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CONTENTS

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COVER IMAGES: FERRARO, ETHERINGTON & COATES/LAT



“We didn’t say anything early on but she’s big now and there’s no hiding it!”

INDYCAR ACE VITOR MEIRA ADMITS TO IMMINENT FATHERHOOD – WHICH MAY BEGIN DURING THE BRAZILIAN’S HOME RACE WEEKEND IN SAO PAULO

XIX

Er, that’s Latin for 19, as in the name of Simon ‘Spice Girls’ Fuller’s company, which has just taken over management duties for Lewis Hamilton

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F1 SEASON PREVIEW



COVER STORY

34 Overview

Get ready for F1 2011!

37 DC’s predictions

David Coulthard’s crystal ball

38 Lewis Hamilton

Will new rules boost top Brit?

44 Passing problem

Why overtaking has declined

48 On a wing and a prayer

How the moveable wings work

50 Paul di Resta Q&A

Force India Brit is fired up

52 The science of tyres

It’s mechanical v chemical

54 Pirelli picture special

Highlights from tyre firm’s past

56 McLaren M26 v MP4-26

Comparing old and new

58 Team by team guide

From Red Bull to HRT

88 Circuit guide

Maps and stats for all 19 venues

94 India ready to race

New Delhi track’s shaping up

NEWS



8 McLaren design-office tweak

British squad restructures team

11 Merc upgrade explained

What’s behind MGP W02 changes?

13 Drivers fear rules safety

Vettel leads call for driver unity

14 HRT F111 breaks cover

F1 minnow launches 2011 racer

18 Franchitti speaks out

20 Japan faces up to disaster

Racing deals with aftermath

23 Plato: watch out for O’Neill

Champ fears Chevrolet rival

25 Fortec’s F3 testing fears

Top team struggling in testing

28 Michelin boosts WRC rubber

Firm aims to reduce punctures

REPORTS



99 World of Sport

Kahne wins Craftsman Truck NASCAR race at Darlington; Juan Manuel Silva takes debut Ford Argentinian TC2000 win; New Zealand V8s

REGULARS

5 From the editor

6 Snapshot

17 Mark Hughes

98 Subscribe for a free gift

124 Final drive

Letters and Latest Gear

126 On track/on screen

The best action in the next week

129 From the archive

Pirelli’s last win, Canadian GP ’91

130 Race of my life

Martin Donnelly, Macau GP ’87

SPORTS EXTRA



115 SPEED attracts top names

Top drivers commit to sportscars

116 Ginetta for British GT

G55 enters British GT

123 National report

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POLE POSITION

Will all the mysteries be solved in Melbourne?



IN A LITTLE over a week's time we'll have some answers to the questions posed by pre-season testing.

Is Red Bull out in front once more or has Ferrari closed the gap? Has Mercedes really found the magic bullet that's unlocked the potential of its new car, and just how much is McLaren struggling in terms of pace and reliability?

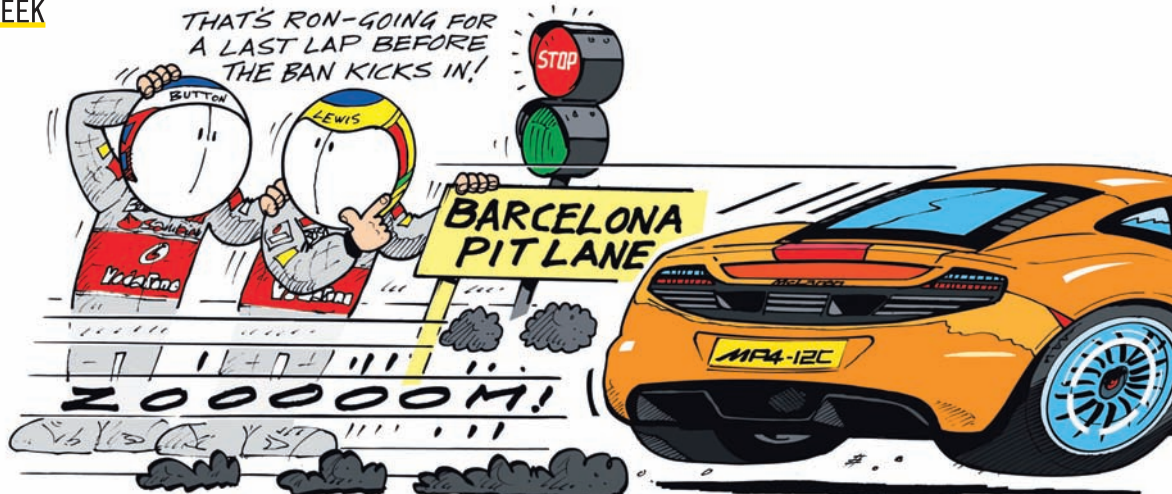
Perhaps most importantly, the Australian Grand Prix will give a definitive answer to the question of whether the new rules have indeed made overtaking easier.

The reasons why passing has become ever rarer in F1 are explained in this week's bumper season-preview issue. In theory, many of these issues are addressed by the introduction of a moveable rear wing and the return of KERS but, as many an F1 designer has learned down the years, the theory from the drawing board and what happens on track are not always the same thing...

Last season's fight for the F1 title was an enthralling one – here's hoping this year's is just as good and with the added spice of exciting racing on track, too.

Andrew van de Burgt, editor

BAMBER'S WEEK

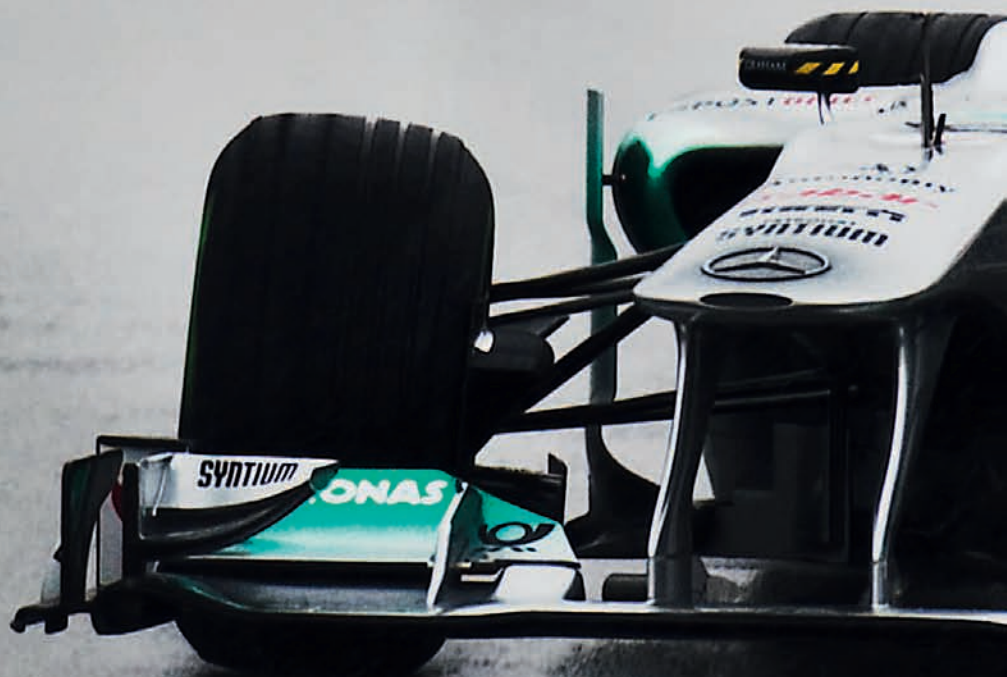


F1

Schuey's Silver Arrow back on target

Michael Schumacher headed to Barcelona for the final pre-season test to try the improved Mercedes MGP W02. The seven-time champ soon got down to business with some quick times. Looks like he enjoyed it, too! F1 season preview, p33

Picture: Dunbar/LAT



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Struggling McLaren in design overhaul

Team set to abandon system of alternating design crews. By MARK GLENDENNING

McLaren is overhauling its technical structure as it faces the prospect of another season of playing catch-up.

The Woking squad heads into the 2011 Formula 1 season on the back of a difficult pre-season testing programme. Lewis Hamilton and Jenson Button struggled to match the pace of the leading teams at last week's final test at Barcelona, although a more significant concern in the opening races will be reliability after both drivers suffered multiple problems.

McLaren has employed a system of split design teams in recent seasons, with two separate groups taking responsibility in alternate years. This formed part of a broader 'matrix' technical structure, where the traditional hierarchy, with a technical director at the top, was replaced by a more linear system. This included some key figures holding multiple responsibilities, and departments reporting to different supervisors depending upon the circumstances.

This began to change last season when Pat Fry, who led one of the alternating design teams and most recently oversaw the disappointing

MP4-24 in 2009, as well as doing the initial work on this year's MP4-26, left the team to join Ferrari. Then Tim Goss, who spearheaded the design of 2010's MP4-25, was moved into the role of engineering director for this season. Paddy Lowe, who previously held that role, was appointed technical director – the first person to hold that position at McLaren since Adrian Newey left for Red Bull at the start of 2006.

While nobody from McLaren was available for comment, AUTOSPORT understands that the restructuring process is still ongoing, and that the team will continue to revert towards a more conventional set-up in the future.

Last week's test appeared to confirm that McLaren will again struggle to match its main rivals in the opening races, but key technical figures from the pitlane were sceptical that the multi-layered chain of command was the sole cause of its predicament.

Team Lotus's Mike Gascoyne, who introduced twinned design teams while technical director at Renault in 2001, believes the problem lies elsewhere.

"I think [twin designers] gives you real strength in depth," he told AUTOSPORT. "The trick is communication. But I don't think that's a root cause [for McLaren's problems]. They've just not made enough progress.

"I think McLaren have to look at themselves and ask themselves if the way they are doing things is working. They have a very stable

system, but you have to ask yourself, is it delivering? It's clearly delivering to the top three, but it's consistently not delivering P1.

"It's very difficult to criticise, because they would argue that they're consistently one of the top teams, they're winning races every year, they've been close to winning world titles, they've won some, and that's it's working. They would argue that they have great strength in depth, and that they will deliver and fight back, and they clearly can react and deliver. It's hard to put a finger on where it's going wrong."

Mercedes motorsport boss Norbert Haug, who worked closely with McLaren before the German manufacturer took over Brawn GP, believes that accusations that the team has a history of early-season underperformance are unfair.

"If they have a history, they have a history of quick and competent recovery," said Haug. "They don't have a history of not performing. We were more on the back foot together [in 2009] than they are currently. They will be very good again in the near future."

McLaren has only won the constructors' championship once in the past 15 years. Its last success came on the back of Mika Hakkinen's successful title campaign in 1998, and since then it has finished second six times. Lewis Hamilton and Fernando Alonso scored enough points to secure the honours in 2007, but the team was excluded from the constructors' championship that season as part of the fallout from the spy scandal.



Newey, with team boss Whitmarsh, left in 2006



Button could face struggle

McLaren's form since it last won the constructors' crown in 1998



1998

Adrian Newey's first McLaren, the MP4/13, is dominant, allowing Mika Hakkinen to win the team's first drivers' championship since 1991. The constructors' title is sealed as well.

Top driver: 1st
Constructors' championship: 1st

1999

Hakkinen wins second drivers' title. Reliability issues and driver errors help Ferrari to claim constructors' prize.

Top driver: 1st
Constructors' championship: 2nd

2000

Solid season with seven victories, but the team still finishes runner-up to Michael Schumacher and Ferrari.

Top driver: 2nd
Constructors' championship: 2nd

2001

Lack of development, aero problems and a power deficiency leave McLaren struggling to keep ahead of Williams

Top driver: 2nd
Constructors' championship: 2nd



2002

Reliability problems are never resolved, and the team finishes the season a distant third.

Top driver: 5th
Constructors' championship: 3rd



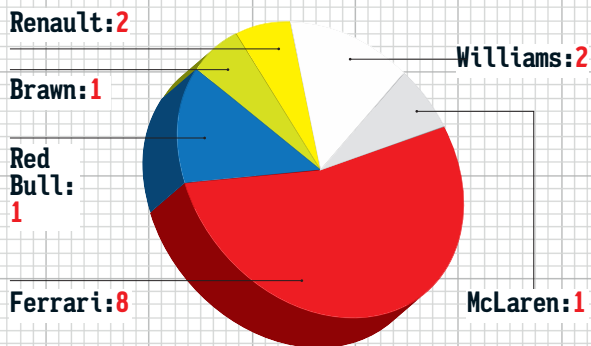
2003

Radical MP4-18 proves so troublesome that it never races.

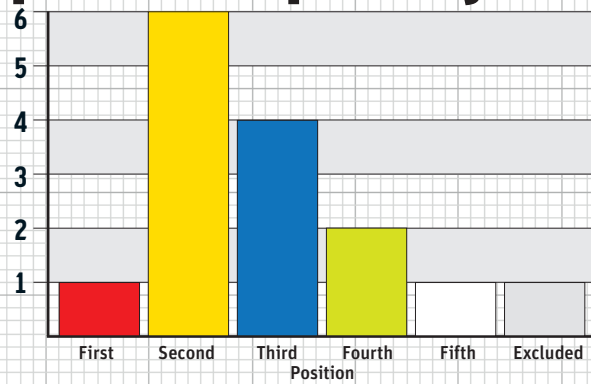
Top driver: 2nd
Constructors' championship: 3rd



Constructors' titles in past 15 years



McLaren's finishing positions in past 15 years



EXPERT VIEW

GARY ANDERSON
TECHNICAL CONSULTANT



People have speculated that the device that McLaren had mounted on its nose was to generate load, but it's far more likely that it was simply to measure the degree of flex in the wing and understand what happens when the wing flexes to particular degrees.

That Jenson Button set some relatively quick times with it fitted is not an enormous surprise – it won't have added to performance, but nor would it have been substantially detrimental.

2004

The MP4-19 is unreliable and slow, but Kimi Raikkonen wins at Spa with the B-spec car released mid-season.

Top driver: 7th
Constructors' championship: 5th



2005

MP4-20 is quick, but a combination of reliability problems, tactical miscalls and Montoya's 'tennis' injury prove costly.

Top driver: 2nd
Constructors' championship: 2nd



2006

A winless season, during which Montoya departs for NASCAR.

Top driver: 5th
Constructors' championship: 3rd

2007

Car is quick all season, but fall-out from spy scandal results in team being stripped of its constructors' points.

Top driver: 2nd
Constructors' championship: EX



2008

Hamilton takes five wins en route to drivers' title, but constructors' crown falls to Ferrari again.

Top driver: 1st
Constructors' championship: 2nd

2009

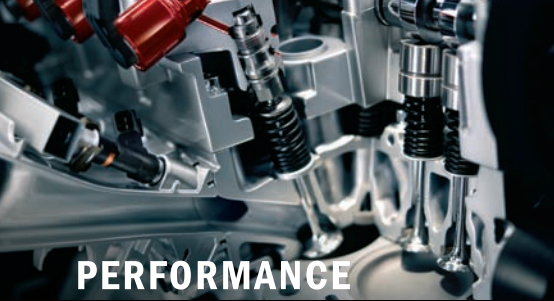
Car hopeless at start of season, but fortunes shift dramatically after Nurburgring upgrades.

Top driver: 5th
Constructors' championship: 3rd

2010

Mid-season spurt boosts MP4-25 into contention, but car is ultimately not quite at Red Bull/Ferrari level.

Top driver: 4th
Constructors' championship: 2nd



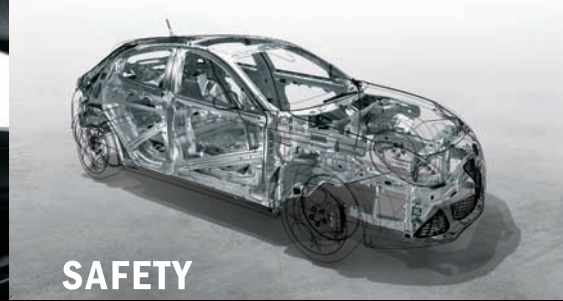
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Merc makes progress

Mercedes went into last week's Barcelona test armed with a raft of updates as it sought to close the gap to the frontrunners ahead of next week's first race in Australia. Michael Schumacher emerged with the fastest time

MGP W02 UPDATES EXPLAINED

1 Three different front wings were tried during the four days, including a double-flap extension on the double-decker flap.

2 The area behind the front wheel has been tidied up, with the removal of the angled fins beneath the car.

3 The turning vane has been modified and a new 'boomerang' section added.



4 The exhausts have been moved further forward, and now show some Renault influence in exiting from the sidepods. The bodywork has also been tweaked, and additional cooling vents added between the exhaust and the rear of the car.

5 The rear wing is completely new, and the location of the middle plates of the diffuser has been changed.

F1 TESTING: BARCELONA, MARCH 8-12							
POS	DRIVER	CAR	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	Michael Schumacher	Mercedes	-	-	1m22.892s	1m21.268s	-
2	Fernando Alonso	Ferrari	-	-	-	1m21.614s	-
3	Sergio Perez	Sauber	1m24.117s	-	1m21.761s	-	-
4	Nico Rosberg	Mercedes	-	1m25.807s	-	1m21.788s	1m43.814s
5	Sebastian Vettel	Red Bull	-	1m21.865s	-	1m22.933s	-
6	Nick Heidfeld	Renault	1m24.735s	-	1m23.541s	1m22.073s	-
7	Felipe Massa	Ferrari	-	1m23.324s	1m22.092s	-	-
8	Rubens Barrichello	Williams	-	-	1m22.637s	1m22.233s	-
9	Kamui Kobayashi	Sauber	-	1m24.436s	-	1m22.315s	-
10	Sebastien Buemi	Toro Rosso	1m26.004s	1m22.396s	-	-	-
11	Mark Webber	Red Bull	1m22.544s	-	1m22.466s	-	-
12	Vitaly Petrov	Renault	1m22.937s	1m22.670s	1m24.233s	-	-
13	Jaime Alguersuari	Toro Rosso	-	-	1m24.779s	1m22.675s	-
14	Lewis Hamilton	McLaren	-	1m22.888s	-	-	1m44.560s
15	Jenson Button	McLaren	1m22.910s	-	-	1m25.837s	-
16	Heikki Kovalainen	Lotus	-	-	1m23.990s	1m23.437s	-
17	Paul di Resta	Force India	1m25.039s	1m24.334s	-	1m23.653s	-
18	Adrian Sutil	Force India	-	-	1m24.334s	1m23.921s	-
19	Pastor Maldonado	Williams	-	1m26.989s	-	1m24.108s	1m44.333s
20	Davide Valsecchi	Lotus	1m25.406s	-	-	-	-
21	Nico Hulkenberg	Force India	1m26.030s	-	-	-	-
22	Jarno Trulli	Lotus	-	1m26.090s	1m34.485s	-	-
23	Luiz Razia	Lotus	1m26.723s	-	-	-	-
24	Jerome d'Ambrosio	Virgin	1m32.060s	1m28.982s	1m27.336s	1m27.375s	-



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**The official fuel consumption figures in mpg (l/100km) for the Mazda3 MPS:
Urban 21.4 (13.2), Extra Urban 37.7 (7.5), Combined 29.4 (9.6). CO₂ emissions (g/km) 224.**

Retail sales only. Subject to availability at participating MPS Specialist dealers only on vehicles registered between 4 January and 31 March 2011. Model shown: Mazda3 MPS. OTR price: £23,155. On the road price includes VAT, number plates, delivery, 12 months' road fund licence, 1st registration fee, 3 year or 60,000 mile warranty and 3 years' European Roadside Assistance. †Test drives subject to applicant status and availability. Details correct at time of going to print.



Vettel: drivers must unite over safety

Vettel warns of strike

Reigning world champion says that drivers will down tools rather than accept unnecessary risks as the debate about new regulations goes on

Reigning world champion Sebastian Vettel has hinted that Formula 1 drivers could strike in order to force through changes to rules they consider dangerous.

Drivers met with the FIA during last week's Barcelona test to discuss the new-for-2011 regulation changes, with specific concern over the possibility of accidents being caused by the moveable rear wing during the first part of the weekend.

Vettel said that he was optimistic that a solution would be found, but was adamant that the drivers would not be willing to accept rules that they considered unsafe.

"Most of the drivers agreed that it could be, in certain scenarios, a safety issue, and that's what still needs to be seen," Vettel told AUTOSPORT.

"But that's what we are discussing. If it is a really big issue then I think the most important thing is that we [drivers] are all together. If we agree on something then the drivers can be very powerful – at the end of the day we can say, OK, we are not racing.

"The cars are much safer today, but if there are new things coming that we are critical about, we talk about it. That doesn't necessarily mean that we would go on strike straight away, but with the FIA

we'll try to find a solution."

Use of the moveable wings is restricted during the race, but under the current regulations the drag-reducing device can be used freely during practice and qualifying. This has led to concerns that cars could become unstable in high-speed corners.

Drivers including Williams' Rubens Barrichello have also flagged up concerns over being distracted while trying to use KERS and the moveable wings on a flying lap.

"We not looking ahead all the time," Barrichello said. "I don't want to wait to run into another driver for something to be done."

Lotus: we've caught the midfield

LOTUS CHIEF technical officer Mike Gascoyne believes that his team has closed the gap from the rear of the grid to the midfield.

Although the T128 encountered a few reliability problems during last week's Barcelona test, the car demonstrated respectable pace. Gascoyne said that he was confident that the performance would carry through to the races.

"We're not going to be a backmarker five seconds off the pace like we were last year," he told AUTOSPORT. "That two-second gap to the midfield – I think we've closed it up.

If you look at some long runs, there's a couple of teams that we think we're on the same pace as."

Some of the problems that struck in Barcelona were linked to the Red Bull gearbox that the team is using for the first time this year, although Gascoyne said the problems would be addressed before Australia.

"The gearbox is very reliable, and Red Bull

have run it very reliably," he said. "We have different strategies, use different procedures, and it's just ironing out little niggles. From Melbourne onwards, I'm sure we'll be reliable."



Lotus is confident it can race in midfield

THIS WEEK IN F1



RED BULL Sebastian Vettel will remain at Red Bull until at least the end of 2014 after agreeing a contract extension with the team. Key figures including Adrian Newey are understood to have also had their deals extended.



McLAREN Lewis Hamilton will now be managed by Simon Fuller's XIX Management team. Hamilton ceased being managed by his father Anthony a year ago.



FERRARI Felipe Massa is confident that the upgrade package that the team took to Barcelona was a step forward. "It's better, with more downforce," he said. "It works well."



MERCEDES Mercedes motorsport boss Norbert Haug is confident that the team is in good shape for the Australian Grand Prix, but admitted that there is still a gap to make up. "We are going in the right direction, but Red Bull is ahead at the moment," he said.



RENAULT Robert Kubica underwent a fourth operation on his elbow late last week. Renault team doctor Ricardo Ceccarelli said that the Pole is "recovering very quickly" from the injuries he sustained in a rally crash.



WILLIAMS Williams has confirmed that it will run with KERS in Melbourne. The team ran without the system for much of the Barcelona test after its unit suffered an electrical problem, forcing an emergency cool-down procedure.



SAUBER Sergio Perez is optimistic that he can score points in his debut season. "I think a top 10 is achievable," he said.



TORO ROSSO Jaime Alguersuari believes that the opening races will be key to STR's season. "The development from some of the other teams will be bigger than us. In these first races we need to attack and stay in front," the Spaniard said.



LOTUS Davide Valsecchi, Luiz Razia and Ricardo Teixeira will form the team's reserve line-up this season. Valsecchi and Razia drive for Lotus's sister team AirAsia in GP2, while Teixeira drove the car for a filming day earlier this year.



HRT Tonio Liuzzi admits that he will need to adjust his expectations with HRT. "Points are not easy," he said. The Italian was confirmed as Narain Karthikeyan's team-mate last week.



VIRGIN Jerome d'Ambrosio said that Timo Glock's appendix operation had been a blessing in disguise. "I feel bad for Timo, but for me as a rookie to get four days testing before the first race is a huge help," the Belgian said.



FIA The regulations for safety-car periods and pitstops during them have been reviewed. Cars will now have to maintain a specified speed for two laps rather than one once a safety car is called, and they will not be allowed to enter the pits other than for a tyre change. The pit exit will remain open.

HRT F111

Second-season success search

HRT has finally introduced its 2011 challenger, but although it will not turn a wheel before first practice in Australia, its creators – technical director Geoff Willis and chief designer Paul White – have plenty of experience. Willis has been a major player at Williams and BAR, and

a later spell under Adrian Newey at Red Bull should mean he has the credentials to put together a competitive package. White is a former colleague of AUTOSPORT technical consultant GARY ANDERSON, who is impressed with the initial package the pair has created.

FRONT WING

● The front wing is a three-element component with relatively simple outer endplates that consist mainly of three vertical turning vanes. The forward upper two-element wing twists to the outer end, maximising the performance in front of the tyre. What I like about this package is that it has all the required parts but is not complicated.

NOSE

● The nose treatment is unique in that it has the outer side surfaces blending into the trailing edge of the forward camera mounts. This will help separate the 'V' section under-surface airflow from the upper-surface flow, allowing areas such as the bargeboards to better scavenge the flow coming off the trailing edge of the front wing.

OVERALL

● HRT had a good starting point last year but squandered it through lack of budget, which in turn stopped development. This year the team has two experienced drivers, and from what I see it has an even better baseline. Hopefully the team won't just go through the motions in F1, and will push to improve as the year unfolds.

Q&A

COLIN KOLLES
HISPANIA TEAM BOSS

How frantic have the past few weeks been?
We scheduled to have the car here for this date. We now have some more days and I think we will be better prepared than last year, because we should have more spare parts and everything in place.

What is carried over from last year?
Zero. Obviously you start certain work on

last year's car, but then you develop. The aero package, suspension, everything is different.

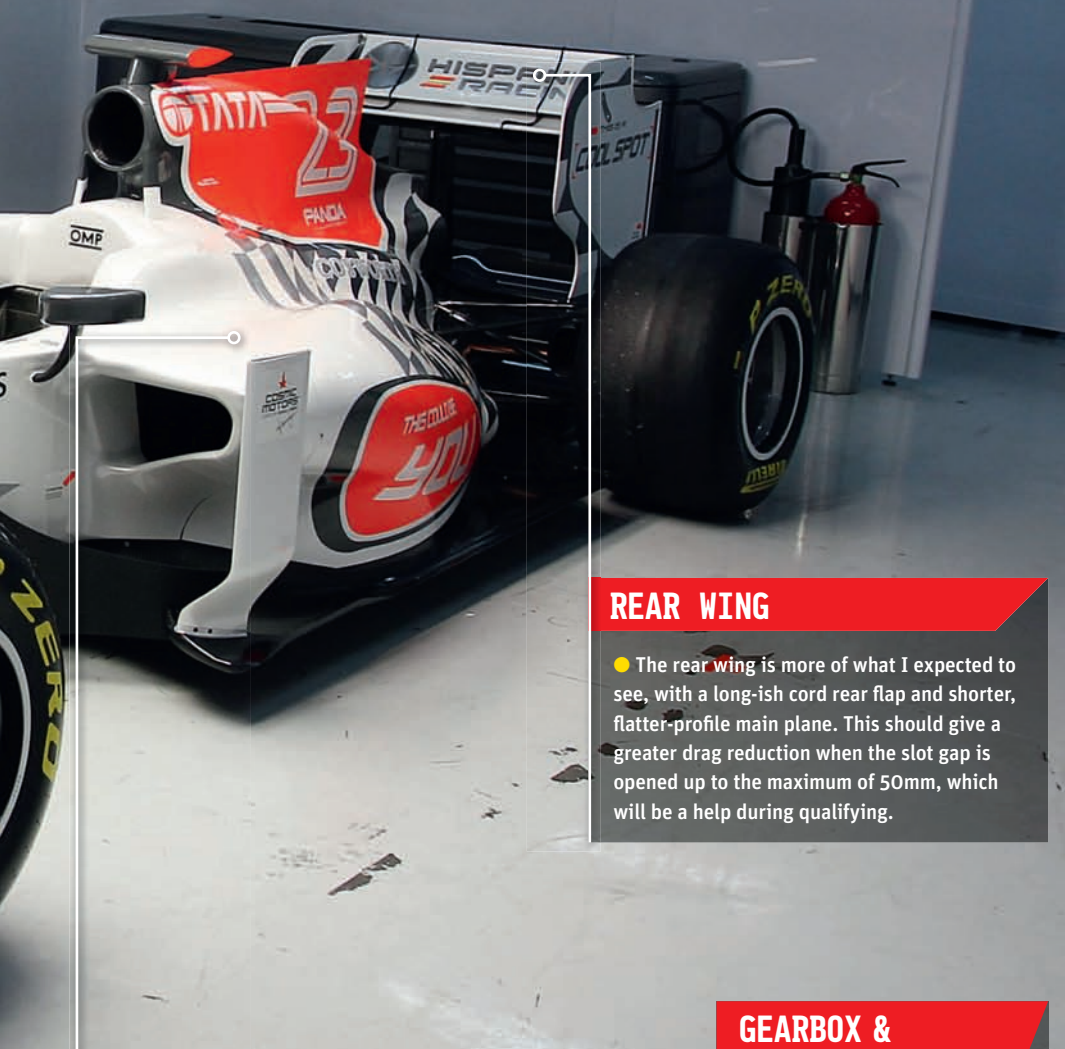
What sort of shape are you in compared with 12 months ago?
We are in better shape than last year. We are not near where we want to be, but we have made a step forward.

