"I first started bowling five years ago when I was bored at home in Krakow," says Kubica. "I started playing because I had a friend who worked in a bowling centre."

Kubica's foray into bowling isn't an F1 first. During the typhoon-struck Japanese GP in



Schumi and Ron Dennis played tenpin bowling in 2004 after the Japanese Grand Prix qualifying was cancelled due to a typhoon

2004, a group of drivers – and McLaren boss Ron Dennis – found time to play bowling in the Suzuka circuit hotel when qualifying was cancelled. But are there any similarities to bowling and Formula 1? "People ask me why I play a party game that people do when they drink beer," says Kubica. "But it's really technical and you need a lot of knowledge, experience and precision. Like in F1 a small mistake in bowling costs you a lot. It looks easy physically, but given the level of concentration required, it's tough mentally."

Kubica revealed during the Vienna tournament that he's played Lewis Hamilton in the past, and that Rubens Barrichello is also a keen player. "I always try and get Fernando [Alonso] to play, but he says he doesn't want to because he's not so good and doesn't like it when I beat him. Maybe one day we should have a F1 drivers bowling championship..."

DO YOU REMEMBER WHEN...



...Penske scored their only F1 victory

LEGENDARY TEAM OWNER Roger Penske has won in virtually every racing series he has entered – and that includes Formula 1.

Along with talented driver Mark Donohue, Penske achieved success in the Daytona 24 Hours sportscar race and the Indianapolis 500 before deciding to enter grand prix racing.

Based in Poole, Dorset, Penske built the PC1 and entered two races at the end of 1974, but even in Donohue's hands the car wasn't that competitive. Then, tragically, Donohue was killed during warm-up for the 1975 Austrian GP. The team later hired John Watson and a year on from the disaster, he took Penske's only victory at the Österreichring.

Later that season Penske sold his team to ATS, deciding to continue building chassis for IndyCars – he's now one of the most renowned names in American racing.

As for 'Wattie,' there was one thing he lost after taking Penske's only win. His beard. It was a bet he had with Roger Penske that, if they won, he would shave it off.

PITLANE HEROES

F1 just couldn't exist without them

No 5
BREMBO BRAKES'
CHIEF ENGINEER



WORLDWIDE, Brembo has nearly 6,000 employees, but just two engineers go to each F1 race to manage the brakes for six teams. Maurizio Assi is the chief

Brembo's F1 chief engineer Maurizio Assi looks after brakes for six teams



engineer for the Italian manufacturer that supplies pads, discs and calipers to Ferrari, Toro Rosso, Red Bull, Toyota, Honda and BMW Sauber.

Assi spent seven years in research and development before moving into the World Rally Championship as a race engineer. He's been working in F1 for the past five years.

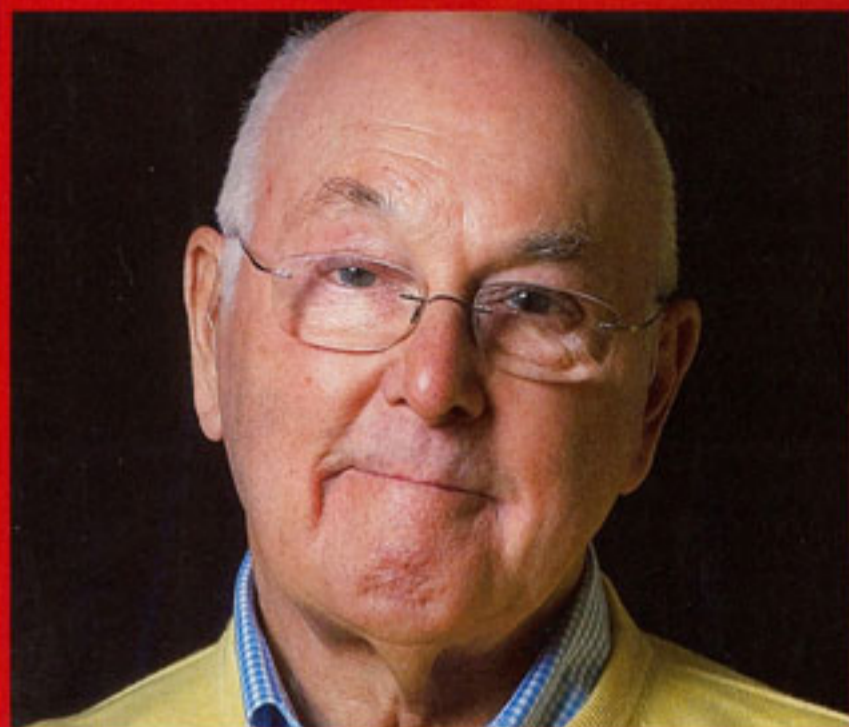
After every practice during a GP weekend, Assi will meet with the chief race engineers of the teams to check telemetry data and

ensure the temperature of the discs and pads – and the pressure on the master cylinder – is satisfactory.

"If we need to make any changes we have two types of calipers and two or three types of carbon material that we can use," says Assi.

Some circuits cause more problems than others.

"Monaco is hard on brakes because there isn't time on the lap for them to cool," says Assi. "Temperature is a big deal. When the brakes go up over 200C, it's a real concern!"



MURRAY WALKER

The voice of Formula 1 speaks his mind every month – only in *F1 Racing*

SINGAPORE CRACKED IT. VALENCIA DIDN'T

When the Formula 1 world championship began in 1950 the races were held in just six countries – effectively five because although the Indy 500 in America was included in the series its cars, drivers and format were totally alien to the rest. In 2008, 18 countries host Formula 1, and next year Abu Dhabi will take the place of Canada – which was one of the best races of the lot. Hopefully we'll be back

in North America soon, but with country after country carrying suitcases full of money, banging on Bernie's door at 6 Princes Gate, Formula 1 can be proud of its growth, worldwide appeal and success.

Unless I'm very much mistaken, an incredible 51 circuits have dropped off the calendar for one reason or another since that first race at Silverstone in 1950 (won by Giuseppe Farina in his glorious Alfa Romeo 158). But new venues have taken their place and this year we've had two dramatically

contrasting newcomers – Valencia and Singapore. Both of them so-called street circuits; one was a rip roaring success and the other a damp squib.

Like everyone, I think, I expected quite a lot more of Valencia than we got. My image of F1's latest venue was of a gloriously historic city stuffed with stunning buildings and a brand new, state of the art, circuit spectacularly threading its way round a yacht-laden harbour under blue Mediterranean skies in blazing sunshine. "Sensational! It's going to be Monaco reborn," I thought. But what did we get? An uninspiring 90-minute blast round what looked like a container port lined with cranes, concrete walls and catch fencing, with little of visual interest except the old warehouse which was now the team garages.

On top of which the race itself lacked drama, with Massa cruising home to a dominant win, Alonso out of his home event on the very first lap, Räikkönen with a self-grenading engine and not much else to excite you. Sitting at home in front of the box like millions of others, I was mighty disappointed and hope that, somehow, things will perk up at Fernandoville next year.

Fast forward five weeks and things could hardly have been more different. To most people Singapore is the place where you spend time waiting at Changi airport on your way to somewhere else, but now its F1 visitors were not only seeing the city, but were enjoying the electric buzz of a first-time night race. And it was fabulous. The drivers liked the circuit (except for the bumps), everything worked, the facilities were great and the organisation, administration and execution were as brilliant as the circuit lighting which turned night into day. As the city glittered in the background the cars literally shone, the massive crowd was abuzz and you felt excited and safe. It was weird



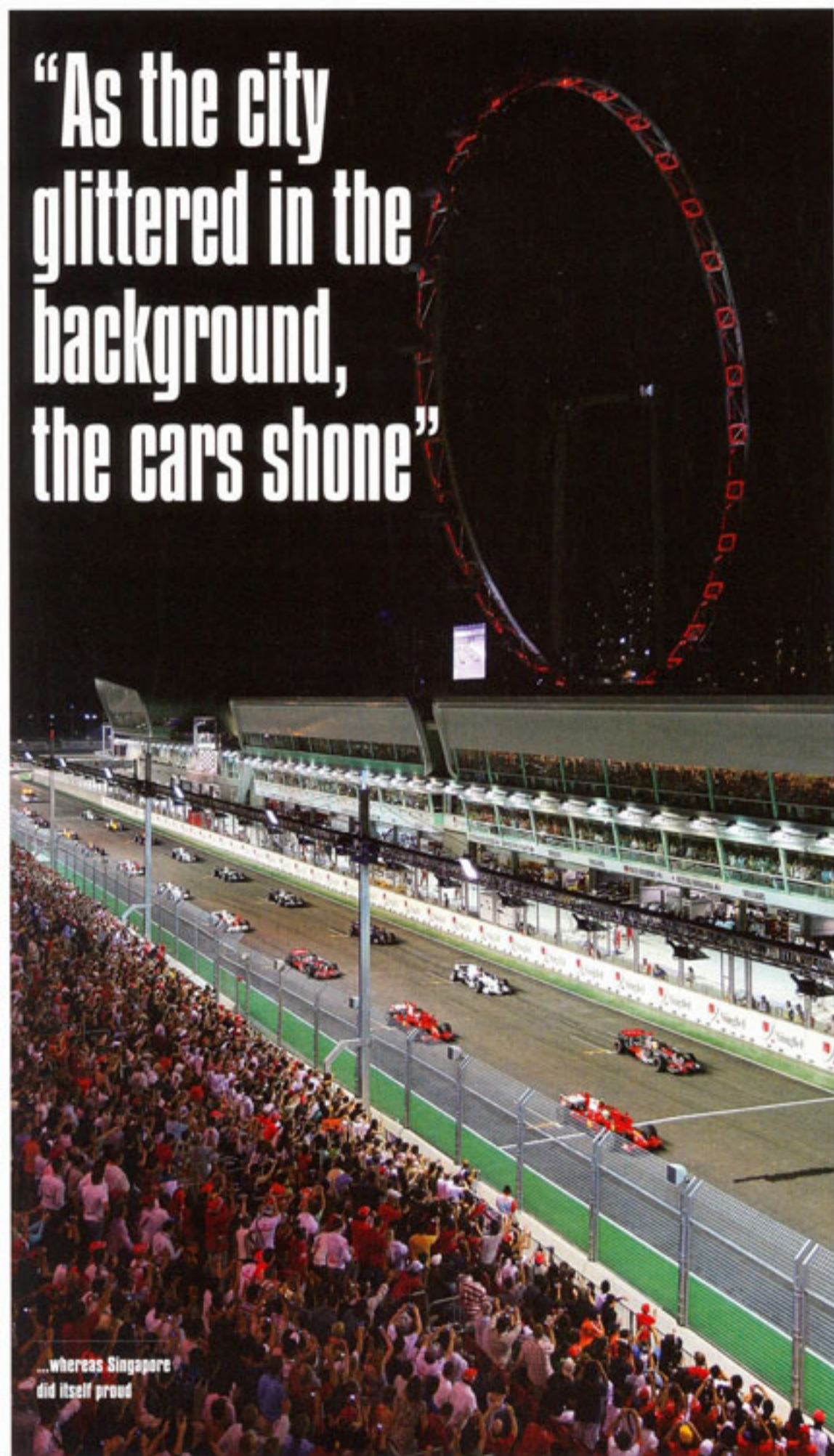
having breakfast at four in the afternoon, lunch at nine at night and dinner at three in the morning, but it sure was different. And to gild the lily it was an incident-filled race with a great result. Singapore had indeed done itself, and us, proud.

But if Valencia had been a great race I would have been raving about the place, and if Singapore had been a procession I don't suppose I'd have been so enthusiastic about F1's first night race. But whatever, no doubt about it – Singapore was the winner.

IT'S A GREAT LIFE IF YOU DON'T WEAKEN

In case you're wondering – though I don't know why you should be – I don't get to all the races now. After many years of traipsing round the world, it took me time to adjust. "Do you miss it?" people ask me, and the answer is "Yes," but you've got to stop sometime and I wanted to do so with dignity before people started saying, "The old fool's past it." If you're lucky enough to be part of it

"As the city glittered in the background, the cars shone"



...whereas Singapore did itself proud

F1 is a fabulous way of life. You travel the world from March to November surrounded by enormously capable, ambitious, fast-moving, high-stepping and hard-working people, who are the best in the world at what they do and great fun to be with.

Yes, it's a pressured and demanding life where yesterday's too late, where the best is barely good enough and where there's competition like I've seen nowhere else, but you go to wonderful places, stay in great hotels, meet really interesting people, have a lot of fun and, hopefully, achieve a lot.

So I savour all the more the races I get to now, enjoying the ever-changing scene and meeting old friends, like Steve Hallam who, after many years of being a top engineer with Lotus and McLaren, is about to experience a dramatic life change by upping sticks and going to America to work with NASCAR. I also meet and greet the VIPs in the super-exclusive Paddock Club where you're treated like royalty. And in Singapore I even contributed to a special discussion with some of the team principals, which was an eye-opener for me. I expected them to be at each other's throats but it was all very constructive and good humoured.

I can just hear some of the hard-bitten cynics in the paddock saying, "As usual you're looking at it through rose-coloured glasses, Murray. It's not like that at all." Good thing we're all different isn't it?

2009'S LOOKING GOOD

It's interesting to be getting glimpses of what the cars are going to be like next year and, as far as I'm concerned, it's all good. Much as I marvel at the expertise of aerodynamicists who slave away 24/7 in windtunnels trying to find another tenth, I think the fruits of their labours look ghastly. Barge boards, flip-ups and the other visually offensive aero add-ons increase downforce and reduce lap times, but smoothly good looking they are not. Fuss-free, sleeker lines and slick tyres do the



Thanks to the outlawing of aero add-ons from next year, the cars will look much sleeker in 2009 – like they did in the old days

business for me – like Gordon Murray's superb Brabham-BMW BT52.

Incidentally, how are we going to know when Joe Soap presses his KERS button for instant power, or brilliant passing move? I say put a light on the roll bar, an inspired idea which I selflessly pass on free of charge.

{WHATEVER HAPPENED TO...}



Then Ukyo Katayama checks the tyre wall is working okay at Monza in 1997



UKYO KATAYAMA

USED TO CRASH A LOT
FOR TYRRELL. NOW A
MOUNTAINEER AND
CHARITY WORKER

If you combine bravery with eccentricity, you get Ukyo Katayama – Japan's loveable former F1 driver. After winning the Japanese Formula 3000 title he debuted in 1992 with Larrousse and then spent four memorable seasons with Ken Tyrrell's eponymous team, which was still run out of a woodshed in leafy Surrey.

His small frame meant he was always instantly recognisable, sitting very low in the Tyrrell cockpit. His best season was in 1994 when he scored points on three occasions, but more often than not his race would end in the wall – or after contact with someone else.

Since then, he has recovered from illness (he contracted cancer in his backbone) and has returned to the paddock as commentator for Japanese TV. And he's also rekindled a childhood passion...

"After I stopped racing in Formula 1 in 1997 I had a big complex about the sport and top drivers like Schumacher. I didn't want to watch it any more. But I realised that motor racing is still really interesting and I'm now proud to commentate for TV. But I do that to pay for my real passion... mountaineering.

"My father was a climber and I got interested in it when I was six. In the world there are 14 mountains over 8,000 metres high, and I've climbed three: Cho Oyu, Shishapangma (in Tibet) and Mount Manaslu in Nepal. The first time I tried to climb Manaslu there was a big avalanche. I was unscathed, but I lost a couple of my friends.

"Three years ago I climbed Manaslu again, but I had another hard time coming down as

I got lost and the weather changed a lot. It took me four days to get down and my fingers were black with frostbite. Luckily I didn't need to cut my fingers off, but my friends did. But that's my life now, pretty normal... F1 and mountaineering are completely different, but the mentality is similar – plus there is the danger element.

"Earlier this year I entered a stage of the Tour de France and finished 284th out of 9,000 entries. The racing was fun, but it was purely training for more mountaineering.

"In 1995 I also started a volunteer charity to help children who have lost their parents – we have 30,000 children that we help with government money, and through that charity we ran a bio-diesel project that competed in



Now Katayama climbs the world's highest mountains and runs a children's charity

the Dakar Rally. I'm not a god or a doctor, but we can do small things to help them.

"Last month I took my 17-year-old son up Mount Fuji, which was his first climb, and next spring I will return to Everest. I climbed it once, but failed to get to the summit by 60 metres because the weather was bad. Oh, and I'm also going to cycle to the South Pole."

CHAMPIONSHIP SHOWDOWNS

Some F1 title battles go down to the last race... some even to the last lap!

1 MEXICO 1964

This race came down to the very last lap. Jim Clark looked assured of a second world title, but with seven laps to go his Lotus started leaking oil. On the final lap Clark's engine seized. Lorenzo Bandini then allowed John Surtees into second place, which was enough to give Surtees the title.

2 AUSTRALIA 1986

In one of the most dramatic finales of all time, three drivers had a chance for the crown. When a 180mph blow-out dramatically ended Nigel Mansell's race, team-mate (and title rival) Nelson Piquet had to pit for new rubber. Tight on fuel, Alain Prost just managed to take the win.



A dramatic late-race blow-out at Adelaide ended Nigel Mansell's '86 title charge. Alain Prost took the crown

3 JAPAN 1976

Niki Lauda was three points ahead of James Hunt – impressive, given that Lauda had missed races after being burned at the Nürburgring. In dreadful rain and fog, he pulled out of the Fuji finale after one lap. Hunt raced on but suffered a puncture and was forced to pit. He crossed the finish line not realising he'd won the title...

4 EUROPE 1997

Ferrari hadn't won a drivers' championship for 18 years – could Michael Schumacher do the honours? He led most of the race until Jacques Villeneuve made a brave attempt to pass on lap 48. The pair collided and while Jacques carried on to claim the title (see page 42), Schumacher was out on the spot. Dream over.

5 MOROCCO 1958

It was an all-British showdown between Mike Hawthorn and Stirling Moss at Casablanca. Moss needed to win and take fastest lap (for an extra point), with Hawthorn in third or lower. He led all 53 laps, but behind him Phil Hill slowed to let Ferrari team-mate Hawthorn through to second place, and take the crown.

6 PORTUGAL 1984

Things were looking good for Alain Prost at Estoril. He started on the front row and took the lead on lap 9. His McLaren team-mate Niki Lauda was only 11th in qualifying. But Lauda scythed through the field and finished second – denying Prost the championship by just half a point!

7 JAPAN 1999

Now it had been 20 years since a Ferrari driver had won the title. Since Michael Schumacher had missed GPs after breaking his leg, it was up to Eddie Irvine to beat Mika Häkkinen at Suzuka. Irvine was four points ahead, but could do no better than third. Häkkinen took the win and his second championship by two points.

8 AUSTRALIA 1994

Damon Hill had fought his way back into contention after a stunning drive in the wet at Suzuka. He was one point behind Schumacher heading in to Adelaide. Under pressure from Hill, Schumi ran wide, and as the Williams dived to the inside the pair made contact. Both retired. Michael was champ.



Michael Schumacher gets airborne after turning in on Damon Hill at Adelaide in '94. The title was his by a point

9 USA 1959

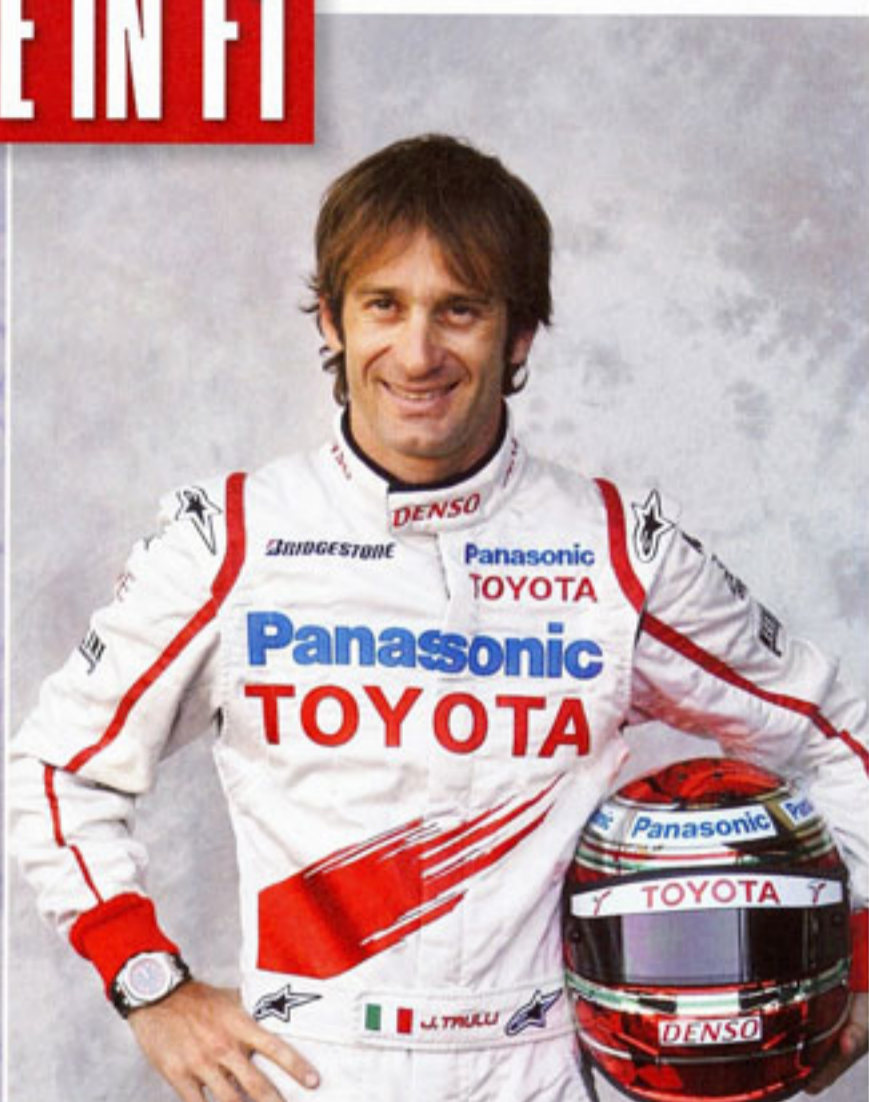
A year after losing to Hawthorn, Moss had another stab at winning that elusive drivers' championship. Alas, it wasn't to be. While leading, the transmission failed on his Cooper. Jack Brabham ran out of fuel on the last lap but secured the championship by pushing his car across the line.

10 BRAZIL 2007

Ferrari's Kimi Räikkönen was the outside bet in this three-way fight with squabbling McLaren team-mates Fernando Alonso and Lewis Hamilton. But after Hamilton slipped down the order with a technical glitch, Felipe Massa graciously conceded the lead to team-mate Räikkönen. Alonso was third, just missing the title cut.