How big a step?
I think the car is

significantly quicker than last year's car. And the others, I think, have lost some downforce and haven't been able to recover everything yet. I think with the tyres everything will be a lottery. The racing will be different this year.

Does your budget allow for development?
Yes. My target is to have regular updates,

starting at Monaco. Whether we will achieve this is conditional on other things – on whether what is signed off is available. But this is the plan. We want to have updates, we have a plan to do it, and we have a proper budget for development. It is a small budget but we are not spending money on unnecessary things.



REAR WING

● The rear wing is more of what I expected to see, with a long-ish cord rear flap and shorter, flatter-profile main plane. This should give a greater drag reduction when the slot gap is opened up to the maximum of 50mm, which will be a help during qualifying.

SIDEPODS

● The sidepods have a neat and tidy leading-edge undercut allowing the coke bottle area inside the rear tyres to influence the airflow. The bulges on the top of the sidepods allow for the required radiator size, while maintaining decent airflow to the rear of the car.

GEARBOX & REAR SUSPENSION

● The gearbox, hydraulics and rear-suspension package is from last year's Williams, so it is a well-proven unit, and for a small team like HRT this is a very sensible direction to go in.

AUTOSPORT SAYS...

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By the time the HRT F111 was rolled out into the Barcelona pitlane last Friday afternoon to meet the world, Narain Karthikeyan had been hanging around the track for three-and-a-half days with nothing to do. He looked thoroughly fed up. And you can only guess how he must have felt when he rolled up on Saturday hoping to at least get a couple of installation laps in the car that he will race this year, only to discover that its dampers were still being held by customs.

HRT claims to have taken a significant step forward from last year, but if that's the case then the progress is less obvious to spot than it is when you walk into Lotus or Virgin. For the second year in succession the team will turn up at the opening race with a car that has not turned a wheel in pre-season. If that doesn't put a crack in the confidence, then the hopeful 'your logo here' stickers on every saleable area of bodywork will.

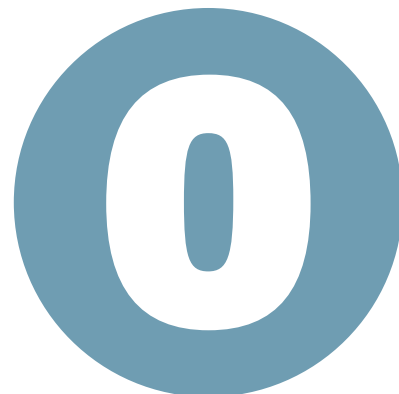
On the bright side? Karthikeyan and Vitantonio Liuzzi are capable pedallers with a lot of experience, even if Liuzzi is the only one with recent F1 mileage. Plus, the Geoff Willis-led design team knows what it's doing. But

both can only operate with the tools that they're given. Unless a backer comes along to fill the 'cool spot' on the endplates, or agrees that 'this could be you' on the sidepod, where's this going to go?



Any takers?

BIG NUMBER



Number of miles covered by HRT's 2011 car in pre-season testing. The same number it managed pre-2010



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18-19 June	Brno (CZ)	3-4 September	Valencia (E)





MPH Mark Hughes

AUTOSPORT grand prix editor

McLaren's innovation in Formula 1 continues, but the team's discoveries are not as well disguised as those of Red Bull

Amid the sensational late pace of Mercedes in the last gasp of winter testing, few were paying much attention to McLaren, other than noticing the team was still struggling to make sense of the MP4-26. Rewind a few weeks, when it was expected to be competitive and there was a lot of attention around quite where its trick exhaust layout exited, for all that could be seen were U-bends.

It is our understanding that all those spaghetti pipes meet together in a ceramic box under the rear of the gearbox, and in line with the diffuser's central spat. Furthermore, the pipes divide into smaller pipes, pointing in various directions in an effort at energising the maximum area of the underfloor for downforce creation. The sequentially smaller pipes are necessary in order to minimise power losses from the complex routing of the system. Maintaining the optimum range of pressure

waves to scavenge the burnt gases from the pipe is essential for maximising power. With a route so convoluted, the only way to do this is to strategically vary the diameter of the pipe along its winding length. The creation of the box and the myriad of small pipe exits has created the opportunity of spreading the routing of the gas around different parts of the floor.

We can be sure that the creation of this octopus/bagpipe layout has been a huge project for the engine guys to formulate and a massive challenge for the exhaust fabricators. So far it hasn't worked, in that the car still appears to be some way adrift of the frontrunners. But, just as it was with the Mercedes, it could be that it's just waiting for other key aero parts to unlock its potential. The suspicion at the moment is that the front wing is supplying the underbody with a rather different flow to that shown in simulation. Given that the complex exhaust routing is based upon the results of that simulation, it may not be the blown-exhaust system itself that is not functioning.

Unfortunately for McLaren, the absence of a visible exhaust outlet made it obvious that there was some sort of innovation being tried out there. Last year it was equally obvious from the cockpit duct and the architecture of where the engine cover joined the rear wing that something trick was afoot, and soon the 'f-duct' became an accepted part of F1 vocabulary (the term has even made it into the *Viz* profanisaurus, but I digress) and everyone copied it.

The best possible sort of

innovation would be entirely invisible, such as hidden away in the lay-up of the carbonfibres, for example. Just as the jungle drums have told us of McLaren's bagpipe exhausts, so some time ago they reverberated to stories that Red Bull had invested a lot of time and money into developing software that would calculate how to create varying elasticity in carbonfibre components, according to how much load was placed upon them.

This came back to mind mid-season last year, when the Red Bull RB6 could suddenly run with its nose visibly closer to the ground than any other car. This triggered a two-part rewrite of the rules for Spa and Monza, but it made little apparent difference to the car's ability to make like an ant eater through the fast corners. With every 1mm of ride height equating to 0.1s of lap time, the other teams were getting quite animated about it all.

Just as with the McLaren's exhaust trickery, the calculations involved in achieving this would be immense. But in Red Bull's case, it was amply rewarded. One of the notable observations from Barcelona was that the RB7 tracks through those fast corners with its nose almost eating into the ground – and with the 'tea-tray' leading edge of the floor still somehow still not digging a trench, almost as if there was some very trick elasticity in the carbon lay-up. You could be looking right into it – as Charlie Whiting did many times last year – and still not see it. ☒

 P66 McLAREN PROSPECTS



PIC: THOMPSON/GETTY

“The best possible innovation would be entirely invisible”

INDYCAR

BRITS IN INDYCAR TESTING ACTION

IndyCar's official pre-season group test at Barber Motorsports Park took place on Monday and Tuesday this week. Highlights included Mike Conway, badly injured in last year's Indy 500, running for Andretti Autosport (main pic), while GP3 graduate James Jakes drove for Dale Coyne Racing. Will Power set the pace on Monday.



Jakes was in action for Coyne



INDYCAR

Dario: bring back stars...

Reigning IndyCar champion upset that leading drivers are on sidelines

Reigning IndyCar champion Dario Franchitti has expressed dismay that other top-line drivers are struggling to land deals for the 2011 season.

The series' official pre-season test kicked off at Barber Motorsports Park on Monday without Paul Tracy, Dan Wheldon and Tony Kanaan, all

of whom have major US titles to their names. Three-time champion Franchitti described their plights as "a shit situation".

"I just get so angry with the situation for drivers the calibre of Tony, Dan and PT," said the 37-year-old. "How does that happen? It drives me mad.

"PT is a massive sell. He is Mr Excitement. We all know

what he brings on and off the track. Tony and Dan have been mainstays of this championship. They have huge fan followings and are bloody good drivers. They're on the sidelines looking for drives. It's nobody's fault but it is incredibly frustrating."

Franchitti said that the problems faced by top-line drivers looking for seats was a warning that IndyCar still has a long way to go in its recovery.

"We have had a lot more positive news than negative lately and that is great," he said. "It used to be all negative and no positive. But this is something we have to fix. I want to see those guys in cars and I'm sure I'm one of a lot of people who feel that way."

Tracy is still working on a deal for this year, but the 42-year-old Canadian recently revealed that he has not raised enough funding to pay for a full-season drive.

Franchitti wants to race Tracy, Wheldon



INDYCAR

...as Kanaan closes on KV



TK could join Sato and Viso

KV RACING IndyCar team-mates Takuma Sato and EJ Viso have welcomed the news that 2004 champion Tony Kanaan is set to join the squad in a third car.

Reports in the US last week suggested that the Brazilian was on the verge of signing for the Jimmy Vasser-owned team. While Kanaan did not drive at this week's test at Barber Motorsports Park, it is understood that the deal will still go ahead.

"His personality, driving style and commitment are so powerful," said Sato. "They are talking and I think it's a high possibility. We will love his input."

Venezuelan Viso added: "I'm excited and it's good for everybody. I'm sure it will bring a lot of positive things to the team. My only concern is if the team can do three cars properly."

INDYCAR

Team unity saves Firestone Indy deal

FIRESTONE HAS performed a U-turn on its decision to leave the IndyCar Series at the end of this season following desperate action from team bosses.

The tyre company had already announced its intention to conclude its latest stint in US single-seater racing, which dates back to 1995.

Initial talks with IndyCar bosses failed because Firestone was asking for a higher price if it was to continue as control-tyre supplier from 2012. Now team bosses have stepped in, offering to pay double their current rate to get Firestone to sign a new three-year deal.



Bosses will pay more for these from 2012

Teams were concerned about safety should any new tyre supplier be appointed for 2012 at short notice.

Reigning champion Dario Franchitti said: "To the drivers it was a no brainer. We all knew what we wanted. All the owners agreed on

something that is going to cost them more money, so it must be important. That is a big weight off a lot of people's minds."

IndyCar boss Randy Bernard had opened talks with several other tyre manufacturers when Firestone initially pulled

out. NASCAR supplier Goodyear was one of those approached, but it was not keen on expanding its profile.

Formula 1 control-tyre supplier Pirelli was open to the idea, describing it as "feasible", despite a lack of oval experience.

IN BRIEF



Motorsports last week, but he will continue to work on a project to promote Canadian drivers this year with a view to returning as a team boss next year.

CARLIN SETS F3 PACE

Carlin drivers Carlos Huertas and Jazeman Jaafar were quickest on each day of the second official British Formula 3 test of the season at Silverstone last week. Colombian Huertas edged team-mate Felipe Nasr by one hundredth of a second on Tuesday, as Carlin locked out the top five spots, before Jaafar led Nasr and rookie Jack Harvey in a team 1-2-3 on Wednesday.

McLAREN HITS THE TRACK

McLaren's new MP4-12C GT3 racer (below), developed in conjunction with CRS Racing, has begun its test programme ahead of its projected race debut in the Navarra round of the new Blancpain Endurance Series in May. The car has tested with Andrew Kirkaldy and Chris Goodwin at the MIRA and Idiada proving grounds and the Silverstone Stowe circuit.



DTM

Brand-new team to run DTM BMWs



BMW has revealed teams to tackle DTM

BMW HAS brought a brand-new team into its ranks for its DTM comeback.

Start-up operation Reinhold Motorsport was set up purely to land a deal with the German manufacturer for its return to the series in 2012. Founder Stefan Reinhold assembled the squad with experienced personnel from a variety of series.

"The crew comes from all forms of professional racing – GTs, WRC, DTM and Formula 1," said Reinhold. "All our team members are used to working at the highest level."

Reinhold is confident that his team can perform. "Everything in our team is new, but I don't see this as a disadvantage," he said. "We are keen to take on the established teams and be competitive as soon as possible."

Long-time BMW teams RBM and Schnitzer will also run two cars each.

AUTOSPORT SAYS...

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Normally it's hard to comprehend the scope of a natural disaster in a faraway land, but last week's earthquake and tsunami in Japan were immediately – and graphically – brought home by that horrifying news footage.

Japan's motorsport scene is vibrant and diverse, similar in scope to our own. Racetracks are spread across the country, along with a wealth of high-level racing teams and car-production plants. While the destruction and loss of life in the north-east is truly awful – it was great to hear our correspondents Jiro Takahashi and Len Clarke were unharmed. Japan is stoic and resourceful, and will recover from this terrible occurrence.

When the period of mourning is over, attention will turn to the country's economic state, on which its motorsport industry relies. By Tuesday, Japan's benchmark index had lost 16 per cent of its previous value. Hopefully this will be a blip – as the markets react to the geological disaster and concerns over the ongoing nuclear incident – and recuperate.

Getting back to a semblance of normality is key to this. And this is where the sport can play its part, in time.

To aid the relief effort in Japan, you can donate via the Red Cross on 08450 535353 or at www.redcross.org.uk.



ROLL OF HONOUR

BMW currently sits third on the all-time wins list in the DTM. It will still hold that position when it returns to the series in 2012, but it will lose further ground to Mercedes and Audi this year:

Mercedes (162) • Audi (54) • BMW (49) • Alfa Romeo (41) • Ford (30) • Opel (20) • Rover (6) • Volvo (5) • Chevrolet (1)



Schneider took 43 Merc wins



JAPAN

Doubts for Japanese racing

Earthquake, tsunami and nuclear disasters mean tests cancelled for flagship series. GT opener still on

The start of Japan's racing season is in doubt following last week's devastating earthquake and tsunami that ravaged the north-east of the country's main Honshu island.

No motorsport personnel have so far been reported among the casualties, but a 43-year-old employee at Honda's R&D centre in Tochigi was killed when a wall collapsed on him in the facility's

dining room during the quake.

Such was the intensity of Friday's earthquake – which registered a moment magnitude of 8.9 – that it caused a red flag during a Formula Nippon test session at Suzuka, which is 185 miles west of capital city Tokyo and about 450 miles from the epicentre. The test resumed 15 minutes after the quake had ceased, following safety checks at the

Japanese GP venue. A second day of testing planned for Saturday – Suzuka's 'Fan Appreciation Day' – was cancelled as soon as the scale of the tragedy became apparent.

Former Super GT and Formula Nippon champion Richard Lyons, who is not racing in Japan this year but was in Tokyo when the earthquake struck, said: "I remember losing my brakes at the end of Fuji's main straight at 200mph and thought that was bad, but at least that was over in a few seconds. This seemed to last forever. I was on the 25th floor, with the building virtually swaying past other buildings. It certainly got my pulse racing, never mind the Olympic dash down the emergency stairwell!"

"I think all us drivers are safe, but we're worried for the people further north of Tokyo. It's been a very scary time."

Sugo and Sendai Hi-land Raceway (which is no longer used for top-level Japanese events) are both located in the Miyagi Prefecture, near to the area devastated by the tsunami. Sugo's owner, Yamaha, reported on Monday that there were access roads "with some

depressions" on site, but no damage to the circuit or buildings.

Motegi, which has a MotoGP race in April, has closed until the end of the month, due to the damaged infrastructure surrounding it.

Drifting venue Ebisu Circuit was damaged in the quake, with some of the facility's garages falling down a hillside. That is situated about 30 miles from the Fukushima Daiichi nuclear plant, which has suffered serious consequences from the quake, adding further uncertainty.

Super GT testing at Okayama this weekend (March 19/20) has been cancelled, as has the next scheduled Formula Nippon test at Fuji on March 28/29. As we closed for press, Super GT was still planning to run its opening round at Okayama on April 2/3, which is in the south-west of Honshu, near Hiroshima, and well away from the affected area.

IndyCar racer Takuma Sato was due to run a 'Pray for Japan' slogan on his car and helmet in testing at Barber Motorsports Park on Tuesday. "My heart at the moment is in Japan," said the former grand prix driver. "I'm thinking of them. It's very hard to watch and listen to."



IndyCar racer Sato 'praying for Japan'

SPORTSCARS

Brabham takes World GT over ALMS

NEW NISSAN FIA GT1 World Championship recruit David Brabham will contest only selected races with the Highcroft prototype team should it succeed in putting together a defence of its American Le Mans Series crown.

Brabham is racing the Highcroft squad's reworked HPD ARX-01e at this weekend's Sebring 12 Hours, but has ruled himself out of doing a full season in the car. He said that he hoped the team's programme "allows me to do the Le Mans 24 Hours and Petit Le Mans at the end of the season."

"Right now I don't have a deal with the team for Le Mans, but I am on the entry list," said the 45-year-old. "We'll have to see after Sebring."

"There's only one clash between the [GT1] world championship and the ALMS, but flipping between the two would be the wrong thing to do. I want to focus on the stuff I have right now."

Brabham got a brief taste of the Nissan GT-R at Zolder last week, when he shared one of two cars with all eight drivers who will race for Sumo Power and sister team



Nissan ran Zolder test

JR Motorsport in 2011. He will get fully acquainted with the car at the official pre-season test on the Wednesday before the Abu Dhabi opener on March 26.

Brabham's partner in the Nissan will be Jamie Campbell-Walter. The 38-year-old Briton, a former FIA GT champion, raced for the team in 2010, but was not among

the first wave of drivers announced by Sumo and JR last month.

"I was always told by James [Rumsey, Sumo team owner] that I was OK for this year," said Campbell-Walter. "I didn't know who my team-mate was going to be, but then he rang me and said, 'What about Brabs?' It was fantastic news."

IN BRIEF



REBELLION SETS THE PACE

The Anglo-Swiss Rebellion team topped the times in last week's official Le Mans Series test at Paul Ricard with one of its Toyota-engined Lola coupes (above). Jean-Christophe Boullion's best lap of 1m46.573s was 0.02s faster than Olivier Pla in the ASM team's Zytec O9SC.

LAMY STEPS IN FOR SEBRING

Pedro Lamy has been drafted into Peugeot's line-up for this weekend's Sebring 12 Hours in place of Nicolas Minassian in the wake of the Frenchman's accident in testing at Paul Ricard last month. Minassian will now take Lamy's place at Petit Le Mans in October.

HEZEMANS BACK TO WORLD GT1

Sportscar stalwart Mike Hezemans is returning to the FIA GT1 World Championship for the first two races. The Dutchman, a winner of 14 FIA GT races, will share the Selleslagh Racing Team's solo Chevy in Abu Dhabi with Renault Megane Eurocup champion Nick Catsburg.

WALKER LANDS FERRARI SEAT

Ex-Formula Renault 3.5 race winner James Walker is swapping to sportscars with the JMW Motorsport Le Mans Series squad. The 27-year-old, who last year raced in Superleague, will share JMW's Ferrari 458 in the GT Endurance Pro class with Rob Bell.

SUPERLEAGUE CALENDAR OUT

Superleague Formula firmed up its calendar following last week's exclusive story in AUTOSPORT revealing its Russian date at the Smolensk Ring on September 11. Rounds in China, a double-header in Brazil (one at Curitiba), plus events in the Middle East and New Zealand take the season right through to November 27.

RICCIARDO LEADS THE WAY

Daniel Ricciardo topped last week's opening Formula Renault 3.5 test at Motorland Aragon. The ISR racer (below) edged Fortec's Alexander Rossi by 0.164s.



LE MANS

First run for new Aston

THE NEW Aston Martin AMR-One Le Mans 24 Hours challenger ran for the first time last weekend, when Darren Turner completed approximately 40 miles at Prodrive's Warwick proving ground.

Aston Martin Racing principal George Howard-Chappell said: "Everything ran as it should; we came away very happy." Turner added: "It was a normal shakedown, but now we're all excited about getting out there and having a proper run."

The next test was expected to take place this week in the UK.

Asked how much testing the first AMR-One can undergo before its scheduled race debut at the Le Mans Series opener at Paul Ricard on April 3, Howard-Chappell said: "As much as humanly possible."

SPA 24 HOURS

Manufacturers rush to GT3 Spa 24 Hours

EIGHT MANUFACTURERS are expected to be represented by factory-backed teams at the Spa 24 Hours in July.

The Belgian enduro, the blue-riband round of the new Blancpain Endurance Series, will boast GT3 machinery from 11 manufacturers, according to championship boss Stephane Ratel. He said that of this number "eight will have some kind of factory support".

Audi, Mercedes, Ferrari, Porsche, Aston Martin and BMW are all likely to put their weight behind customer teams in the July 30/31 event.

McLaren and Nissan are also expected on the grid with factory teams developing their new GT3 challengers, the MP4-12C and Skyline GT-R, for customers in 2012.

Ratel described the success of the Endurance Series, which has attracted 47 full-season entries, as "mindblowing". He put it down to a number of factors.

"We have a good calendar, with four of the five races at Formula 1 tracks; a three-hour format that allows teams to spread the cost; and a category in GT3 that is already very successful," he said.

HPD BACK IN THE BIG CLASS

The new HPD LMP1 contender, based on the previous LMP2 design, was given its first run at Sebring last weekend in the hands of David Brabham and Marino Franchitti.



PICS: LAT, WILLEM STAAT

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BrandsHatch





KEEP IN FOCUS

Tom Chilton gave Arena's new Ford Focus ST British Touring Car contender its maiden test outing at Brands Hatch last week. Phil Glew, who remains a contender for a third seat alongside Chilton and Andy Neate, drove the team's 2010 car.

BTCC

Plato wary of O'Neill's Cruze

Reigning British Touring Car champion Jason Plato believes that fan favourite Paul O'Neill can challenge for the title this year following the completion of Tech-Speed's deal to run a pair of ex-works Chevrolet Cruzes.

O'Neill, who took three podium finishes last year in a six-year-old Honda Integra-R, tested a Cruze for the first time at Brands Hatch last week alongside his Tech-Speed team-mate John George. O'Neill, 31, had another run-out at Snetterton this week.

"Of course he can be a title contender," Plato told AUTOSPORT. "He's a good driver and I know all about how good the Cruze is. He's taking it as I left it at Brands Hatch last year, and I think he'll have access to my set-up sheets from last year as well."

"In the past he's had the excuse that the

machinery wasn't up to it if he didn't win, but there'll be no excuses any more."

O'Neill reported the Cruze to be "amazing" following the Brands test, and said that a first BTCC win since 2003, when he was driving a works Vauxhall, is the aim for the season ahead.

"The car feels so much more fluid than the Integra," he said. "That car was always a bit more snappy, but we ran really old tyres on the car at Brands and just kept getting quicker, so that gave me a massive amount of confidence."

"I'd be massively disappointed not to win a race. In fact, if I don't I may have to think about standing down from racing in the BTCC and giving someone else a go."

● Chevrolet confirmed this week that 43-year-old Plato will defend his title with the RML-run works squad and will again be

joined by Alex MacDowall in the team. Both drivers had their first runs in 2010-spec Cruzes at Brands Hatch last week, with Plato reporting a "much improved corner entry worth around 0.3 seconds per lap" over his old machine.

O'Neill has already tried his new Cruze



BTCC

Two for Motorbase

MOTORBASE PERFORMANCE has abandoned its plans to race a third car in the British Touring Car Championship for race winner Tom Onslow-Cole.

The team, which is switching from BMW to Ford machinery this year, was set to run Onslow-Cole alongside Mat Jackson and Liam Griffin, but only took delivery of its third car from Arena Motorsport last week and has run out of time to prepare it for the first race.

Onslow-Cole tested a Special Tuning Racing SEAT at Silverstone last week alongside Tom Boardman, Mark Hazell and Martin Depper and said the team represented "an option for the season".

AUTOSPORT understands that Onslow-Cole could now make a surprise return to Arena, with which he won four times last season, to drive one of its new Focus STs.

IN BRIEF



WITTMANN STAYS IN F3

F3 Euro Series runner-up Marco Wittmann (above) will remain in the series with champion team Signature. The German was only ninth quickest in testing at Valencia on Monday, with team-mate Laurens Vanthoor fastest.

NEW TEAM FOR EURO SERIES

New team Star Racing will field Polish Formula Renault/GT ace Kuba Giermaziak in the F3 Euro Series in a Dallara-VW this year. Meanwhile, Motopark has completed its line-up with Swede Jimmy Eriksson and Japanese F3 racer Kimiya Sato.

EXTRA EURO RACE FOR WTCC

The replacement for the cancelled Marrakech round of the World Touring Car Championship, set for June 5, will be rescheduled in Europe, according to series boss Marcello Lotti.

CLIO STAR GETS BTCC BMW

Renault Clio Cup champion Dave Newsham will graduate to the British Touring Car Championship with returning team Geoff Steel Racing in a BMW 320si. Newsham had initially hoped to drive a Speedworks Toyota.

BORTOLOTTI BACK TO F2

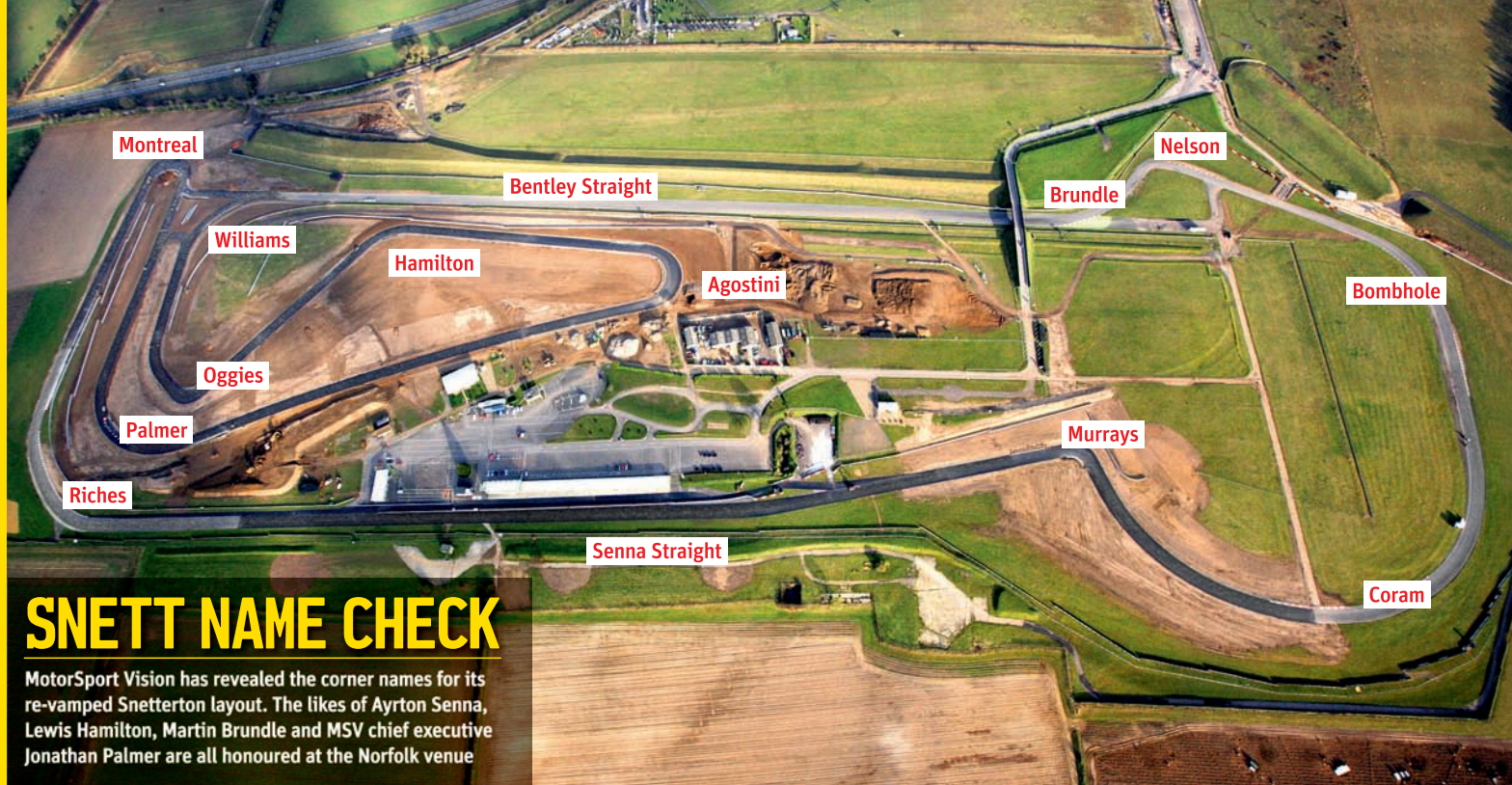
GP3 racers Mirko Bortolotti and Miki Monras will race in F2 this year, with tail-enders Plamen Kralev and Parthiva Sureshwaren also confirming their entries in the series last week. Bortolotti was fourth in F2 in 2009.

g

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SNETT NAME CHECK

MotorSport Vision has revealed the corner names for its re-vamped Snetterton layout. The likes of Ayrton Senna, Lewis Hamilton, Martin Brundle and MSV chief executive Jonathan Palmer are all honoured at the Norfolk venue

BRITISH F3

Fortec struggles in testing

Frontrunning British Formula 3 team Fortec Motorsport is fighting to drastically improve the pace of its cars after enduring a tough start to official pre-season testing.

Richard Dutton's squad won three races and fought for the title with Oli Webb last season, before he finished third in the championship, but it has struggled to get within a second of pacesetter Carlin Motorsport in the first two official tests this year.

AUTOSPORT understands the team has a fundamental issue with all three of its Dallara-Mercedes cars, but has so far been unable to source the problem.

"Every time it's wet or damp we're quickest, so that's telling a story," said Dutton. "We're not panicking yet, but we're very concerned."

"We know we've got a problem but we're really

working on a solution and we're going to sort it."

Second-year drivers Lucas Foresti and Will Buller have both set competitive times in wet conditions, but have tumbled down the order during dry running.

Formula Renault graduate Harry Tincknell was the best of the Fortec runners after the first two-day test at Rockingham on March 1-2. His best lap put him ninth fastest and 0.921s adrift of Carlin's Felipe Nasr.

When the category moved to Silverstone for two days of testing on the Grand Prix circuit last week, Foresti was quickest of Fortec's drivers on both days but couldn't make the top 10 and was roughly a second off the pace each time.

The Volkswagen-powered cars of Carlin and Hitech have had an edge during the first two tests. But the fact Fortec's fellow Mercedes-

Fortec has struggled in the dry in testing



powered team Double R was able to get within four tenths of the pace at Silverstone with rookies Pipo Derani and Scott Pye suggests a solution to Fortec's woes is unlikely to come solely from the engine department.

GRAND PRIX PREDICTOR

Herbert launches Castrol predictor

THE CASTROL EDGE Rankings has teamed up with three-time grand prix winner Johnny Herbert to launch an innovative new Formula 1 fantasy contest, the Castrol EDGE Grand Prix Predictor.

The Predictor uses the wealth of data

that powers both AUTOSPORT.com and the Castrol EDGE Rankings to predict the results of each grand prix and to give players a chance to win amazing prizes.

An expert panel, featuring Herbert, Darren Turner, Andy Priaulx and a host

of other top motorsport names, will make their predictions during the season.

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THIS WEEK...

Flashback

October 11 1992

SCHNITZER AND THE DTM

BMW confirmed last week that legendary squad Schnitzer Motorsport will form part of its DTM line-up when it returns to the series in 2012. Schnitzer ran BMWs during the marque's last DTM effort, and bowed out in style in 1992 with a Roberto Ravaglia double at Hockenheim.



TOP FIVE

McLarens to forget



1 MP4/10 (1995)
First Mercedes-powered effort was slow... and Nigel Mansell didn't fit in it.

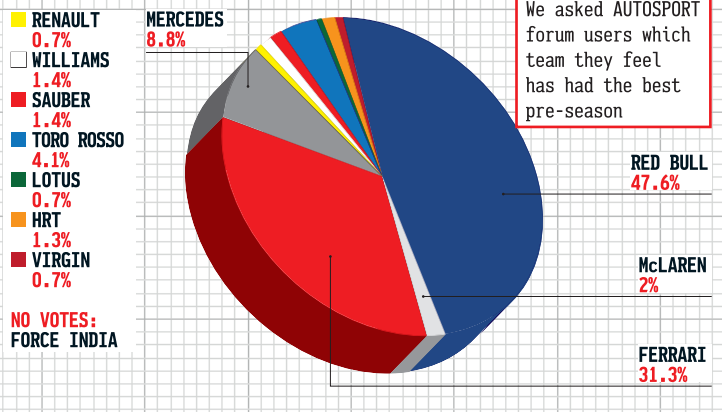
2 M28 (1979)
Lucky podium was as good as it got in 1979, leading to a mid-season replacement...

3 M29 (1979/80)
...which wasn't a lot better, but continued into 1980.

4 MP4-19 (2004)
Lack of pace and poor reliability prompted mid-season introduction of B-spec car.

5 MP4-24 (2009)
Hopeless to begin with, but KERS machine eventually took two wins late in the year.

Weekly poll: winter winners



...NEXT WEEK



SEBRING 12 HOURS

An epic season of international sportscar racing starts with the Le Mans 'warm-up' in Florida

Australian Grand Prix preview

Countdown to Melbourne and a belated start to the F1 season



PLUS

Tonio Liuzzi's last chance; World Touring Cars get underway in Brazil; IndyCar season preview

top tweets



@IamLewis4real
Hey guys, I'm sorry I've not been on here for time, my bad. Just been busy but wanted to hit u all up and say hi.



@GaryPaffett
Still feeling gutted about the Arsenal result last night. Terrible decision from the ref to send off Van Persie, at 1-1 we had a chance.



@H_Kovalainen
6.30am hotel calls me in Barcelona, anti doping control coming to visit, nice way to wake up...



@TonyKanaan
I haven't shave in a week I have to say I look scary.



@mw55 (Michael Waltrip)
Its fat tuesday. And I ate too much again.



@JustinWilson22
Sat in the car at Sebring. Rental car that is! It's pi**ing it down. Feel sorry for Conquest boys, they didn't put there tent up.

ON SALE MAR 24



HISTORIC

BRACK CHASES MIDNIGHT SUN

Former Indy 500 winner Kenny Brack will tackle this year's Midnight Sun Rally in his homeland of Sweden. Brack will drive this Historic Motorsport-prepared Ford Escort on the July event.

WRC

Michelin to combat punctures

French firm will introduce a tougher gravel tyre following a spate of punctures that hampered crews in Mexico

Michelin is rushing through a new specification of gravel tyre in the wake of the Rally Mexico punctures that befell front-running drivers.

The French tyre firm has already produced the tougher construction of its Latitude tyre that's expected to be used in competition for the first time on Rally Jordan next month. Citroen drivers suffered punctures on the opening WRC round in Sweden, but it was Ford men Jari-Matti Latvala and Mads Ostberg who had their hopes of a round-two win dashed by tyre failures in Leon.

Michelin is under pressure from both manufacturers to provide stronger tyres, especially after three years of bullet-proof performance from Pirelli. Citroen team principal Olivier Quesnel said: "We don't want the championship to become a lottery with punctures and we are worried this could happen."

Michelin's motorsport director

Nick Shorrock has pointed out that his company produced tyres for open competition rather than a control-tyre scenario which meant emphasising performance. Shorrock said no decision on the date to run the new tyre had been made.

Tyre companies Michelin and DMACK each have the chance to introduce one new construction this season – but that new tyre will replace its predecessor.

A source said: "Mexico was not a rough rally, let's make no mistake. Parts of Jordan can be rougher than this – and it could be hotter. The [Michelin] tyres are quicker than the Pirellis last year, but you can't compare last season with this; Pirelli was in a different [control] scenario – but the robustness of their tyres made punctures a thing of the past for three years. Suddenly they're back and about to start deciding rallies. It's no wonder Michelin is working on this quickly."



Latvala inspects flat Michelin in Mexico

Ford and Citroen are expected to test the new, tougher tyres this week – but Michelin doesn't have time to make them available for next week's Rally of Portugal. It is expected that the tyres will make their debut on round four in Jordan next month.

The source continued: "It's a shame Michelin has had to make this change. It's early in the year to

be using the joker and the current tyre would have worked really well in places like Finland, but now the drivers will go with the new, heavier tyre which is less likely to puncture – but less likely to be as quick."

A spokesman from Michelin said: "Our development of the WRC tyres is ongoing – we have made no decisions about when a new tyre will be available."



Delecour will sample a Tuthill-prepared 911

HISTORIC

Bulldog Porsche gig for Delecour

FORMER FACTORY WRC driver Francois Delecour will realise a dream when he competes on next month's Bulldog Rally

in a Tuthill-prepared Porsche 911.

Delecour will drive the guest 911 on the opening round of the Tuthill Porsche Challenge – but the Frenchman is already hoping he can build his one-off outing into a deal to retain the Porsche seat for this November's Safari Classic Rally.

"To drive a car like this 911 is a dream

for me," said Delecour. "When I was young I went to watch them. I never thought I would drive one on a rally. I would love to drive the Safari with Tuthills – they have a great reputation."

Delecour will test the car prior to starting the Welshpool-based British Historic opener on April 2.



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Race 4 (30min) Individual driver
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Race 6 (1 hour) 2 driver team
Race 7 (1 hour) 2 driver team
Race 8 (2.5hr endurance) all team drivers
Race 9 (2.5hr endurance) all team drivers



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Formula 1 season preview

2011



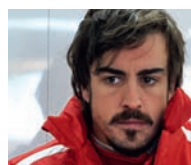
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“We’re on a good track. The winter has been less troublesome for us”
Sebastian Vettel



“We are racing very close with Red Bull and other teams, so it is up to us”
Fernando Alonso

2011

Why this season will be a classic...

I magine going on stage to sing after Madonna. How would you live up to that level of performance, let alone better it? Well, that's exactly what F1 must do in 2011. And it can. Last year produced one of the most spectacular title fights in the six-decade history of the world championship and all of the ingredients are there to top that.

The biggest 'can do better' on last year's F1 report card was the lack of overtaking and strategic predictability. We welcome two things that should smash the biggest obstructions to on-track action this year: Pirelli tyres and the much-vaunted adjustable rear wing.

Pirelli has been given a very simple set of objectives and meeting them has gone against the grain of any tyre company. It has deliberately upped the degradation and wear rate of its rubber to encourage multi-stop races. Not only does this increase the strategic variables, but it also increases the emphasis on drivers to manage rubber - great news for the likes of Jenson Button.

The wing (examined in depth on p48) will give chasing drivers a significant

“Two things should smash the obstructions to the on-track action: Pirelli tyres and adjustable rear wings”

advantage on the straight and will guarantee an increase in passing. And that can only be good news for the fans, especially with the FIA and teams committed to fine-tuning the system to maximise its effectiveness without rendering overtaking too cheap.

Driver-wise, the intrigue of last year's game of top-team musical chairs is not repeated, but that means that - save for Renault, which has lost Robert Kubica thanks to his rally crash - each has a line-up that knows the team inside out. Ferrari has rebuilt around Fernando Alonso, Red Bull still has the wunderkind Sebastian Vettel backed up by Mark Webber, and Button now has a year of experience chez McLaren to help him take on his team-mate Lewis Hamilton.

Only once first qualifying starts in Melbourne can the blue touch paper be lit and a classic season explode into life.





“There is pace in the car - it's just been masked by reliability issues”

Jenson Button



“We are looking forward to going to Australia to be in a reasonably strong position. Our package works well”

Michael Schumacher



Webber must shake-off numer-two tag



Heidfeld will sub for injured Kubica



The jury's out over adjustable wings



Alonso bids for his first Ferrari title



Button may star on marginal Pirellis



Merc and Schuey pin hopes on upgrades



Vettel could be youngest double world title winner



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Straight talk David Coulthard

13-time GP winner and 2001 world title runner-up

DC analyses the big three in the title race, the impact of Pirelli tyres, the return of KERS and the moveable rear wings, plus Mercedes' plight as Michael Schumacher embarks on year two of his comeback

This year's biggest talking point will be tyres. The new Pirelli rubber gives us what everybody wanted: the element of unpredictability. I've been in races where it's rained unexpectedly or the track has fallen apart, and whether it's from the rubber or the asphalt, when it's more difficult to judge available grip levels, exciting things will happen.

Some drivers have made complaints about the tyres, but I see it as part of the journey of life. If you swapped their smart phones, with all the apps, for that original Motorola brick of a mobile, they'd still be able to communicate, but missing all the tricks of the trade, imagine their moaning! "How can I possibly function?" They will, and the cream of the crop will still rise to the top – but they will be challenged more.

There will be a greater speed differential between cars on new and old tyres. Couple that with the return of KERS and the moveable rear wing, there will be a lot more mirror-watching this year. But at least with KERS you'll be able to press your own button if you're under attack; with the wing being FIA dictated, you're rendered defenceless as the leading

car – unless you're prepared to weave-like-a-Schuey-in-Budapest!

But remember what happened between Mark Webber and Heikki Kovalainen at Valencia last year? Big speed differential concerns me.

THE BIG THREE

Is there any reason to stop Sebastian Vettel and Red Bull Racing from being crowned back-to-back champions? The new car has performed well out of the box, Seb has performed well as a world champion. He's been very busy, but he's prepared for the season ahead. I still see him as a grounded, full-of-energy young guy who can defend his title and will build on his short, but impressive, grand prix career.

What Mark Webber needs to do is find that half a tenth in qualifying. It's the difference between being on pole or being second. Might track position be less important this year? Maybe. But that qualifying pace is the only factor that stood between them last year.

Ferrari has been around since the formation of the world championship, and last year's near-miss was nothing new: the Scuderia has experienced the highest highs and lowest lows. It's got the broadest of shoulders, it has strength in depth. Love it or hate it, Ferrari is an essential part of the fabric of F1, and – with Fernando Alonso leading the line – it is Red Bull's biggest rival.

McLaren has got such great strength and resources to design

and engineer its way out of issues. There is no question it has had one of the biggest rates of development in the past couple of seasons, but the fact remains there's been no constructors' title since my days there in 1998, which is confusing. Sure, Lewis won the drivers' crown a couple of years ago, but it appears that something just hasn't been working properly or been "optimised" as the McLaren machine would probably say.

McLaren is a team that craves success so it's time for it to be smoking the cigar rather than just being oh-so-close to it!

MERCEDES PLAYING CATCH-UP

So much has been built towards year two at Mercedes, to suit Michael Schumacher's driving style, and take more comfort in restructuring from the downsizing of the team in 2009. As it's evolved from Honda to Brawn to Mercedes, it's difficult to understand why it has suffered any more than any other big, manufacturer team over the past couple of years, but it does seem to have felt more pain.

A lot depends on its performance this year – it's especially important that Michael mixes it with Nico Rosberg – and you have to remember this is a team that knows how to win a world title. We shouldn't doubt it has the ability to develop its way back into the title fight, but it does appear to be starting some way short of that.

For Mercedes, as with all the other teams and all of us watching, exciting times lie ahead. ❧



Big year for Webber and Schuey, says DC

FERRARO/LAT

“We could see some weaving like Schumacher in Budapest”

Will F1's new rules suit Lewis?

Moveable rear wings and sliding Pirellis could suit Lewis Hamilton. Then again, they may not... **TONY DODGINS** explains

Everyone is used to the Formula 1 pre-season focus being on car performance in testing. How quick? How much fuel? How strong is the long-run pace? There are clues, and inevitably those questions will be answered soon enough. Not so obvious is whether or not the nuances of new rules play particularly to the strengths of specific drivers.

Initially, the fear was that the combination of KERS and the moveable rear wing could make overtaking too easy. You'd have gratuitous overtaking, like a CART or NASCAR race of old where they would draft past each other ad infinitum without the moves being of any great significance. That, some said, would be worse than no overtaking at all, or at least watching in the certain knowledge that

any move successfully accomplished by drivers of equally performing cars had been hard earned.

The reality seems somewhat different. Williams technical director Sam Michael reckons that, as things stand, we could all be underwhelmed by the impact of the moveable rear wing in the season-opening Australian Grand Prix.

"At Melbourne it's going to be used on the pit straight," he explains. "I proposed [within the technical working group] having it between Turn 2/3 as well, and even on the back straight coming to the high-speed chicane. With Bahrain cancelled and a bit more time things may change, but it looks like it's just going to be pit straight only at the moment.

"I think the effect is going to be tiny, if anything. After one or two races the FIA can change it, but I think to have any sort

of effect the wing is going to have to be fully enabled down the entire straight and probably three straights around the lap."

The wing was barely registering on his radar in comparison to the imminent impact of managing tyre degradation.

"I think tyres are going to dominate everything," says Michael. "If you have degradation like we've seen in tests, you won't need any rear wing; you'll be able to drive around the outside of people."

What Michael describes sounds like it could be what F1 wants. If the wing does enable those marginal overtaking moves, it will be the good-but-not-extreme step we want towards achieving viable passing between evenly-matched cars. If that's the case, it will place a premium on being able to attempt those marginal moves and make them stick. Which makes you think of Lewis Hamilton. ▶



Can Hamilton perform right from the start?

PICS: THOMPSON/GETTY



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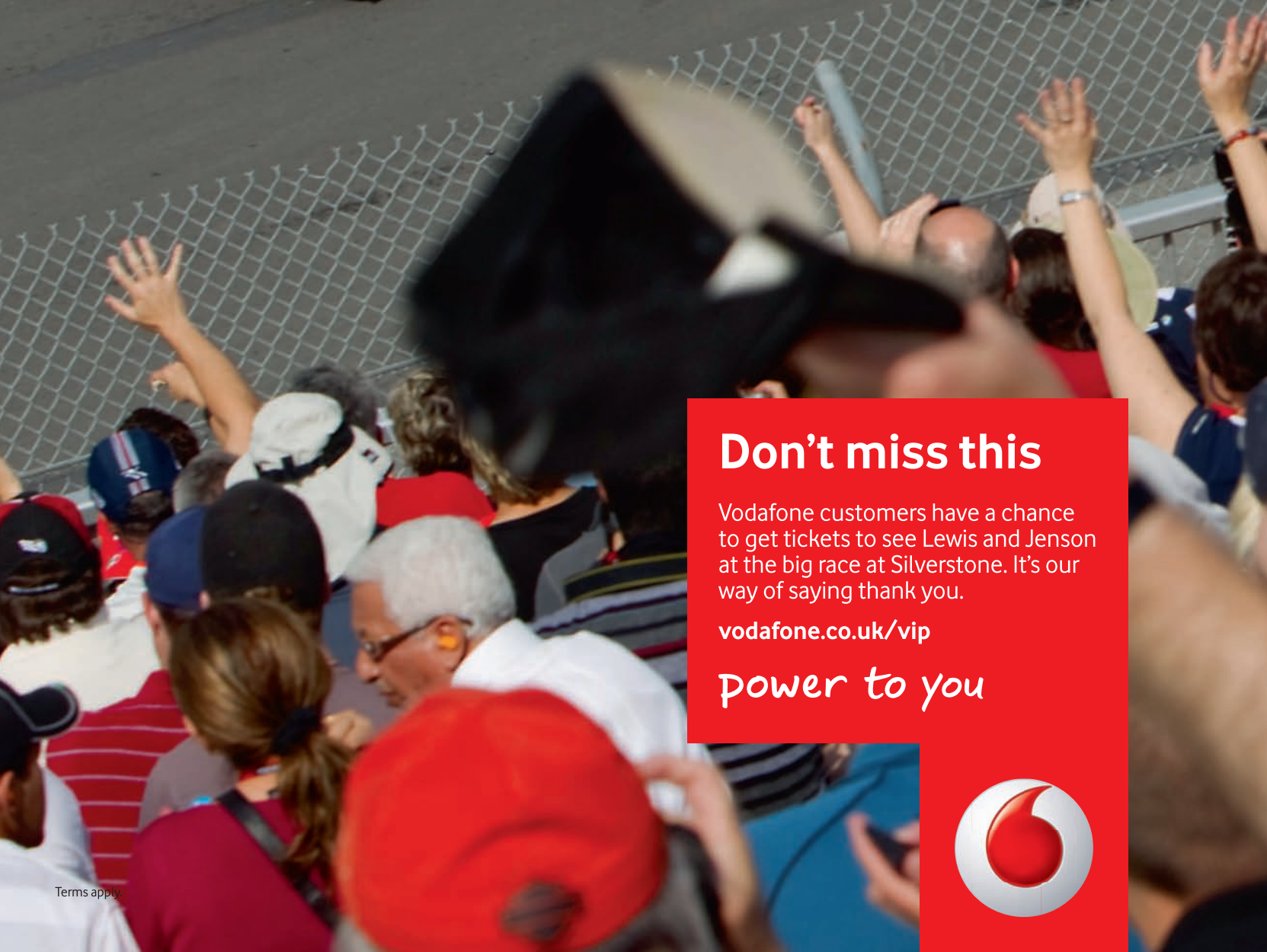
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Easy on those front tyres, Lewis



Monza '10: too ambitious



Singapore '10: fifty-fifty



GP2 Turkey masterclass

◀ Give Hamilton half a sniff of an overtaking opportunity and he goes for it. At times, watching him is a bit like travelling as a passenger in a car. Mentally you're driving it, and you begin wincing when he starts one of his risky overtaking moves, because you have an instinct for what's feasible and what isn't, based on your experience of watching.

Hamilton drove through the field in a GP2 race in Turkey in 2006, pulling off four of five moves that he had no business attempting, never mind pulling off. Right from day one in F1, off the grid he regularly made places. More impressive was the fact that, owing to his fortunate F1 baptism with McLaren - straight in with a leading team - he was doing it at the front. More than that, he was doing it without the lost wheels and shunts that you may expect of a quick, ambitious new arrival.

Occasionally it goes wrong, of course. Last year you could point to Monza, where he was unquestionably too ambitious in trying to pass Felipe Massa, and Singapore, where he tangled with Mark Webber.

That's a price that will inevitably be paid for a consistently aggressive

approach, but there's an upside too. It comes in the shape of the impression formed by rivals. They all have a mental file on their competitors formed by past experience. Whenever anyone looked in their mirror and saw Ayrton Senna's yellow helmet, it was a similar effect to spotting a large dorsal fin coming your way while swimming.

If the mental file tells you that the guy behind is more cautious in approach, generally less aggressive, naturally you will take more liberties with him. With Hamilton (and Senna before), you know that he will try a fifty-fifty pass; if you turn in, the pair of you, most likely, will be off. But with the more passive guy, you'd turn in or change line in the hope of intimidating him and persuading him to think better of it. Ironically, it therefore becomes relatively harder for the more-measured driver to make a move stick.

Hamilton would not appreciate anyone being able to walk past the car ahead at the press of a button, as it would encroach on an area where he considers himself to have a natural advantage - just as Senna abhorred the idea of driver aids such as traction control. But if the situation

“In 2009 I had one of the worst cars - or at least the only car on three wheels - and I came from 18th to third or fourth in Australia”

is as Sam Michael suspects, it could be right up Lewis's street, especially in association with a McLaren-Mercedes KERS hybrid system that was widely held to be the best in 2009.

“Looking at 2009, I had one of the worst cars - or at least the only car that was driving on three wheels - and I came from 18th or something like that in Australia to third or fourth,” he says. “And that was with the weird tyres and lower downforce level. For the first few races with the pitstops [owing to high degradation of the new Pirelli tyres], you can imagine everyone's going to be confused. Eventually it will settle down. Now we don't really know - it could be two pitstops, it could be four or five.”

Hamilton is one of those who seems to have been frustrated by the need to 'baby' the new F1 control tyres, a discipline that has been one of the key focuses of pre-season testing.

“It's not racing,” he said at one of the tests, “it's just driving around. The fun is the qualifying, and you're still going to get the speed and grip there. And there will still be overtaking, so hopefully that will be good. The tyres do hold up for a ▶

PICS: FERRARO, ETHERINGTON, EGMOND/LAT & DUNBAR/GP2

Build Your Dream!

05717 1:24 Vodafone McLaren Mercedes MP4-25 (L. Hamilton & J. Button)



British Steel



1:24 Vodafone McLaren Mercedes MP4-25

05717

The Vodafone McLaren Mercedes team's 2010 chassis, the MP4-25, was an aggressive evolution of its race-winning '09 car. Unlike its predecessor, however, the MP4-25 was designed to fully exploit regulations which permitted double-diffuser under-body aerodynamics. In addition, further development to the floor was carried out during the season to harness the aerodynamic benefits of the engine's exhaust gases over the rear diffuser.

In Lewis Hamilton's hands, the car took notable victories in Istanbul, Montreal and Spa-Francorchamps. While reigning world champion Jenson Button took a memorable wet-weather victory at the Australian Grand Prix, following it up two races later with another victory in the wet in China.

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Build Your Dream!

◀ couple of laps. It's just on a race distance with 140 kilos [of fuel] they struggle."

A restrained approach early in a stint on new tyres is a discipline that can be learned, and you'd imagine that the other end of the equation, the need to hang onto an oversteering car when the rears wear, would also be a Hamilton strength. He has always felt comfortable with the rear of the car moving around, much more so than team-mate Jenson Button, for instance.

"I can't predict it, but you can feel it going," Hamilton says of the degradation. "It's down to making the call when you know that the tyres are losing temperature and losing rubber, and then you need to be able to make the right call and hope that your team don't say, 'No, don't come in!'"

But there are a couple of very big provisos. Hamilton's strengths in a sliding car can only be an asset if everybody is sliding to the same degree. But the

evidence from testing is that tyre-wear rates vary strongly from car to car. Ferrari's long-run pace has been impressive and, right from way back in the period of Michael Schumacher domination, being easy on the tyres has been a Ferrari characteristic. If the McLaren and the Ferrari wear their tyres at the same rate, Lewis's reactive ability and brio may be worth something. But, if the Ferrari looks after its rubber and the McLaren doesn't, you'll be talking of a deficit in seconds, and the odd tenth that Hamilton could be worth will pale into insignificance.

As Mercedes team boss Ross Brawn said in Barcelona last week: "With these tyres you can't afford to go into the high-degradation period, because they degrade in quite a linear way and then fall off quite a lot towards the end of their life. In that period you lose a lot of time and there is plenty of scope to make embarrassing decisions this year."

Key to looking after those rear tyres is

"I can't predict it, but you can feel the tyres going. You need to make the right call and hope the team don't say, 'Don't come in!'"



Testing hasn't gone well

going to be the amount of rear downforce a car generates and, slightly worryingly for McLaren, initial driver comments on MP4-26 report a car with a decent balance but lacking downforce. But what we have to remember is that an F1 season is a long game. McLaren was in this boat to such an extent in 2009 that its car started the season as a backmarker, but was a race winner by July's Hungarian Grand Prix.