James Hunt splashes his way around Fuji Speedway in 1976 – his title rival checked out on the first lap



JARNO TRULLI

Affable Italian: enjoys a pre-race kickabout; not keen on suspension failure

IT'S BEEN 12 YEARS since Jarno Trulli began his career in F1. It's a shame that after nearly 200 race starts, he still has just a solitary victory to his name. During his fourth year with Toyota, the recent Singapore GP showed us that Trulli is still capable of leading races (even if it was for three laps).

Undoubtedly his best run of success came with the Japanese marque at the start of the 2005 season and it's with Toyota he looks set to continue his long career into next year.

Trulli made his Formula 1 debut with Minardi back in 1997 and switched to Prost in the same year before joining Jordan in 2000. Then in 2002 he joined Renault and scored his best points finish – sixth in the 2004 drivers' championship. Plus, he won the Monaco Grand Prix and also recorded two pole positions.



We caught up with Jarno in the Marina Bay paddock – the night before his three-lap lead in the Singapore Grand Prix – to discuss his dozen years in Formula 1.

FAVOURITE TEAM-MATE FERNANDO ALONSO

"I get on with everyone, so I don't like to choose. Plus if one driver races fair with me, then I race fair with them."

I've had a lot of good drivers that I've raced against in the same team and I really like my current team-mate Timo [Glock], who's a good person. But with Fernando at Renault, we got on very well because we spoke Italian with each other."

FAVOURITE CAR TOYOTA TF105

"In the first five races of the 2005 season we scored three podiums with the Toyota TF105. We were second at Malaysia and Bahrain and then took a third at Barcelona."

I have to say that in the beginning of the season the TF105 was the best car I've driven in my F1 career. It was a quick car and really well-balanced. It was just a shame that the chassis didn't develop over the course of the season in the way that I would have liked. But it ran well throughout those early races."



FAVOURITE GRAND PRIX MONACO 2004

"Most people like to go to the Monaco Grand Prix. It's a special place to visit, even if it is quite a difficult place to work for the teams – in that respect it's the last place you want to go to! But I won there once in 2004 for Renault – it was great to win. It was made more special for the team and sponsors by winning in Monaco, but for me it felt like just another grand prix."

But probably my favourite place as an event would be the Canadian Grand Prix at Montreal. The people and the atmosphere are great, but it's not a good track..."



LEAST FAVOURITE RACE SHANGHAI

"It's actually quite difficult to say because there have been some tracks where I've struggled... but probably the worst so far has to be the Shanghai circuit in China."

I just don't like the track and I'm not really keen to go and race there. I've never qualified higher than 12th position and in the three years we've raced there my results were: 15th, retired, and last year 13th. It's very difficult to find a circuit that I don't like, or don't enjoy driving on, but China has always been a bit of a problem for me."



FUNNIEST MOMENT FOOTBALL WITH ALONSO

"I've had a lot of funny moments, especially with Fernando. I do remember this one time when we started playing football 15 minutes before a race was due to start."

We were in the office in the Renault motorhome and were playing with this tiny ball. We went crazy – knocking over tables, pushing each other, throwing chairs about, and making loads of noise and laughing. Then someone came in and said, "You guys are crazy. Why are you going mad when the race is about to start?!" That was very funny."



BIGGEST ACCIDENT SILVERSTONE 2004

"It was probably the crash that I had back in 2004 when the rear suspension on the Renault R24 failed. That was a major accident for me – a really big one."

It was during the British Grand Prix at Silverstone and I was coming out of Bridge corner at very high speed.

I can remember every moment of the accident as the car hit the wall and spun round many times in the air; it was a really big smash. But thankfully I was able to get out of the car and was completely uninjured, which was really amazing. There wasn't even a scratch – it was unbelievable."





{YOU <sup>ASK
THE</sup> QUESTIONS}

JACQUES VILLENEUVE

You remember him – that grumpy fellow who was F1 world champion.

But these days he's a pro-Alonso musician who wants a 'sing-song' with Michael Schumacher...

WORDS BRADLEY LORD PORTRAITS ANDY TIPPING

He may be not too far off 40 but Jacques Villeneuve is fresh-faced and ready to chat. Some grey-flecked stubble is the only reminder that it's now a whole decade since he was the reigning F1 champion.

Villeneuve's diminutive stature is only accentuated by his trademark baggy shirt. He still dresses like a skater boy, but for the past two years he's been bidding for a place in the annals of racing history. Jacques has set himself

the target of becoming only the second driver after Graham Hill to win motor racing's triple crown of the F1 world title, the Indy 500 and Le Mans. Last year his weekend in La Sarthe ended in retirement; this year in the Peugeot he was second to the winning Audi; perhaps in 2009 it'll be third time lucky. After all, he's vowed to carry on until he triumphs.

Villeneuve's never been shy of speaking his mind, so when *F1 Racing* offered to let its readers ask him about

anything and everything, the answer was an immediate yes. "Let's do it," he says with a twinkle in his eye as the questioning begins...

NASCAR, Indycar, F1 or Le Mans?
Peter Medhurst, UK

It depends on the point in your career, what the circumstances are and the opportunities you can get. I think the only guy who can decide exactly what he wants to do is Michael [Schumacher], >

{YOU ASK THE QUESTIONS}

and the rest of us are dependent on where the wind leads. I've won in F1 and Indycar and I'm trying at Le Mans – so the next big challenge is NASCAR.

How would a Le Mans victory compare with your 1997 World Championship title?

Wendy Powell, UK

Le Mans is a great race to get on your CV but I don't think you can beat the F1 title. Like the Indy 500, Le Mans is the work of one race rather than an entire season. The only thing that could be worth as much is the NASCAR title: it's a very tough championship, there's a lot of great racers and you need to work hard to succeed. It's quite underestimated in Europe; just like in the States they think F1 is all about electronics and not the driver. But that's normal. Each to his own world.

In your experience, what qualities, and in what ratios, make up a successful F1 driver?

Wes Crago, USA

First of all, there's no perfect driver. But you need somebody who can keep a cool head and who doesn't crack under pressure. They must be able to calculate the risks. A big part of racing is knowing when to go for it, whether to make the move or not, and you have to calculate the risk there and then, on the spot.

Plus a driver needs to understand how to go slower, so you can go faster. Sometimes you might lose half a tenth in pure speed with a set-up change but make the car more comfortable to drive, which means you make fewer mistakes in the race. Those judgements are important. A good racer will be good at any other sport where there's a 3D aspect that needs good spatial judgement.

How were you as a student in school?

Thom Rawson, Japan

I was good at the things that interested me like maths, physics and languages. And pathetic at the stuff I didn't like!



Winning the Indy 500 in 1995 opened the door to a chance in F1

In hindsight, would you have done anything differently in your F1 career? If so, what?

Lawrence Perry, USA

Yeah, sure, lots of things but would they ultimately have been better choices? Who knows? It's always interesting to wonder what would have been the outcome if you'd done this or that, but it could have turned out worse, too. And the possibility of things being worse is why you should never change what you've done in your life.

Do you ever regret leaving Williams, especially after winning the championships and all those races with them, then not winning a single race afterwards?

Terry Siv, Australia

Everybody makes it sound like it was my decision to leave Williams – but I didn't have the choice, to be honest. Williams didn't really want to keep me anyway.

What was your best and worst season in F1?

Hubert Witczak, Poland

The best was 1997, winning the title. And the worst was my last year at BAR in 2003. The atmosphere was terrible, the car was breaking down... It was just a bad place.

Fondue or maple syrup?

Lisa Dean, UK

Fondue, because you can't make a full meal out of maple syrup!

Did you ever get the urge to punt another driver off the track?

Ian Buckley, UK

I've been racing for 20 years but no. Sure, you make it as difficult as you can for the other guy, but not to the stage of pushing somebody off.

Which was bigger – winning the Indy 500 in 1995 or the F1 championship? And why?

Gino Ughetti, USA

The win at Indy was probably the more important one, because it brought me to F1. Without that win, I'm not sure Williams would have opened their doors as easily, so it was a key race for my career. But ultimately, winning the F1 championship was my main goal ever since I was a kid, so it has to be that.

With your balls-out style both on and off the track, what would you say was your one defining moment in F1, other than winning the world title?

Graeme Murdoch, UK

Overtaking Michael around the outside of the last corner at Estoril in 1996. I don't think anybody else at that time would have tried the move, and I used the experience I'd gathered on ovals. There was one opportunity, I took it and it was fun. But I'd never have tried it a second time.

You played a big part in shaping the BAR team. How did it feel to be basically 'fired' from something you created?

Tom Cullum, UK

That was tough, mostly because I'd put a lot of hard work in. Then the team became successful right after I left, thanks to that work.

Now that you've raced in many other series, what would you say sets F1 apart from the rest?

Eric Scura, Canada

The fact that it's just so big. And the main reason for that, I guess, is because it's got so much money. That helps make it popular, plus it's very international with all the different manufacturers. F1 just basically helps itself out. ➤

“If you do have a shunt, then make sure it's a good one at least!”



INSET: GETTY IMAGES



"My main goal, ever since I was
a kid" - winning the drivers'
championship in 1997

{YOU^{ASK}THE QUESTIONS}

Jacques, how do you compare being in a band to being on the F1 bandwagon?

Dimitrie Marsala, Malta

When you're making music, you're independent – you don't have to get up in the morning if you don't want to and there are no prerequisites or obligations. Once you sign a contract in racing, you have to abide by it...

Given your fondness for crashing, which was your favourite off?

Stuart Burch, UK

First of all, let me say I've got no fondness for crashing. It's never fun, and it always hurts. But, well, if you do have a shunt, then make sure it's a good one at least! I had a couple of big ones at Eau Rouge but I'm not sure which one I'd say was the best. It really depends on why you crash. In those cases, I had the accident because I was trying to take the corner flat. Talking with the drivers afterwards, they said, "You're mad, why are you trying to take it flat?" and there was a macho element that was quite good. But if it's just a stupid crash, then there's no pride in it.

What would be the outcome of a celebrity boxing match between you and Michael Schumacher?

Stephen Asbury, UK

Er... The outcome would be sad. It would be bloody. But I'm not into boxing.

Sons of famous fathers don't have it easy in general. Did your father's fame influence your career and life in a positive or negative way?

Borodi Erzsebet, Hungary

Both. It makes it easier to open doors and find sponsorship, but the downside is that you have no time to learn because you're in the limelight from the first moment you turn the steering wheel. Most young drivers get a couple of years to learn and nobody knows who they are. Then when they become good, people say "look at this great new driver" – but they're in their third season already.

"I've managed to make some friends now, and I don't want to lose them!"

That's what makes it difficult when you have a famous name: it forces you to learn under pressure. But it's useful in the long run because it makes you stronger under pressure.

Did you dream of driving for Ferrari like your father? Was it ever a possibility?

Xavier Maes, Belgium

It was never a possibility – not with Michael there, anyway. So I never put any thought into it.



Jerez '97: Jacques (right) knew Schumi was going to hit him

What did you feel when Michael hit your car at Jerez in 1997?

Attila Takos, Hungary

I was expecting it. The key element I concentrated on was making sure the car survived it.

Who is the most over-rated driver in Formula 1?

Andrew Lawton, UK

There have been quite a few, but I'm not going to give you any names. I've managed to make some friends now, and I don't want to lose them!

Did you ever wish you'd been able to ask your father for advice?

Ollie Meakin, UK

No. In motor racing, you have to be able to make it on your own. Once you're in the car you've got to be able to react and think of things when there's nobody else there to guide you. Advice is always dangerous.

A lot was written last year about Fernando Alonso's team spirit. How did you find it being his team-mate in 2004?

Hayley Scoffin, UK

I thought he was a great guy, and really helpful. I think it all comes down to respect. He got in the car at McLaren and he wasn't respected even though he was a two-time world champion. So he did the only thing he could to protect himself, and he was right to do it.

Is it true you still race on-line with some other friends in F1?

Giles Peters, UK

Yeah, I do some on-line racing with some of the guys. Driver-wise, we have Anthony Davidson, plus my team-mate at Peugeot, Nicolas Minassian. Then there's my old engineer, Jock Clear, and a couple of other guys from Honda. We all get together wherever we are in the world, and it's fun.

Who have been your best and worst team-mates, and why?

Robert Hyland, UK

The best team-mate for my career was Frentzen. The guy was brought in to win the championship, and the team concentrated on him, as did Patrick Head. Jock [Clear] and I were just left on our own to make our own way. And we ended up winning, so that was pretty useful for me. Apart from that, I got along well with most of them. I learned a lot from Damon [Hill].

Who is the racing driver you respect the most?

Joshua Sullivan, USA

Of the current F1 drivers, right now I'd say Alonso.

You, Damon and Michael are around the campfire, you with your guitar. Would you all have a sing-song together or would it end up with the guitar in pieces, smashed over someone's head?

Toby Colliver, UK

We've all been at parties together and there hasn't been a problem. So, yeah, I think we'd probably have a sing-song together. Why not? **FO**

JOIN OUR READER PANEL

Want to put a question to an F1 star? Visit www.f1racing.co.uk and join the Reader Panel. We'll let you know which interviews are coming up

HOW TO MAKE AN F1 WING

A front wing normally ends its life as a crumpled mess – the drivers might be more careful if they knew what went into making one...

WORDS MATT WARWICK PICTURES ROB WHITROW



Williams know all there is to know about making front wings. In fact, they're firm favourites to grab this year's *F1 Racing* Knackered Nose Award, with an astonishing 12 front wing assemblies being wiped out in 2008 – the most notable perhaps being Kazuki Nakajima's punt on Fernando Alonso in Valencia. So who better to call when it comes to finding out what goes into making one of the most critical parts on an F1 car?

When *F1 Racing* walks through the gates at Grove, the workshops are humming with activity. Down in the composites department, a newly designed front wing is making its way through the production process. There was nothing wrong with the old wing, you understand – this one's a development. In the way it looks, this design evolution for the FW30 is curvier, and sweeps with a little more finesse than the previous one. Two of them will be ready for the next race. That's one each, Kaz and Nico, so any breakages and it's back to the old model.

It's still made in the same way, and from the same stuff. The bricks and mortar of F1: carbon fibre. We all know that depending on the way it's fused and bonded, carbon fibre is as hard as hell, but you wouldn't think it when you see it being wheeled into the factory as a 'fabric' on giant 50 metre rolls, a metre and a half thick; the same consistency as, say, wallpaper.

"It costs between about £80 to £110 a square metre, which amounts to about £4,250 a roll on average," says composites operations foreman John How. "We spend about £1m for a whole season."

Carbon fibre is a kind of living, breathing thing. At Williams, roll after roll of the stuff is stored in a giant freezer at -19C. If you just leave it somewhere at room temperature for just a couple of days it can go hard on its own. "The resin between the fibres is curing all the time," adds How. "You reduce the curing if it's frozen. A lot of the carbon is good for a year in the freezer. On the bench it's good for about 30 days, depending on the ambient temperature."

It might look simple on TV but there's plenty more to an F1 wing than you'd imagine. Two central 'spars', which run along the middle of the wing's 'mainplane' or central element, strengthen it and hold the titanium 'inserts' which attach the wing pillars to the nose. The wing has three elements in total: looking from the front, the lower forward one is the 'slat'; the middle one the 'mainplane'; and the upper element is termed the 'flap'. "That's the removable bit which we can rotate and adjust. You see it at pitstops when they wind a bit more angle on or off," says How. They're all topped off by the 'cascade', often referred to as the 'bridge wing', which runs from endplate to endplate, above the nose.

Much the same as tackling your first Tamiya 1:24 scale F1 display model, the composites guys all work from instructions – the difference being they can actually read precision design drawings and they know what they're doing.

"It looks a lot like making a model car, this..." *F1 Racing* says. "Er, it's a bit more complicated than that, but I guess," replies Gideon Short, a Williams composites guy ➤



A wing spar starts out as many small sheets of carbon fibre, cut from a giant 50m roll and stuck into place on the mould





'Bagging up' before the wing spar goes into the autoclave: air passes through the 'breather blanket' (left) when the vacuum bag is being evacuated (right). The vacuum ensures that the temperature and pressure of the cure will be perfectly controlled

almost as new as the wing he's working on – three weeks into his job. He's 'laying up' a spar on a mould. In what seems like quite a painstaking process, he sticks down the various different patches of carbon fibre – cut from the roll in its fabric form – on to the mould, using as many layers or weaves as the instructions dictate.

Then on to the 'bagging up' in preparation for the autoclave to bake the carbon fibre into its ultra-strong form. This is where the quality control really kicks in. You have to put your laid-up component into an evacuated plastic bag because the curing process needs to happen at a precise temperature and pressure; cover it in a foam-like 'breather blanket' or you won't be able to remove all the air from the bag; put 'release film' between the carbon fibre and the breather blanket to keep the resin

in place as it heats up, and to stop the breather blanket melting onto the carbon fibre... Phew. All for one tiny piece of the front wing, let alone the rest of the car.

Removing all of the air from every single nook and cranny within the bag is one of the most crucial parts of the process. If you don't get all of the air out you have to start the two-hour procedure all over again. Considering

If you don't get all the air out, you have to start the two-hour process again...

the work that goes into producing one, Gideon must be gutted to slave away on a front wing all week to then see it being ripped off on the first lap of a race. "Not at all, mate. I've got two kids," he smiles. "I just think, 'Great, more overtime!'"

Williams have three autoclaves: two huge ones painted yellow, and a little Richard Hammond-sized one. Sure, every F1 team has autoclaves, but you can't escape the sci-fi wonder of these things – each one has a haunting interior of steel and pipes, which attach like an umbilical cord to the valves on the bags which make each part suffer in the searing heat of the mighty, cylindrical torture chamber. But there's no time to consider dark metaphors here – stick the bits in on a 135C heat with 6bar of pressure (90psi) cycle for 2hrs 35mins... Bang. Job done.

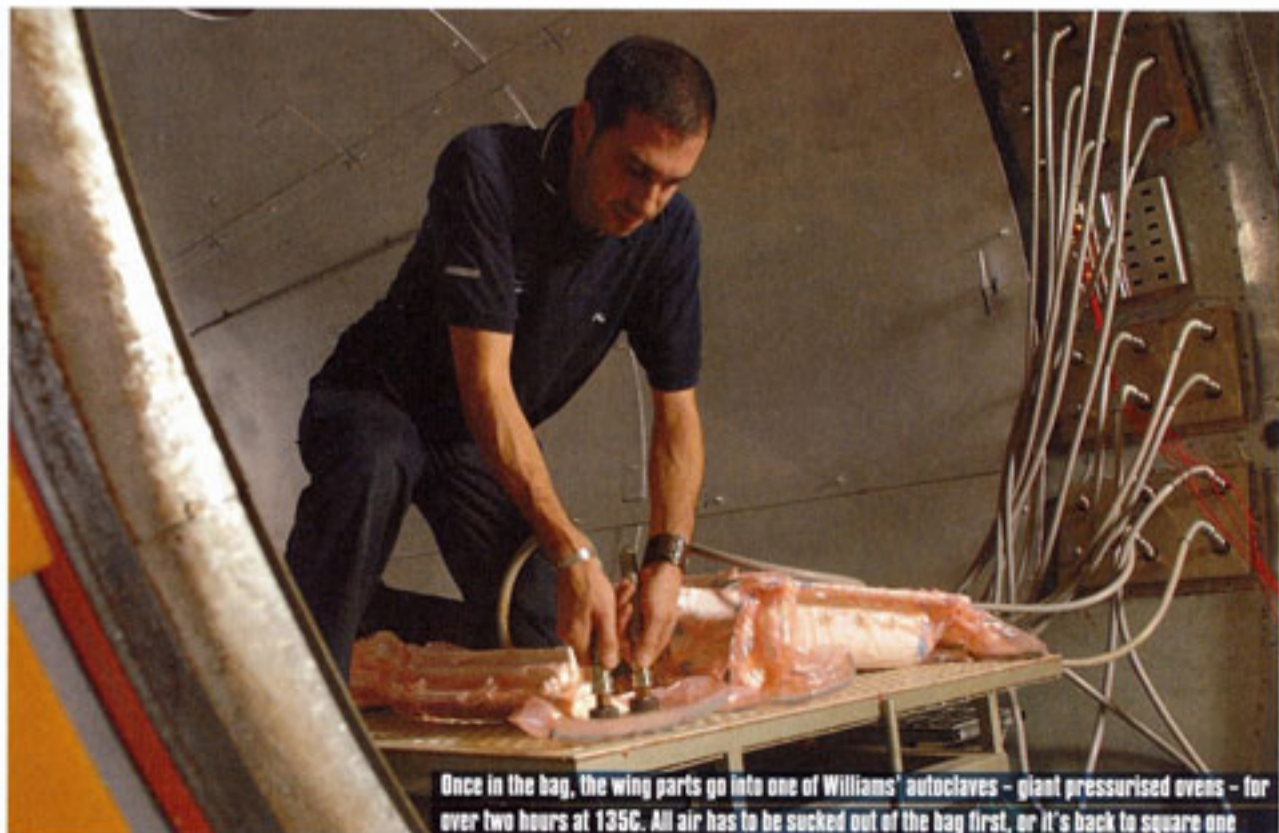
Once the parts are 'baked' they need to be bonded together. Most of the bits are made in two opposing sections – a top and a bottom 'skin'. This is where we go back to the model-crafting skills, and where the wing really begins to take shape.

Neil Lambert is working on the number two wing. When we say it's being bonded, we actually mean sticking it together with a two-part adhesive – as you'd imagine, that's very super glue.

But Neil won't be getting his fingers stuck together and storming off when the endplates don't fit, like most people's attempts at tricky model making. Trimming and fitting as he goes (you always make a part with excess carbon fibre), he gently offers up each part and coaxes the two skins of the mainplane together. It must be the most satisfying part of the whole process, like when you finish putting up a shelf at home. Okay, it's not going to make world news, but it's that feeling of completion; the feeling that, "I made this." ➤

CARBON FIBRE: THE WONDER STUFF

The first carbon fibre F1 chassis, the McLaren MP4/1, appeared in 1981 and had to be built by Hercules Aerospace in the USA... each actual carbon fibre measures six micrometres thick, 13 times **thinner than the average human hair**... carbon fibre is four times lighter and **seven times stronger than steel**... the body of Richard Branson's new 'space plane' will be made entirely of carbon fibre, which means it's **30 per cent more fuel efficient** than a Boeing 747... after John Watson crashed at Monza in 1981, the resilience of the MP4/1's structure during the impact convinced Niki Lauda that the sport was safe enough for him to come out of retirement... the monocoque of an F1 car weighs between 40kg and 60kg, and **costs up to £58,000**... every F1 team uses its own bespoke 'mixture' of carbon fibre in its cars.