Formula 1 2011-style could be made for the 2008 world champion, but only if the McLaren's characteristics allow him to perform to his strengths. ☒



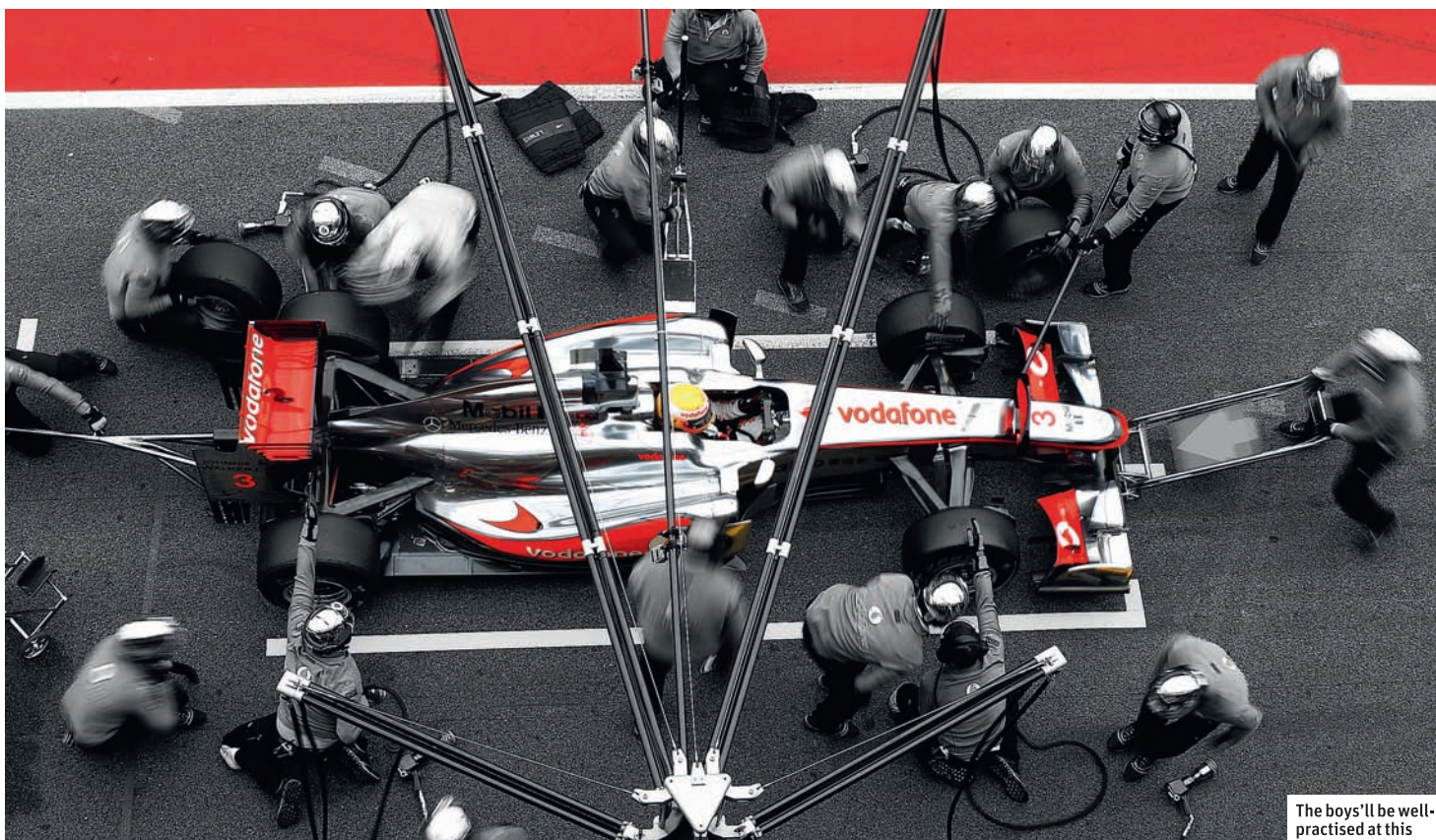
Passing Alonso, AUS 2009



Beating Alonso, Canada '10

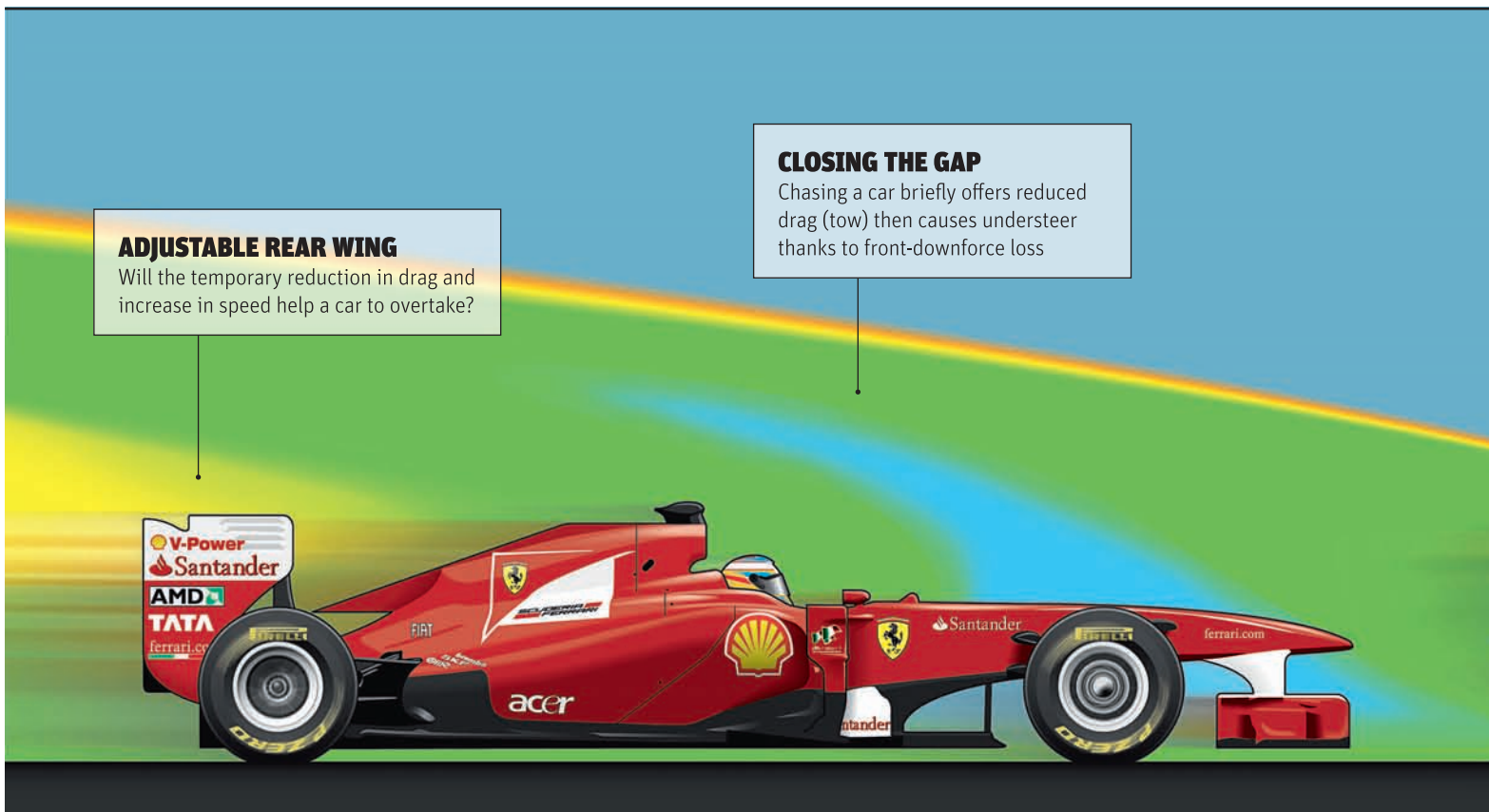


Passing Hulkenberg, Brazil '10



The boys'll be well-practised at this

PICS: GILHAM/GETTY, FERRARO & DUNBAR/LAT



ADJUSTABLE REAR WING

Will the temporary reduction in drag and increase in speed help a car to overtake?

CLOSING THE GAP

Chasing a car briefly offers reduced drag (tow) then causes understeer thanks to front-downforce loss

Passing the buck

Adjustable rear wings and marginal tyres have been introduced to improve overtaking. MARK HUGHES wonders if a more holistic approach is needed

Last season is generally recalled as a good one: a fantastic array of talent, a three-team, five-driver struggle for the title, politics parked by the tradesman's entrance. But what about overtaking? Not the stuff that happens in the pitlane, but actual wheel-to-wheel, finely-judged passing, the stuff that used to be the essence of racing? Recently it's tended to happen only when the track is wet.

If anything, last year's cars had a smaller performance spread between them than in years gone by, when overtaking was more common. Thanks to concerns about this trend of recent years, F1 is about to embark upon a season using artificial overtaking generators. How effective will they be and is there not a better way?

WAS THERE EVER MORE OVERTAKING IN F1?

Oh yes. It's been claimed that it has only been the TV-popularisation of F1, the need

to draw-in casual fans to make its business model work, that has made overtaking an issue and that in actual fact passing has never been any more commonplace than it is now. It's a false argument, as the accompanying data shows (see right).

Compiling every on-track overtaking move in the top-six from 2010, 1990 and 1970 shows a striking pattern. There is virtually no difference in overtaking frequency between 1970 and 1990 – but by last season it had declined dramatically. These figures allow us to be definitive: there used to be almost six times as much overtaking among the top-six in years gone by. These numbers ignore any wet races and it was notable that rain came to F1's rescue last year, giving us interesting events in Melbourne and Shanghai in particular (12 and 18 top-six passes respectively). But ignoring those and any first-corner-of-the-race passes, the first on-track passing move among the top six last year did not actually happen until Lewis Hamilton

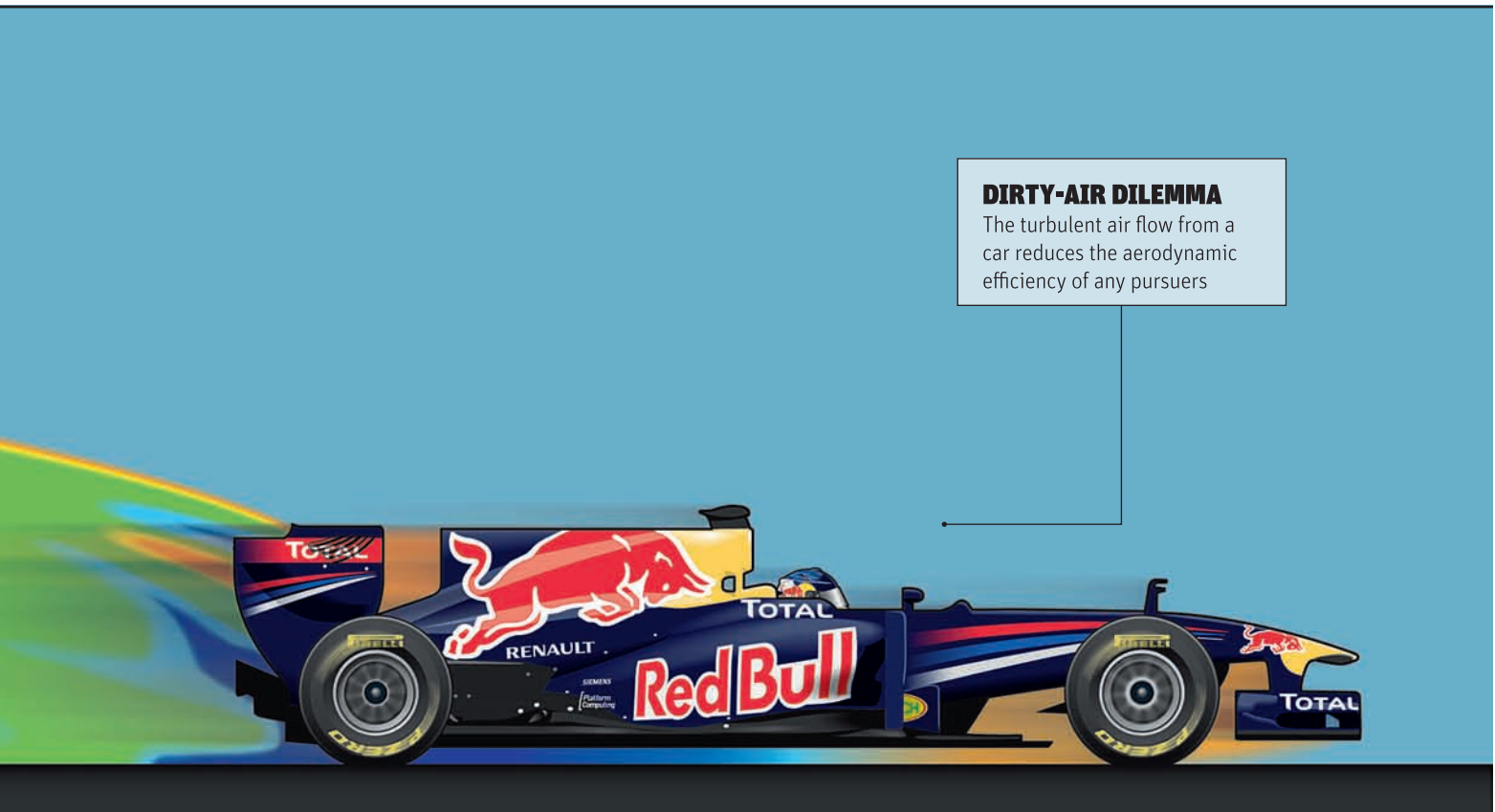
'2010's first on-track, top-six passing move did not occur until round seven in Turkey'

nipped by Sebastian Vettel on the opening lap of the Turkish GP – round seven of the championship! Prior to that there had been 249 dry-race laps without a single pass among the top six. Or, to put it another way: six-and-three-quarter hours of racing without a single top-six pass..

Regardless of the balance that should be struck in F1 between the demands of the casual TV audience and those of the hardcore fan, an average of just over one pass per race through the season is surely not enough. This has been generally accepted by the F1 community. Although more is not necessarily better – and there seems to be agreement that NASCAR-style passing/re-passing every lap would not be desirable for F1 – there certainly needs to be more than was served up last year.

WILL THE ADJUSTABLE WING SOLVE THE PROBLEM?

In terms of drag reduction – and therefore the boost in straightline speed – the adjustable rear wing will initially be



DIRTY-AIR DILEMMA

The turbulent air flow from a car reduces the aerodynamic efficiency of any pursuers

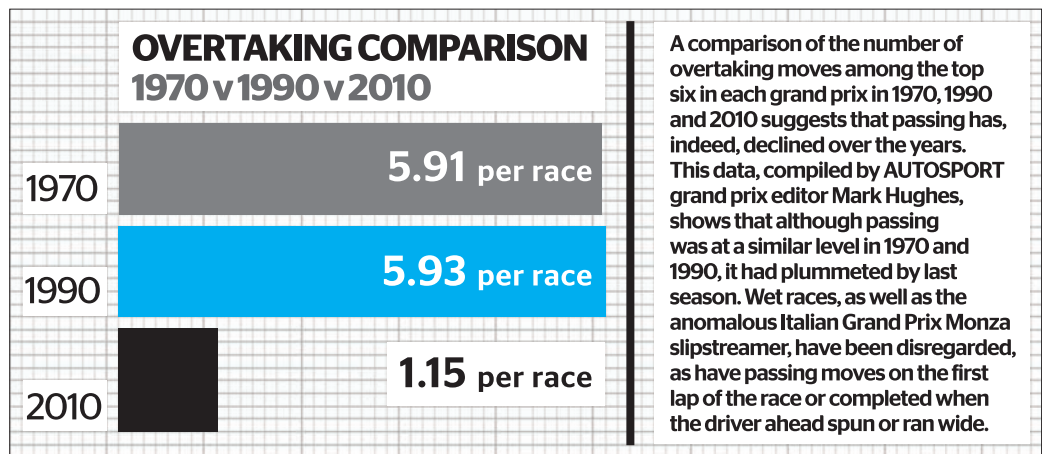
around twice as powerful as even the best of last year's f-ducts, with the potential for more to come as the teams further optimise their wing designs.

If the following driver was allowed to adjust the wing indiscriminately there is no doubt whatsoever that overtaking would cease to mean very much because it would be *too* effective. Which is why the initial plan is to have it active only in the last 600 metres of a straight. The FIA and the teams are adopting a suck-it-and-see approach in order to find the optimum point for some overtaking but not too much. Fernando Alonso, for one, believes that the effect will not be powerful enough. "If the car ahead of you runs only one tenth slower than you, then the moveable wing is not enough," he said last week. "It can be useful to overtake a car that is one or two seconds slower. Maybe the rule's objective is to favour an overtaking move when a race gets ruined by the impossibility of passing a much slower car, as happened to me with Petrov in Abu Dhabi. Overtaking between front runners will be difficult in 2011 too."

But taking that as the starting point, the concept is powerful enough to allow F1 to tune in as much or as little overtaking as it wants. Just open or close the operating distance as required. In theory.

THE COMPLICATION OF TYRES

But, as ever in F1, it's more complicated than that, for there is another massive variable: tyre performance. The evidence



A comparison of the number of overtaking moves among the top six in each grand prix in 1970, 1990 and 2010 suggests that passing has, indeed, declined over the years. This data, compiled by AUTOSPORT grand prix editor Mark Hughes, shows that although passing was at a similar level in 1970 and 1990, it had plummeted by last season. Wet races, as well as the anomalous Italian Grand Prix Monza slipstreamer, have been disregarded, as have passing moves on the first lap of the race or completed when the driver ahead spun or ran wide.

from testing so far is that the Pirellis are leaving lots of rubber marbles off line. As Paul di Resta observed: "Overtaking could get a bit difficult. If you dive down the inside and there's marbles everywhere it's going to be difficult to stop."

It's all very well having the aerodynamic capacity to overtake, but quite another having the tyre grip to be able to complete the manoeuvre. In which case, you might say, simply open up the distance in which the wing can be used. Which would be fine if you could predict in advance how much rubber the tyres are going to shed. It will vary massively according to track conditions and not in a predictable way. Most variables associated with tyre behaviour are very much non-linear. So in any ▶



Petrov held off faster Alonso in Abu Dhabi

PICS: COMTES/LAT

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Kobayashi dives up the inside of Rosberg at Spa



Barrichello/Schumacher duke it out at Suzuka

“I would go back to a small front wing and a powerful underfloor”
Gary Anderson

downforce/drag [which is why you get the tow] and then as that pulls you close in, you lose front downforce. So you understeer as you try to get close through the corner. As the front wing stalls it destroys the rest of the car too because that front wing also feeds the underfloor. The more critical the surface the easier it is to stall. Yes, you lose underfloor downforce - but it's caused by the front wing. A critical front wing gives you a critical underfloor.

“I would go back to a small front wing and a good, powerful underfloor - the big diffusers of the early '90s gave a lot of underfloor downforce with a fairly rudimentary front wing. I'd say make the front wing small, so that it still balanced the car but no more. Then you can make the flow pretty robust. Define a minimum and maximum chord length, allow one slot gap and have a good size diffuser with a kick-up point ahead of the engine to keep the centre of pressure in the centre of the car. You might even have a small 50mm step down the centre acting as a skirt.”

We understand there is ongoing research going on in the background along these lines. In the meantime F1 will be relying on the adjustable wing and Pirelli tyres - and hoping. ☹

Rear-wing turbulence makes passing difficult



◀ given race you could easily end up with way too much rear-wing-induced passing - or nowhere near enough, all balanced on the knife edge of tyre vagaries.

Pirelli has stressed that it has deliberately endeavoured to create big differences between the behaviour of the different compounds, as they have been guided to do by F1. Testing suggests also that the performance drop-off of the rears is quite severe regardless of compound.

Could it be that, in creating two artificial performance randomisers - deliberately unpredictable tyre performance and an adjustable rear wing - they act like waves and either, depending on their respective amplitude, largely cancel each other out or combine to give more effect than desired?

It illustrates the hazards of trying to artificially create better racing.

COULD IT BE DONE HOLISTICALLY?

Instead of using artificial devices, could the formula not be conceived to allow overtaking to occur naturally?

Key to answering that question is understanding why there has been such a dramatic drop off in overtaking in the first place. The overtaking working group-inspired 2009 technical regulations

attempted to address the problem by targeting a downforce reduction of 50 per cent. Of course, by the time F1 team technical departments had wrestled with the new limitations they clawed most of that back before the season had even begun. The acceptance of the double diffuser arguably made things yet worse. It seems that short of actually banning wings, any attempts at limiting downforce makes little difference - and might even have made things worse in the past.

AUTOSPORT's technical consultant Gary Anderson has long advocated that it is the *type* of downforce that matters.

“The teams' understanding of the wings has increased enormously in the past 20 years,” he says. “They are now working those surfaces way harder than 20 years ago - but that makes them more sensitive and stall-prone. Research suggests that increasing underfloor downforce only makes the problem worse, but I'd disagree with that. It may make it worse with the very critical front wings we currently have, but the problem is not originating from the underfloor.”

“In traffic the balance of the car behind changes as it comes into the turbulence of the car ahead. First of all you lose rear



Winging it

The adjustable rear wing has been touted as a great way to improve overtaking. EDD STRAW explains how it will work

In 1969, driver-adjustable wings were banned in Formula 1. Forty years on, they returned, but only allowing drivers to adjust a flap on the front wing by six degrees. This move, conceived to boost overtaking, fell flat on its face and the front wing is once again fixed. Instead, the FIA has taken a more extreme step, introducing the adjustable rear wing that should lead to a significant increase in overtaking and on-track action this year. As far as improving the show goes, it's the

boldest step the sport has ever made, with many calling it contrived. But as long as it contrives exciting, unpredictable races, it's surely good for the sport.

HOW THE WING WORKS

The technical regulations stipulate that the horizontal gap between the two elements of the rear wing is 10-15mm. This year, when permitted, drivers will be able to open that gap to 50mm at the push of a button on the steering wheel. This will slash drag and give a top speed boost of 10-12km/h. Teams have fitted a

hydraulic actuator to open the wing, with most able to switch from closed to open in around 20 milliseconds.

WHEN CAN DRIVERS USE IT?

During practice and qualifying, use of the adjustable wing is unrestricted. This means that drivers will open the wing on any straight and probably through the odd corner - Eau Rouge for example - where it is possible to run flat out without the normal levels of rear downforce. In the race, its use will be heavily restricted.



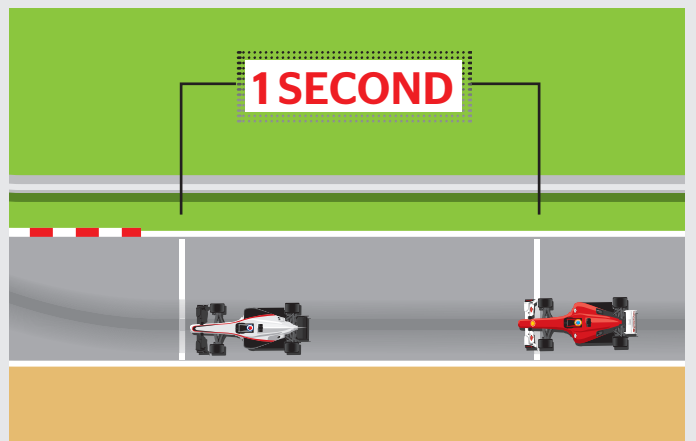


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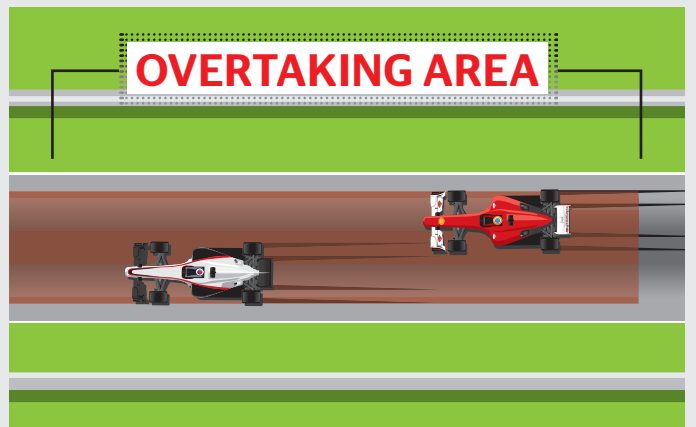
HOW IT WILL WORK IN THE RACE

During the first two laps of the race, and for two laps after safety-car periods, the adjustable wing is disabled. Outside of those boundaries, it will be available to drivers only when within one second of the car ahead and for a set distance on a designated straight.

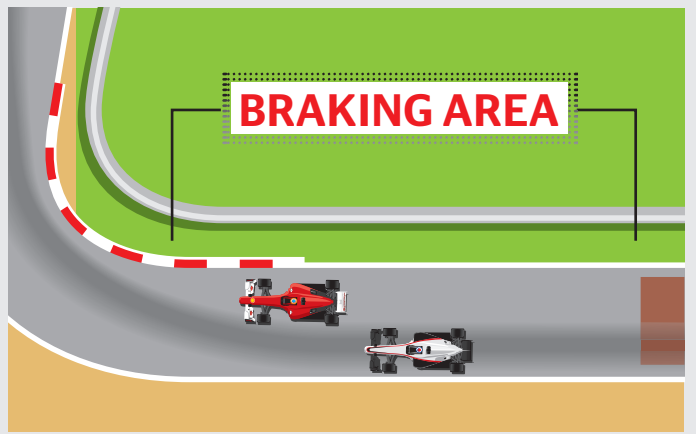
At the corner prior to the designated overtaking zone the gap between two cars will be measured. If the chasing car is within one second, the wing can be adjusted once he has exited the corner and entered the 600-metre overtaking zone. Two painted white lines on the approach to the last corner will show spectators whether the chasing car is within one second - and also act as an emergency fallback for the FIA if there is a problem with the timing loop.



Once the chasing car has entered the designated overtaking area on the straight, the FIA control system will allow the rear wing to be activated. The driver will be told it's available by the use of a light on the steering wheel. He can then open the slot gap, gaining a significant speed advantage, allowing him to close up on his prey, pull out and attempt to pass. The FIA estimates the maximum speed differential to be 10-12km/h.



The 600-metre overtaking zone will end just before the braking area for the next corner and the wing will automatically close. Applying any brake pressure will also close the wing if before the end of the designated zone. The system will not be available again until the next lap, provided a driver is within one second of the car ahead.



WILL IT WORK?

Only time will tell whether the adjustable rear wing will spice up the show as hoped. The Australian Grand Prix, where the overtaking zone has been placed on the start/finish straight, will tell us a lot, but the FIA has chosen to start the season with a conservative set-up for the system that can be adjusted if it does not create enough passing. The sport is committed to making it work and, after a few races of teething troubles, it will become one of the main talking points come Sunday afternoon.



CLOSED



CV

PAUL DIRESTA

Born April 16 1986

2010

DTM champion
(3 wins), F1 third
driver for Force India

2009

3rd in DTM (1 win), F1
test with Force India

2008

2nd in DTM (2 wins),
F1 test with McLaren

2007

5th in DTM in
two-year-old car

2006

F3 Euro Series
champion (5 wins),
F3 Masters winner

2005

10th in F3
Euro Series

2004

3rd in Formula
Renault UK (4 wins),
McLaren
AUTOSPORT BRDC
Award winner

2003

7th in Formula
Renault UK (1 win)

Paul di Resta

Feel the force

He might have been out of single-seaters for four years, but DTM champion Paul di Resta tells EDD STRAW he's well prepared for F1

You've raced in the DTM for the past four years. How good a training ground is it for Formula 1?

People don't realise how competitive the DTM is and how professional it is. It has been a great place for me to mature and come through the ranks. The biggest thing is being part of a big manufacturer programme with Mercedes-Benz, who I've been involved with for six years now, four in the DTM and two in F3. There are some big positives you can take from it, such as developing a car and working with a big team. Nowhere else does that, because GP2 is a one-make formula. Even the media demands in the DTM give you the right approach for F1.

Does the fact that DTM races are over an hour in length and feature two pitstops give you a big advantage over GP2 graduates on the strategic side?

Definitely, especially as this year strategy is going to be so important with the new Pirelli tyres. You have to be able to manage tyres in DTM and, with two stops, you have to be able to bide your time and make the right move at the right time. After four years in the DTM, I have a good idea of how to approach that. Also, the whole schedule of the DTM weekend is based on F1, so that's familiar.

It's harder to overtake in DTM than it is in GP2. Is that a help when adapting to F1?

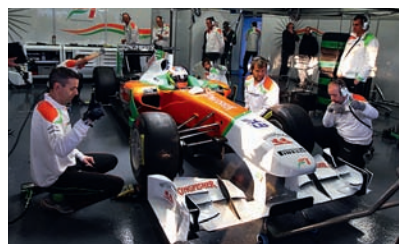
You have to bide your time and come in at the right time. Track position is key and it's the same in F1. In- and out-laps are absolutely critical and you can't afford to give anything away. At the pitstops you have to step exactly on your marks and give the guys every opportunity to give you the best turnaround.

Is there an argument that the DTM is a better proving ground for F1 than GP2?

It's certainly a massively underrated championship and it does give drivers a great grounding. It's also a car with a lot of downforce and has given me the basics needed for F1, so I certainly wouldn't change my time there. It's a good route for young guys with



Scotland's new F1 recruit will race for Force India



aspirations because you're working with manufacturers at a high level.

As the DTM car is more of a prototype than a touring car, does that make it easier to translate skills into F1?

If you compare a DTM car with an F1 car, it's got a little less horsepower but also a reasonable amount of downforce. But it is almost 400kg heavier than an F1 car and still doing good lap times. It depends a lot on downforce and they are very physically demanding cars to drive. DTM cars are also fitted with carbon brakes, so there are many things that are relevant to F1.

As a DTM driver were you worried you'd be ignored over GP2 drivers for F1?

Of course, it was a worry but at the same time I wasn't in a bad situation. Everyone knew that my ultimate goal was always F1. It's tough to get there and fortunately I've been able to get in at the right time in my career and after spending last year as Force India's reserve driver, I have made the step.

Was it not frustrating to see guys like Sebastian Vettel and Lewis Hamilton, who you've raced with and beaten, enjoying success in F1?

It is, but I had to be realistic. Everyone has different routes to F1 and different opportunities and you can only make the most of your situation. I've enjoyed my life and I wouldn't change it, even though I'd have liked to be in F1 a little sooner. Now I am in F1 and I hope that I'm in a car that is good enough to be racing these guys.

Does coming into F1 at the age of 24, with a little more experience, help given the lack of testing available?

Probably. You get wiser and more mature over the years and it's amazing how much you change. If I had been an F1 driver at 19, I wouldn't like to think how difficult it would have been! It's no disadvantage coming in a little later because I can have a level head and therefore make the most of what track time I have available.

You haven't raced a single-seater for four years, so you must be excited to be back in one?

It's going to be different and there's naturally a learning curve. But it's been fine on track. Every time you jump in the car, you feel even more settled.

Given the change to Pirelli tyres this year, how valuable was last year's experience learning the team and understanding systems and day-to-day operations?

It certainly takes some of the pressure off, but there will still be plenty of drivers out there more comfortable in an F1 car than I am, because I'm new to it.

The first yardstick in F1 is obviously your team-mate. Adrian Sutil has four seasons of F1 under his belt, so is the target for you to be edging ahead of him in the second half of the year?

We are opponents and we want to beat each other. I certainly want to beat him! But we also have to work closely together to give the team the best feedback and make the car as competitive as possible. We're good friends and we can do that. ❧

F1
season
preview
2011



The black art of F1 tyres

Why is tyre behaviour difficult to grasp – even in Formula 1?
MARK HUGHES dons his white coat...

The tyre is the most powerful performance generator on a racing car. It's way more important than – though inextricably linked to – aerodynamics. A 10 per cent increase in downforce with no drag penalty would typically give 0.3s. A 10 per cent hike in tyre grip would give more like 2s.

Yet in an age when F1 teams can simulate the mechanisms of airflow, suspension kinematics, cooling, brake wear and dynamic stresses on any part of the car, tyre performance remains part science/part black art.

The tyre engineers would disagree with that, tell you that just because the teams don't always fully understand the bewildering complexity of tyre behaviour it doesn't mean that they don't. But even they will admit that tyre performance on the day is not fully under their control.

To begin to comprehend the various tyre-related anomalies – cars unable to 'switch on' the tyres, drivers' styles being suited/unsuited to particular tyres, how sliding can sometimes overheat the tyre yet at other times cause it to run too cold etc – it's as well to study how a tyre is constructed.