Once in the bag, the wing parts go into one of Williams' autoclaves – giant pressurised ovens – for over two hours at 135C. All air has to be sucked out of the bag first, or it's back to square one



The two 'skins' of the 'mainplane' are trimmed and bonded (far left) then baked again to cure the adhesive. Then the various elements are screwed together to form the final assembly (above)

Once the glue has settled, it's time to pop it back in the oven for an hour



Before undergoing the arduous-sounding 'non-destructive test' the wing is checked for quality and then buffed to a shine

Forgive us for not admiring with technological awe the way bits of the Williams FW30 are being put together for a minute, but it's all going a bit *Blue Peter* in the later stages. Once the glue has settled, and you're sure you've put all the bits in the right place, it's time to pop it back in the oven for another hour. Not the autoclave this time – the adhesive needs to be fully cooked at 60C in a massive double-door oven that looks like a Smeg fridge, to permanently fuse the parts together.

Sitting in an aluminium jig, the wing has to be thoroughly checked now it's finally been assembled. The jig fits perfectly – to the millimetre – around all dimensions of the wing. If it doesn't and you're just a little bit out, then you might as well start again. There's no way any imperfections will get past the FIA on their 'bridge of doom', where the cars are checked for weight and dimension compliance at races.

The polishing stage is where the carbon fibre starts to look, well... sexy. The shiny pattern of grey and black squares seen in so

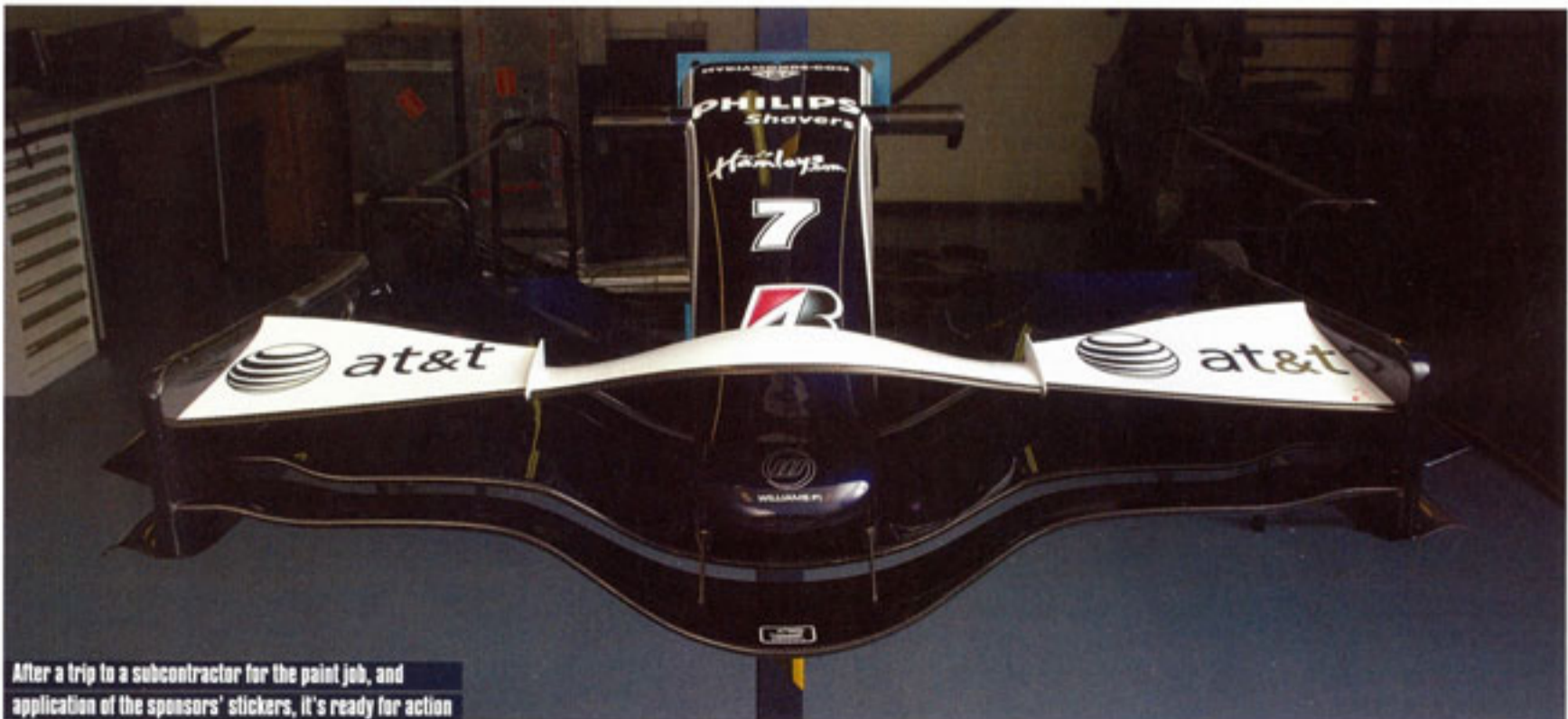
many sports cars reflects your gawping face – fixated at the sight of such a perfect finish. And then it's time for the final checkover.

"An NDT [non-destructive test] ensures that everything's in the order it should be by using ultrasound – firing soundwaves through the carbon fibre to identify any imperfections or weaknesses," says Lambert.

As wing number two goes off for its NDT and then to the subcontractors for painting, number one arrives back at Williams' factory from its eight-hour paint job.

It's only now, in its midnight blue livery, that the wing's sleek aesthetic beauty really hits you. And then you notice that there is something that makes the Williams front wing more significant than that of any other on the grid: a small 'Senna' sticker, placed on the slat beneath the nose.

"That's why this is my favourite team," says Gideon Short. "We're proper independents, and the only ones who are just a racing team." Next time, Kaz, do a handbrake turn and smash one of the wheels off instead... **FO**



After a trip to a subcontractor for the paint job, and application of the sponsors' stickers, it's ready for action

What's it like to be a McLaren fan at Monza?

F1 Racing goes to Ferrari's home race in Woking Silver. Cue perplexed looks and the odd 'friendly' headlock...

WORDS MATT WARWICK PICTURES LORENZO BELLANCA/LAT

They do stare at you. Maybe anyone would if you were wearing so much team merchandise. You can see them scoping you out, mouthing the sponsors to themselves, as it registers that Ferrari's sworn enemy is at their hallowed track.

What's it like for a McLaren fan at Monza? Lonely, perhaps... Surely I'm not the only one here? It feels that way when I park up at the entrance to the circuit near the Lesmo curves. I'm greeted by a couple of sly jeers and an unofficial Ferrari merch stand – Michael Schumacher's face staring down at me from a beach towel. Then someone roars past just a few feet away in a Ferrari 430, doing about 90mph on a small service road surrounding the parkland. It's as if they're circling me already. This is like your first day at a new school, and you're wearing The Wrong Trainers.

So it's a good job I've parked in the polar opposite part of the circuit from where I'm supposed to be, then. To collect my ticket I have to walk around to the Parabolica – more than two miles away. Plenty of time to consider this potentially catastrophic error. It's not like F1 is tribal like football, though, is it? Has there ever been any fighting between fans at a race? People take sides for sure, but Formula 1's a bit more sophisticated than that, surely?

Well, the Carabinieri liked my get-up anyway. They eye me up and down with a smirk as I ask for directions from each one I walk past. It's not as easy as just walking round the circuit when you're outside Monza. There are trees in the way... lots of trees. Then the road kind of wanders off to nowhere and into a beautiful old town with cobbled streets and a nunnery. A nunnery right outside the paddock? Silverstone this ain't.

I know that it's a cliché of every commentator to drone on about "the history" and "the passion". But you know what? At Monza, they're right. Old churches and houses pepper the circuit, juxtaposed with state-of-the-art paddock motorhomes. There's the legendary (and in some places insanely steep) concrete banking used until the end of the 1960s, now dotted with weeds and moss; the old creaking forest that's seen it all... There's no place for the future-world of the McLaren Brand Centre here – this is the biggest and best working museum F1 could ever have. ➤





The rain starts. The torrential rain. And the thunder and lightning... I'm not even at the circuit yet, and everything's conspiring against me. But as anyone who has been to a grand prix knows, when you walk through the gates you get *that feeling*.

Not put off by the weather, the tifosi are here in their thousands – the requisite prancing horse T-shirts replaced by Ferrari-red raincoats. Ferrari is as Italian as the Queen is British. And the Italian GP is like the Queen's birthday. You might envisage a baying mob of blokes carrying flares jumping over the perimeter fences, brandishing Ferrari flags and firing off airhorns, but it's actually far more of a family affair. Cute, wide-eyed kids wave their mini Ferrari flags, not totally sure what's going on but thinking it's all wonderful anyway. Nuns take a day off from the cloth to worship at the altar of the scuderia. Everybody from every walk of Italian life is here.

The looks from some of the tifosi up in the expensive seats (the main grandstand) are, well, perplexed. It's when a few young lads take an interest that I brace myself for a torrent of abuse – whether you're walking into your local newsagents to buy a packet of crisps, or sitting in the middle of Ferrari country dressed head to toe in McLaren garb, there's nothing more annoying than waiting for a mouthy teenager in a tracksuit to have a go. But it doesn't come... just a few friendly waves and lighthearted 'thumbs down' gestures.

“Within minutes of nearing the legendary Parabolica corner I find myself in a headlock”

So much for the hostility. All these Ferrari fans are being far too welcoming and friendly. Maybe a trip to the Parabolica is in order – the scene of wild jubilation in 1988, after Ferrari's underdog cars took a fairytale one-two finish.

Ah, that's more like it – within minutes of nearing the legendary corner I find myself in a headlock, courtesy of a not-at-all intimidating tattoo-covered tifoso, who was standing outside a burger van blasting out the loudest and worst Euro house music you're ever likely to hear when he spotted me. It's all good-natured really, but as we shake hands and exchange understanding nods, I thank God it was. That could have ended badly.

The weather doesn't stop the airhorns parping and the flags flying high at Parabolica, as Massa and Räikkönen spray their way around the corner. But just when you think you were worrying about nothing, and that everyone's fine with me being here, a mischievous-looking man leans over: “You are very brave coming into this section, you know. Brave... or stupid.” With the help of our Italian-speaking photographer I try a charm offensive between each V8 scream. He begins to open up. “I don't like McLaren. I'm an Italian, and a tifoso.”

Nothing wrong with that. But considering Kimi's poor form, wouldn't he want to see Lewis driving a Ferrari? “No. He's not very charismatic. I don't think he comes across that well as a person.” Then I feel confident enough to ask him the ultimate philosopher's question for an Italian... “Why Ferrari? What's so special about Ferrari to an Italian?” But he just looks at me like I'm an idiot. As if I've just said, “Why food? Why breathing?”

This man, and everyone around me, is Ferrari through and through. Why? As he says, it's quite simply because he's Italian. Oh, and because, for the past 30 minutes, I've been sitting in the middle of the Ferrari factory day out...

Perhaps it's the ancient, golden trees of the circuit's Royal Park, and the wild thunderstorms; or the derelict concrete banking and old churches. It could even be the sight of Italy's 'other' team, in effect Minardi, winning the Italian GP; or just the nuns and nutters dancing to techno (not together) that help make Monza so special. Either way, this isn't a race meeting. This is a melting pot of passion and high drama. Something you must see before you die.


What's it like to be a McLaren fan at Monza? Like it would be for the fan of any other team in F1 – absolutely bloody brilliant. **FO**



Note to McLaren fans: don't expect nuns to prey for you on Italian GP weekend, and avoid people with prancing horse tattoos. It's a good way of getting a whole row to yourself, though







"I went to Ron straight away and told him we'd be world champions with this car"

This was the most successful F1 car ever. Alain Prost and its designer reveal the secrets of how it won every grand prix in 1988 – bar one

WORDS BRADLEY LORD PICTURES LAURENT VILLARON

To say this car 'dominated' seems a little mundane. You can dominate the first half of a football match and still lose, or the opening laps of a grand prix before crashing out. No, the McLaren MP4/4 did more than that.

Most people can tell you the car won 15 of the 1988 season's 16 races. But 10 of them were one-tuos. And while Ayrton Senna and Alain Prost led for 1,003 laps in 1988, only two other drivers got in front all year – for a combined total of 28 laps.

Schumacher dominated his era, Clark too. But this car didn't merely dominate; it *obliterated* the opposition. Here's how...>

1988 marked the end of the turbo era. With a new 3.5ltr formula waiting in the wings for '89, FISA President Jean-Marie Balestre vowed to equalise performance between the teams running the 'old' 1.5ltr turbo technology and those, like Williams or Benetton, who had made an early switch to the bigger-capacity atmospheric engine. The governing body reduced maximum turbo boost from 4bar to 2.5bar (cutting power outputs from over 900 to around 700bhp) and reduced the fuel tank capacity from 220 to 150ltrs; the theory ran that limiting power, and imposing a reduced fuel capacity that forced the turbos to run below maximum power (these were the days before refuelling), would give the 'atmo' cars a better chance. It's just somebody forgot to tell McLaren and new engine partners, Honda.

"We wanted to go all out in '88," admits Steve Nichols, project leader for MP4/4. "Honda had exactly the same attitude." Honda's arrival meant major changes for McLaren after four seasons running the TAG-funded Porsche engine. The new Honda V6 turbo (codename: RA168-E) was a much more compact, lower unit than its predecessor; this, and the revised installation it required, opened up big opportunities in how it was packaged when design work on the chassis began midway through 1987. Iconic designer John Barnard had left the team in August 1986 and the '87 car had been a relatively rushed design, essentially a makeover of the previous year's title winner. For 1988 everything was brand new. "Although F1 cars had been running with a flat underbody since 1983, we had always essentially updated the same 'ground effect' type monocoque," explains Nichols. "This had a narrow bottom to allow maximum



"It's from Alain - he says you suck" Senna and Steve Nichols (right) test the MP4/4. Above, the Prost-Senna rivalry begins

space for the ground effects to work. For 1988, we were able to design the tub with stiffness and weight as our priorities."

New safety regulations also meant the driver's feet had to be behind the front axle; McLaren's solution involved reclining the driving position as much as possible, giving the car its low-line look. "Compared to the MP4/3 in 1987, the wheelbase was longer [40mm] and the frontal area had been reduced," remembers Prost. "I think the best part was the rear suspension. It made it stable under braking, and gave us excellent traction - vital with the turbo engines."

MP4/4 didn't hit the track until the very end of March. McLaren had gone to Imola for the final pre-season test, yet delays in the car-build meant they were forced to run with

an interim car. Only on the final day of the test, after every other team had gone home, did the new machine run for the first time.

"After Senna had been out to get familiar with the car, we pushed him back into the garage and he sat there for about 30 seconds looking fairly stunned," laughs Nichols. "Then he said, 'This car's going to be fucking quick!' And so it turned out. We did about 80 laps that day, and that was extent of our pre-season testing. The team packed up, went to Brazil and won first time out."

Prost remembers that spring day in Imola with similar clarity, and shares a revealing insight into the struggle for supremacy that had already taken hold. "We were told to go out and learn about the car - not to push too hard," smiles Alain. "We spent the whole day pushing like crazy - climbing all over the kerbs and braking as late as we could. It was like when we tested the 1984 car: we immediately knew it was going to be quick. I went to Ron straight away and told him we'd be world champions with the MP4/4."

"People always wanted to know what the secret was," says Steve Nichols, "but there wasn't one. The car was good in every respect and gave the drivers confidence. They could wring its neck, really give it some shit and it just asked for more. It co-operated with them, and it was like that from the first lap."

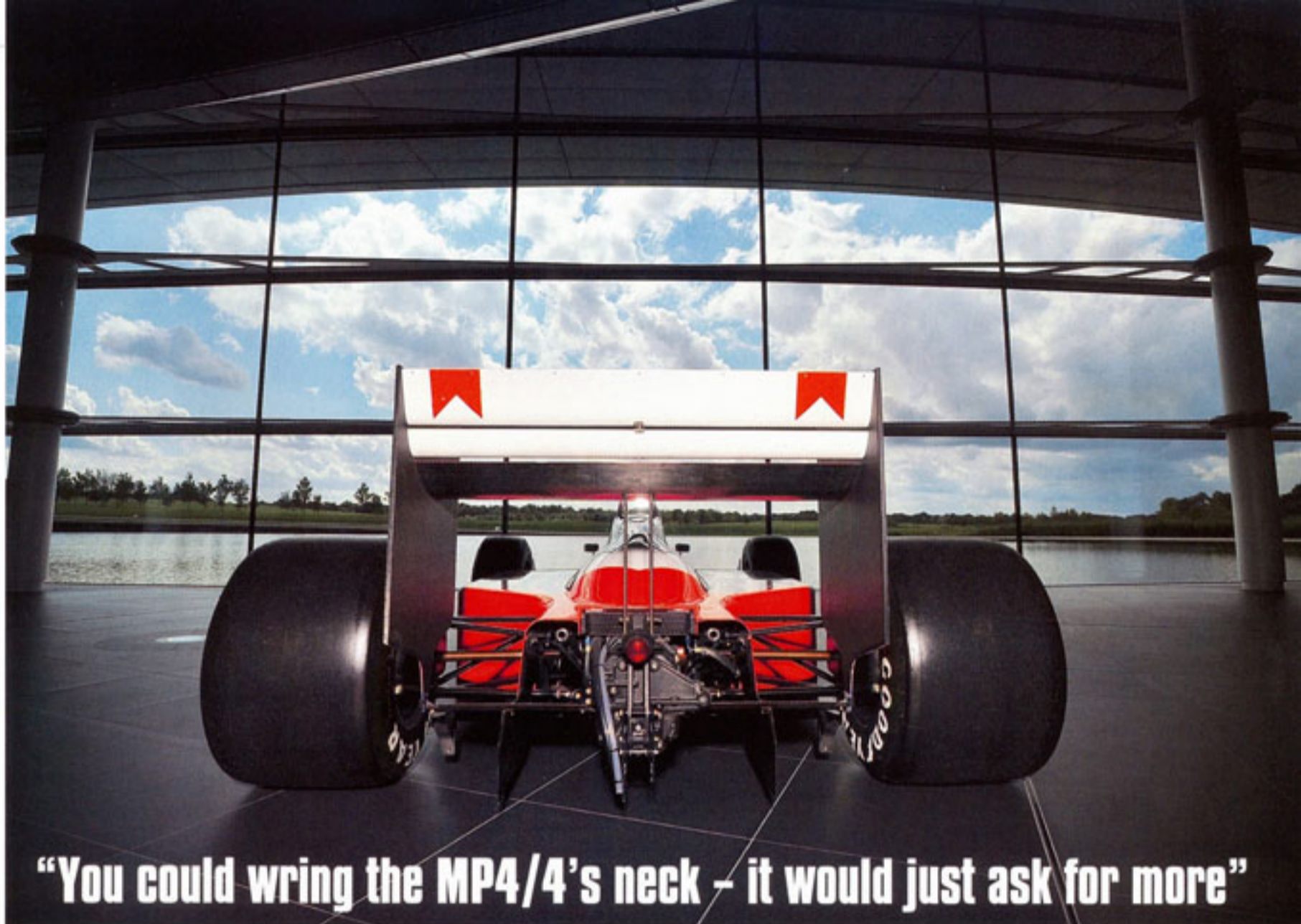
By one third of the way through the season, having won every race, the team joked that the engineers could stay at home for the races and send operating instructions to the mechanics. The superiority of MP4/4 was underlined by the performance of Lotus and reigning world champion Nelson Piquet. They ran identical engines to McLaren but



"Senna sat there looking stunned after his first run out in the new car"



The new Honda engine was much more compact, enabling McLaren to design a lower chassis



"You could wring the MP4/4's neck – it would just ask for more"

by Monaco, Honda were making unusual requests to the championship leaders.

"Our engines all came from the same pool. Honda used to select the most powerful ones for qualifying, then the most reliable for the race," explains Nichols. "At Monaco, Honda asked if they could give Lotus our qualifying motors for the race. We still ripped 'em up pretty good. Lotus were a proud marque and they were convinced we were cheating. But our cars were stripped down after the race in Canada, almost to the bare chassis, and we were squeaky clean. Nobody could quite believe we were that much faster."

Strange as it may seem, though, MP4/4 fades into the background when it comes to remembering 1988 because of the rivalry between Prost and Senna. At the beginning of the year, Senna was the new arrival – the intense young Brazilian with his first tilt at the title. He was ambition personified – a driver on the verge of realising his potential. Prost was the established champion; widely regarded as the greatest F1 driver of the decade, the Frenchman approached the year with the carefully reasoned motivation of a man who'd been there before. "Ayrton had always been the *de facto* number one in all

his teams until then," remembers Alain.

"Maybe when he arrived at McLaren, he thought he was joining 'Prost's team'. He made his presence felt from the beginning."

For many, the situation echoed that of four years earlier, when Prost had been the young lion and Lauda the wiser old head. In 1984, Prost had taken three poles to Lauda's none; yet Lauda had scored five fastest laps, against two for Prost. In '88, Senna outscored Prost 13-2 on pole positions, but set just three fastest laps against his team-mate's seven. Senna went all-out in every session; Prost kept his powder dry for Sunday afternoons.

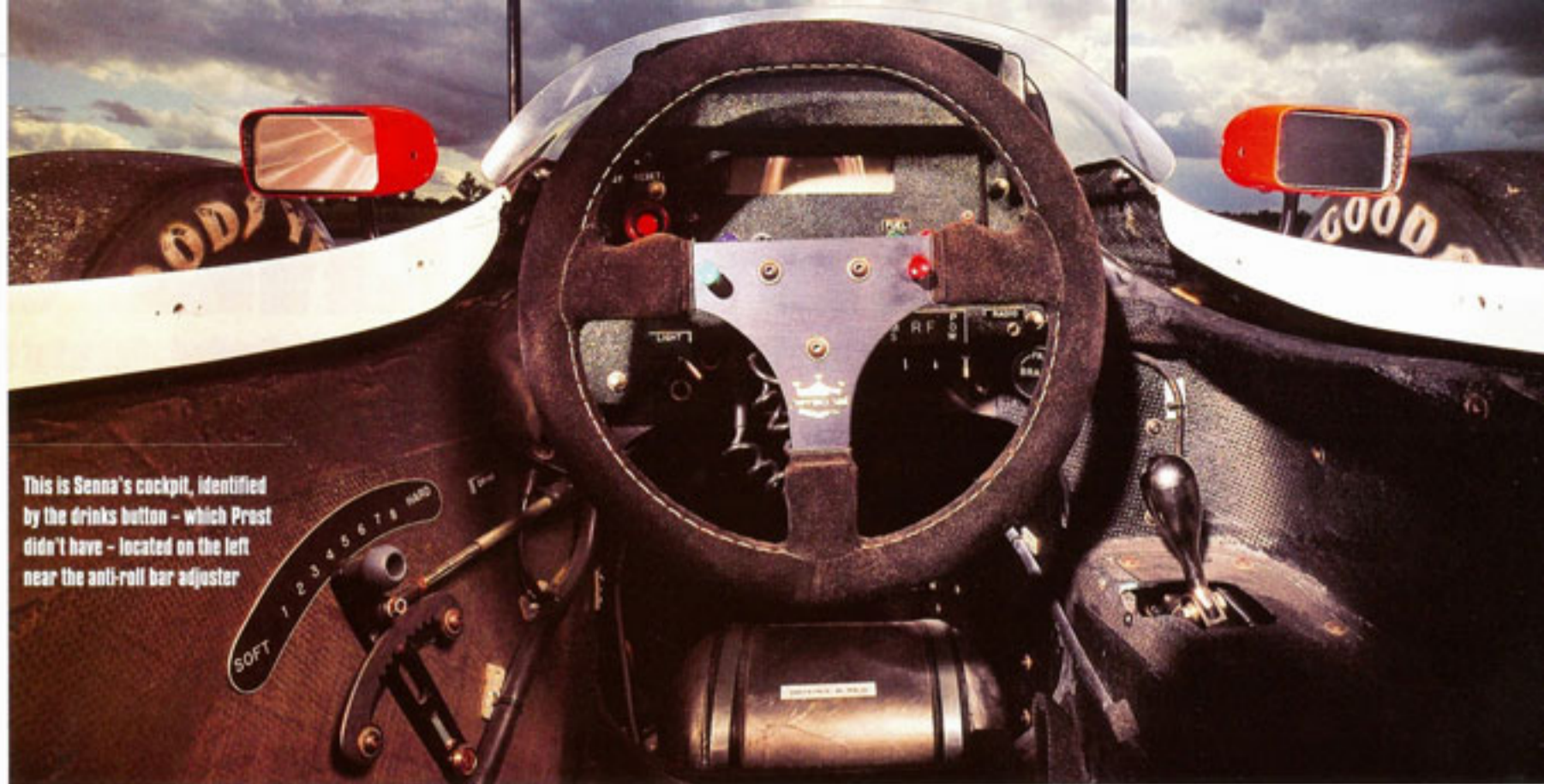
"At the time, people said it was boring," smiles Steve Nichols. You can understand why: after all, a non-McLaren didn't even lead a lap until round eight at Silverstone. "But for me, it was like the America's Cup: a match race between the two best guys, in this fantastic car. There was total equality and it was a straightforward knock-out battle."

"We knew at the time that we were in the middle of something special," agrees Prost. "But we couldn't afford to lift off just to make the races more interesting. It was our battle for the title that got F1 fans excited."

The points totals show the contrast between Prost and Senna. Only a driver's best 11 results counted for the title. It put a premium on winning races, rather than reliability and consistency. In fact, Prost scored more points than Senna that year – 105 to 94. But applying the championship rules, Senna ran out winner by 90 points to



"Everybody just grit your teeth and smile." Adelaide 1988: McLaren celebrate their season of domination, and fierce rivalry



This is Senna's cockpit, identified by the drinks button - which Prost didn't have - located on the left near the anti-roll bar adjuster



"Prost and Senna's rivalry got frosty - they wouldn't speak to each other"

87; the Brazilian scored eight wins and three seconds, the Frenchman seven wins and four seconds. Things could not have been closer.

While the battle between the drivers was explosive, the team was never anything other than united. "Ron was very even-handed, and dealt with the whole thing quite adroitly," recalls Nichols. "But myself and the other race engineer (Neil Oatley) never allowed ourselves to be split. We kept the perspective that we worked for McLaren, not for the drivers. The relationship between Prost and Senna got quite frosty and, although they never lost their respect regarding the other's ability, they wouldn't speak to each other. We used to have a laugh about it; it was almost



The Honda V6 turbo RA168-E powered the MP4/4. The Lotus 100T couldn't get near McLaren that year, despite using the same unit

a bit of a joke in the team, to be honest. The engineers all shared information but it was a bit like going through a divorce, with people only talking through their lawyers."

It seems amazing that there could be regrets after such unprecedented success - and yet, there's still 'the one that got away'. In the history books, that single lost race at Monza sticks out like a sore thumb.

"We never thought we'd win all the races," admits Nichols. "Everything was just too on the edge. The rules meant that the atmo cars really did have an advantage, and the drivers were on the limit everywhere just to beat them. Jeez, there were five or six races they should have won but somehow our guys pulled it off. That was the problem at Monza. We'd had one engine blow, they'd made Senna's mixture richer to keep it reliable, we had fuel consumption issues - and Ferrari were attacking. Senna had to carry as much corner speed as possible because he didn't have the luxury of backing off, and he had a 100th of a second to make the decision. You can't call it a mistake because he was doing what was needed to get the job done."

MP4/4 won every race but one, every pole but one, and nearly out-scored every other team put together (199 points to the rest of the field's 201). Yet the abiding memories for its creators are of the people, not the car. "It's a perfect indication of how important teamwork is," concludes Steve Nichols. "We didn't have any superstars. We all liked each other, respected each other and enjoyed what we were doing. It showed the importance of teamwork and personal effort. Kind of like a game of cricket - in the field, you work together; when you go out to bat, it's purely personal. And you need both bits to succeed."

And so MP4/4 now sits peacefully in McLaren's Technology Centre: sleek and elegant - agonisingly close to, yet eternally distant from, absolute perfection. **FO**

WHAT HAPPENS

You've seen them on the television. You've heard the garbled fragments of their radio chat. But what do



PAT SYMONDS
Executive director
of engineering

During the race Symonds will co-ordinate the strategy with Matthieu Dubois, balancing his experience (more than 25 years in Formula 1) with the computer's predictions



DAVE GREENWOOD
Race engineer for
Fernando Alonso

Every time the car runs, Greenwood tracks its progress. He and Alonso find an optimal mechanical set-up for the car, and Greenwood will communicate with Alonso during the race



MATTHIEU DUBOIS
Strategist

The race is the culmination of the strategist's work. Throughout the weekend he gathers data on other teams — performance levels and likely fuel loads — and plots accordingly



FLAVIO BRIATORE
Team principal

The boss. Oversees everything, basically. Occasionally shouts at the drivers, but mostly instructs his race engineers to shout at the drivers. Often caught on camera gesticulating at TV screens

N THE F1 PITWALL?

these people actually *do* during a race as they sit atop their 'prat perch'?

WORDS STUART CODLING



STEVE NIELSEN
Sporting manager

Nielsen ensures the team are keeping to the rules — and he keeps an eye on the other teams to make sure they're doing the same. It's all part of the game, you see...



PHIL CHARLES
Race engineer
for Nelson Piquet

To keep things simple, only the race engineer talks to the driver — Charles stepped up to the pitwall for 2008 after being a data engineer for Giancarlo Fisichella last year



LUCAS DI GRASSI
Test driver

When Renault designed this new 'prat perch' for the 2008 season, they decided to future-proof it by including a spare position. Test driver Lucas di Grassi watches the race from here



ALAN PERMANE
Chief race engineer

Permane supervises the two race engineers and assists in the direction of race strategy. His brief is to watch what competitors are doing and consider how those decisions might affect Renault

WHAT ARE THOSE SCREENS AND BUTTONS FOR?

The computers run strategy programmes. Every time a rival makes a pitstop the Renault crew will try to time the length the fuel hose was connected — this will tell them how much fuel went in because all the rigs pump at the same rate. The computer can then predict when that car will have to stop again.

On the top bank the screens carry all the official timing information, the world TV feed, and the famously fickle weather radar image.

There are two separate communications channels: open-to-air voice radio, and a wired intercom providing security for confidential discussions.

I DID IT MY WAY

Fair play and principles have no place in modern F1, or so they say. One man has spent 15 seasons proving otherwise. At the end of an era, David Coulthard tells *F1 Racing* exactly what he's made of

WORDS BRADLEY LORD PORTRAITS ANDY EARI

The distinctive jaw is still chiselled, and his improbable neck remains as stout as ever. It could be an intimidating sight, but thankfully David Coulthard is smiling as he discusses his various 'incidents' during 2008. "It doesn't look good, does it?" he jokes. Well, that's one way of putting it, DC. There were times this year when it was easy to confuse the number 9 Red Bull with a battering ram. The nudges, nerfs and spins piled up – more so than at any other time in the 37-year-old Scot's career. They brought the inevitable accusation that he'd gone off the boil.

"The fact I'm retiring makes it easier to pigeonhole me, and I can't swim against whatever tide people want to build. But I've not just been going round in circles. I'm trying to do the best I can."

Most people's idea of Coulthard was probably formed when he was a fixture at the front of the grid. Driving for McLaren, he was unfailingly 'on message' – a squeaky clean-ish 'Mr Corporate', notwithstanding some lurid tabloid escapades. But ever since joining Red Bull in 2005, he's appeared to chill out and relax, at ease enough with both himself and his team's expectations of him for his real personality to shine through. And now, as he prepares to walk into the sunset, he's ready to open up about his 15 eventful seasons in F1...

When you were at McLaren, you said your three motivations were: "To race, to test and develop the car and to give the sponsors value for money." What happened when you went to Red Bull? Did you have a personality transplant?

I don't think anything changed; it's people's perceptions that shift. When I was a test driver at Williams, they used to say: "David, we're doing this at 10 o'clock, then you're going there," and everybody spoke to me like a member of the team. Then I turned into a race driver, and it was: "Ooh, David, would 10 o'clock be okay for you?" What did they think I'd say? "No, 11 o'clock, actually 11.03, would be better...?" It was the same thing. Things just change around you.

You have driven more grands prix for McLaren than anyone. Could you have won the drivers' world championship there?

Yes.


Why didn't you?

In the year I finished second [2001], the car was unreliable too many times: if the reliability had been right in Spain and Monaco, when I was right up with Michael, that might have provided the momentum to carry me through. But it didn't happen. On the other occasions, I always had a bit ➤





David is staying on with Red Bull Racing as a consultant in 2009



of a rollercoaster in terms of my peak performance. I spent a lot of time and energy with McLaren trying to understand that.

Famously, you had to give your position away to your team-mate Mika Häkkinen on two occasions: at Jerez in 1997, then at the opening race of 1998 in Melbourne. Were they instrumental in handing him the initiative?

[Pauses ruefully] Yeah... the '97 one was the most confusing because there was no talk beforehand, just an instruction during the race. That was upsetting. I clearly remember my American girlfriend at the time shouting at Ron, "You're an asshole," and that sort of thing, and I remember thinking, "She's not wrong, and I'm not going to tell her she shouldn't be shouting at him." It happened at Williams, too, and it really sucked. I never got my head around the concept of why you would want to win by default.

What if you'd said, "No" in Jerez?

I argued about it for more than 20 laps because it had never been discussed. I just thought, "Why should I move over?" And before I eventually did, I was told several times, "You are seriously compromising your position in the team." But it goes against my brain to go against the people I work with. So if it was for the good of the team, even though I didn't like it, refusing would have gone against what makes me as a person.

Then there was Melbourne, where you had made a pre-race agreement with Mika...

It was a more rational process. The car was quick but unreliable, so we wouldn't finish if we raced at 100 per cent. It was open play for pole and I didn't make it; it was open play for who could race to the first corner, and I didn't make it. But after that, the fact Mika made an unscheduled stop through a mistake of his own should have been the end of it. However, Ron decided the order should still be changed. Then the public and media reacted, quite rightly. I'm glad that it came out about the team orders because, along the way, people had forgotten that F1 is not an individual sport.

Do you think the positions would have been swapped over if the roles had been reversed?

It was always promised that I would receive the victory back, which meant I would win a race at the expense of Mika. And it never happened. In his final season, he was running third in his last race in Japan and I was fourth, so he moved over. *That* was the gesture. It wasn't quite the same...

Mika Häkkinen was well known for being a pretty quiet guy, but you both raced each other very hard – like when you touched wheels at the first corner in the 1999 Belgian Grand

Prix... You won the race, beating him fair and square that day. How did Mika react in that situation?

He wouldn't speak to me on the podium. After we celebrated, I had to say to him: "Let's sort this out now because you lost and I won – what do you want me to do?" I remember his engineer had a go at mine, Phil Prew, who now works with Lewis [Hamilton]. He told Phil, "If we lose the world championship, it will be because of you." And I thought, "FUCK OFF, and just say thank you for all the good things we did for you." That's what I hate in people, when in their moment of selfishness they forget their thanks. Can you put that in capitals please? It's important.

So what was Ron like as a manager?

Socially, I think he's a remarkable man. And I wish that more people could see how he is socially. We'll chat, share memories and discuss things in a very informal manner. But I'll hardly expect two words from him in the paddock. It's like Jekyll and Hyde.

You said in your autobiography that, "Ron is great at the honeymoon, but not so great at the marriage."

When I was driving for him, it literally happened that he wouldn't speak to me for several grands prix. And it's just so fucking confusing. We can't all have time for everyone, but I think that's strange. And if you're sensitive to the actions of important people in your life and career, then it's difficult to come to terms with. I've spent hours trying to explain my perception of what he considers fair play, but as he once said to me, the bottom line is that you have to like it or lump it. I can tell you, that brings a long conversation to a halt! But if that's it, then you make your choice.

"I never got my head around the concept of why you would want to win by default"

What do McLaren mean to you now?

I drove nine years for the team, won races, travelled the world meeting interesting people – as a life journey goes, that's not a bad one. I've come out the other side and I'm not bitter – I hope it doesn't come across like that, it's just what happened. But I probably have a bigger appreciation now of what a good group of people they are. McLaren are leaders: their facilities are way ahead of everyone else's. Anyone who doesn't look at them as a blueprint is being arrogant in my opinion, because they're state-of-the-art. ➤

David Coulthard's Mum still keeps her fingers crossed for every lap of a grand prix. Her boy has competed in over 240 of them, but no matter. It's a charming glimpse into the world DC came from – the small village of Twynholm just north of the Scottish border, where his Dad ran the family's successful haulage company.

Coulthard's memories of his karting days are as much about scrubbing out the chemical toilet of their motorhome as winning races the length and breadth of Britain. That down-to-earth, very Scottish upbringing gave him more than a gentle Borders burr; the clear distinction between right and wrong has always been prominent in DC's character. And it's more than paying lip service to what people think a sportsman should be like; he says it with real conviction.

Paradoxically, though, the qualities that make Coulthard's character so admirable bring with them the nagging doubt that they were his Achilles heel in F1: was he ever prepared to push the rules far enough to consistently cut it against Mika or Michael?

You've said before you don't want to win at all costs. At what point does the cost of winning become unacceptable? There are rules, and if you're prepared to go outside those rules knowingly, then you're

genius at work in ways not everyone approved of." Have you changed your tune about him?

In that particular instance, Michael made a judgement only he can know about and I think it was clearly a reactive 'genius' to stopping anyone else getting a qualifying position. Quite rightly, I believe, he was penalised. To me, the rules are quite clear. We're not supposed to cross a white line so every time we cut a kerb we're all, to an extent, bending the rules – but not breaking them, because the stewards don't enforce the fact that the race track is defined by the white lines. So I'm prepared to bend the rules to what's become the accepted norm, but I'm not prepared to... You know, you hear stories of guys back in the day in shoot-outs between drivers: they missed chicanes to set a quick lap time and didn't tell anyone, all to benefit themselves. How do they sleep at night?

But the rules aren't always black and white – they have murky fringes. Did you hesitate to exploit them?

It's very clear in my mind what's right and wrong. If Michael was able to redefine that, or have a different point of view, and the stewards agreed, then he's the clever one. My basis of what I believe comes from my upbringing, the British tracks I raced on and that British sense of fair play.

"Fair play", "right and wrong": your moral universe seems very clear...

I once had a conversation with Mika where I said, "You can trust me," and he said, "No." So I went through: do you trust your manager? "No." Do you trust your wife? "No." It's like when Michael told me after Spa '98 that he could never remember being wrong. If that's what it takes, if that's the last little bit you need to be a champion, then I don't want to be that person. I want to trust in people, and I want to be wrong sometimes. You can't be right all the time.

In Melbourne this year, you certainly thought Felipe Massa was in the wrong. You said you were going to "Kick three colours of shit out of the little bastard" if he didn't apologise for the collision you had...

I regret saying that. It was just stupid.

It was a great quote, though.

Yeah, I thought so. We were staying in the same hotel at the next race, so I texted him, and it was fine. I think that sort of thing is worse for your wife, or your father or whatever; as a racer, you have run-ins with friends from time to time. I saw him out in Monaco a few weeks ago, actually. I was finishing dinner and this pot of herbal tea was sent to my table. The waiter said, "Felipe thought that at this time of night, you might need a little cup of herbal tea before you go to bed." So I sent a bottle of champagne over with the suggestion that he might need to learn how to open one of these... It was before he started winning and I must say, I take my hat off to his performances in the middle of this season. He established himself as a real title challenger.

Anyway, he came over, tried to open it and screwed it up; it splattered everywhere. Then the stitch-up of all stitch-ups was that Mika was sitting with some friends, and I said, "Felipe, Mika wants to have a chat with you." So I sat him down, Mika got his arm round him and did a Finnish armlock, which basically means that once that arm's there, it's 20 minutes before you wriggle out. And I just said, "Bye bye," and left him with the drunken, Finnish bullshit for that period of time! That was the ultimate payback.

How's your relationship with Michael Schumacher these days?

Well, it gets a lot more friendly after a Bacardi and Coke because his guard comes down. I've got a place in Switzerland, and one of these days I'm sure we'll go ride our motorbikes together and that sort of thing. Michael wasn't an enemy to me, just a competitor that I had a few run-ins with. I remember once at Hockenheim, he had a private function for family and friends. Norbert [Haug] suggested I come along, and I arrived feeling completely awkward. But everyone was very open. I was chatting to Michael's father, and, as the night went on,

"I think I'm getting splinters..."
DC on the old concrete banking
at Monza, August 28 2006



a cheat – and you don't deserve to win. It doesn't matter whether it's Monopoly or grand prix racing. You either believe in fair play, or you don't. It's a moral judgement and others will view it according to how they sit in that debate.

"Cheat" is an incendiary word, but it's one that you've used before to describe Michael Schumacher. Despite this, you've also said his manoeuvre in Monaco 2006 was, "The mind of a

"Michael gets a lot more friendly after a Bacardi and Coke because his guard comes down..."



COULTHARD: A 15-SEASON JOURNEY

BORN March 27 1971
PLACE OF BIRTH Twynholm, Scotland
LIVES Monaco
HEIGHT 1.82m
WEIGHT 72.5kg

F1 DEBUT Spain 1994
GRAND PRIX STARTS 243 (to Singapore 2008)
GRAND PRIX WINS 13
POLE POSITIONS 12
FASTEST LAPS 18

CHAMPIONSHIP POINTS 533 (to Singapore 2008)
TEAMS
 Williams 1994-1995
 McLaren 1996-2004
 Red Bull Racing 2005-2008

CAREER HIGHS

PORTUGAL 1995

Coulthard loved every inch of the sweeping Estoril circuit, and no race was sweeter than his maiden win from pole position



BELGIUM 1999

DC had the legs of everybody – even Mika, whom he had the audacity to rub wheels with at the first corner – on the way to one of his finest victories



FRANCE 2000

Not even Schumi could stop him winning this one. Coulthard memorably out-foxed Michael at the Adelaide hairpin, but not before showing him the finger – and a few other gestures, too – after an earlier overtaking attempt had been met with a typically robust defence by the Ferrari ace



MONTE CARLO 2002

With a young Kimi Räikkönen putting pressure on him at McLaren, DC was in need of a career-affirming result. He stormed to his second win in Monaco



CAREER LOWS

AUSTRALIA 1995

DC's fresh face quickly turned red after his embarrassing run-in with the Adelaide pitwall. It was caused by a rev-limiter problem



AUSTRALIA 1998

Letting Mika past in the dying laps in deference to team orders would prove to be Coulthard's undoing; Häkkinen went on to clinch the title



BELGIUM 1998

In the heat of the moment, Schumacher claimed Coulthard tried to kill him. The scarlet Ferrari ploughing into the back of the McLaren (and Schumi's subsequent tantrum) was one of the season's defining moments. DC's former team-mate Damon Hill went on to take the Jordan team's first F1 win



MONTE CARLO 2001

Having beaten Schumacher to pole, DC was furious when his launch control failed on the grid. He started last and spent most of the race behind Enrique Bernoldi



it was just about the fact that we share this passion for being racing drivers. But inevitably, it involved alcohol and cigars...

Looking back over your career, was there a defining moment?

I think the plane crash in Lyon [May, 2000] was the moment that I completed my first stage of growing up. I don't think I'm fully there yet, I must say. I ended up chartering a different aircraft because I wasn't prepared to wait until 2 o'clock for the plane

I normally used. And I lay in my bed that night thinking, "Why did it matter if I left from Farnborough at 2 o'clock or 10 o'clock?" That was the big wake-up call.

What about the future? You said in the May issue of *F1 Racing* that you'd be interested in becoming FIA President?

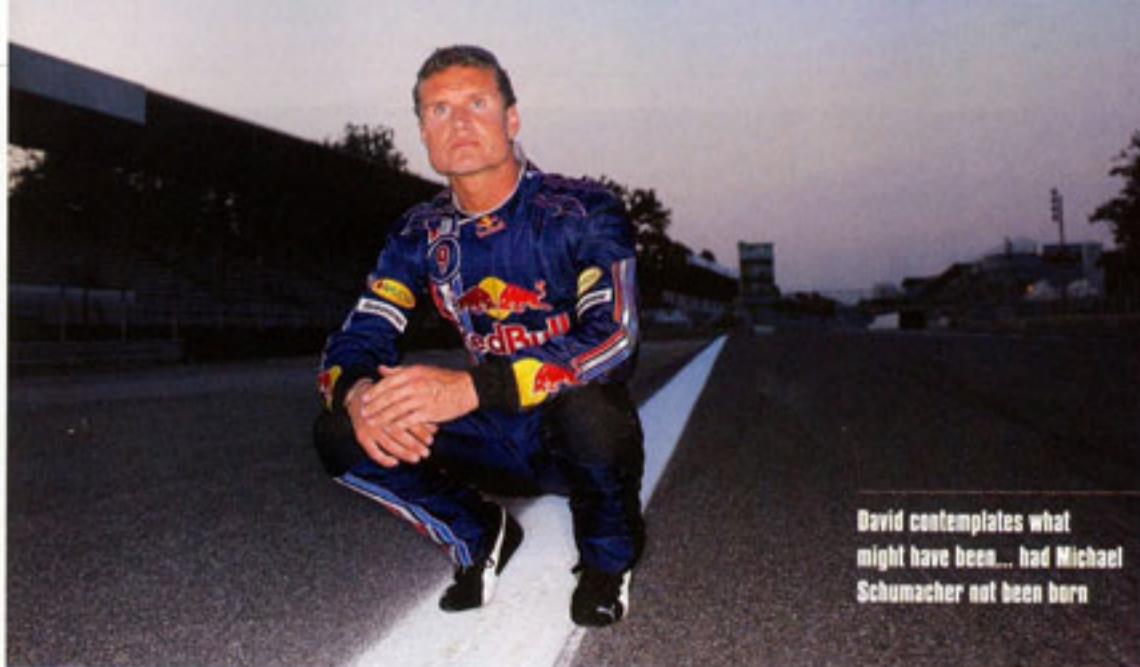
I don't think I have the skills for that, to be honest. Maybe I could be chief whip! Actually, thinking about the meanings that can have these days, maybe I'll pass...