Starting from the inside and working out, there is first the basic carcass extruded from a lump of mixed rubber (natural and synthetic), carbon, sulphur and other chemical ingredients. This is rolled out into a flat length before being formed into a circle of the required mass for the eventual diameter/width. The tyre cord – a belt of rubber embedded with plies of Kevlar – surrounds the carcass.

The carcass and cord are then encased by a steel belt and the whole thing is then further encased – at the sides by the sidewalls and on top by the tread.

The tyre is then vulcanised – essentially cooked – in the tyre shape determined by a mould. This process merges

the natural rubber with the various chemicals at a molecular level, creating elasticity.

Some of the Kevlar plies within the cord run circumferentially around the tyre. Others run radially across the tyre. The former keep the tyre from expanding or contracting as the tyre is braked or accelerated and play a crucial part in the car's springing, braking and traction. The latter determine stability and directional response.

A tyre utilises two mechanisms to create grip: mechanical and chemical. Mechanical grip is generated by the unsymmetrical way the tread drapes itself over track-surface irregularities. There is a compression effect as it pushes against the grain of the track but because of its elasticity it reacts by trying to pull itself back to symmetry, creating a force in the opposite direction to the cornering load and thereby generating grip. Chemical grip is to do with the way the rubber interacts with the track surface at a molecular level – how the two materials 'stick' to each other, in effect.

The energy put into the tyre by the various loads of cornering, braking and accelerating is absorbed by the tyre and as it bends and rebounds it creates heat. This breaks down the rubber compound, increasing the chemical grip, and this process is termed hysteresis. A softer compound can generate more hysteresis than a harder one – so long as it reaches operating equilibrium. The frequency of the loads may overwhelm it, prevent the tread from properly pulling itself back to oppose the cornering load. This is when a compound is too soft for the track – or the car, or the driver. Another possibility is that the tread fails to reach its correct operating temperature of 90-100C.

The interaction between the construction's mechanical grip and the compound's chemical grip determines the temperature at which the tyre runs. If it runs too cool, the tread remains stiff and brittle, the chemical bonding doesn't occur and grip remains low. This can become a feedback loop – because the grip remains low, the tyre remains too cool and the grip therefore remains low. Once it passes a certain temperature threshold however, the process of chemical bonding will begin and the grip will increase hugely. This is when

the tyre 'switches on'.

Depending upon the conditions prevailing – the car's weight, its static and dynamic weight distribution, its suspension kinematics, the driver's style, the track's layout and surface, the track temperature – there are many reasons why a tyre works well or not. These independent parameters cannot all be controlled at the same time and that's why even within a control-tyre formula there are still big variations.

So it can be that Jenson Button, say, is driving just the right side of overwhelming the tyre. He therefore can get it to its operating temperature and it works beautifully. On that same day Lewis Hamilton (with the same car and tyre) may induce more initial load into the tyre, which overwhelms the compound, which cannot therefore reach equilibrium and therefore remains stiff, cool and gripless. On another day, that may not be the dominant mechanism and the tyre may need to be pushed harder in order to switch it on. Hamilton may reach that threshold while Button does not.

On a car that, say, works its front tyres very lightly it can be difficult getting them up to temperature in time for one timed lap. In which case a driver who initially just coaxes grip from them, doesn't overwhelm them initially and just allows the grip to build until they have switched on, will do better than the driver who reacts to the cool tyre by throwing it at the corner. In this way he might actually overheat the surface of the tyre while still having the rest of it too cool and brittle because not enough g-loadings have gone through it.

A stiff construction will limit the tread's movement – which on a day when the compound is marginally soft for conditions would be good. It would work to prevent the tread overheating. With a compound that was on the verge of being too hard, a stiff construction would be bad – because it would prevent the rubber from generating the correct temperature. A bit of cloud cover could change which of the scenarios applies – and which drivers or cars that best suits.

This is far from a comprehensive explanation of tyre behaviour, but hopefully enough to give some insight into why they can be so baffling even for F1's brightest minds. ☹

➔ P129 PIRELLI'S LAST WIN



Pirelli's Formula 1 highlights

The Italian firm returns to the sport after a 20-year absence. Here are its memorable moments from the past



Australian Grand Prix, Adelaide, Nov 3 1991



Pedro de la Rosa, Abu Dhabi 2010, wet tests

ALL PICS: LAT



ND P
SON
NADA

MOLSON

Nelson Piquet, Canadian GP 1991, Benetton B191

Teo Fabi, Italian GP 1986, Benetton B186



LAST
POLE

FIRST
RACE

TESTING
FOR RETURN



British Grand Prix, Silverstone, May 13 '50

MCLAREN M26

AUTOSPORT technical expert GARY ANDERSON worked on McLaren's M26



1 CHASSIS

The M26's monocoque was made of fabricated bulkheads and aluminium panels with some composite elements - such as the inner lining of the side of the chassis and the structural front - as a token gesture to increase the strength for safety. But it was mainly aluminium, riveted panels. Today, the chassis is made of very strong, lightweight carbonfibre composite.



2 ENGINE

The M26 ran the venerable Ford Cosworth DFV. It was a proven package and McLaren's were tuned by Nicholson McLaren. Today's engines are lighter and more efficient, and put out 40 per cent more power.

3 AERODYNAMICS

The McLaren M26 had a skirt system, so it was trying to create a low-pressure area under the car, and it had a big old rear wing that didn't actually work that well. I imagine that at 150mph you would be lucky if the total car was making a couple of hundred kilograms, whereas the MP4-26 is probably making over 1200kg.

4 TYRES

The most obvious thing about the tyres during the 1970s was the relative size of the small fronts to the massive rears. Today's cars are all about the aerodynamic grip, so both the front and the rears are the same diameter, with the fronts 270mm wide and the rears 325mm. It's obvious that the rear tyres on the M26 are orders of magnitude larger. This is because the cars were less aero-dependent. You needed proportionally bigger rear tyres to deal with both the force of pushing the car forward and the lateral forces in cornering. Tyres were crossplies (radials were only just being introduced) and were more compliant in terms of construction, so the drivers could slide the car in lovely controlled drifts.



5 REAR SUSPENSION

On the M26, we were using conventional outboard springs and dampers with an anti-roll bar that weighed about 3kg, whereas everything now is inboard and hidden away. Today, that anti-roll bar would weigh only a few grams. Back then, no-one knew anything about airflow in that area, whereas today minimising aero blockage and profiling parts is standard.

6 GEARBOX

The M26 featured a conventional Hewland gearbox, with some parts made by McLaren. Most were five-speed at this time, although the McLaren 'box had six. It was normal in those days to buy a gearbox from a supplier and bolt it onto the car. The driver had to change gear manually using a lever and a clutch pedal. The life of the gearbox would be a race,

V MP4-26

of 1976-78. He compares it to the (almost) similarly named MP4-26 of 2011



whereas now they have to last for five races. The gearbox on the MP4-26 is a seven-speed with paddle shift, and it's capable of changing gear instantly through seamless shift technology.

7 BRAKES

Today, everybody uses carbon brakes that can stop the car on a sixpence - one of the reasons that it's so hard to outbrake people to overtake. The M26 had steel brakes with Ferodo DS11 brakepads, although people did start testing with carbon inserts during that period.



8 ELECTRONICS

MP4-26 is full of electronic components - gearshift, engine management, throttle. The M26 was all mechanical and you were lucky even if you had an ignition-cut switch on the steering wheel to turn off the engine if your throttle cable snapped!



9 SAFETY

There were no crash structures on the M26, whereas today there were stringent tests to all sides of the car. The oil cooler was mounted on the nose of the M26, and if you subjected that car to today's nose crash test, it would probably end up rammed down the airbox!

10 FUEL TANK

The M26 had a fuel-tank capacity of about 200 litres. The efficiency of a modern car is incredible and has improved by more than a third. As far as green credentials in the sport are concerned, people should take a close look at that improvement in efficiency.

THE HUNT FACTOR

In 1977, James Hunt was McLaren's lead man. He was very different to those that you see today. He went racing because it was something that he did and he was very good at doing it. But he used to go to a test, do a lap, come in moaning about the gear ratios and disappear before coming back at lunchtime to do another lap! At a race, he knew that he had to be there, but outside that he wasn't living racing like many of today's drivers. The successful ones think nothing of doing 100 laps at a test. James did 10 if you were lucky! But he really could wring its neck on a race weekend and was a great character to work with.



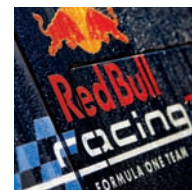


“The RB7 is an evolution. There are a lot of lessons that have been learned from last year’s car and strengths built on”

Christian Horner, Red Bull team principal

AUTOSPORT RATING 1st	Drivers	●●●●●
	Engine	●●●●●
	Chassis	●●●●●
	Budget	●●●●●
	Tactics	●●●●●

Red Bull



With pre-season reliability looking good - with laptimes to match - the world champion team looks in ominous form with its ‘evolutionary’ RB7



It took a few years for Red Bull’s dream of becoming a top F1 team to become reality, but after staking the success of its project on building an outfit around the unique talents of Adrian Newey it has won big. Last year, the team made heavy weather of closing out a double championship win, with the rivalry between drivers Mark Webber and Sebastian Vettel, early season unreliability and a few mistakes costing a lot of points. Pre-season testing has given its rivals little reason to knock Red Bull off the top of the pile marked ‘favourite’. The fact that the RB7 has completed far more miles than

its two predecessors is ominous. The key to Red Bull’s success is down to Newey’s vision and understanding better than his rivals what makes a car quick. Over the past two seasons, it has been very rare for upgrade components to produce anything other than the expected improvement when they are thrown on the car. The ante has been upped in terms of the aerodynamic tweaks that are made during a year. That means that, if Red Bull has the fastest car in Australia, it can be expected to be in the same position come the end of the year. In Vettel and Webber it has two drivers capable of locking out the front row more often than not and the lessons learned

TEAM STATS
Starts
107
First GP
Australia 2005
Wins
15
Poles
20
Fastest laps
12
2010
1st

last year means that the likes of Ferrari and McLaren can’t count on any more Turkey-style wipeouts to help them out. The only weakness is the team’s Renault engine, which, as team principal Christian Horner enjoys pointing out, is losing out on peak power. That means that victories at Spa and Monza may be beyond the team, although advantages in power curve and fuel economy mean that, overall, it would be better described as a less-strong point than a weakness! There is also the question of KERS, which Red Bull didn’t use on its RB5 in 2009, although the team does seem to have got a handle on the hybrid system during recent testing.



KEY STAT

14%

Red Bull's win rate since it came into the sport after taking over the Jaguar team ahead of the start of the 2005 season (left).

KEY STAT

11th

The position Red Bull holds in the all-time F1 team wins list. Two more and it will overhaul the legendary Cooper team and draw level with BRM.



Red Bull-Renault RB7



GARY ANDERSON
Technical consultant

LAST YEAR Red Bull understood better than anyone how to extract performance from its car and this year's RB7 is an evolution of that.

Pre-season testing has proved that Red Bull is the team to beat and after being arguably the best outfit on the grid over the past two years, it now has to be regarded as an established top team. Once it understood the philosophy of Adrian Newey

and how to structure the team around his talents, there has been no looking back. As a result, Red Bull has benefitted from technical leadership with the clearest vision of the concept of the car and how to develop it through the season.

THE TEAM



Christian HORNER
Team principal

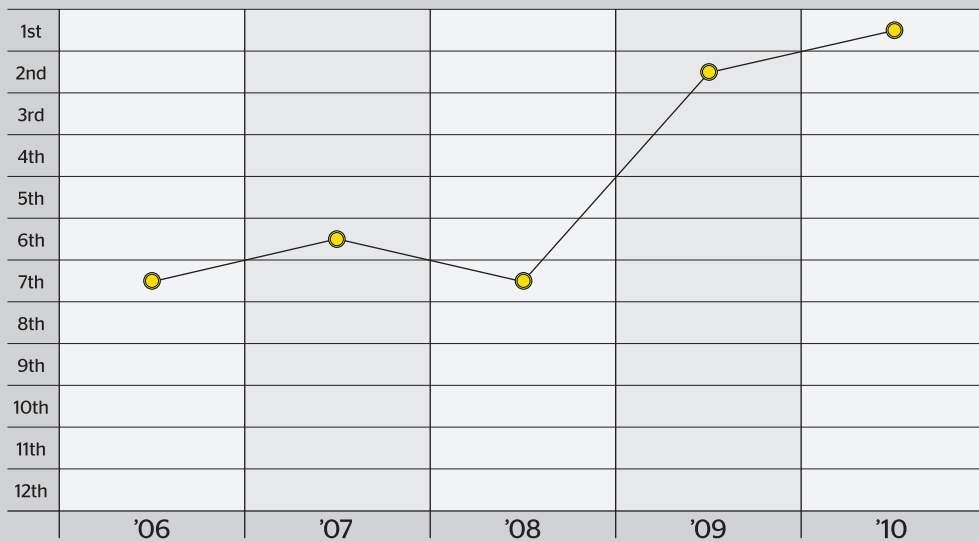


Adrian NEWEY
Chief tech officer



Dietrich MATESCHITZ
Team owner

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



INS & OUTS



INFINITI
Nissan's luxury car brand is now a major sponsor of Red Bull.



NEIL MARTIN
Chief strategist, a former McLaren man, has left to join principal rival Ferrari.



KERS
Didn't race with the system first time around, but did test it pre-season in 2009.



MARK HUGHES
Grand prix editor

RECENT TESTING appears to confirm Red Bull remains at the top of the tree. This is the third evolution of Adrian Newey's concept, and the essence of its performance is probably still not fully understood by its rivals, the likelihood being that it is hidden deep within the carbon make-up of key parts. There is technical and management stability

but, while the driver line-up goes into its third consecutive season, it's likely to remain feisty and liable to flash-points. Nothing was resolved from last year's controversies that would prevent similar situations arising. Sebastian Vettel is a super-talent that is still developing, Mark Webber is close enough to allow his greater experience to continue to give Seb real problems and the structure of an entity that exists as a marketing platform but is run by a racing team will always make for awkward moments of potential conflict. This

is its sole weakness and Ferrari will be looking to exploit that through its Alonso-centricity and a car that is at least comparably good. The loss of strategy ace Neil Martin to Ferrari is a real double blow, but the team showed last year that its strategy continued to be pin-sharp even after he left in May. Because the new adjustable wing means teams will be forced to be more conservative with seventh-gear ratio choices, it might just drop the engines into a rev band that is more favourable to the Renault motor.

PICS: DUNBAR, COATES, ETHERINGTON/LAT & THOMPSON/GETTY

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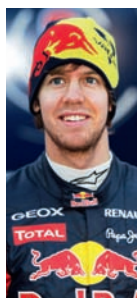


“Normally, we miss the first test and have been a bit undercooked going into the first phase. But we’re ready”
Mark Webber on RBR’s 2011 preparations

**KEY
STAT**

23

The age at which Sebastian Vettel won the world championship in 2010, making him the youngest title winner in the six-decade history of the drivers’ title.



1

Sebastian VETTEL (D)



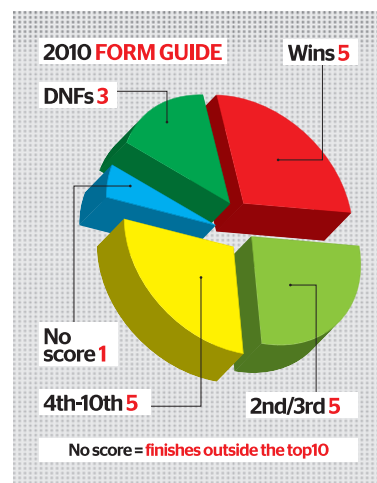
Starts	62
Wins	10
Poles	15
Fastest laps	6
Points	381
'10 position	1st



HAS A DRIVER ever been given a more unfair reputation in the public eye, at least in this country? F1's youngest world champion is devastatingly fast and successful yet has not let his meteoric rise change him from the likeable, relaxed, anglophile who made so many friends when he first came into F1 in 2007. The stropy young driver demanding favoured treatment doesn't exist and those who attempt to cast him as heir to Michael Schumacher's British press pantomime villain are barking up the wrong tree. The 23-year-old is already on his way to becoming an F1 legend and it's time to appreciate

him for what he is – one of the best. That's not to say that his 2010 campaign was perfect. The clash with team-mate Mark Webber in Turkey while they disputed the lead was triggered by Vettel. And losing it under braking for the chicane and wiping out title rival Jenson Button at Spa was embarrassing. That's why question marks still remain over his ability to control his aggression in battle. But two things are beyond doubt – his ability to turn in a perfect, balls-out lap in qualifying and to dominate a race from the front utterly. He also added one crucial element to his armoury in the second half of last season – the

ability to shrug off pressure when it would get to others. Just look at the way he reacted to engine failure seemingly ruining his title chances in Korea as he worked hard to lift a team that had just had its worst day of the season. Now battle-hardened and wise in the ways of intra-team politics, he will get better and it's hard to see him giving away points to the likes of Alonso and Hamilton. If the Red Bull is as good as it looks, Vettel starts as favourite and has every chance of becoming the sport's youngest double title winner. At this rate, Michael Schumacher's once seemingly unbeatable seven-title record just may be attainable.



2

Mark WEBBER (AUS)



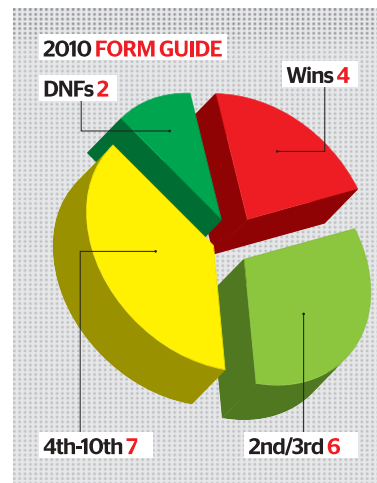
Starts	157
Wins	6
Poles	6
Fastest laps	6
Points	411.5
'10 position	3rd



WHILE SEBASTIAN Vettel and Red Bull celebrated an against-the-odds drivers' title in Abu Dhabi last year, Webber quietly withdrew to his room to reflect on how he managed to lose a title that was there for the taking. Heading into the final race of the season and with the best car under him, he struggled in qualifying, clipped the wall early on and spent most of the race wedged behind title rival Fernando Alonso. Despite that, his disastrous performance on home ground at the start of the year and crashing out in Korea, it was an impressive season. Two wins in a week in Spain and Monaco gave impetus to his

title push, but when push came to shove, he couldn't quite assert himself over team-mate Vettel when it mattered. The fear is that it may be no different this year – and starting the season on home soil, where things went so wrong last year, will be the toughest way to start. The flipside of the coin is that, were he to win under pressure at home, it will give him vital momentum to carry into the rest of the campaign. That's not to say that Webber didn't prove he was a top-line performer in 2010. On his day, he could beat Vettel, and even when the German was on top form in

the closing races he was usually to be found within a tenth. If that pattern continues this year, at worst he is going to be the best possible number two. But Webber wants more than that, and after giving himself five weeks off after Abu Dhabi, he comes into the season determined to win a world championship and prove himself worthy of an extension to his Red Bull contract, which comes to an end in 2011. He only need look at his performance in Hungary last year. It's a tough ask, but Webber has defied the odds before and if anyone can reverse the form book from the end of last year, it's him.



PICS: DUNBAR, COATES & FERRARO/LAT



“Last year, we paid the price for not having gained points at the start of the season. You have to start well”
Stefano Domenicali, team principal

AUTOSPORT RATING 2nd	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Ferrari



The president himself has demanded the world championship this year, and it's clear that Alonso is the man to do it. It appears the car is good too...



Ferrari president Luca di Montezemolo has left no room for manoeuvre with his pronouncements of expectations for 2011. After squandering the drivers' championship with a bad strategy call in the season-ending Abu Dhabi Grand Prix, the resulting trial in the Italian media put the Scuderia under huge pressure. This year, only winning both championships will do and, judging by pre-season testing, it's Ferrari that is best placed to take the fight to title favourite Red Bull.

After Michael Schumacher 'retired' at the end of 2006, there was a feeling that the team lacked a driver who could be the

focal point of its efforts. Kimi Raikkonen's championship victory in 2007 and Felipe Massa's near-miss a year later notwithstanding, it wasn't until the arrival of Alonso at the start of last season that the team found the driver to act as its fulcrum. The Spaniard did not disappoint, winning on his debut and, after a generally shaky first half of the season, drove the Prancing Horse on to a late-season gallop. He knows how to motivate a team and, just as Ferrari was Team Schumacher in the past, it is now Team Alonso thanks to his relentless and single-minded approach.

Testing suggests that Ferrari will be in the mix for wins from the off. The 150° Italia perhaps lacks a little to the Red Bull

TEAM STATS

Starts
812
First GP
Monaco 1950
Wins
215
Poles
205
Fastest laps
224
 2010
3rd

RB7 on single-lap pace, but its long runs are more impressive. The Ferrari is not especially innovative, but has proved reliable and rapid straight out of the box. That will stand the team in good stead in achieving its objective of starting the season strongly after squandering too many points early in the 2010 season.

The consequences of the team failing to deliver will be hard to predict, although there is a feeling that this could be the last-chance saloon for team principal Stefano Domenicali. Last year, chief race engineer Chris Dyer was the fall guy. If there are no titles this year, the likeable and respected Italian could be the man to shoulder the blame.



KEY STAT

2

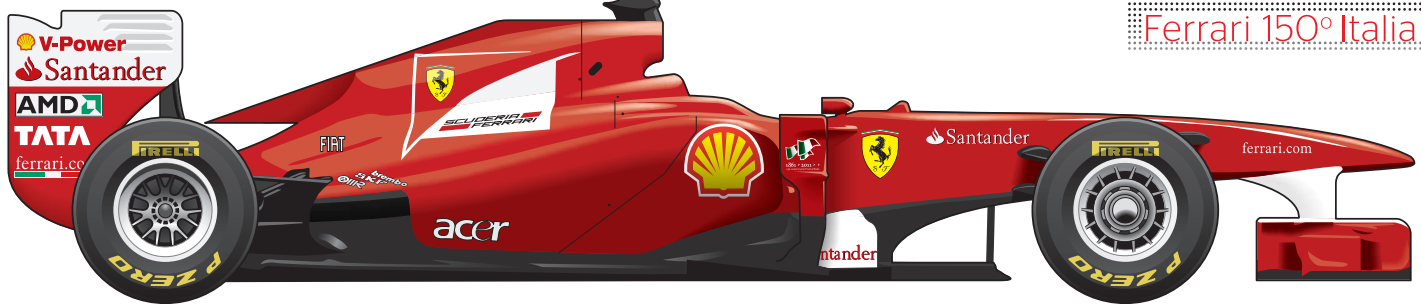
Number of world champions younger than Fernando Alonso. He took the record when he won the title, but Hamilton and Vettel beat it.

KEY STAT

215

No team has won more races in the world championship than Ferrari, which has 215 to its name. McLaren is next with 169.

Ferrari 150° Italia



GARY ANDERSON Technical consultant

THE FERRARI LOOKS to me to be a good, solid car. It doesn't appear to have any single significant advantage, but it works well and

looks well-balanced and responsive on track. Ferrari is a prancing dark horse, and I'm not convinced that it has yet shown its full hand, especially with the wily Fernando Alonso on board. Luca di Montezemolo has piled

on the pressure, saying titles are expected, but Stefano Domenicali has been doing a great job and, as we saw in Abu Dhabi last year, the margins between winning the title and finishing second can be tiny.

THE TEAM



Stefano DOMENICALI
Team principal

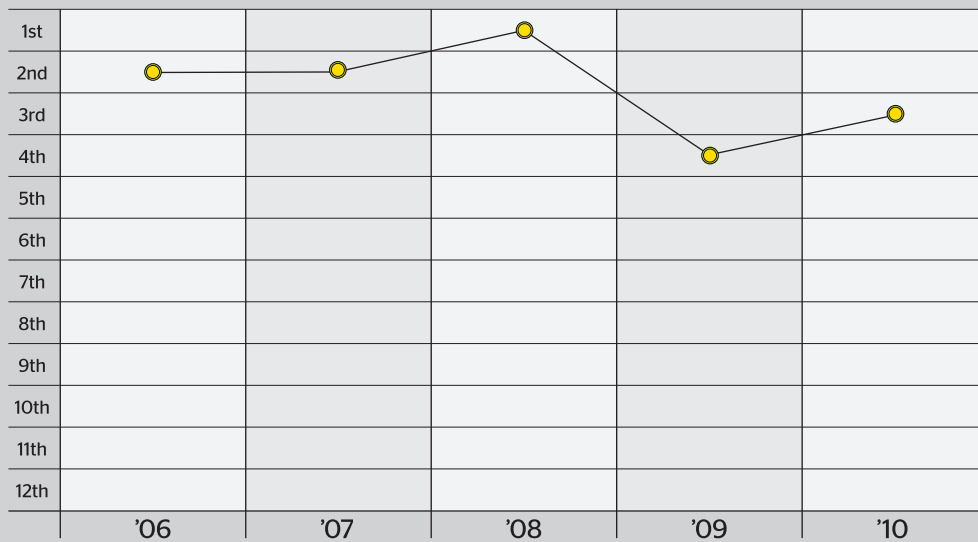


Aldo COSTA
Technical director



Nikolas TOMBAZIS
Chief designer

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



INS & OUTS



JULES BIANCHI

GP2 racer has been appointed Ferrari's first-choice reserve driver. Giancarlo Fisichella remains on the books too.



CHRIS DYER

Ferrari's head of race engineers was the sacrificial lamb for the Abu Dhabi disaster and switches to a factory role.



F150

What was the Ferrari F150 became F150th Italia and finally 150° Italia after Ford questioned the use of its famous pick-up truck trademark.



MARK HUGHES Grand prix editor

WAS FERRARI'S oh-so-close campaign of last year just the opening salvo of a potent new partnership with Fernando Alonso, or a golden opportunity missed, one that will not come along again for a long time? The performance of the new car in testing suggests the former. The red car has been fast and reliable, and Alonso will be leading

a team absolutely on a mission after failing to grab a title that was theirs for the taking last year. The recruitment of Red Bull strategy expert Neil Martin had already been made, though not announced, when the team scored that tactical own-goal in last year's season-closing Abu Dhabi Grand Prix. His presence, together with that of his former McLaren colleague Pat Fry, should bring an extra layer of calm expertise. Long-time Ferrari driver Felipe Massa may be convinced that he can still

get equal billing with Alonso so long as he performs to the same level from the start of the season, but the reality is that this team functions best when it is able to get behind a genuine leader and align all its guns in the same direction. All Massa can realistically hope to do is to become a more effective foil for Alonso by taking more points away from the key opposition than he managed to do last year. If he is not ready to accept that, there will be no long-term place for him at Ferrari.



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“Last year I didn't have the numbers of these guys, but now I call them every two days to put some pressure on”

Fernando Alonso gets to know his team

**KEY
STAT**

81

The number of races that Felipe Massa has started for Ferrari in F1, placing him fourth in the all-time list. This season, he'll move to third ahead of Gerhard Berger.



5

**Fernando
ALONSO
(E)**



Starts	157
Wins	26
Poles	20
Fastest laps	18
Points	829
'10 position	2nd



THE FERRARI honeymoon was perfect, with victory on his race debut for Ferrari in Bahrain last year. After that things got a little shaky, as a run of errors, including his chassis-destroying shunt in Monaco that cost a potential win, led to a barrage of criticism in the Italian press.

When, bafflingly, Alonso rated his chances of winning the world championship after the British Grand Prix at 50 per cent, many questioned whether he had taken leave of his senses. Far from it. What he was doing was working to galvanise the team behind him, and his controversial German Grand Prix win kicked off a strong

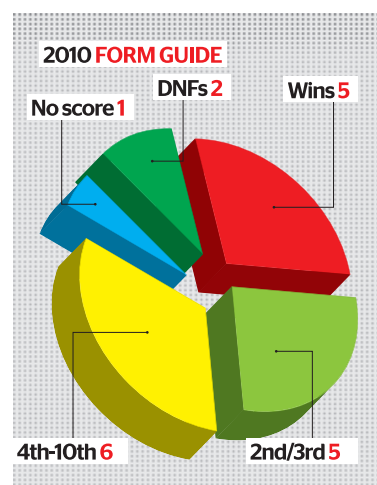
second half of the season that carried him to within a mistimed pitstop in Abu Dhabi of a third world championship. Now the team believes in him, Italy believes in him and, in its second year, the Alonso/Ferrari relationship is going strong.

In pre-season, Alonso hasn't missed a beat and heads into the season knowing that the title is on the cards. That's bad news for the rest, because Alonso's only major weakness is a tendency to lose interest and make mistakes if he's out of the hunt. At home in the team, he has had a major say in the design and development direction of the Ferrari 150° Italia.

Now that he is behind the wheel of a car built around his demands, no-one expects anything less than regular wins.

Once of the opinion that his F1 career may be relatively short – following his back-to-back titles with Renault in 2005 and '06 – Alonso is now hell-bent on adding further world championships after being reminded during two tough years on his Renault return that success doesn't always come easily.

Alonso is a tough and relentless opponent, and the extra drive of four seasons without a title will serve only to make him an even more formidable foe.