Have you got anything else planned?
 My immediate future lies in continuing with Red Bull as an active part of the team.

It's said you'll be on the BBC...

I'd certainly be interested in sharing my passion with the sport's fans. But we'll have to wait and see what happens.

And you're going to be a Dad as well.
 The best thing racing has brought me, aside from a tremendous education of the world, ▶



David contemplates what might have been... had Michael Schumacher not been born

is meeting the woman I'm going to have a child with [TV presenter Karen Minier]. And if our son can have a life as good as mine, then he'll be a lucky boy.

When you were a boy, you used to rate every go-kart race out of 10 – but never gave yourself full marks. How do you rate your F1 performances?

I'd give myself 10 in Magny-Cours 2000. In fact I'd give myself 10 with a little gold star beside it. That victory was a great passion-filled, no doubts, get-on-and-get-the-job-done victory. I had to pass Rubens; I had to pass Michael... it was probably my best win.

How would you like to be remembered in the sport?

Looking at how Stirling Moss has made a career out of finishing second in the world championship, then I hope that 30 years down the line, I can still be actively making a pound despite never having won the title.

How do you think the sport will actually remember you?

I won't stay highest British points scorer for long – Lewis will steamroller through that, and all it really represents is longevity. I'm not really that publicly motivated. It would be nice for people not to think I was an idiot, but we all like some people based on how we think they might be, and we all dislike some people without actually knowing them. So in the end, does it really matter?

Summing up an interview with a retiring driver, it's tempting to search for the moment or incident that encapsulates 15 years of competition. There are plenty for DC: for example, was it significant that he finished second in his first ever running race at school? Equally, a superstitious mind could see an inevitability in the fact his total career victories number an 'unlucky' 13...

But how about this: in the smoking aftermath of that plane crash eight years ago in France, DC's first actions were to get his girlfriend and trainer out of the plane, then ensure their parents knew they'd escaped unscathed. In real life, away from the bubble of the F1 paddock, his first instincts were not for himself but others.

It's another facet of the character that made him obey those infamous team orders. Is that a lack of competitive edge, or something else? Perhaps we should forget about "David Coulthard, plucky loser" and try this for size: "David Coulthard, not quite selfish enough to win the championship." History probably won't remember DC the racing driver that way. But there could be many worse tributes to DC the man. **F1**

"The plane crash was the moment I grew up. That was a big wake-up call"



THE AMAZING LOST CIRCUITS OF FORMULA 1

Once upon a time, circuits had wall-of-death banking. Drivers got a clip round the ear for damaging the lawn. And title showdowns were held in car parks. F1 races have never been held in more unlikely places than these...

WORDS ALAN HENRY PICTURES LAT ARCHIVE



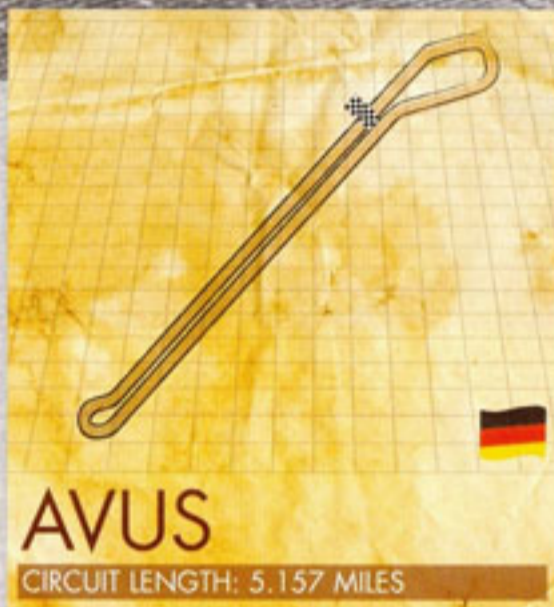
Tony Brooks leads the field in his Ferrari around Avus' infamous North Curve

It's hard to know what the FIA might say if you suggested that a modern F1 circuit would include a trackside pub, at which the competitors could stop for refreshment should it take their fancy. Or that the weekend's practice, qualifying and race schedule be arranged to accommodate the local railway train schedule. Or indeed that the race should take place in a hotel car park.

Modern circuits are thought by some people to be antiseptic and just a little bit predictable. But it wasn't always so. These five former F1 tracks have long since been consigned to the pages of the sport's history books, but deserve to be recalled for their sheer insanely fascinating appeal, colour and off-beat charisma...



The cars tackle the Southern Loop before heading back up the autobahn during the 1959 German Grand Prix



AVUS

CIRCUIT LENGTH: 5.157 MILES

AS STIRLING MOSS once rightly pointed out, to stage the 1959 German Grand Prix at Avus seemed the most extraordinary decision given that its regular venue, the 14-mile Nürburgring Nordschleife was one of the most epic and challenging circuits in the world.

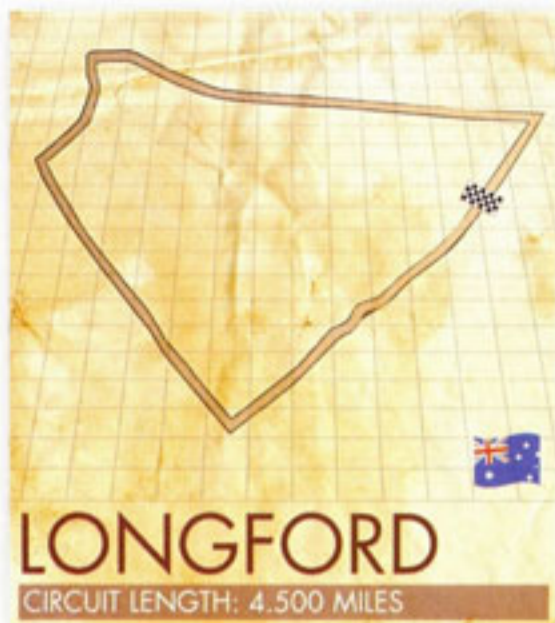
Put simply, the Avus circuit amounted to a couple of flat-out blasts down opposing lanes of an autobahn near Berlin, linked at one end by a hairpin and at the other by a perilously dangerous, 180-degree banked turn. Pre-war it had been a prestigious venue at which the Nazi-backed Mercedes and Auto Unions had flexed their high-speed muscles in front of the adoring crowds. Yet by the late 1950s Berlin was an

isolated and beleaguered city smack in the middle of Russian-controlled East Germany and access for those who opted to drive to the race rather than fly was full of time-consuming pitfalls and bureaucratic delays.

Although British star Tony Brooks won the grand prix at the wheel of the elegant, front-engined Ferrari Dino 246, it was for non-F1 accidents during the course of the weekend that this event was to be primarily remembered. Frenchman Jean Behra should have been driving a Ferrari alongside Brooks, but after an engine failure in the French GP at Reims he'd got into a heated debate with team manager Romolo Tavoni which ended with him punching the hapless Italian.

Needless to say, Ferrari fired him on the spot and he was reduced to driving a Porsche sports car in the supporting race at Avus. Tragically, Behra lost control on the treacherously rain-slicked track surface and was thrown out of his car against one of the flag poles at the top of the banking. He was killed instantly.

By amazing contrast, wacky Dutch aristocrat Carel de Beaufort survived without a scratch after he too vaulted over the banking in his Porsche, landing with a spine-jarring crash in the paddock 30ft below. Unflustered, he selected first gear and accelerated back into the race. ▶



OK, SO LONGFORD wasn't technically an F1 circuit in the strictest sense of the word. However, it did host a round of the prestigious Tasman championship during the 1960s when contemporary grand prix cars competed at this wild and woolly 4.5-mile road circuit about 15km south of Launceston in northern Tasmania.

So it is claimed, Longford was the fastest track in the southern hemisphere, consisting of a succession of sharp corners linked by long straights which were nothing more than country roads lined with thick hedges.

Features which would propel FIA circuit inspectors into a state of apoplexy included the so-called 'flying mile' – a high-speed jump over a railway level crossing – a brick

viaduct, a couple of rickety wooden bridges and a sharp right-hand turn in front of a well-patronised pub in Longford village centre. Legend has it that Aussie racer Lex Davidson crashed into the pub, leapt from his car and headed for the bar. He had no cash, so the locals stood him a round.

It was known for practice to be stopped for an unscheduled train to cross the circuit at the level crossing. And there was also the occasion when some suitably tanked-up late-night revellers set fire to one of the wooden bridges. Only the prompt intervention of the local fire brigade ensured that the racing could continue the following day.

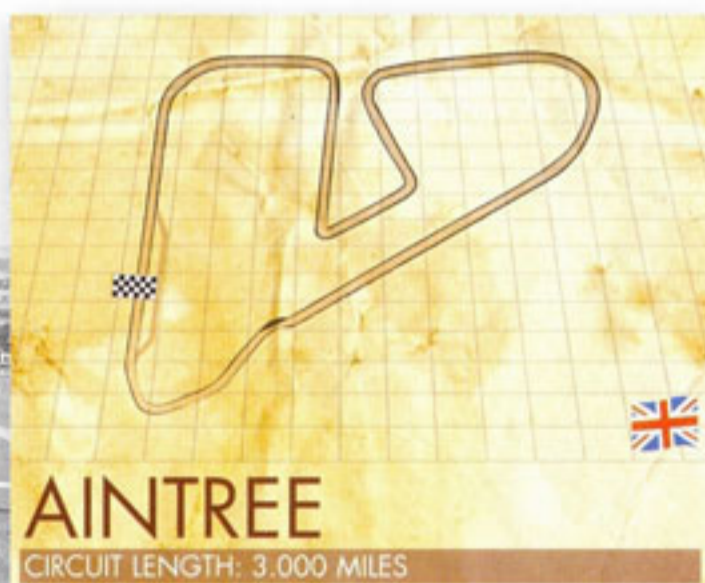
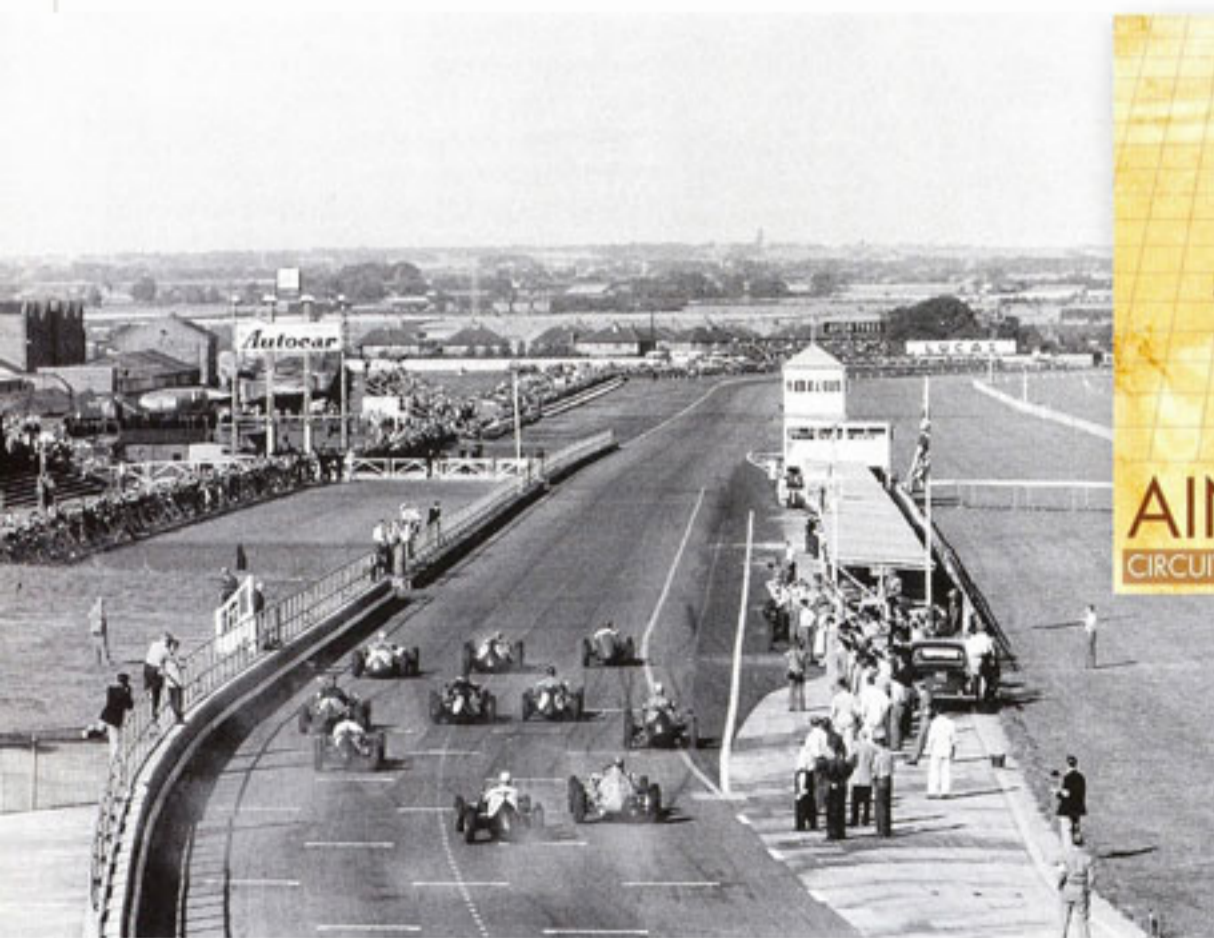
Yet Longford was also undeniably dangerous. In the 1964 Tasman Series Bruce



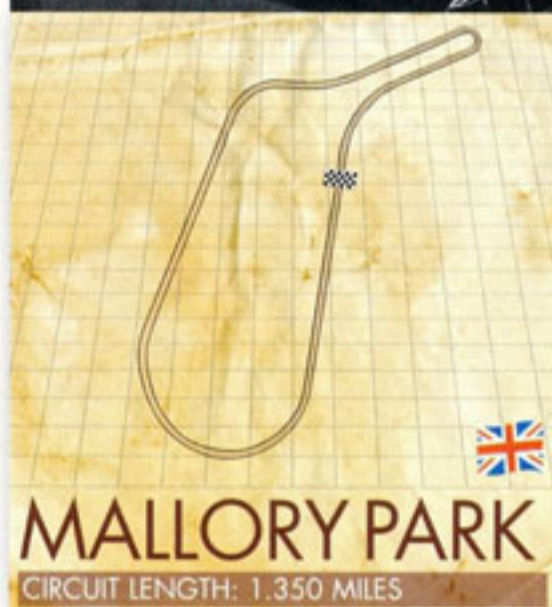
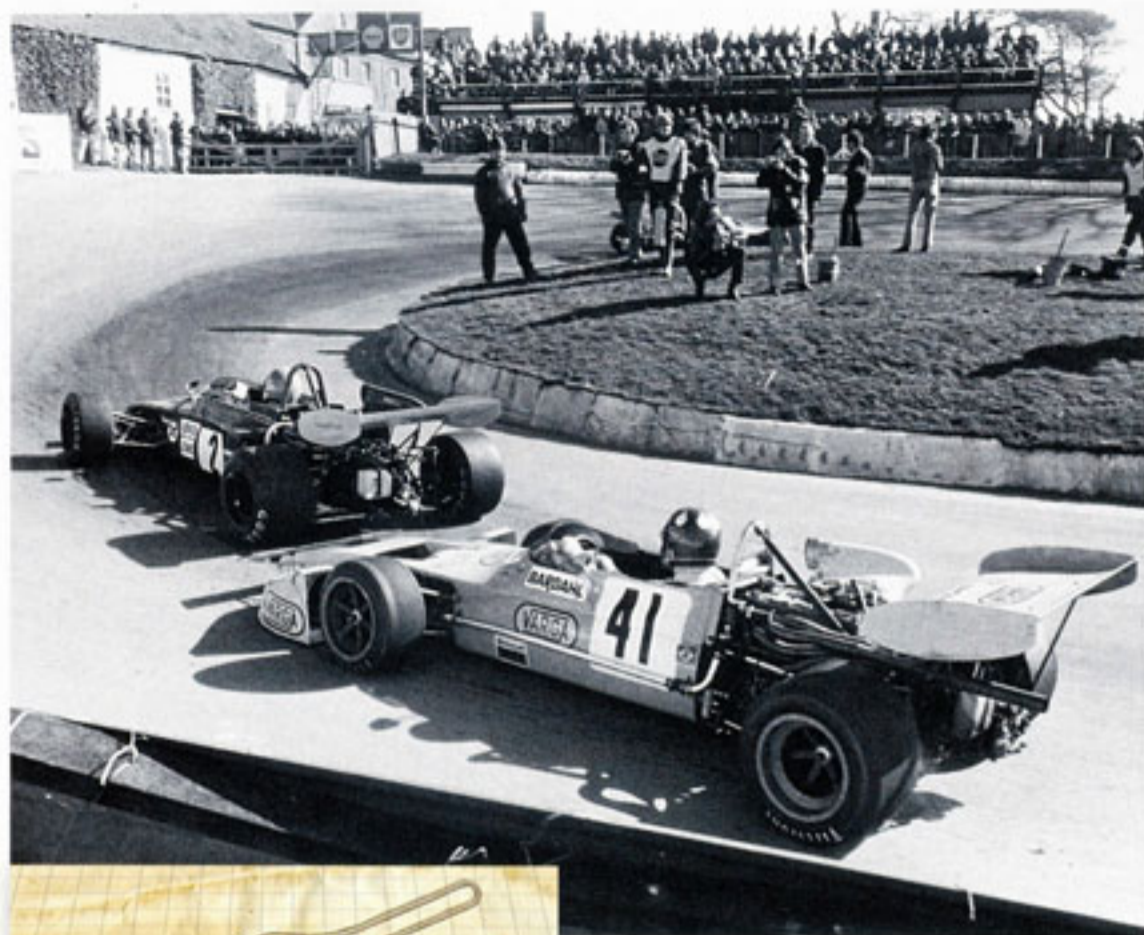
The field head down to the viaduct back in 1968. Left, Jack Brabham blasts through the viaduct in his eponymous racer

McLaren fielded a couple of specially prepared 2.5ltr Climax-engined Cooper single-seaters for himself and the brilliant American rising star Timmy Mayer, who had been signed to drive alongside him in the '64 Cooper team to contest the F1 world title.

Mayer, whose elder brother Teddy would go on to become a director of the emergent McLaren team, lost control under braking for one of the tight corners during practice and smashed into a couple of trees. The car was ripped in two, the impact unsurvivable.



THE LATE DENIS Jenkinson, a revered motorsport journalist, once said his abiding memory of Aintree concerned the stink from the public urinals. In that respect, the famous Liverpool circuit, which hosted the British Grand Prix in 1955, '57, '59, '61 and '62, was hardly up with Monte Carlo in the sophistication stakes, but it's fondly remembered by those who competed there.

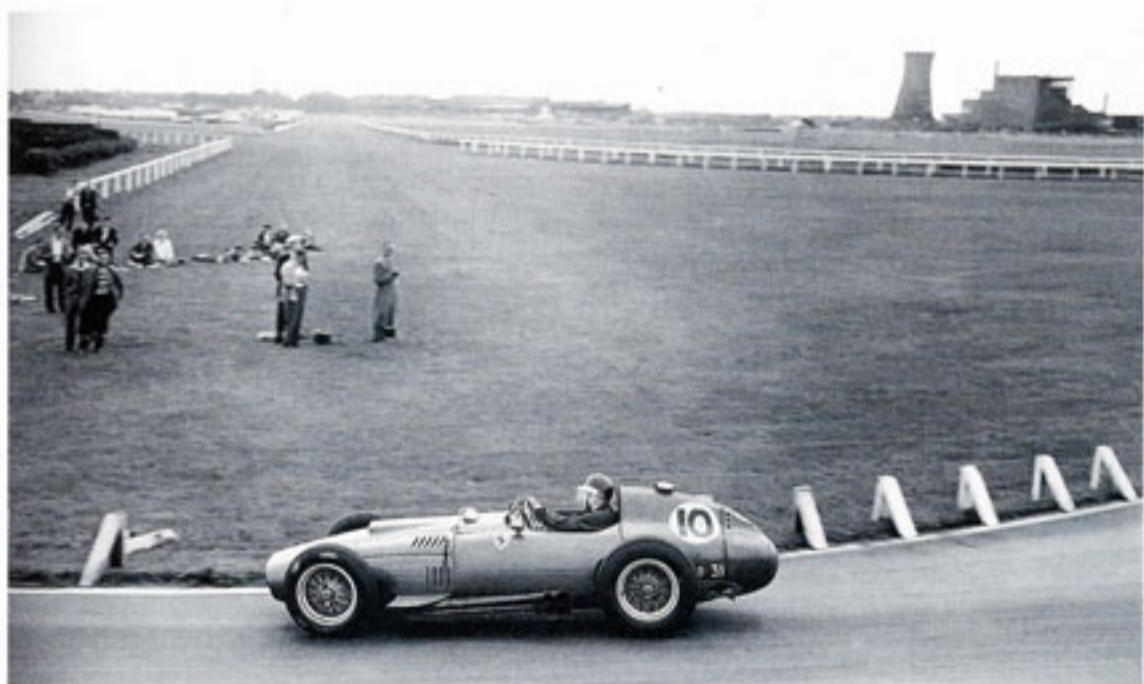


LIKE BRANDS HATCH, Mallory Park started life as a grasstrack motorcycle circuit, and it wasn't until the mid-1950s that the venue laid a Tarmac surface and began to gain a reputation as one of the most popular club racing locations on the UK calendar.

In 1962 the track earned the distinction of becoming possibly the most unlikely venue in the UK to stage an F1 race, albeit a non-championship affair, which offered a prize fund of 2,000 guineas – £2,100 in real money – which, as *Autosport* reported was "a fair amount of ackers for a matter of 100 miles".

Aintree, of course, had been home of the Grand National and many other prestigious horse racing events for decades prior to the acquisition of the track by the wealthy Topham family, who purchased the estate

from Lord Sefton just after World War II. The matriarchal Mrs Mirabel Topham, a former Gaiety Girl, was one of the key driving forces behind the track's parallel development as a F1 circuit – the first world



Prancing course: Mike Hawthorn powers his Ferrari around the famous Grand National track on his way to third in 1957

Amazingly, considering just how narrow the track was, the grid lined up in a tight 4-3-4 formation, with Jim Clark's Lotus on pole ahead of the similar cars of Jack Brabham and Graham Hill – plus John Surtees's Bowmaker team Lola on the outside of the front row. Surtees made a brilliant start and led all the way to finish



Mallory Park's only F1 race is in 1962. Left: Niki Lauda and Wilson Fittipaldi at Shaw's hairpin in 1972 F2 race

a commanding 18.2secs ahead of Brabham. It was a somewhat processional event to mark the first and only occasion that F1 cars competed at the tight Leicestershire circuit.

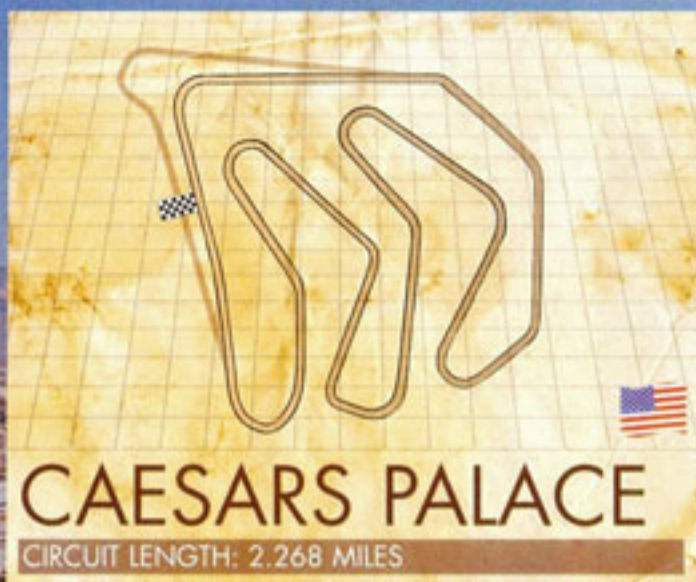
Yet there were other episodes worth recalling at Mallory Park. Former F1 driver Innes Ireland latterly became *Autocar* magazine's sports editor and memorably rolled a costly 3.5ltr Mercedes S-class at the tricky Devils' Elbow turn during an impromptu demonstration run a few years later. And Jean-Pierre Beltoise, leading the '73 Mallory F2 international in a March-BMW, suffered an engine failure of such magnitude that pieces of steaming piston shattered the windows of the timekeepers' box on the startline.

championship round was held there in 1955.

Memorably, this yielded a first grand prix win for Stirling Moss, the 25-year old British driver keeping his Mercedes W196 half a length ahead of team-mate Juan Manuel Fangio in the sprint to the chequered flag. "I know I was driving well that day," said Moss, "but, boy, the Old Man seemed to be able to haul up alongside me whenever he liked."

In 1961 the race was held in the pouring rain, yielding a convincing victory for Wolfgang von Trips in his Ferrari 156. For his team-mate Giancarlo Baghetti there were other problems to be faced. After spinning off in practice and colliding with one of the jumps on the Grand National course, a cut-glass voice over the Tannoy summoned the Italian to the stewards who roundly admonished him for his carelessness.

A tantalising question to end on; did the Tophams receive government money to build their F1 circuit? Maybe. *The Birmingham Post* on June 24 1953 reported that the government had "sanctioned the building of a new grand prix circuit at Aintree". Over to you Gordon Brown... ➤



ON THE FACE OF IT, you might think that there was nowhere more suitable for the F1 business to have strutted its high-glitzy stuff than the massive car park surrounding the biggest casino in Las Vegas. That's where the world championship rolled up for two consecutive races in 1981 and '82 on an artificial circuit memorably described on his

first encounter by 1980 world champion Alan Jones as a "goat track dragged down from the mountains". Even now, almost 30 years later, that seems like a pretty accurate assessment.

Vegas was simply sweltering – a dry, furnace-like heat which seemed to sear your lungs with each and every intake of breath. The track seemed pointless, dodging around

between artificial concrete barriers. The '81 race was a championship shoot-out between Jones's Williams team-mate Carlos Reutemann, who'd been dominant in qualifying, and Brabham's Nelson Piquet.

As it turned out, Jones won the race commandingly, his last F1 success before going into temporary retirement. Reutemann faded to seventh, losing the title to Piquet by a single point.

After the race Reutemann, who was roundly hated by Jones after he'd ignored team orders to beat him at Rio earlier in the year said, "OK, Alan. Well goodbye – shall we bury the hatchet?" Jones looked at him for a moment before replying, "Yeah, in your fucking back, mate."

In 1982 the race also turned out to be a title-clincher for Keke Rosberg. The man who replaced Jones at Williams as de facto team leader pipped McLaren's John Watson for the crown.

At the end of the race, won for Tyrrell by the popular rising star Michele Alboreto, the podium finishers had to wear Roman-style laurel wreaths on their heads in true Caesars Palace style. It was all about as excruciatingly naff as anything F1 has ever witnessed. And that, thank heavens, was that for Las Vegas. **FO**



Michele Alboreto on his way to victory at the 1982 Las Vegas GP. Top: F1 in an oversized pub car park was never going to work

HOW DOES F1'S GREATEST MOTORHOME GET BUILT?

Team HQ. Celeb hangout. Formula 1's top nightspot. Red Bull's famous Energy Station is all of these, but actually building it is another matter...

WORDS STUART CODLING
PICTURES CHARLES COATES/LAT

Tuesday morning, early, and a truck emblazoned with the iconic Red Bull logo reverses carefully through the gates of Monza. It's emptied quickly, leaving a pile of flight cases and steel trusses, and then it departs. Others are coming – 22 of them – and with the help of a pair of cranes, within 36 hours the various pieces will have been conjured into the Red Bull Energy Station. It's not the tallest motorhome in F1, but since it caters for two teams – and anyone who walks through the door – it's definitely the widest and the busiest. This is how they (just about) do it...



Putting an F1 motorhome together used to be simple: you drove your team bus into the paddock, put an awning on the side and laid out the furniture. Job done. Then it got corporate. The tents became walls with smoked glass windows. People were never sure whether they were allowed in or not. Until Red Bull turned up and confused everyone by leaving their doors open.

"When we entered F1, one of the aims was to shake up the paddock a little bit," says Dominik Mitsch, Red Bull's marketing manager. "Not to treat guests in the same conservative way as many other teams were. The Red Bull philosophy is to be very open, so the Energy Station was designed to be an open house where everybody is welcome. We didn't want to give people the feeling of being scared to come in. For us, the idea was never to have the biggest motorhome."

The current Energy Station was brought in for the 2007 F1 season after Red Bull bought the Minardi team and decided to look after both under one roof. It's two motorhomes in one, so while it's overlooked by near neighbours Force India and McLaren, its 'footprint' is wider. The computerised architectural drawing is fabulously complex. Every piece is accounted for and has its allotted spot in one of the 22 artics that transport it around Europe. It fits

Building work normally starts at 8am on the Sunday – a week before the race

together in the same way every time and they have a specific method of dismantling and packing – otherwise it might not all fit back in.

The trucks arrive in succession, depositing new containers just at the right time to continue the build. The 32-man construction crew starts with the ground floor – a network of steel trusses – then splits into teams so that while one group is building the first floor, another is fitting out the interior of the ground floor.

The normal plan is to start at 8am on the Sunday – a week before the race – and the trucks will often arrive on the Friday or Saturday, depending on when they're actually allowed into the circuit. The crew aim to hand over to the marketing team on the Tuesday evening.

Back-to-back races, therefore, present a major logistical challenge. There are legal limits to how long truck drivers can work without taking a break, so the Energy Station was being dismantled

STEP 1

The ground floor is laid out before the crew split into teams



STEP 2

As one group fits the ground floor interior, the first floor goes up



STEP 3

Toro Rosso's offices and dining area are slotted into position



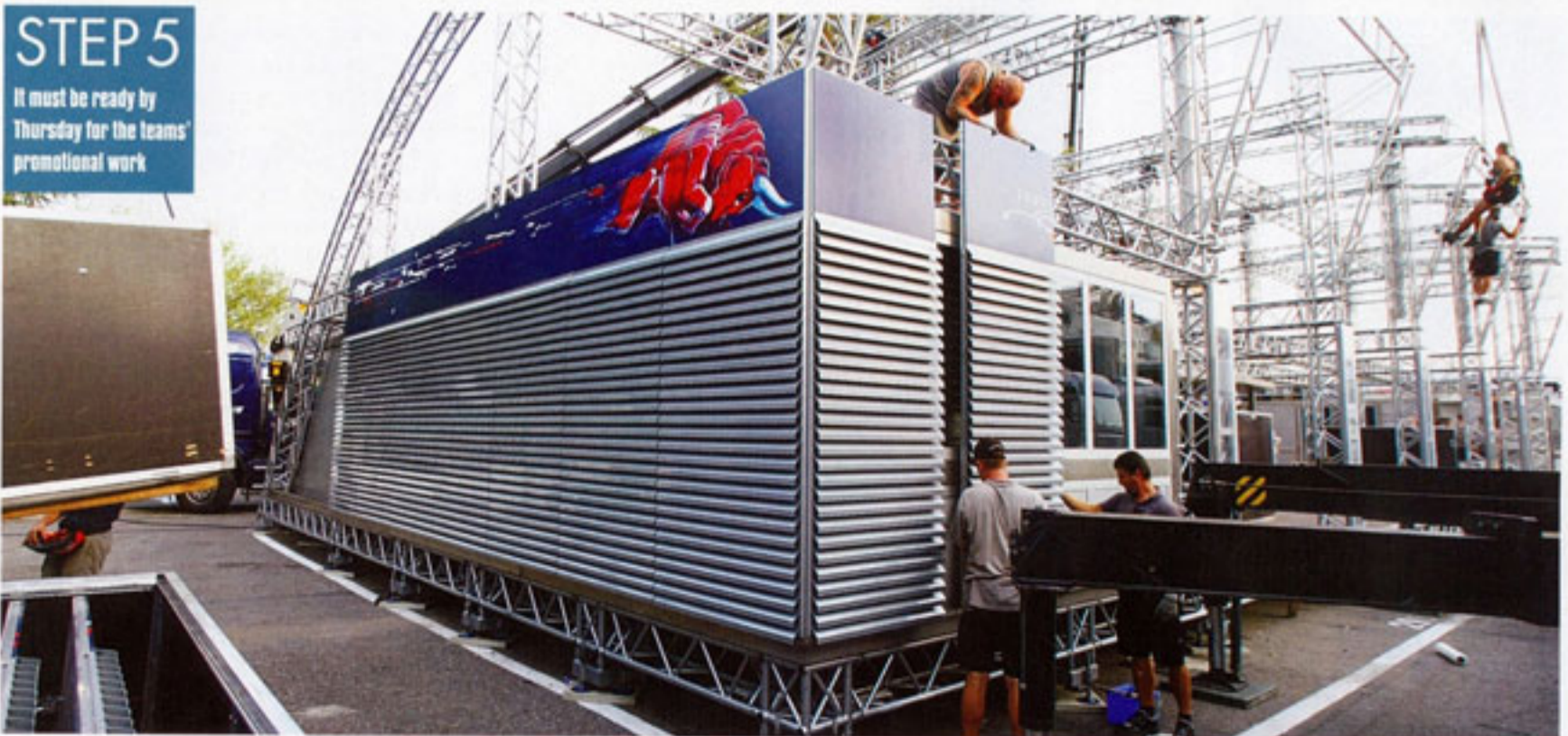
STEP 4

By Wednesday the floor has been fitted and the walls are slotted in



STEP 5

It must be ready by Thursday for the teams' promotional work



STEP 6

Offices and drivers' rooms are done - now for the first floor...



STEP 7

Nearly there... just a couple of hours before opening time



THE ENERGY STATION IN NUMBERS

Capacity	400 people
Height	6.2m
Length	32m
Depth	14m
Floor area	940m ²
Chefs	9
Waiters/Waitresses	16
Cleaners	5
Construction crew	32



It's one thing erecting the building, but then everything inside it has to be fitted

Energy station: the crew tuck into a hard-earned meal after finishing in time for David Coulthard's party



almost as soon as the chequered flag flew at Spa; by Monday night the trucks were on their way, finally arriving at Monza a few hours behind schedule owing to a hold-up at Belgian customs.

The Energy Station has to be ready for Thursday: that's when RBR and Scuderia Toro Rosso do the majority of their press conferences, and this time there's a party for David Coulthard in the evening. As the light fades on Tuesday, work continues: the flooring panels on the ground level have been laid and the walls are being slotted into place.

Work resumes at 7am on Wednesday with the fitting-out of the ground floor - the team eating area, the offices for team management, marketing and communications, and the drivers' rooms complete with showers. The first floor takes shape during the morning and by dusk the wall panels are being craned into place. Inside, the familiar layout takes shape: two bars and the 'flying buffet' food service area that sends out around 2,900 dishes a weekend.

By Thursday morning, as the rest of the travelling circus that is F1 starts to turn up for work, the Energy Station is as it always is. There's no evidence of the mad dash that over 48 hours transformed a pile of steel and glass into a motorhome. An air conditioner in one of the offices is playing up, but an engineer's on the way. The tables are in place. Mechanics are having coffee. The doors, as ever, are open. **FO**

HOW F1 USED TO BE

Amazing shots from
the days of yore

FEEL THE PINCH

The tight squeeze into Ste Dévote is always crucial. With a gruelling 78 laps ahead of them, every racer knows the opening corner at Monaco is the best chance to overtake on the twisting streets. In 1987 it was Satoru Nakajima's first visit to the Principality, and in this shot his yellow, Camel-liveried machine is feeling the pinch from Ivan Capelli and Philippe Alliot. The Japanese driver had a long afternoon ahead of him. After starting 17th he was eventually lapped three times by his Lotus team-mate, race winner Ayrton Senna. At the wheel of the 99T, Senna recorded a debut win for active suspension and the first of his six victories at Monaco.

WANT THE CHANCE TO WIN A PRINT OF THIS GREAT LAT PHOTO?

Email your answer to the following question below (including your name, address and daytime telephone number) to f1racing.competitions@haymarket.com. Please write 'How F1 Used To Be' in the subject line of your email. The winner will be the first correct entry drawn.

Who was disqualified from the '87 Monaco GP for his part in a practice accident?

- (a) Adrian Campos
- (b) Christian Danner
- (c) Roberto Moreno

The closing date is November 20, 2008. For full competition terms and conditions, please refer to www.f1racing.co.uk

1 PHILIPPE STREIFF

Streiff was struggling in the Tyrrell. He crashed at Tabac on Saturday morning and again at Massenet on the 10th lap of the race, where he was briefly trapped in his car. Sadly he was paralysed following an accident in testing at Rio two years later

2 PASCAL FABRE

1987 was the only season the Frenchman spent in F1. In the painfully slow Team El Charro AGS, Fabre failed to qualify for a number of races and was replaced by Roberto Moreno - who promptly scored the team's first championship point

7 JONATHAN PALMER

In 1987 F1 had a separate championship for entrants with normally aspirated engines, and in the Tyrrell, Palmer eventually won the Jim Clark Cup. He now owns Brands Hatch circuit in the UK and has won the tender to run Formula 2 in 2009

8 IVAN CAPELLI

Racing the aquamarine Leyton House-backed March (which was also sponsored by Rizla), Ivan Capelli took his Bicester-built car to the final points slot in sixth. After a career that took him to Ferrari, Capelli is now in F1 commentating for Italian TV



3 ANDREA DE CESARIS

Mid-way through his career, de Cesaris moved to Brabham for '87. Prior to Monaco, the Italian took a podium at Spa, despite running out of fuel. At Monaco he failed to finish. Indeed, he actually didn't make the flag at any race all year...

4 MARTIN BRUNDLE

After three seasons at Tyrrell, Brundle switched to Zakspeed in 1987. He was 17th at the end of the first lap, but with a sticking clutch and heavy steering he clawed his way to a point-less seventh at the chequered flag

5 RENÉ ARNOUX

Later around the opening lap, the two Ligiers of Arnoux and Ghinzani made contact at Loews hairpin... and both were forced to pit in their Megatron-powered machines. Arnoux ultimately finished 11th after yet more contact with de Cesaris and Patrese

6 PIERCARLO GHINZANI

The Italian spent eight seasons in Formula 1 - mostly at the tail of the field for teams such as Osella and Zakspeed. In his career he entered 111 grands prix but failed to qualify for 37 of them. His best result for Ligier in 1987 was seventh



9 SATORU NAKAJIMA

Immediately after this picture was taken, Nakajima (father of current Williams man Kazuki) bounced into the air as his Goodyears tangled with those of Capelli and Alliot. It was a tough race for the Japanese driver, who finished 10th

10 PHILIPPE ALLIOT

The Frenchman was the quickest non-turbo runner early in the weekend, but started 18th in the sole Larrousse Lola. Ten laps after this tangle, Nakajima was back ahead and Alliot fell behind the Ligiers, retiring with engine problems on lap 42

PETER WINDSOR'S
RACE REPORT
THE SINGAPORE GP

M A R I N A B A Y 2 8 . 0 9 . 0 8



STREET FIGHTING MAN

Fernando Alonso picks up the pieces after Ferrari are blinded by the lights

What you love about Renault is their detailed precision; their penchant for sophisticated jargon: "Okay Fernando. Just drive like hell. That's all ya gotta do..."

The words will live up there with the sights, sounds and smells of the first F1 night race in history, let alone the first street race

in downtown Singapore. A solitary planet – Jupiter, I think – looked down upon the grid as the F1 luminaries assembled for the start. There's no doubt upon which group of worthies it was casting its magic... and upon which group it wasn't.

The Renault boys were almost too fast in the build-up to Singapore. Fernando,

savouring the bumps and the jumps and the weird crests in the road in the chuckable and driveable R28, was quickest in second and third practice. Add the left-foot-friendly Hitco brakes and a torque curve that matched the shape of the track the way gin and bitters make a Singapore Sling and you had – when the lights were shining and F1

people were milling around the paddock with smiles – an Alonso-Renault package that looked as if it was going to annoy even the best from Ferrari and McLaren.

Until a fuel pump failed on the Renault at the start of Q2 – the sort of problem you used to read about on a list of retirements in 1980s race reports. If it was going to happen to any team, it was going to happen to no-frills, let's-be-honest Renault (in contrast with the mysterious Honda team, who on Sunday would describe Rubens Barrichello's retirement as "not fuel-related, and that's all".)

Fernando did his usual *parc fermé* thing at this point. Climbing from his car out near Nicoll Highway, he noticed he was on the big screen, and with his helmet in his hands said, "Why is it always me, me, me...? I am brilliant around here, totally brilliant. And yet now I am nowhere. Nowhere!"

Back in the real world, Pat Symonds, Alan Permane, Bob Bell and everyone else at Renault shrugged their usual shrugs and returned to basics. They certainly weren't going to win in Singapore now, but it was still going to be a race of variables: a one-stopper from 15th on the grid? Nah, it would be too much for the Bridgestone super-softs and probably too much for the Hitcos. The other extreme, then: a mega three-stopper, eliminating the fast-graining super-softs in a short, place-stealing first stint. Nothing new in that; lots of drivers have raced like this from nowhere. The difference was that Renault and Fernando were going to be the only game in this particular town that would stop as early as lap 12. Had it been later – had Fernando qualified top 10, in other words – it would have been another story.

You know the rest of it: Nelson Piquet, Fernando's out-of-depth team-mate, spun into the wall on lap 14. In accordance with Formula 1's safety-first rules that have been in force since 2007, this caused the pitlane to be closed while the Safety Car was dispatched. Those who didn't need to stop – Jarno and old Fisi – zapped quickly up the lap-charts. Those who were magically scheduled to stop just before the pitlane closed – like the Red Bull boys – were looking good. Those who had to stop for fuel when it was closed – Nico Rosberg and Robert Kubica – incurred stop-go penalties. And those who could wait a few minutes more all rushed in together when the pitlane re-opened – in Ferrari's case, doubling-up their stops under the pressure of combat, ripping fuel lines out of their tanks and scattering mechanics as they did so.



"Sorry guys," said Nelson over the radio after he hit the wall. Flavio's response wasn't broadcast for some reason...



Nico Rosberg finished second in the Williams, despite having a stop-go penalty for refuelling when the pitlane was closed



Lewis played the numbers game, settling for third place, increasing his drivers' championship lead to seven points



"Hmm, feels... different." Massa was given the green light to go before Ferrari finished refuelling, ending his hopes of a win

For the rest of the night it was almost a breeze for Fernando. With a one-two in early sight, Ferrari were out of it when Felipe Massa was prematurely signalled to depart from the pit, forcing a detachment of mechanics to run down the pitlane in pursuit of Felipe and his fuel umbilical cord. Kimi, stacked behind, could only sit and stare. Lewis, meanwhile, was caught first in the general pitlane mayhem and then on the road for 22 long laps behind either Webber, an intransigent DC, or both of them.

Fernando, by contrast, was able to settle back and listen to a new type of radio message: "Okay Fernando. Nico's got to stop for a penalty. Don't panic. You're effectively leading by 12 seconds and pulling away at a second a lap..."

It was perfect. Fernando could run two sets of Bridgestone hards through the bulk of the race, while everyone around him tiptoed home on the softer compound. His Hitcos, never punished by high fuel loads, stayed solid. He was, for the most part, out there on free road, away from the crud and the heat thrown up by the long chains of cars

Alonso is great with bumps and camber changes – nobody does it better

trapped behind the Jarnos and the DCs. And, as we had already been reminded in practice, Fernando is fabulous on this sort of circuit, by which we mean a track with short, darty corners (corners short enough not to do too much damage to the tyres) and lots of bumps and camber changes around which to re-position the car. Fernando is at his best when he has to land from a high kerb and still manage to find a traction-efficient, bobble-free exit. Nobody does it better.

Kimi Räikkönen, by contrast, brushed a chicane-kerb speed-bump on entry with four laps to run, bounced wide, took off on the next set of kerbs and slammed his Ferrari into the neat-looking Tecpro barriers (for this was the first race to be held in modern times without tyre walls). Unlike Fisi, who'd

DID YOU KNOW?

■ Alonso is the seventh winner from the fifth different team this year. One more would match 1985 and 2003, but be short of the 11 from 7 teams of 1982

■ Ferrari's failure to score points means that their sequence of races in the points stops at 46, nine shy of their record 55 from Malaysia 1999 to Malaysia 2003

■ However, Sebastian Vettel's fifth for Toro Rosso did keep the sequence going for a Ferrari-powered car in the points. This now stands at 50 races

■ Fernando Alonso's win means that 2008 has so far seen 14 different drivers on the podium and 14 different drivers have also led at least one lap of a race

thumped head-on into the same barriers the day before, Kimi did a nice job of trying to get the Ferrari side-on before impact. It was too late, though: the damage was done. They'd been driving for nearly two hours. For some drivers – Robert K and Kimi, one suspects – the race was 15 laps too tough. Mind you, having to follow old Fisi around Singapore for half an hour or so would be enough to give anyone a headache.