6

**Felipe
MASSA
(BR)**



Starts	133
Wins	11
Poles	15
Fastest laps	12
Points	464
'10 position	6th



THIS IS a big year for Felipe Massa. His *annus mirabilis* of 2008, when he came within 20 seconds of winning the world championship, is now a fading memory, and there are those within Ferrari who are losing faith in the amiable Brazilian.

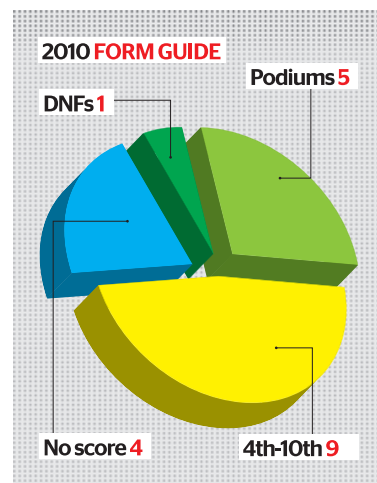
Last season was the worst of Massa's five for the Prancing Horse in terms of on-track performance. The fallout from the German Grand Prix team-orders row, when he and race engineer Rob Smedley made little attempt to hide their disgust at having to give away victory, further soured the relationship. Massa has a new contract to the end of 2012, but Maranello insiders admit that his

long-term future remains in doubt.

That's not to say that he should be written off, and several things go in Massa's favour heading into the year. Firstly, he's much happier with the balance and warm-up characteristics of the Pirelli tyres. Last year he complained repeatedly about his struggle to get the Bridgestone rubber up to temperature in qualifying, although it's important to note that the Japanese company did not see this reflected in his data. Secondly, Robert Kubica – the driver who some inside the team want to see replace Massa – is out of the picture for now, meaning some of that

immediate pressure has eased. Thirdly, he has had a season of working alongside Alonso, a man who loves to be the main focus of a team's attention, and should be better equipped to deal with that.

The bottom line is, how close can he get to Alonso? He needs to be a number two who can support the Spaniard, and too often last year there was a chasm between them in qualifying. Ferrari is under tremendous pressure to win titles this year and the constructors' championship could depend on Massa delivering what we know he was capable of before his terrible 2009 accident in Hungary.





“This doesn't lock up, it doesn't three-wheel and it handles better than last year's car, but it just doesn't have as much downforce”

Lewis Hamilton on the MP4-26

AUTOSPORT RATING 3rd	Drivers	●●●●●
	Engine	●●●●●
	Chassis	●●●●●
	Budget	●●●●●
	Tactics	●●●●●

McLaren



Hmm... Hamilton and Button should be all set to burst out of the blocks and challenge for the title, but it appears that there's work to be done on the car



Missing the first pre-season test in order to hone the MP4-26 - complete with L-shaped sidepods - appears to have backfired for the Woking team, at least as far as fighting for victories from the start of the season is concerned. Lewis Hamilton and Jenson Button have admitted that winning in Australia is likely to be out of the question, meaning that for a third successive season they are playing a game of developmental catch-up from the off.

Twelve seasons have been and gone since McLaren last won the constructors' championship. If it's to end that streak in 2011, its much-vaunted developmental

resources will be stretched to the limit. Failure to do so would mean some serious questions have to be asked as to whether its structure - where one design team alternates with another - lends itself to achieving the ultimate accolade.

One of the team's most obvious strengths is its driver line-up, which is arguably one of the best-balanced in F1. Lewis Hamilton is the hard charger, capable of dragging a great laptime out of pretty much anything and one of the best overtakers in the business, while Jenson Button is smooth, consistent and, when the car is to his liking, very fast. Highlighted as a potential flashpoint in the build-up to last season, the pair's working

TEAM STATS

Starts	684
First GP	Monaco 1966
Wins	169
Poles	146
Fastest laps	142
	2010
	2nd

relationship is strong and this should pay dividends, particularly early in the season as McLaren tries to unlock the potential of the MP4-26 - the team's in-season development is a strong point, so solid points early on would keep it in the hunt.

A lot is changing in the world of McLaren. The dissolution of the partnership with Mercedes, the expansion of the company into being a road-car producer and the recent handover of the race team from Ron Dennis to Martin Whitmarsh means that the process of adapting is still ongoing. With Red Bull emerging as a new power in the sport, McLaren is facing a fight to maintain its status as arguably the best team in F1.



KEY STAT

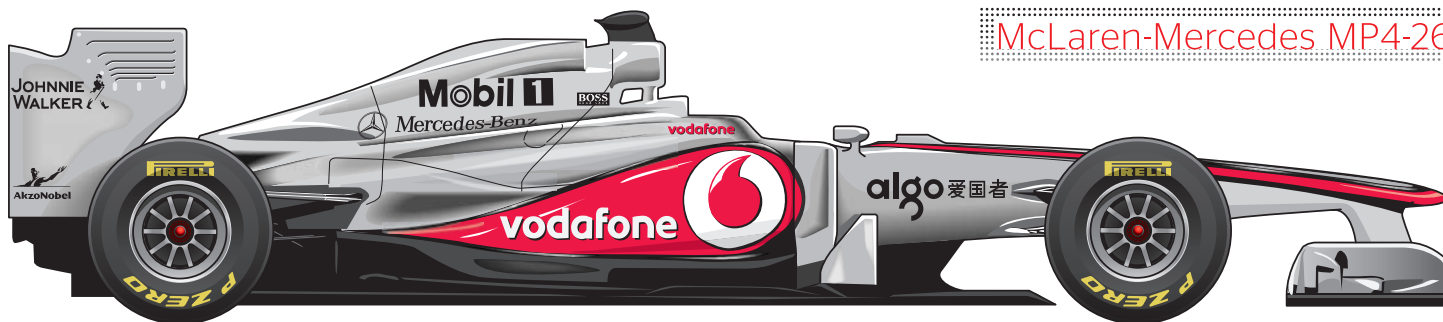
12

Seasons that have passed since McLaren won the most recent of its eight constructors' championships.

KEY STAT

10k

The number of laps that McLaren will have led in F1 – once Lewis Hamilton and Jenson Button add a mere 34 to the total.



McLaren-Mercedes MP4-26



GARY ANDERSON Technical consultant

FOR THE third consecutive season, McLaren has made a slow start. When Adrian Newey left the team, there was talk about its matrix

management system not relying on one person and ensuring that nothing came to the car that wasn't a positive step, but that sounds to me like a committee or a ship without a captain. I think McLaren need to take a long, hard look at

the way that things are being done, because there's now a pattern of having to do an horrendous amount of work to get the car up to standard after it hits the track. McLaren has the money and resources, but perhaps it needs a vision.

INS & OUTS



PEDRO DE LA ROSA

The Spaniard returns as test and reserve driver after stints with Sauber and Pirelli.



L-SHAPED SIDEPODS

Implemented to feed as much 'good-quality' air as possible to the rear-lower main plane and the floor of the car.



PAT FRY

The chief race engineer has left to join Ferrari, where he has dual engineer/assistant tech director role.

THE TEAM



Martin WHITMARSH
Team principal

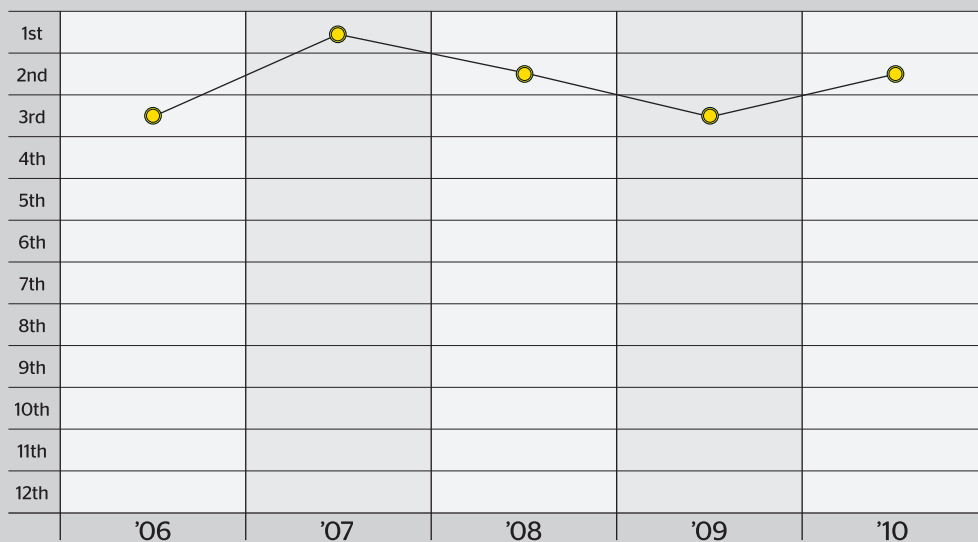


Paddy LOWE
Technical director



Jonathan NEALE
Managing director

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



MARK HUGHES Grand prix editor

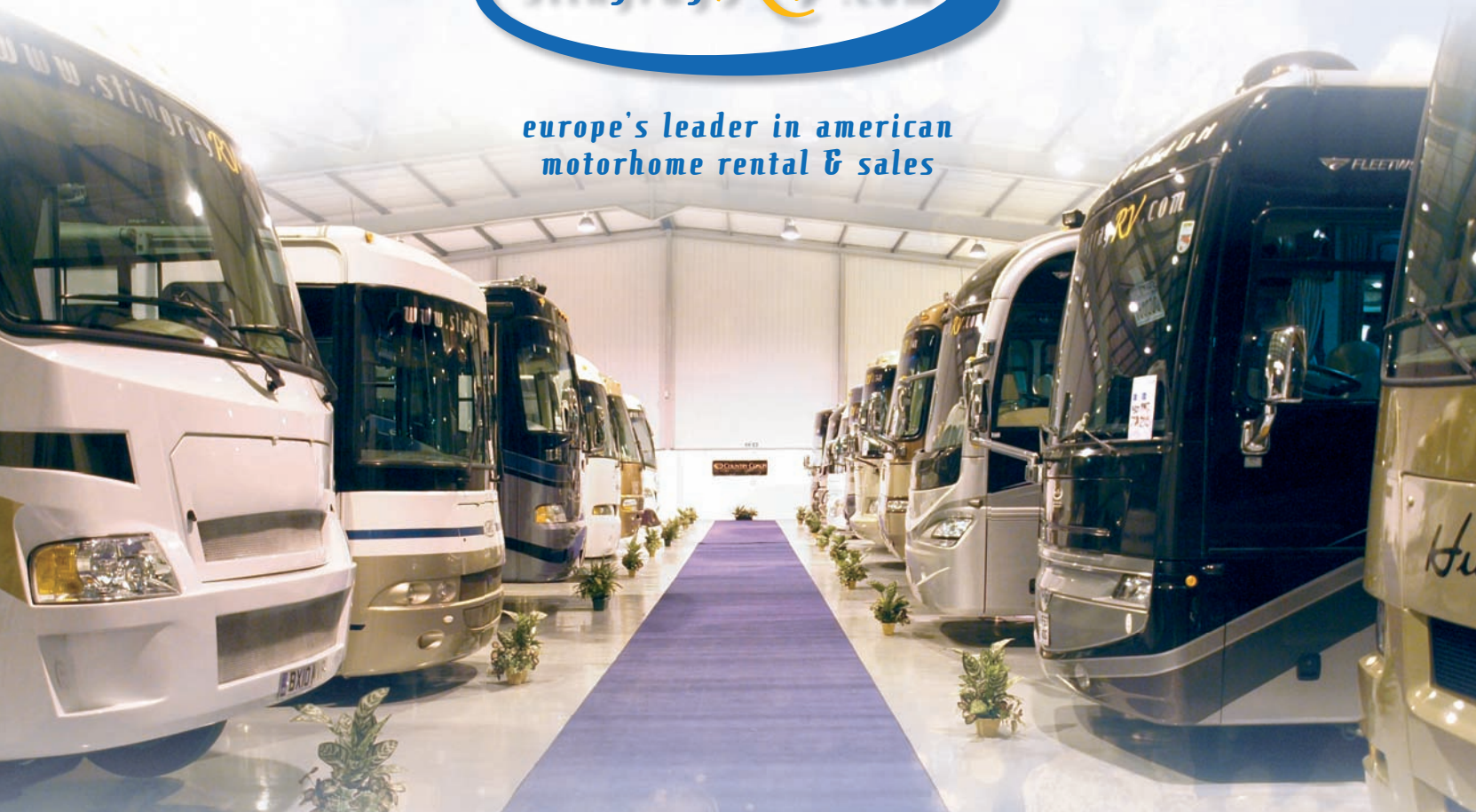
AS THINGS stand, the MP4-26 is a big chunk off the pace without even the compensating virtue of reliability. McLaren will no doubt quickly develop the car, but it does beg the question of whether there is a fundamental shortfall somewhere within the team. This is the second time in three years that a new McLaren has been

ill-born, and though the signs are that it is nowhere near as bad as the 2009 car initially was, the pattern is a worrying one. Is it just coincidence that in the past few years the bad McLarens have come when there was big regulation change (2009, 11)? Is the team missing Adrian Newey's vision more than it would admit? Or is there something in the structure of the team that does not allow the aero department the overriding clout it needs? These are questions that Lewis Hamilton will doubtless be too frustrated to ask.

Very much aware of the passage of time, he knows he could already be a multiple champion. Lost titles from the perspective of being in a team in which you have confidence of always producing fully-competitive cars is one thing, but questioning whether that is any longer the case is something potentially much more disturbing. It comes at a difficult time for Jenson Button too, looking to build upon a promising first season with the team, while being aware that he's in the latter stages of his F1 career.



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“I would be surprised if we can really match the Red Bull and the Ferrari when we get to Melbourne”

Jenson Button

**KEY
STAT**

200

Jenson Button is due to start his 200th GP in Hungary this year. This will make him only the 11th member of the F1 200 club, and just the second Brit.



3

**Lewis
HAMILTON
(GB)**



Starts	71
Wins	14
Poles	18
Fastest laps	8
Points	496
'10 position	4th



A LOT has changed for Hamilton of late. Last year was his first since coming out from under the wing of father and manager Anthony, and he seemed a far more relaxed person because of it. He was in control of his destiny and, according to team principal Martin Whitmarsh, benefited hugely from Jenson Button's arrival as his team-mate.

The 2008 title winner looked every bit a potential champion for much of the season, but there were still a few chinks in the armour: his first-lap mistake at Monza – where he clipped the back of Felipe Massa's Ferrari – was costly, but it would be churlish to be too harsh on him

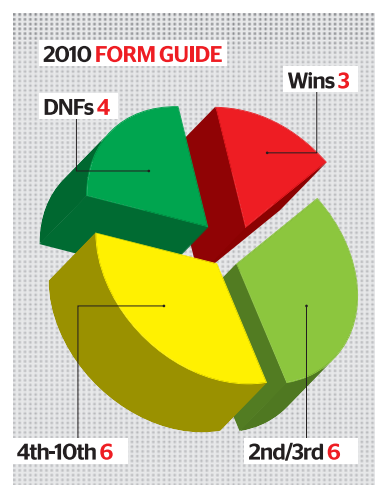
for the clash with Mark Webber in the following race at Singapore that again left him with zero points. Other than that he was consistent, ferociously fast and able to maintain the upper hand over Button.

With McLaren expecting to take a few races to develop its MP4-26 into a race-winning proposition, his ability to drag results out of less-than-perfect cars could be crucial in keeping him in touch with the early frontrunners. He has expressed concerns about the new Pirelli tyres, but he will be at home with the oversteer characteristics that will set in once they are past peak performance – dealing with this will

be one of the key challenges for all drivers this season.

Hamilton is already one of the best overtakers in F1, so it's a moot point at present whether he will benefit from the adjustable rear wing. If it makes passing easy, it will take away one of his trump cards; if it makes it only slightly easier than it has been, he will surely capitalise on the device better than most.

Now with four seasons in F1 under his belt, Hamilton is no longer the wonderboy and the pressure is on to add a second championship. No-one questions he has the speed to do it, but does he have the car?



4

**Jenson
BUTTON
(GB)**



Starts	189
Wins	9
Poles	7
Fastest laps	3
Points	541
'10 position	5th



THE 31-YEAR-OLD settled into McLaren so quickly last year that it seemed as though he'd been there for years. It was a process of acclimatising that was no doubt helped by his winning two of his first four races for the team.

Button is unquestionably a changed man since taking the championship in 2009, and his relaxed air allows him to work on his own game without letting the pressure of matching up to his super-fast team-mate get to him. He wears the challenge like a man who knows that, whatever happens from now, he has achieved the ultimate goal of being world champion

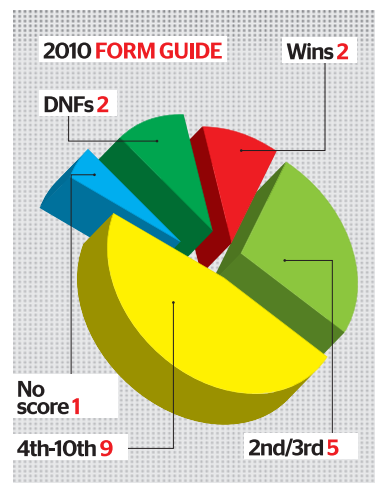
and that can never be taken away from him. It would be a mistake to confuse that approach with not caring, for he remains a shrewd operator who is still capable of beating Hamilton not only through clever strategy calls, but on pace.

He remained in championship contention last year until the penultimate race. The perception was that he was resoundingly beaten by Hamilton, but in reality he was pretty close to his team-mate on single-lap pace and, with a little more luck, could have gone to the final race in the mix. This year, with a season of experience at McLaren under his belt, he

could be even closer.

The big question mark surrounds how he will deal with the Pirelli tyres. One school of thought suggests that his ability to be gentle on his rubber will give him the edge over Hamilton, who is more likely to chew through his rapidly.

This could help a little in qualifying or at the start of the race, but more important will be how he deals with the increasing oversteer that will set in during a stint. Button is brilliant when happy with the balance of the car, but sometimes struggles if things aren't to his liking. This will be the key to whether he can mount a title challenge this season.

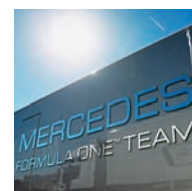


“The target is to hopefully be on the podium and, maybe, if things go very well, to win a race this year. That’s probably the maximum we can talk about”

Michael Schumacher

AUTOSPORT RATING 6th	Drivers	●●●●●●
	Engine	●●●●●●
	Chassis	●●●●●●
	Budget	●●●●●●
	Tactics	●●●●●●

Mercedes



The pressure’s on for the former world-title winning squad. The new car has struggled in testing and the team’s high-profile owner needs and wants results



After the miracle of 2009, when the Brackley-based team rose from the ashes of Honda to win both the drivers’ and constructors’ championship, last season brought it back down to earth. Mercedes’ buyout of the team and decision to bring seven-time world champion Michael Schumacher out of retirement was the big story pre-season. A paltry return of three podium finishes - all of them for Nico Rosberg - and a distant fourth in the constructors’ championship was very disappointing. Understandably, the team regularly pointed out that it was in a transitional season and that things

would be different in 2011, but after putting a huge amount of effort into its new machine, pre-season testing has promised no such leap forward. If anything, Mercedes is going to be hard-pressed to maintain its championship position and winning a race seems a long way off.

Hopes of living up to expectations depend on a major upgrade package, much of which was added to the car during last week’s final pre-season test, but with team principal Ross Brawn admitting that the team “needed a second” - a quote to which he should have added “at the very least” it seems that qualifying in the top 10 would be a major turnaround come the Australian Grand Prix.

TEAM STATS

First Race
France 1954
Wins
9
Poles
8
Fastest laps
9
2010
4th

If this year proves to be as tough as it’s shaping up to be, the pressure building on the team will be enormous. Mercedes made it clear when buying the team that results were expected, while the high-profile return of Schumacher and the coverage that his struggles continue to attract could prove a millstone around the team’s neck. On the positive side, the team has, in Brawn, one of the best leaders in the business and the recruitment of Bob Bell as technical director will only strengthen the team in that department.

With Schumacher enjoying a strong end to 2010 and Rosberg enhancing his reputation last year, the driver line-up should rack up points. If the car is up to it.



MARK HUGHES
Grand Prix editor

IT'S ACTUALLY difficult to gauge exactly where this car is. It hit the test tracks in a unprepared state after personnel changes in the factory led to late completion. That it wasn't then adequately cooled just set

things back further. Of all the cars, this is the one that will probably differ most between its launch spec and what is raced in Melbourne and only then will its true level be ascertained. Given all that, it would be no

surprise if, despite a distinctly unpromising test programme, it finds a good chunk of lap time. It probably won't be enough to make it a Red Bull-worrier initially, but Q3 respectability would be a good start.



Mercedes MGP W02



7

Michael SCHUMACHER (D)



Starts	267
Wins	91
Poles	68
Fastest laps	76
Points	1441
'10 position	9th

IT'S BEEN harder than he anticipated, but the 42-year-old is still not to be taken lightly. A strong finish to last season suggests that he's still working towards his comeback peak, although whether

that is high enough to win races is a moot point. More comfortable on Pirelli tyres, expect him to give Rosberg a harder time this year, but a 92nd win might prove to be beyond the car.



8

Nico ROSBERG (D)



Starts	89
Wins	0
Poles	0
Fastest laps	2
Points	217.5
'10 position	7th

IN SOME ways 2010 was a breakthrough year for the son of the 1982 world champion. He defeated the most successful driver in the history of F1 in the same team and established himself as

the leader of a manufacturer squad. But, results-wise, it was still a year of frustration for the 2005 GP2 champion. If the Merc isn't up to winning races, will his frustrations get the better of him?

INS & OUTS



BRAWN GP

The five co-owners of the old Brawn GP team, headed by Ross Brawn and Nick Fry, have now fully sold out to Mercedes and Aabar.



BOB BELL

The ex-Renault man comes on board as technical director, hinting at a possible succession plan for Ross Brawn?



STAFF SHIFTS

Both drivers have new race engineers, with Andrew Shovlin promoted to chief track engineer.

THE TEAM



Ross BRAWN
Team principal

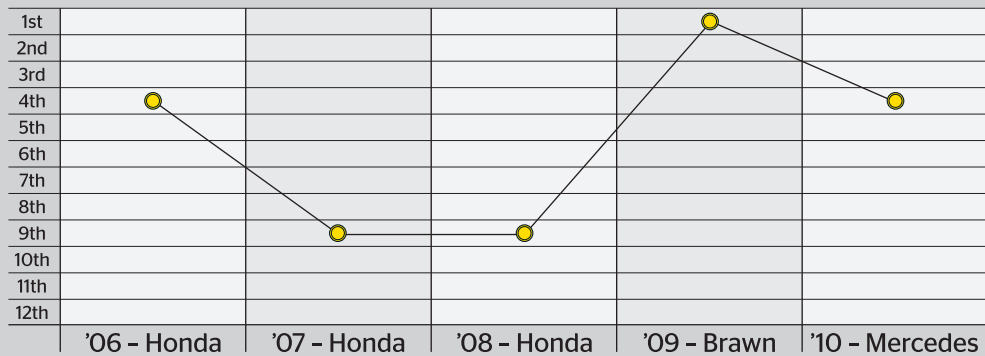


Norbert HAUG
Mercedes motorsport boss



Bob BELL
Technical director

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



GARY ANDERSON
Technical consultant

IT'S VERY difficult to know if the upgrade introduced at the final Barcelona test is the magic bullet that was promised, but it's hard to see Mercedes being a

contender in Melbourne. This idea of starting testing with a basic car and then throwing a huge update at it makes no sense - if you could, you would want to improve your car from a strong starting point. It doesn't seem that the guys

at Brackley have as good a handle on what it takes to produce a top car out of the box and a lot of time and money will be used up getting the Mercedes to the level of performance that it should, by rights, have started testing at.



“A successful season would be to have more podiums and a couple of wins. We know that our car is much better than last year’s”

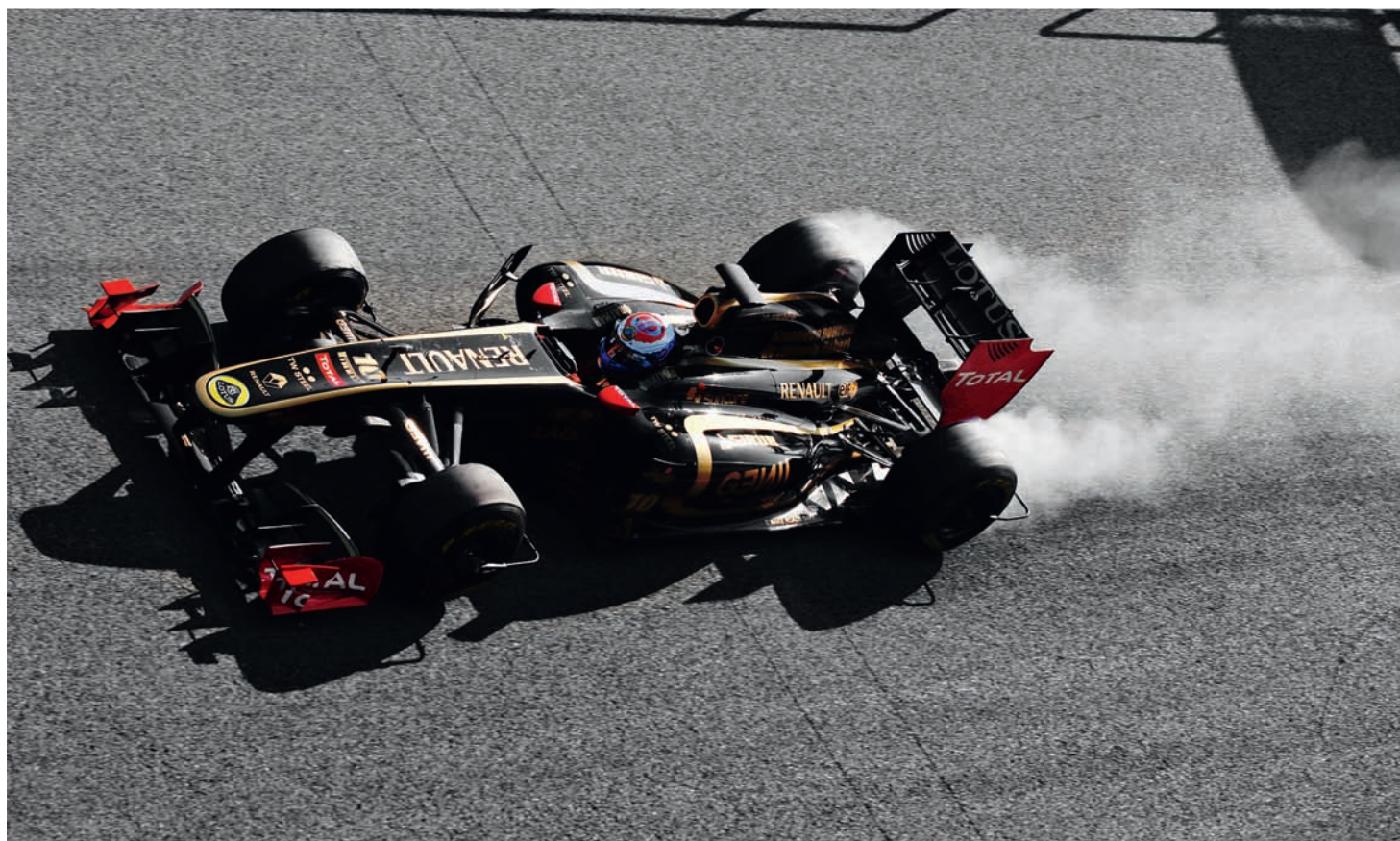
Eric Boullier, team principal

AUTOSPORT RATING 4th	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Renault



Reinvigorated team was all set for a great leap forward in 2011, then came Kubica’s disastrous rally crash. But even without the Pole, hopes are high



S

ince the Singapore Grand Prix crash controversy, there has been a sense of rebirth at Enstone.

Renault is no longer in control of the team that carries its name – Genii Capital is the majority owner, while the whole identity of the squad has started to shift with Lotus Cars backing and a new black-and-gold livery, a nod to the iconic John Player Special colours of mid-1980s Lotus-Renaults.

After a desultory 2009 season, Renault surprised everyone by producing a car that, aerodynamically, was a step up from anything it had fielded before. Following an impressive 2010 season it is regarded

as the team most likely to return to the winners’ ranks this year. After unveiling its innovative R31, which features the much-vaunted exhaust exits at the front of the sidepod, hopes were high until Robert Kubica’s monstrous accident on a rally in Italy a few days later robbed the team of one of its greatest assets.

From that point, it was a question of regrouping and salvaging the season. With second driver Vitaly Petrov not capable of leading the team, it was fortunate that wily veteran Nick Heidfeld was a free agent. A few days after Kubica’s crash, the man who has finished second in a grand prix eight times was in the car. An underrated talent, Heidfeld will be

TEAM STATS

Starts
281
First GP
Great Britain
Wins
35
Poles
51
Fastest laps
31
2010
5th

capable of winning races if the car is up to it. Although not quite in the league of champion-in-waiting Kubica, he will at worst be a consistent points hoarder.