Felipe, in the other Ferrari, was delayed yet further by a drive-through penalty (unfair, considering that Felipe had done nothing wrong; it was the team who had released him early); Heikki again was confounded by the McLaren's temperature-sensitive Carbone Industrie brakes; the super-thin Robert K developed a thumping headache because of the bumps; and Lewis also glazed his CIs on his way to a delicate but points-significant third. The only unanswered question was how Nico, who was also on CIs, managed to finish second after starting eighth – especially after losing a ton of time behind the ultra-heavy Jarno and also with a 10-second stop-go.

The answer is that he was leading Fernando by 23 seconds and Lewis by 27



A fuel pump problem left Alonso 15th on the grid, but his pace in practice proved he might have won without the luck of the Safety Car

seconds when he finally came in for his penalty. Twenty-three seconds. And he had that margin because it took the officials 10 long laps to impose the penalty in the first place. Quite a lot of people were outraged by this, but BMW know the other side of the story: Robert was running fourth (trapped behind Jarno and Fisi) when he stopped for his penalty on lap 27 (the lap before Nico's penalty stop). Because of track position, Robert's penalty dropped him to dead last, so in this sense the officials are home and dry: it was good old luck of the draw. In the meantime, though, you can bet that the F1 team "analysts" will be incorporating

Williams' brilliant new pit-under-penalty strategy into their ever-widening databases.

Luck of the draw, yes – plus the magic from the planet that watched over ours on this hot, tropical night. Lewis regained the six points he lost in Belgium. The Renault boys, rocked by a barren patch and by the passing of great guys like Dino Toso, Bill Millar and Robin Grant, deserved their fillip. And Sir Frank Williams and Toyota had good nights too. Just as Formula 1 dazzled the fans – a global TV audience of 100million, plus 100,000 there on the night, were all spellbound by a Singapore dressed in the magical lights of Valerio Maioli. **FO**

SINGAPORE RACE RESULTS

RESULT	DRIVER	TOTAL RACE TIME	GRID POSITION
1st	Fernando Alonso Renault	1h57m16.304s	15th
2nd	Nico Rosberg Williams	+2.957s	8th
3rd	Lewis Hamilton McLaren-Mercedes	+5.917s	2nd
4th	Timo Glock Toyota	+8.155s	7th
5th	Sebastian Vettel Toro Rosso	+10.268s	6th
6th	Nick Heidfeld BMW Sauber	+11.101s	9th
7th	David Coulthard Red Bull Racing	+16.387s	14th
8th	Kazuki Nakajima Williams	+18.489s	10th
9th	Jenson Button Honda	+19.885s	12th
10th	Heikki Kovalainen McLaren-Mercedes	+26.902s	5th
11th	Robert Kubica BMW Sauber	+27.975s	4th
12th	Sébastien Bourdais Toro Rosso	+29.432s	17th
13th	Felipe Massa Ferrari	+35.170s	1st
14th	Giancarlo Fisichella Force India	+43.571s	20th*
15th	Kimi Räikkönen Ferrari	57 laps – accident	3rd
Retired	Jarno Trulli Toyota	50 laps – hydraulics	11th
Retired	Adrian Sutil Force India	49 laps – accident	19th
Retired	Mark Webber Red Bull Racing	29 laps – gearbox	13th
Retired	Rubens Barrichello Honda	14 laps – electrical	18th
Retired	Nelson Piquet Renault	13 laps – accident	16th

*started from pitlane

CONSTRUCTORS' STANDINGS

1 McLaren-Mercedes 135pts	7 Red Bull Racing 28pts
2 Ferrari 134pts	8 Williams 26pts
3 BMW Sauber 120pts	9 Honda 14pts
4 Renault 51pts	10 Force India 0pts
5 Toyota 46pts	11 Super Aguri 0pts
6 Toro Rosso 31pts	

For comprehensive F1 statistics visit WWW.FORIX.COM



DRIVER STANDINGS

POSITION	DRIVER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	PTS
1st	Lewis Hamilton McLaren-Mercedes	10	4	0	6	8	10	0	0	10	10	4	8	6	2	6	-	-	-	84
2nd	Felipe Massa Ferrari	0	0	10	8	10	6	4	10	0	6	0	10	10	3	0	-	-	-	77
3rd	Robert Kubica BMW Sauber	0	8	6	5	5	8	10	4	0	2	1	6	3	6	0	-	-	-	64
4th	Kimi Räikkönen Ferrari	1	10	8	10	6	0	0	8	5	3	6	0	0	0	0	-	-	-	57
5th	Nick Heidfeld BMW Sauber	8	3	5	0	4	0	8	0	8	5	0	0	8	4	3	-	-	-	56
6th	Heikki Kovalainen McLaren-Mercedes	4	6	4	0	0	1	0	5	4	4	10	5	0	8	0	-	-	-	51
7th	Fernando Alonso Renault	5	1	0	0	3	0	0	1	3	0	5	0	5	5	10	-	-	-	38
8th	Sebastian Vettel Toro Rosso	0	0	0	0	0	4	1	0	0	1	0	3	4	10	4	-	-	-	27
9th	Jarno Trulli Toyota	0	5	3	1	0	0	3	6	2	0	2	4	0	0	0	-	-	-	26
10th	Timo Glock Toyota	0	0	0	0	0	0	5	0	0	0	8	2	0	0	5	-	-	-	20
11th	Mark Webber Red Bull Racing	0	2	2	4	2	5	0	3	0	0	0	0	1	1	0	-	-	-	20
12th	Nico Rosberg Williams	6	0	1	0	1	0	0	0	0	0	0	1	0	0	8	-	-	-	17
13th	Nelson Piquet Renault	0	0	0	0	0	0	0	2	0	8	3	0	0	0	0	-	-	-	13
14th	Rubens Barrichello Honda	0	0	0	0	0	3	2	0	6	0	0	0	0	0	0	-	-	-	11
15th	Kazuki Nakajima Williams	3	0	0	2	0	2	0	0	1	0	0	0	0	0	1	-	-	-	9
16th	David Coulthard Red Bull Racing	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	-	-	-	8
17th	Sébastien Bourdais Toro Rosso	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	-	-	-	4
18th	Jenson Button Honda	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	-	-	-	3
19th	Giancarlo Fisichella Force India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0
20th	Adrian Sutil Force India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0
21st	Takuma Sato Super Aguri	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
22nd	Anthony Davidson Super Aguri	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0



Alonso takes his 20th career victory – there probably would have been a lot more if it wasn't for the guy standing to his left

Fastest lap: Kimi Räikkönen 1m 45.599secs (lap 14)



PETER WINDSOR'S
RACE REPORT
THE JAPANESE GP
FUJI 12.10.08



ALONSO'S STOCK RISES

Double champ's economic driving exposes Lewis and Felipe's tendency to crash

There's a seductive piece of Fuji road between the exit of the famous Turn 5 right-hander (or 100R – as in, 100-degree radius) and the entry to the Turn 6, left-hand hairpin. It's where Alonso lost his McLaren in a big way in the wet last year. He was fabulous through 5, as always... but then kind of forgot there was this boring old slow corner looming. He braked with load – the left rear flicked him into the inside wall.

From low-grip Friday to semi-wet Saturday there was only one place to watch Fuji 08: you found a small slot between two grandstands. You found the Turn 5 and 6 transition point. And you stood there for hours on end, perfectly in the target line.

Lewis was the standard-setter. Fast, clean, linear and quick – he was always perfectly positioned by the exit of the sixth-gear corner. Centre-left of the road, leaving acres

of room for braking, he and the McLaren looked as cool and sharp as a bullet train to Tokyo on a hectic Monday morning.

Fernando was next best, because he was just so beautifully fluid through 5, a man who was now savouring every millisecond of a racing driver's life, especially when he's got the R28 absolutely screwed up two-thirds of the way through the corner and is conducting, with his hands, arms and feet,

the ever-evolving minuet that the back of the Renault has chosen to dance with the front. A shimmy, and then hard braking against load into 6. Fifth-fourth-third... No grip, no apex! But Fernando is already back on the half-power, looking for traction on the exit.

Of course there were other stars. Webber. Massa. The two Finns. Vettel. Nico and Nakajima. Glock and Trulli. Everyone had their moment. Only Lewis and Fernando, though, were flush where they wanted to be. Every lap. Every session.

Then there were the BMWs. Into Turn 6 there was the astounding sound of Robert and Nick braking down into an even lower gear – into a high second, you guessed, when everyone else was falling no lower than third. It looked awkward. It sounded odd, particularly as the BMW exhaust note has that death-rattle hollowness on over-run.

Despite that Robert Kubica qualified P6, and qualified about as well as any human being can qualify a car that looks as knife-edgy as a Red Bull and has to stutter down to second for Turn 6 (see N Heidfeld, who qualified P16), before finding himself in an early lead of the Japanese Grand Prix.

You know the reason: the Bridgestone compounds were conservative for this race (thanks to the abrasiveness of the surface); the ambient was only 15C; Kimi's much lighter Ferrari beat Lewis into the Turn 1 braking area; and virtually everyone braked too late, even though they knew there were going to be dramas. Why? Because everyone also knew there are about three acres of run-off area on the outside of Turn 1 at Fuji...

So Fernando locked up. In the BMW, Robert winced as he lost the front and just knew he was going to ram someone – but then put his head down as it all unfolded in front of him: Lewis zapped from Kimi's tow down the inside, ran long, Kimi straightened up in sympathy, Heikki hit Kimi on the right... and suddenly Robert had an apex a metre to the right and free road ahead.

Robert Kubica led from P6, and led pretty convincingly, given that there were Renaults, McLarens and Ferraris not too far behind him. He then drove absolutely in the zone. While Lewis, his tyres massively flat-spotted, went off again at Turn 3. And Massa, who could have scored in this race big time, side-swiped Lewis from the Turn 11 apex kerbs. Robert looked fast but not crazy-fast. He looked like a genuine potential winner.

As we now know it, Robert in that first stint of three was actually driving on the edge of Bridgestone graining. Fernando was a blur in his mirrors, never more than 3secs



After a disastrous start Lewis took his chance when Massa ran wide at the entry to the chicane – we all know what happened next



Kazuki Nakajima tries to avoid Coulthard, who hit the barrier due to right-rear suspension damage from the Turn 1 mayhem



Heikki Kovalainen's race ended after just 16 laps due to a very rare Mercedes engine failure – the first in two years, in fact

behind. Robert, fighting understeer and an unstable rear, had nothing more to give. Not that you would have noticed it from the outside: superficially he looked immaculate.

The pitstops would decide it. BMW's best hope was that Renault would be first to blink.

They weren't. Robert came in at the end of lap 16. And BMW, of course, stuck to strategy: they would run a 29-lap middle stint and therefore limit stint 3 to 21 laps on the more fragile Bridgestone softs.

Thinking swiftly, Pat Symonds and Alan Permane agreed to Alonso's request to short-fuel. I say 'decided': we're talking about

Everyone braked late at Turn 1 – there's about three acres of run-off

two minutes of reaction time here. Two minutes to win or lose a race.

There was another factor: Renault, unlike BMW (but in common with McLaren) had found the Bridgestone soft to be reasonably raceable. BMW, by contrast, had found it to be about as user-friendly as a German-Japanese dictionary. Renault had the short-fuel option; BMW couldn't even consider it.

Thus Fernando, who stopped but a lap after Robert, re-emerged ahead of him and pulled away, given that his car was lighter.

"We think Robert is five laps heavier," said Dave Greenwood, Fernando's race engineer later. "You've got to get a gap so drive like hell, mate. Drive like hell."

"How's the car?" asked Robert's engineer, Antonio Cuquerella, near the end of stint 2.

"Understeer," came Robert's muffled, stress-laden reply. "Understeer and no traction." Ah, okay then.

Fernando was well ahead of par when he entered the pitlane for the second time, and so, barring a refuelling problem, this Japanese GP; this non-Safety Car Japanese

DID YOU KNOW?

■ The lead changed hands 10 times during the race, which is the highest number since the 1971 Italian Grand Prix when there were 25 changes of lead

■ Sébastien Bourdais' three laps in the lead means he is the 15th driver to lead a race this year, which ties the F1 record set in 1954, 1956, 1957, 1960 and 1975

■ Fernando Alonso's first and Nelson Piquet's fourth is the best result for Renault since the 2006 Japanese GP, when Alonso also won and Fisichella came third

■ This was the 30th time that Kimi Räikkönen has qualified on the front row, and the first time in Japan. He's now 18th on the all-time front row list

GP would not only be a one-four for Fernando and Nelson, but the first Renault back-to-back since the glory days of mid-'06.

By now, Lewis and Felipe were nowhere. Both had been penalised: Lewis for being one of many who had locked up at Turn 1; Felipe for colliding with Hamilton. Plus, Heikki's Mercedes engine, despite having been nursed through Singapore at 18,000rpm, bizarrely lost an inlet valve early on.

Back in the other podium positions, though, Kimi was all over Robert Kubica. Robert quickly grained his tyres in stint 3 and so backed away, allowing them to clean. Then he flat-spotted his fronts in traffic. After which he had Kimi under his rear wing, trying to tease him into a mistake.

And yet, in some of the best bits of driving you'll see all year, Robert made no more mistakes. We know how difficult his car was: we heard about the understeer and the poor traction, and the propensity to grain its tyres. We knew, too, about the ratios that BMW were having to run. And we could see how relatively fast Kimi's Ferrari was on the straight and how the Ferraris had been able to pass other cars as they ducked out of the tow. When Massa, on new hard tyres, caught



Sébastien Bourdais finally finished strongly in the Toro Rosso, only to be demoted from sixth to 10th after his Turn 1 clash with Massa

Webber, who was on ratty, one-stop softs, he learnt that "After you, Claude" is not part of the Aussie's vocabulary. Webber stayed dead to the inside on the main straight, inducing Massa to dodge left as the braking area loomed. Yet strangely, Massa moved further still to the right, over the painted pitlane exit. Massa, who would later hit Bourdais as Séb ran up on the Turn 1 kerbs after a pitstop, seemed reluctant to pass anyone on the middle of the track all day.

Robert's braking in the BMW was millimetre-perfect; Kimi had him lined up for plenty of tow-zaps but ultimately the move depended upon Robert locking an

inside front, or maybe losing the rear a little, depending upon his brake balance. And he did none of that. Zero. Just perfection. And with his Bridgestones at last beginning to grain in the wake, Kimi backed away. Robert finished P2. "This is as good as the Canada win," he said in his deadpan way.

Driveability: that's what BMW lacked in the second-half of the year. That's why they ran that shorter gear at the hairpin. That's why Robert had to make 130 additional gear changes around Fuji. That's why BMW were more aggressive with their tyres. That's why Renault have passed them. All of which only enhanced the quality of Kubica's drive. **FO**

JAPAN RACE RESULTS

RESULT	DRIVER	TOTAL RACE TIME	GRID POSITION
1st	Fernando Alonso Renault	1h30m21.892s	4th
2nd	Robert Kubica BMW Sauber	+5.283s	6th
3rd	Kimi Räikkönen Ferrari	+6.400s	2nd
4th	Nelson Piquet Renault	+20.570s	12th
5th	Jarno Trulli Toyota	+23.767s	7th
6th	Sebastian Vettel Toro Rosso	+39.207s	9th
7th	Felipe Massa Ferrari	+46.158s	5th
8th	Mark Webber Red Bull Racing	+50.811s	13th
9th	Nick Heidfeld BMW Sauber	+54.120s	16th
10th	Sébastien Bourdais Toro Rosso	+59.085s*	10th
11th	Nico Rosberg Williams	+62.096s	15th
12th	Lewis Hamilton McLaren-Mercedes	+78.900s	1st
13th	Rubens Barrichello Honda	+1 lap	17th
14th	Jenson Button Honda	+1 lap	18th
15th	Kazuki Nakajima Williams	+1 lap	14th
Retired	Giancarlo Fisichella Force India	21 laps - gearbox	20th
Retired	Heikki Kovalainen McLaren-Mercedes	16 laps - engine	3rd
Retired	Adrian Sutil Force India	8 laps - puncture	19th
Retired	Timo Glock Toyota	6 laps - damage	8th
Retired	David Coulthard Red Bull Racing	0 laps - collision	11th

*includes 25sec penalty for race infringement

CONSTRUCTORS' STANDINGS

1 Ferrari 142pts	7 Red Bull Racing 29pts
2 McLaren-Mercedes 135pts	8 Williams 26pts
3 BMW Sauber 128pts	9 Honda 14pts
4 Renault 66pts	10 Force India 0pts
5 Toyota 50pts	11 Super Aguri 0pts
6 Toro Rosso 34pts	

For comprehensive F1 statistics visit WWW.FORIX.COM



DRIVERS' STANDINGS

POSITION	DRIVER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	PTS
1st	Lewis Hamilton McLaren-Mercedes	10	4	0	6	8	10	0	0	10	10	4	8	6	2	6	0	-	-	84
2nd	Felipe Massa Ferrari	0	0	10	8	10	6	4	10	0	6	0	10	10	3	0	2	-	-	79
3rd	Robert Kubica BMW Sauber	0	8	6	5	5	8	10	4	0	2	1	6	3	6	0	8	-	-	72
4th	Kimi Räikkönen Ferrari	1	10	8	10	6	0	0	8	5	3	6	0	0	0	0	6	-	-	63
5th	Nick Heidfeld BMW Sauber	8	3	5	0	4	0	8	0	8	5	0	0	8	4	3	0	-	-	56
6th	Heikki Kovalainen McLaren-Mercedes	4	6	4	0	0	1	0	5	4	4	10	5	0	8	0	0	-	-	51
7th	Fernando Alonso Renault	5	1	0	0	3	0	0	1	3	0	5	0	5	5	10	10	-	-	48
8th	Sebastian Vettel Toro Rosso	0	0	0	0	0	4	1	0	0	1	0	3	4	10	4	3	-	-	30
9th	Jarno Trulli Toyota	0	5	3	1	0	0	3	6	2	0	2	4	0	0	0	4	-	-	30
10th	Mark Webber Red Bull Racing	0	2	2	4	2	5	0	3	0	0	0	0	1	1	0	1	-	-	21
11th	Timo Glock Toyota	0	0	0	0	0	0	5	0	0	0	8	2	0	0	5	0	-	-	20
12th	Nelson Piquet Renault	0	0	0	0	0	0	0	2	0	8	3	0	0	0	0	5	-	-	18
13th	Nico Rosberg Williams	6	0	1	0	1	0	0	0	0	0	0	1	0	0	8	0	-	-	17
14th	Rubens Barrichello Honda	0	0	0	0	0	3	2	0	6	0	0	0	0	0	0	0	-	-	11
15th	Kazuki Nakajima Williams	3	0	0	2	0	2	0	0	1	0	0	0	0	0	1	0	-	-	9
16th	David Coulthard Red Bull Racing	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0	-	-	8
17th	Sébastien Bourdais Toro Rosso	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	-	-	4
18th	Jenson Button Honda	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	-	-	3
19th	Giancarlo Fisichella Force India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0
20th	Adrian Sutil Force India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0
21st	Takuma Sato Super Aguri	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
22nd	Anthony Davidson Super Aguri	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0



Robert Kubica politely applauds as Fernando Alonso mounts the Fuji podium at the Safety Car-free Japanese Grand Prix

Fastest lap: Felipe Massa 1m 18.426secs (lap 55)





PETER WINDSOR'S
RACE REPORT
THE CHINESE GP
SHANGHAI 19.10.08



PRESSURE? WHAT PRESSURE?

Lewis ignores the critics and takes a flawless win in China. Next stop: Brazil...

Is a seven-point margin a good outcome for Hamilton, or not? Twelve months ago Lewis headed to the season finale in Brazil seven points up, only to miss out on the drivers' crown. Given the problems for Heikki in Japan and China – a blown engine due to a defective inlet valve at Fuji and a loss of engine pneumatic valve pressure in Shanghai – it would be a simple matter for Felipe to win and for Lewis to retire.

That's for the future; for now, sit back and enjoy another virtuoso performance from the stunningly good Lewis Hamilton, a driver who knows how to pass people about as well as he knows how to win from the front. On a day when McLaren thrashed Ferrari – when Lewis took the pole, set fastest lap and led every lap that Heikki Kovalainen did not (53-3) – Lewis earned only a two-point margin for his efforts.

That's because Felipe Massa took second place after he passed his team-mate Kimi Räikkönen on lap 49 of the race. Article 39.1 of the F1 sporting regulations, says: "Team orders which interfere with a race result are prohibited." And when I pushed Kimi hard on the issue, a few minutes after the race, he was pretty cool: "I know what the team expects and I know what we want, which is results. It's racing and I have nothing to



Fernando Alonso came out top in his first-lap duel with the heavier Heikki Kovalainen, who had originally taken him at Turn 1



"Er, pardon monsieur..." Séb Bourdais ended Jarno Trulli's race with this punt at the first corner. Enter Italian expletive here...

lose or win. I'm driving for the team, so it's a normal situation."

But the biggest problem for Ferrari was Lewis's speed. He had the upper hand, being a second quicker than either Ferrari on his first flying lap of the circuit and playing with that nice fat cushion for the rest of the weekend. In qualifying he didn't feel the need to run the softer, faster Bridgestones until the dying moments of Q2. In Q3, having lost the back end on Turn 7, he began his final lap with everything to lose and about a minute and a half to go.

Sector 1: a tad off; sector 2: perfect; sector 3: perfect. That's about as near-perfect as it can get, and the result was the pole by the margin of 0.3sec – a huge margin, given that Felipe was at that point a little lighter and Kimi was exactly the same weight.

Consider, too, the sort of flak that flies Lewis's way these days. He's one of about 15 drivers who locks up into Turn 1 on cold tyres at Fuji and suddenly all the old cronies



Despite being surrounded by Räikkönen, Massa and Alonso at the start, Hamilton beat them all off the line and never looked back



Heikki Kovalainen suffered a puncture on lap 35, ruining both his birthday and McLaren's constructors' championship hopes

are coming out of the woodwork saying that he can't handle the pressure and that he is lucky to be leading the drivers' championship. Lucky to be leading the championship! After drives like Silverstone and Monaco – and, of course, Spa-gate. Are these critics operating on planet earth, you ask yourself? In China Mark Webber waded in, as did Flavio Briatore, as in "Lewis doesn't deserve to be world champion." This said, coincidentally, after Fernando Alonso had declared in China – in the presence of Lewis – that he would be doing all he could to help Felipe win the title.

The guy's only 23, for Pete's sake, and here they are, slagging him off

The guy's only 23, for Pete's sake, and he's only been racing in F1 for a year and three-quarters. And here they are, slagging him off. Could it be that they are envious? Could it be that they resent his success?

No need to answer that. For his part, Lewis answered with a BlackBerry on the drivers' parade flat-top, happy-snapping his way around the circuit while chatting idly with Adrian Sutil. That was the first thing he did to ease the tension.

The second was to lower his gold-tinted Arai visor and make a perfect start to ➤

DID YOU KNOW?