Under technical director James Allison, who was promoted to the role in the wake of Pat Symonds’ enforced departure in 2009, Renault appears to have upped its game in terms of aerodynamic development. It has also upgraded its windtunnel to a steel-belt system and improved its CFD capability. That allowed it to match the development rate of the top teams last year and, if the car does start the season ahead of teams such as McLaren and Mercedes, it’s conceivable that it will stay there.

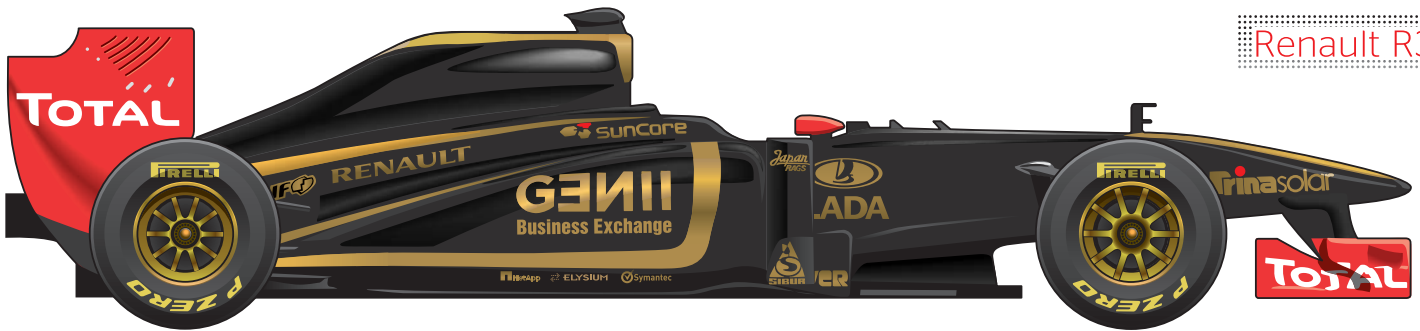


MARK HUGHES
Grand Prix editor

THE R31 LOOKS the part, beautiful in a way Enstone cars have not been for a long time, and with the sort of innovation that may not itself win races, but which demonstrates a spirit of confidence that

could. Unfortunately, the story's leading man has been written out before the season has even started, and the team cannot have as strong a season as it would have but for Robert Kubica's accident. But Nick

Heidfeld is the perfect stand-in. The financial foundations of this team are still not as solid as they could be, and a strong season with a good car could be its salvation. That is entirely feasible.



Renault R31



9

Nick HEIDFELD (D)



Starts	172
Wins	0
Poles	1
Fastest laps	2
Points	225
'10 position	18th

THIS UNEXPECTED opportunity may yet prove to be the biggest break of his career. The fact that he was the obvious - probably the only - choice to replace the injured Robert Kubica speaks

volumes about Heidfeld's quality. Fast, consistent and a tough competitor on track, the only thing missing from his CV is that elusive race win. If the car is good enough, he'll be thereabouts.



10

Vitaly PETROV (RUS)



Starts	19
Wins	0
Poles	0
Fastest laps	1
Points	27
'10 position	13th

MISTAKES WERE the Russian's problem last year. There were a couple of excellent performances in Hungary and Abu Dhabi, but too many spins and brushes with the wall. He has had to

convince the team that he has the ability to up his game and has already relocated near Renault's Enstone factory. He'll still be the number two driver, but regular points are surely a must.

INS & OUTS



ROBERT KUBICA

The heart of the team was ripped out when he suffered his rally accident. A return in 2011 is unlikely, but not impossible.



LOTUS

Backing from Lotus Cars has changed look, but not identity, of team. Long-term, expect its involvement to increase.



RENAULT

The French marque has cut its stake to almost nothing, but remains committed as an engine supplier.

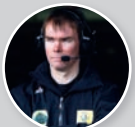
THE TEAM



Eric BOULLIER
Team principal

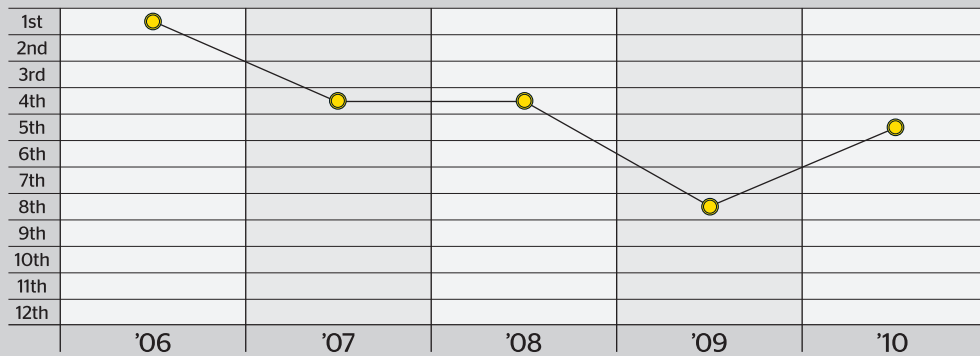


James ALLISON
Technical director



Alan PERMANE
Chief race engineer

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



GARY ANDERSON
Technical consultant

THE R31 looks a neat package, with its secret-weapon exhausts! It's been hard to judge Renault in pre-season testing because the car has been a little

inconsistent. The team knows that Kubica, if he is sent out with a car that has been made a tenth of a second faster, will find a tenth and a half. Nick Heidfeld is a solid replacement, but Kubica will be missed. I'd expect Renault to at least

be at the same level as last year and possibly knocking on the door of Red Bull and Ferrari. Last year's car was very well developed, and it seems the guys at Enstone have a good idea of what they need to do to get the best out of the R31.

“We have to progress. We have finished eighth, seventh and sixth in the past three years. We have got to finish in the top four this year”

Sam Michael, technical director

AUTOSPORT RATING 5th	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Williams



After six years of being midfield fodder, the iconic team has unleashed its most aggressive car for years. It's quick, but will it be quick enough to win?



Six seasons and over a century of races have passed since one of F1's most famous teams last won a race, and Juan

Pablo Montoya's victory in the 2004 Brazilian Grand Prix is now so long ago that it feels like it came in a different age.

Although Williams no longer has the right to be regarded as an F1 powerhouse, there has been a steady improvement over the past couple of years. Its 2011 car, the FW33, is its most innovative in years, with the smallest gearbox the team has ever made central to the most aggressively-packaged rear end on the grid. In testing, the car has proved to be

quick but its new in-house KERS has proved problematic. Hopes that a return to the top four in the championship may not be out of the question.

A lot has changed at Williams over recent years. Once, the team was all about Frank Williams and Patrick Head. Williams still maintains the largest stake, but Head has slashed what was once a 30 per cent share down to around five per cent, through the sale of shares to Toto Wolff and the recent flotation on the Frankfurt stock exchange.

Williams has been one of the worst hit in the recent economic slump. Fully independent since parting ways with BMW at the end of 2005, it has relied on

TEAM STATS

Starts
553
First GP
Argentina 1975
Wins
113
Poles
126
Fastest laps
130
2010
6th

commercial sponsors. With the challenges of bringing money into F1 huge, the decision was taken to drop Nico Hulkenberg - who Williams himself rates as a future world champion - and take on Pastor Maldonado and his pot of gold from Venezuela.

It's not a bad decision. Maldonado succeeded Hulkenberg as GP2 champion and is worthy of his place in F1. The cash injection will be vital in allowing the team to progress, but he's not a match for the man he replaces. Alongside him, Rubens Barrichello remains and once again the technical input of a man, who Head describes as the team's best development driver since Damon Hill, will be vital.

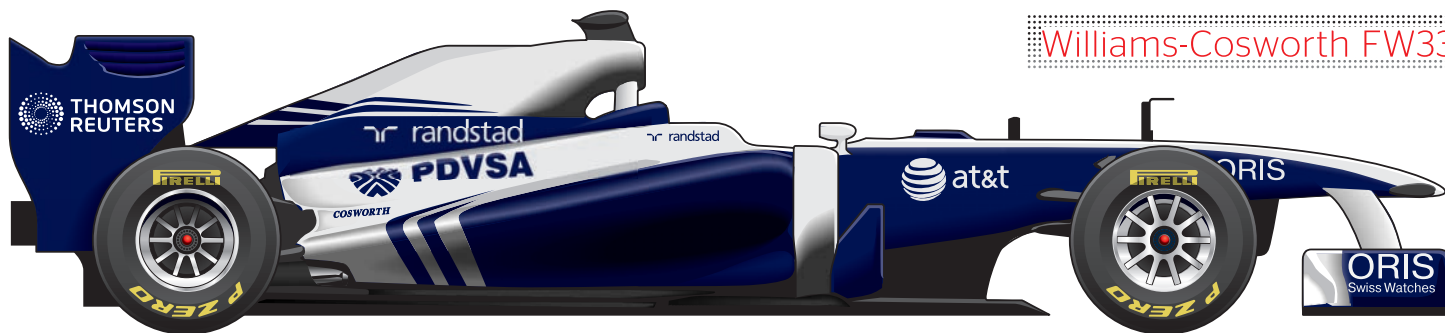


MARK HUGHES
Grand prix editor

A BRAVE GAMBLE by the Williams technical team has produced the grid's most adventurous design, and it has shown sporadic promise. Could this be the car to break the cycle of midfield mediocrity

suffered in recent years? A race-winning car would make an irresistible fairy story for Rubens Barrichello in his 19th season, but sadly such things usually don't happen, although Rubens's canniness at judging

when to make tyre stops (see Silverstone 2008) may well pay dividends. Pastor Maldonado has the ability to turn around the perceptions associated with a 'pay driver' and is likely to vie with Perez as rookie of the year.



Williams-Cosworth FW33



11 Rubens BARRICHELLO (BR)



Starts	303
Wins	11
Poles	14
Fastest laps	17
Points	654
'10 position	10th

IT DIDN'T take the Brazilian veteran long to make himself indispensable to Williams after joining for 2010. After a poor start to the year, he was the driving force behind the switch in focus purely

from downforce figures to making the car driveable and consistent. But he's not only about the technical side; he's as quick as ever and always a threat in the wet. At 38 he remains a potential winner.



12 Pastor MALDONADO (YV)



Starts	0
Wins	N/A
Poles	N/A
Fastest laps	N/A
Points	N/A
'10 position	N/A

IT'S NO secret that his place in the team is thanks to his bringing plenty of finance. But that doesn't mean he's a no-hoper. He won GP2 last year, dominating early in the season, and has made a

positive impression on the team during testing. Quick, but often wild, the key to Maldonado's season will be how he deals with the inevitable setbacks of a rookie campaign.

INS & OUTS



TINY GEARBOX

The smallest gearbox ever produced by the team is key to the unique rear-end packaging of the FW33.



NICO HULKENBERG

Set the lap of the season in qualifying for the Brazilian GP, then this highly-rated German was dropped.



SHARES

A chunk of the team was listed on the Frankfurt stock exchange - much of it from Patrick Head's stake

THE TEAM



Frank WILLIAMS
Team principal

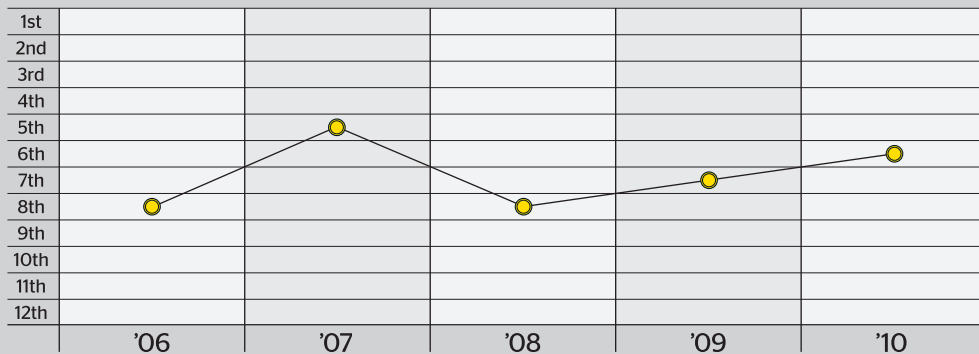


Adam PARR
Chairman



Sam MICHAEL
Technical director

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



GARY ANDERSON
Technical consultant

A TEAM OF Williams's stature should be in the top five, and things look much better going into this season. The car's secret weapon is its compact gearbox,

which gives the car a very low centre of gravity and minimises the aerodynamic blockage to the diffuser and wing. Hopefully that well-engineered concept will work. There's no question that the FW33 is a step forward from last year.

Although it's a negative that Maldonado has replaced Hulkenberg, who is a star in the making, in Barrichello they have a fantastic development driver who can drive the team forward and is far from being over the hill.



“We’d love to be fighting with the big teams, but fifth or sixth in the championship is a reasonable target”

Andy Green, technical director

AUTOSPORT RATING 8th	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Force India



For all the flashes of inspiration from 2009 and '10, this is one team predicted to be spending much of this year looking over its shoulder



It's easy to forget just how far Force India has come in recent years. In 2008, the ex-Jordan team scored no points and was rooted to the back of the grid. But since securing Mercedes engines and a technical partnership with McLaren, things have improved markedly.

Last year, Williams pipped the team to sixth in the constructors' championship. After starting the season as regulars in the top 10, drivers Adrian Sutil and Tonio Liuzzi slid further from the points as the season went on, and the German's outracing of Lewis Hamilton in a straight fight in Malaysia was a distant memory

as the 2010 season concluded.

Still, the fact remains that Force India could legitimately claim to be one of the five best teams in F1 at the start of 2010. Although days such as Spa 2009 - when Giancarlo Fisichella almost won - are unlikely to be repeated any time soon, the Silverstone squad is now a credible midfielder.

Things are likely to start a little more slowly this year. After missing the first pre-season test, the new Force India VJM04 took a while to get into its stride. Whether the team's momentum of the past two years has been damaged by the departure of two key technical leaders - James Key to Sauber and Mark Smith

TEAM STATS

Starts	54
First GP	Australia 2008
Wins	0
Poles	1
Fastest laps	1
	2010
	7th

to Lotus - has yet to be seen, but new technical director Andy Green has a wealth of F1 experience to call on. That said, the team will have to punch above its weight to achieve its objectives this year, even with a recent ramping up of its CFD capability and improvements to its factory over the past few years.

The recruitment of reigning DTM champion Paul di Resta to partner Force India stalwart Adrian Sutil is a good move. Despite not having raced a single-seater for four years, the DTM champion has had plenty of F1 mileage over the past year and has huge potential. If the car is up to regular points scoring, the drivers certainly will be as well.



MARK HUGHES
Grand prix editor

THE PURSE strings have been held very tightly here over the past couple of seasons and the team has shown well considering. The glory of those two front rows in 2009 was followed by a less spectacular but more

consistent car last year, and the aim has been to build on that. The team is having to do that in the wake of the loss of several high-level engineering staffers, not least James Key and Mark Smith, and inevitably

that leads to question marks, particularly so given the car's unremarkable testing form. It's not the ideal way for Paul di Resta to be making his entry into F1, and all he can do is show well in comparison to Adrian Sutil.



Force India-Mercedes VJM04



14

Adrian SUTIL (D)



Starts	71
Wins	0
Poles	0
Fastest laps	1
Points	53
'10 position	11th

THE GERMAN has driven for this team since his F1 debut in 2007, when it was called Spyker. As the team has grown, he has proved himself to be a consistent performer capable of scoring

regular points, although there are fears that he may have missed the boat to move up the grid this winter. A man to watch in the wet, Sutil's car control and traction sensing are his strong points.



15

Paul DI RESTA (GB)



Starts	0
Wins	N/A
Poles	N/A
Fastest laps	N/A
Points	N/A
'10 position	N/A

THE 2006 F3 Euro Series champion proved his pedigree by winning the DTM German touring car title last year. The former McLaren AUTOSPORT BRDC Award winner is promoted to an F1

race seat aged 24. With a year of testing under his belt, he knows the team inside out and has every chance of asserting himself over his team-mate in the second half of the year.

INS & OUTS



TONIO LIUZZI

Dropped despite being under contract for 2011, the Italian has made way for former test driver and DTM champ di Resta.



ANDY GREEN

Having been involved on and off with the team since it was formed as Jordan, he has been appointed technical director.



NICO HULKENBERG

Williams refugee is Force India's reserve and will drive for the team during Friday practice.

THE TEAM



Vijay MALLYA
Team principal



Otmar Szafnauer
CEO



Andy GREEN
Technical director

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010

1st					
2nd					
3rd					
4th					
5th					
6th					
7th					
8th					
9th					
10th					
11th					
12th					
	'06 - N/A	'07 - N/A	'08	'09	'10



GARY ANDERSON
Technical consultant

FORCE INDIA WILL be doing very well to improve on last season, as performance-wise it seemed to be on a slippery slope in the second half of

the year. I'm not convinced it has reached the bottom of that slope just yet. We've not seen the car perform as it should have done in testing, and it's likely that the recent changes in staff won't have helped. Andy Green, who is the new technical director,

is tremendously capable, but it will inevitably take time to impose his direction and philosophy on the car. That will make it even more difficult to recover from last year's slide, and it's going to be tough to repeat the highest points of 2010.



“We want to finish in the points regularly and clearly improve our position in the constructors’ championship”

Peter Sauber, team principal

AUTOSPORT RATING 7th	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Sauber



The team that was a solid midfielder before its BMW years is now... a solid midfielder. But there are encouraging signs that a surprise is on the cards



The Sauber of old is firmly back in Formula 1. After four years during which BMW reached for the skies, came within touching distance of glory and then plummeted back to earth before quitting F1, the Swiss squad had to make major cutbacks last year. New technical director James Key came on board early last season and was charged with reorganising the design and development operation for Sauber's reduced circumstances. With that painful process now complete, the aim for this season is to re-establish the team as the rock-solid midfield operation that it was in the pre-BMW era. The old Sauber team

is now, effectively, back, so expect more consistent, pragmatic motoring from the Swiss corner.

Having produced a tidy car that looks particularly strong in faster corners, Sauber's biggest challenge is to keep pace with its midfield rivals with an inexperienced driver line-up. The signing of Sergio Perez - backed by Telmex money but resoundingly worthy of an F1 chance - to partner Kamui Kobayashi means the team no longer has a veteran such as Pedro de la Rosa or Nick Heidfeld to call upon. But as owner Peter Sauber enjoys pointing out, the team's best-ever season as an independent, when it finished fourth in 2001, came with racing

TEAM STATS

Starts
304
First GP
South Africa
Wins
1
Poles
1
Fastest laps
2
2010
8th

novice Kimi Raikkonen and second-year driver Heidfeld at the wheel.

Despite a modest budget, Sauber has a well-equipped factory at its disposal. With a proven Ferrari engine and gearbox, it can focus on aerodynamic development. Last year Key made good use of those strengths to help turn Sauber from an outfit that flirted with falling in Q1 to being on the edge of the top 10. Kobayashi proved in the second half of last season that he's capable of delivering consistent points finishes, although whether Sauber can improve on eighth in last year's constructors' championship could depend on how quickly GP2 graduate Perez adapts to life in the big-time.

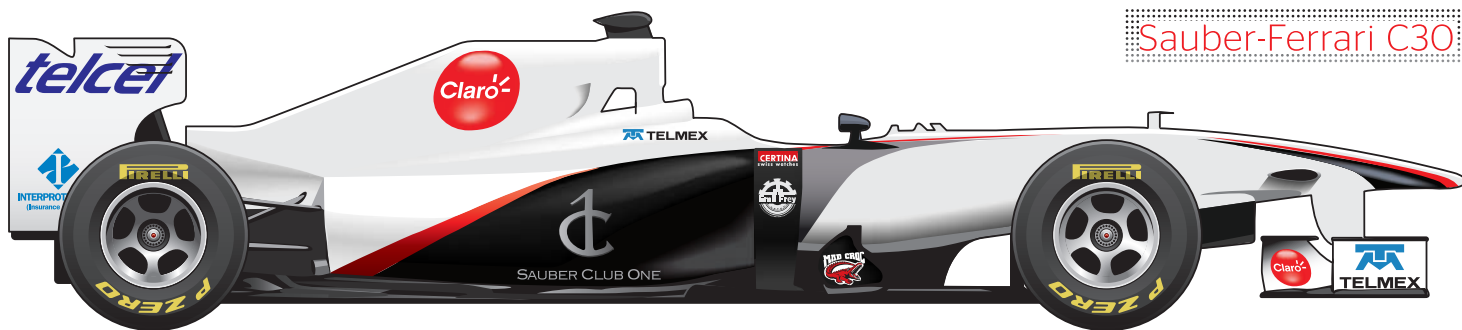


MARK HUGHES
Grand prix editor

IS THERE a sensation about to unfold here? Sergio Perez's sudden turn of speed on the third day of the last Barcelona test certainly caused heads to turn. The car is a neat utilisation of the Ferrari rear-end package,

and under James Key's direction the technical team is building upon a very impressive development rate through last season. It's now well-funded too. Add that to Kamui Kobayashi's aggressive racecraft and

there just may be some giant-killing on the cards. On the other hand... last year's Sauber also set the winter test tracks alight, then it turned up at the first race and was 2.5 seconds off the pace.



Sauber-Ferrari C30



16 Kamui KOBAYASHI (J)



Starts	21
Wins	0
Poles	0
Fastest laps	0
Points	35
'10 position	12th

A HARD charger who fears nobody, the Japanese's reputation for being wild is nonetheless ill-deserved. Last year there were no more errors than you would expect from a rookie, and Kobayashi

showed a real aptitude for executing race strategies to perfection. Two big questions need to be answered this year: has he got the absolute speed and the technical skill to lead the team?



17 Sergio PEREZ (MEX)



Starts	0
Wins	N/A
Poles	N/A
Fastest laps	N/A
Points	N/A
'10 position	N/A

PESOS HAVE played their part in landing Perez his F1 break, but the GP2 runner-up is a very quick driver in his own right. He upset the British F3 establishment with an unexpected, albeit

unsuccessful, title bid in 2008. He's a race winner in GP2, but his 2010 season was scrappy, by his own admission. Has settled in well at Sauber and unquestionably has the talent to establish himself in F1.

INS & OUTS



EXPERIENCE

Last year, Sauber had veterans Pedro de la Rosa and Nick Heidfeld driving development. This year, its drivers have just 21 starts in total.



TELMEX

Backing from the Mexican telecoms giant has been crucial in securing the Sauber team's future.



ESTEBAN GUTIERREZ

The GP3 champion has been promoted from junior to test driver for the 2011 season

THE TEAM



Peter SAUBER
Team principal

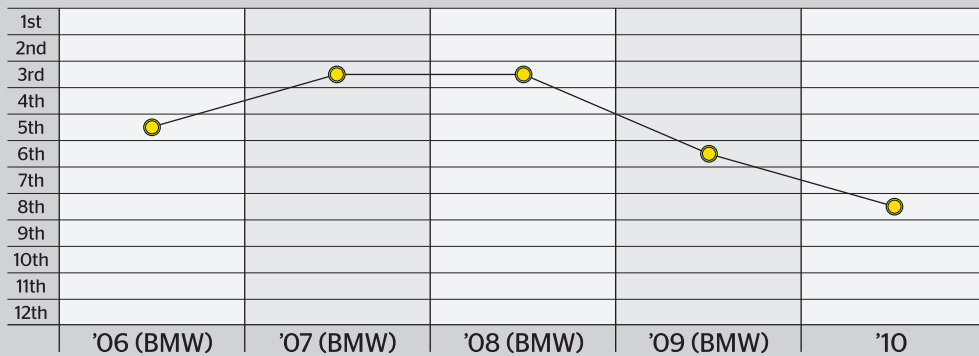


Monisha KALTENBORN
CEO



James KEY
Technical director

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



GARY ANDERSON Technical consultant

THE C30 IS a very good, well-defined package, and technical director James Key is a guy who knows what he wants to get out of a design and commits to

it fully. He's a bit like Adrian Newey in the way he goes about it. The car looks responsive, well-balanced and quick on track, and both Kamui Kobayashi and Sergio Perez look capable of producing good lap times. There's going to be a very

tight battle in the midfield, with the leading cars in that group just making it into Q3, and Sauber looks to be a strong contender in that. After the years of BMW ownership, the Swiss team looks to be ready to return to being a good, solid outfit.



“My expectations are for a decent year. We did well to be ninth last year, but at the end of the year we have to bring back eighth place”

Giorgio Ascanelli, technical director

AUTOSPORT RATING 10th	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Toro Rosso



Described by Lewis Hamilton as “unbelievable”, the STR6 could cause a stir this season, although both drivers need to up their game to keep their job



After the miracle of Monza 2008, when Sebastian Vettel claimed a first win for the ex-Minardi team after almost 25 years of trying, the past two years have been lean for Scuderia Toro Rosso. The ban on customer cars ahead of the 2010 season forced major changes, including the establishment of a design office and the boosting of manufacturing facilities. Points were rare and, as technical director Giorgio Ascanelli, once Ayrton Senna's race engineer at McLaren, liked to highlight, finishing ninth in the championship was exactly where it should have been last year. But Red Bull's

second team does have ambitions to improve itself, and a step up to eighth place is the minimum aim for 2011. Pre-season testing suggests that it has the car to do at least that, with no less than Lewis Hamilton declaring the new STR6's pace as “unbelievable”. Don't expect wins, but if the car is as brisk and consistent as testing suggests, in the early stages of the season it's not out of the question that you might see Sebastien Buemi and Jaime Alguersuari in the vicinity of the top 10. The question then is whether Toro Rosso, which remains a small team with a relatively modest budget despite Red Bull's ownership, can match the pace of development of its rivals in the midfield.

TEAM STATS	
Starts	89
First GP	Bahrain 2006
Wins	1
Poles	1
Fastest laps	0
	2010
	9th

As well as the ongoing question marks over the future of the team, with Red Bull willing to sell provided it continues to be based in Faenza in Italy, the fascinating sub-plot at Toro Rosso will be its driver line up. Buemi, with two seasons under his belt, and Alguersuari, with one-and-a-half, are under pressure to raise their game this year. Waiting in the wings is Australian Daniel Ricciardo, who will drive during Friday's first free-practice session at each race. He is well-regarded by Red Bull junior-driver programme boss Helmut Marko and has impressed on test outings for STR and RBR and it's well-known he may be drafted in mid-season to replace whoever is underachieving.



MARK HUGHES
Grand prix editor

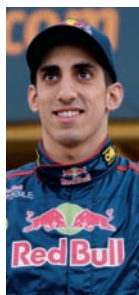
TECHNICAL DIRECTOR Giorgio Ascanelli is a super-smart and shrewd guy who has been working with tiny resources these past few years, but it seems as if the reworked technical regulations of 2011 might just have

given him an opportunity of slipping an unusual and effective idea under the radar. The last twin-floored F1 car - the F92A Ferrari - was a disaster, but if the concept can be made to work, then STR looks set to revisit

some of the glory times of '08 when it had a Red Bull-like driven by Sebastian Vettel. Neither Buemi nor Alguersuari look quite like the new Vettel, though are not without promise. But what about Daniel Ricciardo?



Toro Rosso-Ferrari STR6



18

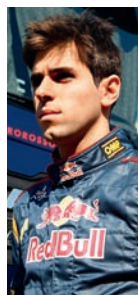
Sebastien BUEMI (CH)



Starts	36
Wins	0
Poles	0
Fastest laps	0
Points	14
'10 position	16th

THE SWISS is well-regarded by Red Bull junior scout Helmut Marko, but 2011 will be make-or-break for him. Just as during his junior career, he has looked good without really capturing the

imagination, and the key to unlocking his F1 potential is finding the confidence to drive at the limit, rather than taking a step back. This year, we will see what he's made of.



19

Jaime ALGUERSUARI (E)



Starts	27
Wins	0
Poles	0
Fastest laps	0
Points	5
'10 position	19th

THROWN IN at the deep end in the middle of the 2009 season, with a season-and-half under his belt he has now had time to paddle his way back into calmer waters. Showed well at the end of last

year, but the erudite Spaniard needs to string together the flashes of brilliance that he has shown and start scoring consistent points. Like teammate Buemi, his place is under threat if he doesn't.

INS & OUTS



DANIEL RICCIARDO

The highly rated Aussie will drive during Friday's first free-practice session... building the pressure on the team's regular drivers.



KERS

Didn't bother with the hybrid system in 2009, so uses the Ferrari unit for the first time this season.



DOUBLE FLOOR

Pronounced sidepod undercut brings the double floor concept back into Formula 1.