■ This was McLaren's first victory in the Chinese GP, their previous best being second with Kimi Räikkönen in 2005 and Fernando Alonso in 2007

■ Jenson Button failed to score points in China for the first time, having managed a second, eighth, fourth and fifth in the previous four races

■ Both BMW drivers recorded their best finishes in China. Nick Heidfeld's fifth beat his seventh in 2006 and 2007, while Robert Kubica bettered his 13th in 2006

■ It is now 50 races since an Italian driver won a grand prix, Giancarlo Fisichella's 2006 victory in Malaysia. The record is 168 races from 1992 to 2003

complement his perfect pole. In Japan he'd been a bit worried about the clutch and indeed it had dragged at the release point, slowing him relative to Kimi. For China, McLaren fitted a new clutch and played fail-safe with the take-up. Lewis was up and away and moving to the right, closing Kimi's door, while the rest of the pack were still sorting themselves out.

Then came the hard part – the part of the race when the Ferraris, on new Bridgestone softs, have plenty of grip and are not going to let Lewis get away. The only way to fight them is to find a tenth here, a tenth there and to forget about the stopwatch and the laps to go. All that matters is the car, the tyres and the surface of the road. One second becomes 1.3; 1.3 becomes 2.1.

It's down to all the tiny details. It's subtle and it's painstaking. It's an artist at work.

There were no glitches. There was one nice, slow-speed oversteer slide, yes; there was a question late in the race about the failing light. Other than that – nothing. Lewis made it look easy. Made the hardest athletic job in the world – beating the two Ferrari drivers when they've got good, reliable race cars beneath them and no-one



Total domination: Lewis looks rather pleased with himself as he celebrates his race win, pole position and fastest lap treble

to apply pressure behind them – look as though your granny could have done it.

Of course, Ferrari had been hurt somewhat by the conservative Bridgestone tyre selection for this race – just as they will probably be hurt by the medium-soft selection for Brazil. Bridgestone wanted to take no risks after Lewis's tyre dramas in Turkey, and so ironically it's now Ferrari – who develop one-lap tyre temperatures slower than McLaren – who are paying that price. They couldn't find any sort of balance on day one in China and were in

semi-headless-chicken mode on Saturday, when they were changing nose profiles about as regularly as Lewis was popping out of the car for a quick stretch of the legs. The phone lines between Bridgestone and Maranello will probably be running hot for the next few days, but in theory there's nothing that can be done about it: compared with 2007, Bridgestone will be running a full range harder in Brazil.

The only remaining question is whether the seven-point margin will be enough this time around... **FO**

CHINA RACE RESULTS

RESULT	DRIVER	TOTAL RACE TIME	GRID POSITION
1st	Lewis Hamilton McLaren-Mercedes	1h31m57.403s	1st
2nd	Felipe Massa Ferrari	+14.925s	3rd
3rd	Kimi Räikkönen Ferrari	+16.445s	2nd
4th	Fernando Alonso Renault	+18.370s	4th
5th	Nick Heidfeld BMW Sauber	+28.923s	9th*
6th	Robert Kubica BMW Sauber	+33.219s	11th
7th	Timo Glock Toyota	+41.722s	12th
8th	Nelson Piquet Renault	+56.645s	10th
9th	Sebastian Vettel Toro Rosso	+64.339s	6th
10th	David Coulthard Red Bull Racing	+74.842s	15th
11th	Rubens Barrichello Honda	+85.061s	13th
12th	Kazuki Nakajima Williams	+90.847s	17th
13th	Sébastien Bourdais Toro Rosso	+91.457s	8th
14th	Mark Webber Red Bull Racing	+92.422s	16th**
15th	Nico Rosberg Williams	+1 lap	14th
16th	Jenson Button Honda	+1 lap	18th
17th	Giancarlo Fisichella Force India	+1 lap	20th
Retired	Heikki Kovalainen McLaren-Mercedes	49 laps – hydraulics	5th
Retired	Adrian Sutil Force India	13 laps – gearbox	19th
Retired	Jarno Trulli Toyota	2 laps – accident	7th

*includes 3-place grid penalty **includes 10-place engine penalty

CONSTRUCTORS' STANDINGS

1 Ferrari 156pts	7 Red Bull Racing 29pts
2 McLaren-Mercedes 145pts	8 Williams 26pts
3 BMW Sauber 135pts	9 Honda 14pts
4 Renault 72pts	10 Force India 0pts
5 Toyota 52pts	11 Super Aguri 0pts
6 Toro Rosso 34pts	

For comprehensive F1 statistics visit WWW.FORIX.COM



DRIVERS' STANDINGS

POSITION	DRIVER		ROUNDS																		PTS
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1st	Lewis Hamilton	McLaren-Mercedes	10	4	0	6	8	10	0	0	10	10	4	8	6	2	6	0	10	-	94
2nd	Felipe Massa	Ferrari	0	0	10	8	10	6	4	10	0	6	0	10	10	3	0	2	8	-	87
3rd	Robert Kubica	BMW Sauber	0	8	6	5	5	8	10	4	0	2	1	6	3	6	0	8	3	-	75
4th	Kimi Räikkönen	Ferrari	1	10	8	10	6	0	0	8	5	3	6	0	0	0	0	6	6	-	69
5th	Nick Heidfeld	BMW Sauber	8	3	5	0	4	0	8	0	8	5	0	0	8	4	3	0	4	-	60
6th	Fernando Alonso	Renault	5	1	0	0	3	0	0	1	3	0	5	0	5	5	10	10	5	-	53
7th	Heikki Kovalainen	McLaren-Mercedes	4	6	4	0	0	1	0	5	4	4	10	5	0	8	0	0	0	-	51
8th	Sebastian Vettel	Toro Rosso	0	0	0	0	0	4	1	0	0	1	0	3	4	10	4	3	0	-	30
9th	Jarno Trulli	Toyota	0	5	3	1	0	0	3	6	2	0	2	4	0	0	0	4	0	-	30
10th	Timo Glock	Toyota	0	0	0	0	0	0	5	0	0	0	8	2	0	0	5	0	2	-	22
11th	Mark Webber	Red Bull Racing	0	2	2	4	2	5	0	3	0	0	0	0	1	1	0	1	0	-	21
12th	Nelson Piquet	Renault	0	0	0	0	0	0	0	2	0	8	3	0	0	0	0	5	1	-	19
13th	Nico Rosberg	Williams	6	0	1	0	1	0	0	0	0	0	0	1	0	0	8	0	0	-	17
14th	Rubens Barrichello	Honda	0	0	0	0	0	3	2	0	6	0	0	0	0	0	0	0	0	-	11
15th	Kazuki Nakajima	Williams	3	0	0	2	0	2	0	0	1	0	0	0	0	0	1	0	0	-	9
16th	David Coulthard	Red Bull Racing	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0	0	-	8
17th	Sébastien Bourdais	Toro Rosso	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	-	4
18th	Jenson Button	Honda	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	-	3
19th	Giancarlo Fisichella	Force India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
20th	Adrian Sutil	Force India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
21st	Takuma Sato	Super Aguri	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
22nd	Anthony Davidson	Super Aguri	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0



Felipe Massa and Kimi Räikkönen can barely contain their delight as they 'celebrate' with Lewis on the Shanghai podium

Fastest lap: Lewis Hamilton 1m36.325secs (lap 13)





PETER WINDSOR

Forthright views from our man inside the F1 paddock

In order to ensure that the F1 world does not over-react to the 'global economic crisis' let's remember a few truisms. Thanks to the foresight of the FIA and their 'frozen' regulations, F1 engines are now in tune with the austerity of the

era. F1 engine programmes were cheaper only in the Cosworth days, and there are currently enough manufacturers around to guarantee a healthy supply to all teams.

In other words, don't tamper with engine rules: they're okay, and we now have KERS as an added PR bonus. Tighten the rules, or turn them 'greener', or reduce revs, or change the exhaust note and you run the risk of whisking a manufacturer or four out the door.

Successful teams will generate income; unsuccessful teams will struggle. It is the law of the jungle; it is a part of evolution. Midfield teams don't need two windtunnels and 800 employees – in this era the teams need to be efficient and adaptable. We need to maximise the depth and breadth of F1 technology: if you can buy engines from a rival team then you can also buy segments of their technology.



Formula 1 is making money, but to ensure growth why not persuade governments to invest in teams as well as new circuits

F1 continues to thrive. What other sport in this era is expanding at the rate of F1, with new races in India and Abu Dhabi complementing recent success in Singapore

"Formula 1 will thrive – what other sport is expanding like this?"

and Valencia? For making these races happen, Bernie Ecclestone is entitled to every penny he earns. And let's learn from that: if we can persuade governments to underwrite F1 events, then those same governments can fund new F1 teams; in time we could have Forces Japan, China, Abu Dhabi, USA and Russia. It's the future... as pathlit by Bernie.

We should refrain from reflex reactions to what the media perceive as 'crises'. To continue to expand, and to attract new money for both races and our teams, our industry must be seen to be stable, logically managed and publicly aware (in the media-friendly sense of the word). Constant change produces uncertainty; uncertainty induces mass panic; and mass panic dries up the money supply, as shown by the global meltdown.

BAN THE SAFETY CAR LOTTERY FOR THE SAKE OF FAIR RACING

FERRARI'S FELIPE MASSA is, of course, correct when he calls for an end to the current Formula 1 Safety Car regulations: they are ridiculous, in the way they decide the outcome of a race. I'm also energised by his novel suggestion that the race should be



Felipe Massa wants to see an end to the current Safety Car regulations, because of the way they can influence the outcome

won by the fastest driver in the fastest car. What a great idea! So let's eliminate race fuel in the third session of qualifying, mandatory pitstops and the ban on teams running spare cars. Why don't we go back to where we were in the mid-1980s, before Ferrari pushed for a return to refuelling in order that their thirsty V12 could compete with the more efficient V10s...

FORMULA 1 NEEDS TO SELL ITSELF MORE

F1 DOESN'T need to be 'greener'. Efficiency is what F1 brings to the world – like today's F1 engines using less fuel over two laps of Fuji than a Range Rover over the same distance when driven on the door

handles. What F1 lacks is the media infrastructure to demonstrate this efficiency to the outside world. We do a terrible job of selling our sport. F1 as an industry should have a vast media division co-ordinating its

image in all areas of the globe. Drivers should devote a minimum number of days per year as ambassadors of F1, particularly during the close-season. The environmental, financial, exposure, marketing and technology messages should be uniform and carefully disseminated.



To help F1 communicate better, drivers should be ambassadors of the sport



ALAN HENRY

On cost cutting, and how Alonso could have been a contender

I have to confess that, in recent years, I have found myself frequently ill at ease with the manner in which Max Mosley operates in the role of FIA President, but I have to say that I am 100 per cent behind him when he says that the F1 business

could be in very serious difficulties unless it takes drastic and far-reaching cost-cutting measures over the next couple of years.

Alright, alright, it's a bit like the recent 'nationalisation' of some leading high-street banks. I find myself instinctively railing against state intervention, be it Gordon Brown lecturing us on the Calvinist values of thrift, or Mr Mosley effectively sending messages to robust entrepreneurs like Ron Dennis and Frank Williams over how they should run already successful companies.

I think that if F1 wants to continue to look relevant and responsible at a time when the world seems on the edge of an economic recession it needs to be PR savvy, with something a bit more imaginative than green grooves on Bridgestone tyres to persuade TV viewers it's trying to emphasise an environmentally sympathetic dimension.

One of the biggest problems on the economic front has been the long-established belief amongst the teams that they are fundamentally cleverer than the governing body. That may be the case when it comes to

innovative engineering solutions, but the newly established Formula One Teams' Association needs to move quickly to table its



Teams need to give serious consideration to cost-cutting, before some of the big car companies involved in F1 take their own action

own proposals on cost reduction if it is to avoid Mr Mosley and the FIA doing the job for them and delivering it as a *fait accompli*.

The difficult thing is deciding where one strikes the balance between technology and cost containment. Do we allow 'customer

cars' and permit McLaren to supply Force India with chassis and engines for 2009? Should we force draconian cuts which would reduce engine and transmission budgets for the smaller teams, from around £24m to about five per cent of that – it's something that Mr Mosley seriously believes is possible.

Of course, the real fear is that a motor industry bean-counter high up in the finance

"With the world on the edge of recession, F1 needs to be savvy"

department of a company like Honda or Toyota might look at the cost of running an F1 team and run a firm red line through that item of expenditure. Easier than trying to cut £350m out of the research and development for the next Accord or Prius, I fancy.

It is for that reason alone that Mr Mosley's message should be listened to seriously. On this occasion, at least.

WHO IS THE BEST F1 DRIVER OUT THERE TODAY?

LEWIS HAMILTON? Massa? Kubica? Alonso?

Rating the top performers into some sort of order is one of the most thankless tasks faced by any journalist at this time of the year with a season review beckoning. But I can't recall a campaign in recent history which has thrown up as many claimants to that title as 2008.

Hamilton has delivered us many moments of sublime genius, even though there have been times when one has been left thinking that perhaps, even now, we're expecting too much from a guy who is only in his

second full season of F1. Massa continues to surprise, raising his game to cement his reputation as the most improved driver of 2008. Kubica is another with the

stamp of greatness on him.

Alonso? Well, after Singapore and Fuji, you can't help but think what he might have achieved if he was still in a McLaren.



Considering Alonso's drives for Renault, imagine what he could have done if he'd stayed with McLaren

ENGAGE BRAIN BEFORE MOUTH

I AM NOT often amazed by remarks by F1 drivers, but Hamilton and Alonso raised my eyebrows after the Japanese GP.

I found Lewis's observation that Massa all but deliberately rammed his McLaren slightly bewildering. What was in it for the Brazilian after starting seven points adrift in the title chase?

Yet Alonso's observation that he would do everything he could to help Massa win the title was even more astonishing. How does he propose to do that if he is to avoid getting into hot water with the FIA stewards?

Winding around a natural bowl and 'between the lakes', Interlagos is as vibrant and dramatic as the country it serves. It's a rollercoaster ride that Adrian absolutely loves...

"São Paulo is a great place to end the season because it's a very colourful city. There are some fantastic restaurants and places to go out, and the Paulistas are very passionate about Formula 1.

Interlagos is a great racetrack, and it has a lot of history. It staged its first world championship grand prix in 1973 and, although the layout of the track has changed a lot since then, it's still situated on the edge of a bowl 'between the lakes'. This means the spectators are much closer to the action than at most permanent venues, which creates a fantastic atmosphere.

From the cockpit the track feels like a rollercoaster because it's very up and down, and some of the corners are banked. Your stomach is compressed one minute, then it's trying to jump out of your mouth the next, so it's best not to have eaten just before getting in the car!

The asphalt is also quite bumpy, despite the fact that it gets re-laid most years, and this makes it very hard to drive the perfect lap. It's really easy to lock a wheel on the bumps, or get a bit of unexpected oversteer, so this makes Interlagos the kind of track where the driver can make a real difference. It's also a very short lap – just 2.7 miles – so every thousandth of a second really counts because the grid is so close together.

Combine all this with the fact that the Brazilian Grand Prix is the final race of the Formula 1 season – giving the teams and drivers their last chance of the year to move up the championship standings – and you have all the ingredients for a very exciting weekend of racing. It's certainly true that Brazil never disappoints."



ADRIAN SUTIL'S RACE PREVIEW

THE BRAZILIAN GRAND PRIX

INTERLAGOS 02 11 08

LAPS: 71 CIRCUIT LENGTH: 2.977 MILES START TIME (GMT): 1700



LARANJINHA

"You have to use all the kerb on the inside. That means placing the whole of the car on the kerb, nearly touching the grass. You can be quite aggressive – the track drops away on the exit, so you accelerate quickly"



SENNAS

"You can brake late into this corner, thanks to the positive camber, and turn in at the same time. You drop sharply downhill between the two corners and you lose your stomach because the gradient is so steep"



TURNS 6 & 7

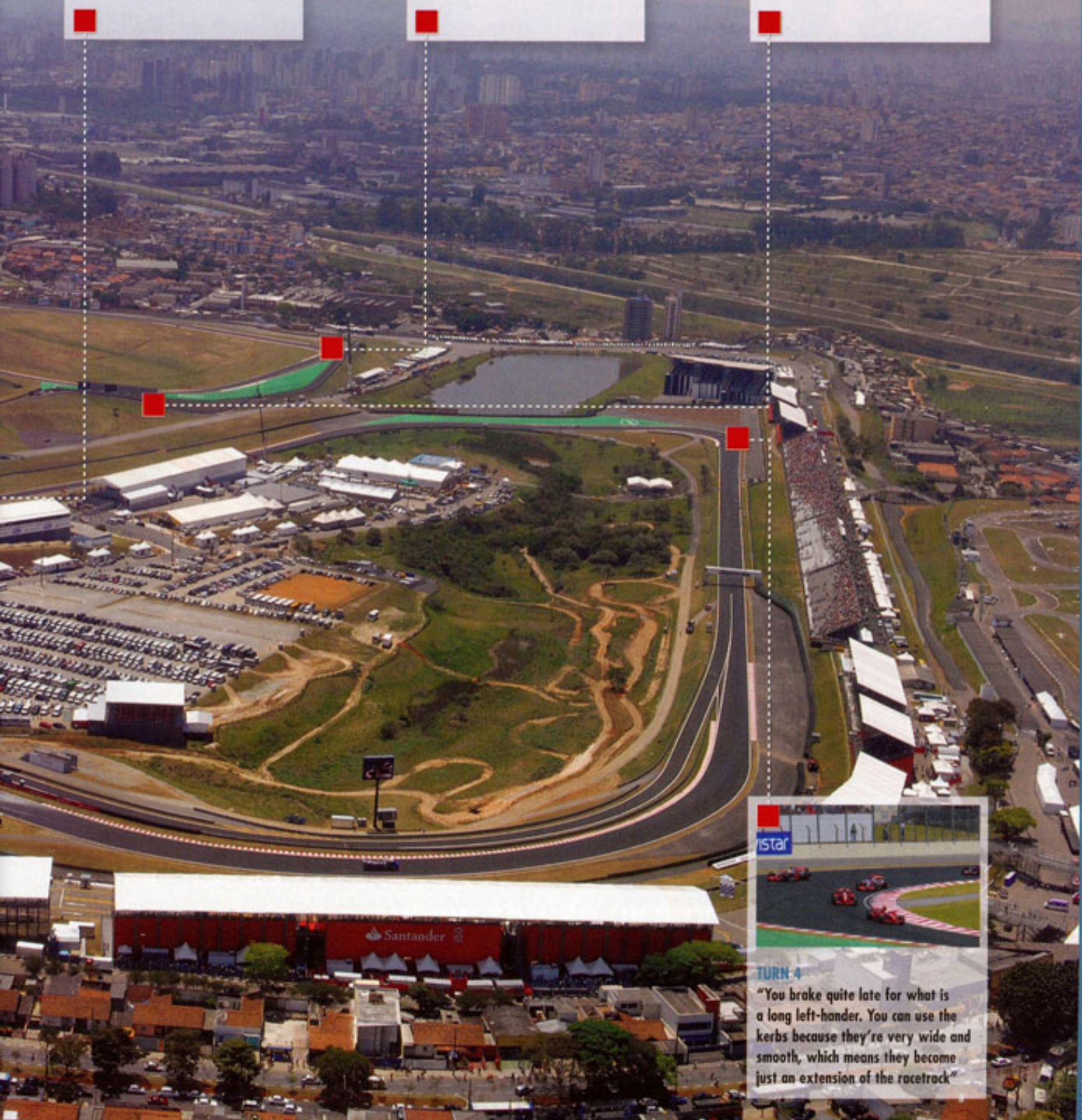
"This double right is good fun. You touch the inside kerb and use one steering lock to get around both corners. The approach to 6 is uphill, so the car goes light midway through, but it doesn't affect the handling"

JUNÇAO

"Your exit here dictates your speed up the hill and all the way to Turn 1, which is a long way. It's slow, so you can get on the throttle early, but you have to be careful because there are a few bumps on the exit"

MERGULHO

"This is a flat-out downhill left-hander. There's a compression in the middle and, because you're going fast, your body gets really pushed into the ground. It reminds me of the entrance to Spa's Eau Rouge in that respect"



TURN 4

"You brake quite late for what is a long left-hander. You can use the kerbs because they're very wide and smooth, which means they become just an extension of the racetrack"

WHAT'S IT LIKE TO...



Massa takes victory in 2006 wearing his 'Brazil' race suit

...WIN YOUR HOME GRAND PRIX?



FERNANDO ALONSO
SPAIN, 2006

"The crowd was so crazy that I couldn't leave my hotel. They even chased me on the motorway when I went to the circuit in the morning!

I started from pole then took an easy win. During the last five or six laps, I saw behind me that Michael wasn't pushing any more, so I just cruised to the end, in front of my people – my supporters. For the last two laps everything in the grandstand was moving, jumping. I think it was equal to the Brazilian Grand Prix a year before, when I won my first championship. Then King Juan Carlos, with whom I drove a lap with in the morning, handed me the trophy. Unforgettable."



JODY SCHECKTER
SOUTH AFRICA, 1975

"I overtook Carlos Pace, who started from pole position, and I managed to get this home victory by fighting against Carlos Reutemann.

I couldn't really enjoy my win – during my last lap to the pits, my nice fellow citizens were so drunk in the grandstands that they threw me hundreds of beer cans..."



FELIPE MASSA
BRAZIL, 2006

"What an emotional weekend in my own city! For me, it had been one of those GPs where you are simply unbeatable. I clinched the pole then literally flew to victory. I had a special combination of race suit and helmet with the Brazilian colours, and the carnival happiness of the crowd when I was on the podium, with my family and friends close, gave me an incredible boost of emotion. I already had my first F1 victory, in Turkey, but I will remember this one forever."



NIKI LAUDA
AUSTRIA, 1984

"I only won once at home, and I did it just because I was lazy. I was in the lead with the last third of the race to go. Piquet was behind me.

Suddenly, I started to lose gears. The pits were at the opposite side of the circuit, and I didn't want to walk, so I tried to drive the car back. When I realised I could continue, I pushed as much as I could. Piquet didn't realise I was having difficulties – maybe he thought I was just cruising to the finish line!"



JACKIE STEWART
GREAT BRITAIN, 1969

"I took my first victory on British soil after an incredible fight with Jochen Rindt at Silverstone. We took the lead from each other 30 times during the race. Finally Jochen had a mechanical failure. For the crowd, it wasn't especially surprising to see a fellow citizen winning the GP, since they were used to it thanks to Graham Hill and Jim Clark. But for me it was a matter of great pride to win in front of them."



JEAN-PIERRE JABOUILLE
FRANCE, 1979

"When Renault started in Formula 1, in 1977, we never thought that the turbo engine would be so difficult to tune. However, in 1979 we started to see that we could make it. At Dijon I tried to race with my brain and not with my heart: in order to save my tyres, I decided to let Gilles Villeneuve pass even though I was on pole position. On lap 47, I still had a good pace and I was able to overtake him. I took the lead and flew away. There were lots of tears at the chequered flag."

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