THE TEAM



Franz TOST
Team principal

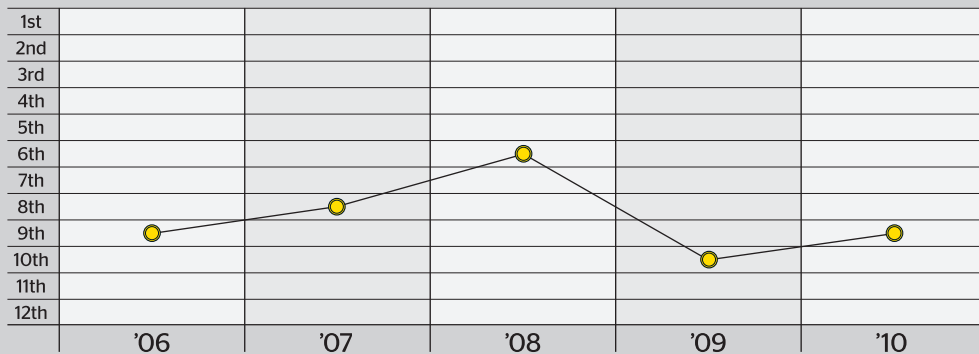


Giorgio ASCANELLI
Technical director



Ben BUTLER
Chief designer

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010



GARY ANDERSON
Technical consultant

THE STR6 is probably Toro Rosso's first real car after opting for what was an evolution of its Red Bull-based 2009 car last year. But although it's a new

car, it retains some of that Adrian Newey DNA, with the team understanding how to make a car work to the current regulations so there's a solid foundation to build from. The loss of Vettel two years ago stunned the team and he has yet to be

replaced, but with the very fast Daniel Ricciardo waiting in the wings there's going to be a lot of pressure on Buemi and Alguersuari. The car looked quick and efficient in testing and I can see Toro Rosso taking a step forward.



“The package we have with the Renault engine and Red Bull gearbox is a great step forward. It’s a proper F1 car so we aim to be fighting for points”

Jarno Trulli

AUTOSPORT RATING 9th	Drivers	●●●●●●●●
	Engine	●●●●●●●●
	Chassis	●●●●●●●●
	Budget	●●●●●●●●
	Tactics	●●●●●●●●

Team Lotus



Last year was all about making it onto the grid and finishing 10th in the constructors’ championship. Job done. Now the serious work begins...



Back in September 2009, Tony Fernandes and Mike Gascoyne didn’t even have an F1 entry, let alone a team. Then came the call from the FIA offering the final grid slot for 2010. Cue a flurry of activity.

Just 18 months on, they now have a fully-fledged operation in Norfolk, the iconic Team Lotus badge and realistic aspirations of joining the midfielders.

With an unchanged driver line-up, including two proven (albeit one-time) race winners and with the redoubtable Gascoyne at the helm, Lotus has the means to live up to its target of cutting it in the midfield and finishing seventh or

eighth in the constructors’ championship. Central to accelerating its progress is the acquisition of the world title winning rear-end, with the compact Red Bull gearbox harnessed to the Renault V8. This will allow Gascoyne to focus a budget that’s still modest compared with the biggest teams on aero development, although there has been the knock-on effect of losing pre-season test mileage while incorporating the new package.

With work already underway on a new windtunnel, Gascoyne sees the 2011 season as the second step on a journey that he expects to take Lotus to race wins. If the car can start the year at the back of the midfield, he believes that

TEAM STATS

Starts
19
First GP
Bahrain 2010
Wins
0
Poles
0
Fastest laps
0
2010
10th

outdeveloping the likes of Force India, Toro Rosso and Sauber is possible and has even talked of getting up near the likes of Renault by the end of the year. That would be a remarkable effort for such a young team, which must deliver its first points finish early in the season.

The most obvious weakness in the armoury is the lack of KERS. Gascoyne says that he is “fairly sceptical about KERS with the regulations as they are”, although it will be in qualifying and on the run to the first corner that Trulli and Kovalainen are most vulnerable. Negotiations are ongoing, and you could see a Renault KERS shoe-horned into the green machine mid-season.

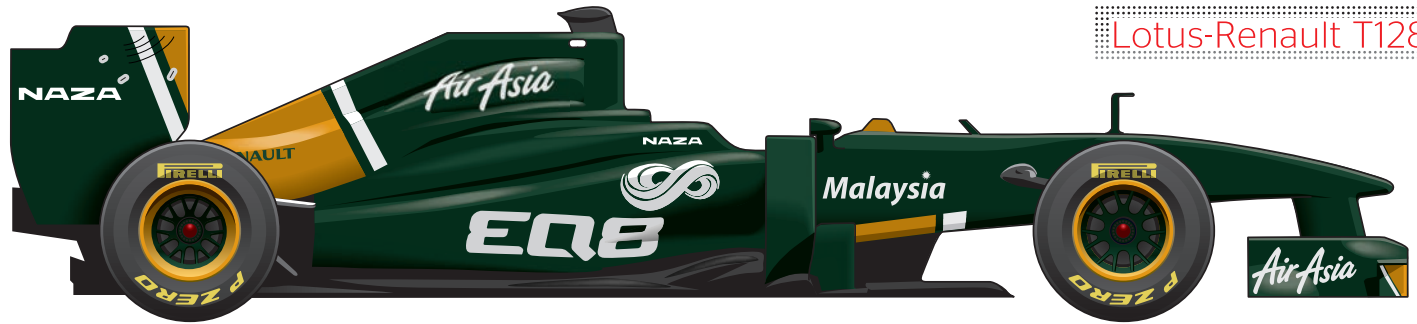


MARK HUGHES
Grand prix editor

SO FAR the team's avowed hope of breaking into the midfield in its sophomore year looks a little optimistic. The car, while distancing itself from Virgin and HRT in testing, has not showed a great deal of

pace or reliability despite a gestation well ahead of that of last year's first attempt. How long can Jarno Trulli stay motivated at the wrong end of the grid? A guy who's proved he's among the very fastest, but who has

nevertheless under-achieved as he heads into his 15th season, surely needs to see brighter light at the end of the tunnel. Heikki Kovalainen has got more years ahead of him and is of a less delicate disposition.



Lotus-Renault T128



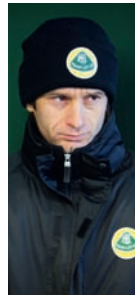
20 Heikki KOVALAINEN (FIN)



Starts 70
Wins 1
Poles 1
Fastest laps 2
Points 105
'10 position 20th

F1'S ONLY flying Finn was picked off the McLaren scrapheap by Lotus and revitalised his reputation in the paddock with a series of good all-round performances. Outqualifying Trulli at

Monaco proved he can turn it on over a lap and his largely error-free 2010 campaign paid a big part in Lotus's success. Capable and reliable, he's the perfect balance to the sometimes erratic Trulli.



21 Jarno TRULLI (I)



Starts 234
Wins 1
Poles 4
Fastest laps 1
Points 246.5
'10 position 21st

THE 36-YEAR-OLD proved he isn't ready to be put out to pasture in his vineyard in the second half of last year, re-asserting himself over his team-mate in qualifying. Still capable of turning it on over

a lap and, if the car balance can be made to suit him on turn-in, he will be formidable. In testing, he has proved not to be a big fan of Pirellis, but if confidence is high he is as fast as anyone on the grid.

INS & OUTS



RENAULT

After running the Cosworth V8 last season, Team Lotus has switched to a Renault supply for 2011 - a move that did not come cheap.



RBR 'BOX

After struggling with its Xtrac unit last year, the team struck a deal with the reigning champion team for gearboxes.



TEAM LOTUS

Competed in '10 as Lotus Racing under licence from car firm. Team Lotus name has now been acquired.

THE TEAM



Tony FERNANDES
Team principal



Mike GASCOYNE
Chief technical officer



Riad ASMAT
CEO

CONSTRUCTORS' CHAMPIONSHIP POSITION 2006-2010

1st					
2nd					
3rd					
4th					
5th					
6th					
7th					
8th					
9th					
10th					●
11th					
12th					
	'06 - N/A	'07 - N/A	'08 - N/A	'09 - N/A	'10



GARY ANDERSON
Technical consultant

THIS TEAM has made the biggest step forward and the gap to the established teams has been bridged. Whether Lotus is able to get in among the midfield is

unclear and I'm not sure the step has been big enough for that. The Red Bull gearbox and Renault engine will give a solid foundation and although Mike Gascoyne has blamed the pre-season reliability problems on adapting to this new pack-

age, I'm not quite sure how it effects the steering rack. But the car is a huge step forward. Troubleshooting the reliability problems has to be the priority and it can't help throwing journeymen drivers into the car for some of its testing.



GSD RaceDyn is a division of Global Sports Development Ltd

GSD RaceDyn can improve the performance of any modern or historic race car through detailed analysis of suspension, cornering and braking dynamics and aerodynamics. GSD clients achieved lap time improvements of up to 3.7 seconds, average 2 seconds during 2010, on cars varying from a 1960 F1 Lotus 18 to current, high downforce sports racing cars. GSD's circuit simulation software optimises aerodynamic settings, gear ratios and suspension settings for any circuit – and predicts lap times. RaceDyn engineered cars won 3 Historic F1 races at the Silverstone Classic in 2010. GSD services are remarkably cost effective, starting at less than £1000.



Examples in 2010 included: Lola Mk5A Formula Junior – James Murray For over two years we have struggled with power oversteer and poor traction, which meant that our Lola was unpleasant to drive – and was not the front runner we thought it should be. GSD RaceDyn conducted a full computer based engineering analysis in early 2010, supplying a detailed 7 page report and recommendations, for £985. We implemented all GSD's recommendations and GSD attended a test day at Cadwell Park in April. Traction and handling balance were vastly improved. The car lapped 3.7 secs faster than we had previously achieved. Business pressures limited our 2010 programme, but the car has been a consistent frontrunner in both FJHRA and Lurani Trophy events.

1982 Arrows A4 Formula One – Steve Hartley We race a pair of ground effect Arrows A4 F1 cars in the Grand Prix Masters and FIA Historic F1 series. Competition is becoming increasingly stiff and we felt that we weren't extracting all the potential from the cars. Nigel Rees (GSD RaceDyn) undertook a full engineering analysis and ran simple, low cost - but effective - aerodynamic tests on an airfield. GSD gave detailed recommendations. The cars are now substantially faster and much nicer to drive. The improvement in high speed corners is awesome. Against heavyweight competition, our 2010 results included an outright win at the Silverstone Classic, pole at Donington and podiums at Spa and Nurburgring. GSD also run simulations for us before every race, which means that wing settings, suspension settings and ratios are optimised in advance – very important because we are generally unable to test.

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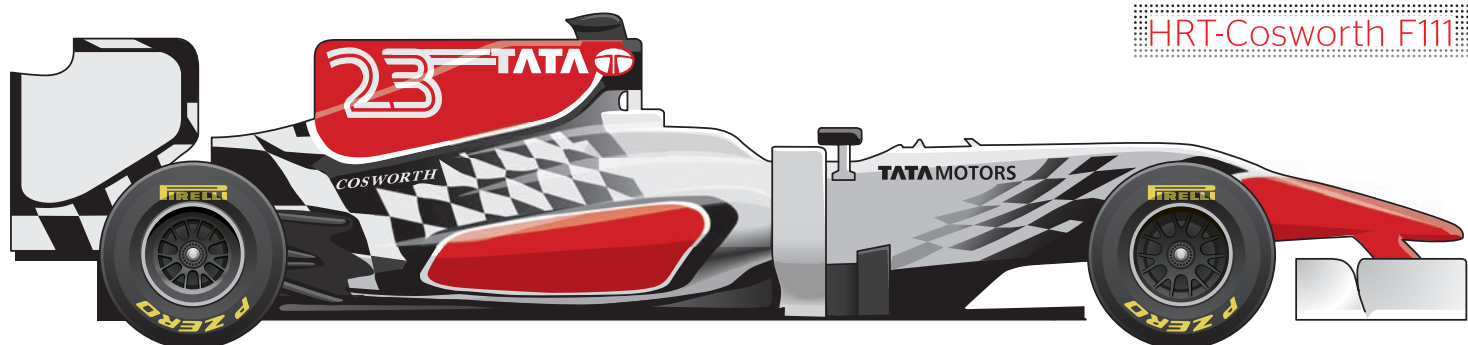
MARK HUGHES
Grand prix
editor

ALL THAT can be hoped for is that HRT drags the maximum from its circumstances. Geoff Willis's updates and the Williams gearbox should at least eradicate last year's built-in handling deficiencies, but it's essentially the same car. Liuzzi is in the last-chance saloon; Karthikeyan has surprised everyone by returning.

Hispania Racing



Miracles don't happen in F1, so don't expect anything from what everyone thinks will be the 2011 grid-proppers. The biggest success will be survival



HRT-Cosworth F111



22 Narain
KARTHIKEYAN
(IND)



Starts	19
Wins	0
Poles	0
Fastest laps	0
Points	5
'10 position	N/A

THE FIRST Indian Grand Prix has given this 34-year-old the opportunity to carve out another chance in F1 - six years after his maiden season with Jordan. On the plus side, he's had plenty of pre-season

seat time to re-acclimatise himself, but knows that he faces a long, hard season with F1's backmarker team. Keep an eye on him in wet conditions, where he is a master.



23 Vitantonio
LIUZZI
(I)



Starts	63
Wins	0
Poles	0
Fastest laps	0
Points	26
'10 position	15th

APART FROM staying on the F1 grid, it's hard to see what Liuzzi can gain from his HRT drive. After failing to shine consistently with his former teams, he's got little chance of doing anything but

outperforming Karthikeyan, which you'd expect him to do anyway. From the team point of view he makes perfect sense - once he'd been flicked by Force India, he was simply the best candidate on offer.

THE TEAM



Colin KOLLES
Team principal



Geoff WILLIS
Technical director



Jacky EECKELAERT
Tech coordinator

Hispania Racing Team's existence owes much to the tenacity of Colin Kolles, who worked miracles not only to get the former Campos team onto the grid last year, but also to get it through to the end of the season. The team is in somewhat better shape heading into its second year, with a new car that has plenty of the old F110 still in it, but ultimately the biggest success this team can hope for is still being on the grid when 2012 comes around.

HRT's financial struggles are well-documented, but it has plenty going for it. Geoff Willis remains with the team as technical director and is responsible for the new aerodynamic package, while the addition of a 2010-specification Williams gearbox to the Cosworth engine gives a stable rear end to work from. The team has plenty of F1 experience in the garage, including Antonio Cuquerella (Robert Kubica's former BMW Sauber race engineer) and ex-Honda man Jacky Eeckelaert, and that shone through last season as the HRT didn't lose significant

TEAM STATS

Starts	19
First GP	Bahrain 2010
Wins	0
Poles	0
Fastest laps	0
2010	11th

ground to the rest, despite having next to no upgrades during the season.

Just as last season, critical to HRT's chances is a combination of reliability and attrition. It's hard to see the team straying far from the back row of the grid - indeed, some potential pay drivers expressed concerns as to whether the car would be quick enough even to meet the 107 per cent qualifying rule - so the key will be to be there at the finish. That was enough to slip ahead of Virgin and finish 11th last year. More of the same in 2011 would be as good as a win for Kolles.



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* prices quoted do not include race tickets or travel insurance unless otherwise stated

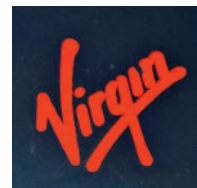




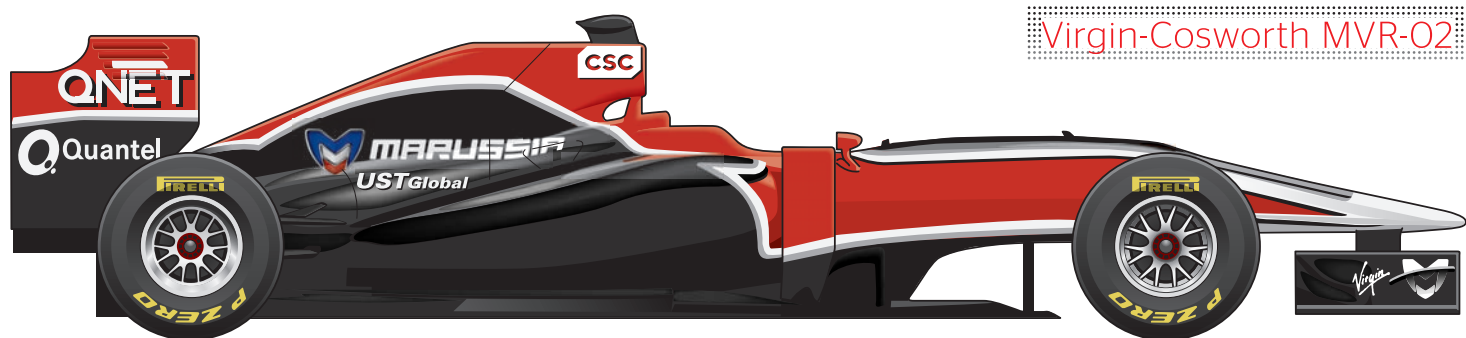
MARK HUGHES
Grand prix
editor

THIS TEAM is waiting for F1 to move towards it as budgets and staff levels fall, but 2011 is going to be about marking time. The car has again been created using only CFD and many believe the technology is not quite ready, despite rapid progress. It's ill-suited, they say, to configurations - as required by the 2011 rules.

Virgin Racing



After a troubled first season, 2010's last-placed team has set its sights on getting on terms with the midfield... and even grabbing its first points finish



Virgin-Cosworth MVR-02



24 Timo
GLOCK
(D)



Starts	54
Wins	0
Poles	0
Fastest laps	1
Points	51
'10 position	25th

AT TIMES, the frustrations of being cast to the tail of the field got to him last year. But the kind of performances that earned him podium finishes in his Toyota days did shine through on occasion, notably

at Singapore and in the rain in Korea. A huge asset to the team, the German's knack for excelling in challenging conditions means that he is capable of grabbing a points finish if it's on offer.



25 Jerome
D'AMBROSIO
(B)



Starts	0
Wins	N/A
Poles	N/A
Fastest laps	N/A
Points	N/A
'10 position	N/A

IT'S BEEN a long haul to F1 for d'Ambrosio, who was a Renault junior driver almost a decade ago. He has a good, but not great, junior career behind him and impressed in the second half of last year

both in GP2 and with his four Friday-practice outings for Virgin. Intelligent and a quick learner, he has the potential to be a very tidy grand prix driver. But matching up to Glock will be a tough ask.

THE TEAM



John BOOTH
Team principal



Nick WIRTH
Technical director



Graeme LOWDON
Team president

Virgin entered F1 last year in blaze of publicity, vowing to herald the start of the all-CFD car and a new, low-budget approach.

Quickly, the dream turned to nightmare amid early-season reliability woes and the embarrassment of starting the season without sufficient fuel capacity to reach the finish flat-out. Fortunately, things soon improved and Virgin is now a firmly established outfit.

Heading into 2011, the team is in good shape. The tie-up between legendary F3

team Manor Motorsport and Wirth Research honed itself into a very tight operation over the past 12 months and aspirations of latching onto the back of the midfield are realistic, even though achieving the stated aim of scoring its first point might be a step too far.

The Nick Wirth-designed Virgin MVR-02 - the M in the name refers to new shareholder Marussia Motors - has shown vastly improved pace and reliability pre-season, giving the team the firm platform to build on that it lacked last season. Wirth, a shareholder in the team,

TEAM STATS

Starts
19
First GP
Bahrain 2010
Wins
0
Poles
0
Fastest laps
0
2010
12th

is in charge of developing upgrades at his Banbury headquarters, while it falls to team principal John Booth, based in North Yorkshire, to get the best out of the cars. The multi-campus set-up is unusual in F1 but, as the team has frequently pointed out, it is the only way that it can operate cost-effectively in F1.

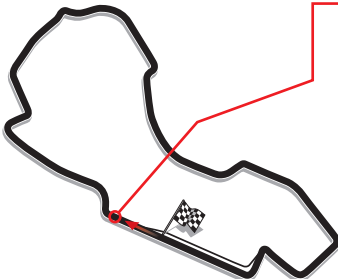
One of the smallest teams on the grid, Virgin's biggest asset is arguably Timo Glock. The ex-Toyota driver was a GP leader just two years ago and has a knack for pulling out stunning performances. If there's a point to be had, he's the man.

Keeping track of Formula 1 in 2011

From Melbourne to Sao Paulo, via the Cote d'Azur, Singapore, Shanghai and, er, Northamptonshire, F1's remit is wide-reaching, as our circuit guide reveals

AUSTRALIA Albert Park, Melbourne, March 27

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



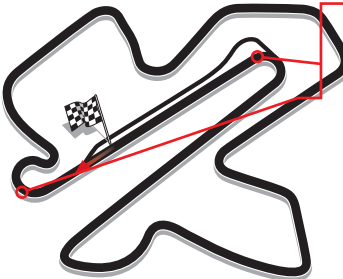
Action zone The key overtaking zone will be on the start/finish straight, setting up a move into Turn 1.

Located south-east of the city centre and a couple of minutes inland from Port Phillip Bay, the temporary Albert Park circuit hosts its 16th F1 world championship round this year. Nominally a street circuit, Albert Park is largely made up of two parkland roads that were heavily reprofiled for the race, meaning that many of the corners are closer in style to those of a purpose-built track. With few high-speed corners, it's a fairly high-downforce track. There are overtaking opportunities, but Melbourne's unpredictable autumn weather often mixes things up a bit.

UK race start time	0700
2010 winner	Jenson Button
2010 polesitter	Sebastian Vettel 1m23.919s
Lap record	Michael Schumacher 1m24.125s (2004)
Track specialist	Jenson Button

MALAYSIA Sepang, April 10

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



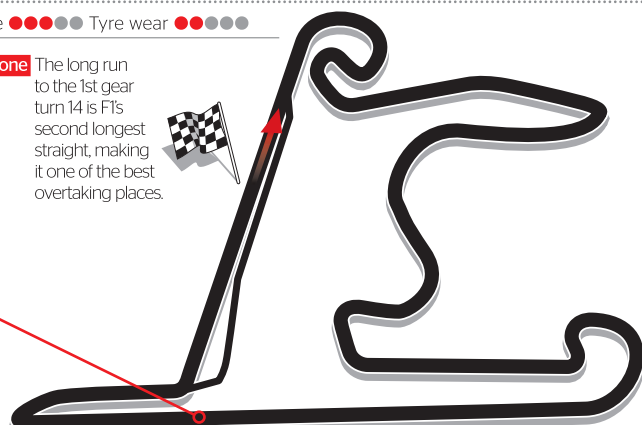
Action zone The first and last corners offer the best passing possibilities, with the overtaking zone located at the start/finish.

Sepang has gained the patina of age after 12 years in F1 and has provided some dramatic races over the years. The biggest challenge for the drivers is the heat and humidity, which takes its toll even on the fittest. Weather is the big unknown in Malaysia, as the 2009 race - at which Jenson Button took a half-points win after torrential rain and darkness brought the race to a premature close - showed. Even if it's dry, there's plenty for the drivers to do, with the fast, high-g-force right-left at turns 5/6 the most testing section.

UK race start time	0900
2010 winner	Sebastian Vettel
2010 polesitter	Mark Webber 1m49.327s
Lap record	Juan Pablo Montoya 1m34.223s (2004)
Track specialist	Nick Heidfeld

CHINA Shanghai, April 17

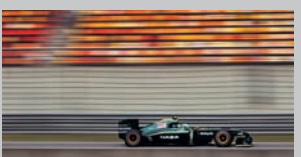
Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone The long run to the 1st gear turn 14 is F1's second longest straight, making it one of the best overtaking places.

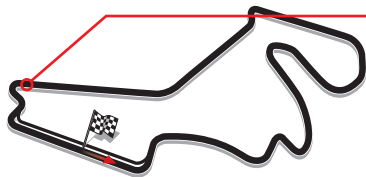
With the only F1 paddock that turns teams' weekend headquarters into a water feature, you can't fault China for trying. Now in its eighth year on the calendar, the event's popularity has dwindled significantly despite the sport being desperate to harness the commercial potential of the country. The circuit remains a popular one with the drivers. Efficient downforce is vital on a track that combines a couple of long straights with some fast sweeps in the middle of the lap. And, as last year proved, rain is never far away...

UK race start time	0800
2010 winner	Jenson Button
2010 polesitter	Sebastian Vettel 1m34.558s
Lap record	Michael Schumacher 1m32.238s (2004)
Track specialist	Heikki Kovalainen



TURKEY Istanbul Park, May 8

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone Turn 12 offers a good chance to pass if a driver can stay close to the car in front on the exit of Turn 10 and get a tow.

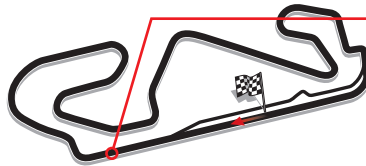
Hermann Tilke has had his share of flack over the years, but Istanbul is hailed as one of the German track designer's hits. Its anti-clockwise configuration immediately puts it in a minority and presents an additional test of the drivers' fitness, while the fast, four-part Turn 8 is either one of the biggest challenges in F1 or just another corner, depending who you ask. Long a happy hunting ground for Felipe Massa, the track provided one of the key moments of 2010 when a collision between the Red Bulls handed Lewis Hamilton victory.

UK race start time 1300
 2010 winner Lewis Hamilton
 2010 polesitter Mark Webber
 1m26.295s
 Lap record Juan Pablo Montoya
 1m24.770s (2005)
 Track specialist Felipe Massa



SPAIN Catalunya, May 22

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone Turn 1 is probably the safest bet for passing, although the GP2 cars had a field day at Turn 5 last year.

For years, the Circuit de Catalunya just outside Barcelona was F1's test track of choice due to its good mix of corners and reliable weather. The flow of the first two sectors gives way to a tight, twisty final sector that leads on to the track's long main straight. Despite Nigel Mansell and Ayrton Senna christening the circuit with a thrilling battle in the inaugural race in 1991, the track is not known for great racing. Passing places are rare, and efforts to improve this in 2007 by reprofiling the final corners have done little to change that.

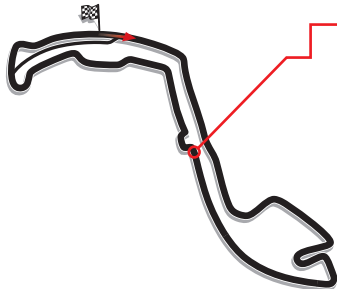
UK race start time 1300
 2010 winner Mark Webber
 2010 polesitter Mark Webber
 1m19.995s
 Lap record Kimi Raikkonen
 1m21.670s (2008)
 Track specialist Adrian Newey

Design ace Newey has routinely come up with aero-trick cars that do well here



MONACO Monte Carlo, May 29

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



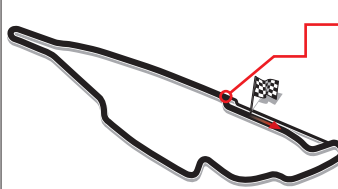
Action zone 'Overtaking' is not a word synonymous with Monaco, but you do see drivers trying a move at the chicane.

F1's most iconic circuit is also its least archetypal. The oft-used comparison to riding a bicycle in your living room remains as true as ever, but one of the many contradictory things about this race is that although it's the slowest GP on the schedule, it's one of the most spectacular. Another of Monaco's anomalies is the fact that despite offering few opportunities for passing, it has a knack of producing dramatic races. Its tight layout and proliferation of barriers calls for maximum downforce and a confident driver.

UK race start time 1300
 2010 winner Mark Webber
 2010 polesitter Mark Webber
 1m13.826s
 Lap record Michael Schumacher
 1m14.439s (2004)
 Track specialist Pastor Maldonado

CANADA Circuit Gilles Villeneuve, Montreal, June 12

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone The long run to the final chicane, which provides a perfect overtaking opportunity.

Made a triumphant return to the calendar last season after a year off in '09, producing one of the best races of the year thanks to high tyre wear. Built in the St Lawrence Seaway, the track is a brake killer and has none of the cavernous run-off areas that characterise modern circuits - as Robert Kubica found out in 2007 when he crashed his BMW Sauber on the approach to the hairpin. The bumpy track is hard on cars and if the Pirelli tyres require two stops at the average race, this could be a three-stopper.

UK race start time 1800
 2010 winner Lewis Hamilton
 2010 polesitter Lewis Hamilton
 1m15.105s
 Lap record Rubens Barrichello
 1m13.622s (2004)
 Track specialist Lewis Hamilton



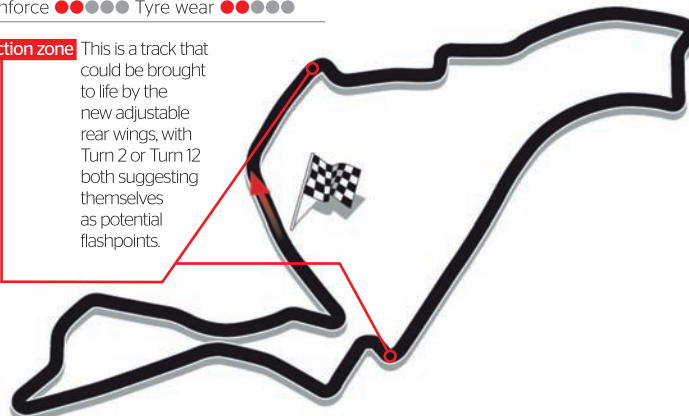
EUROPE Valencia, June 26

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●

UK race start time 1300
 2010 winner Sebastian Vettel
 2010 polesitter Sebastian Vettel
 1m37.587s
 Lap record Timo Glock
 1m38.683s (2009)
 Track specialist Rubens Barrichello



Action zone This is a track that could be brought to life by the new adjustable rear wings, with Turn 2 or Turn 12 both suggesting themselves as potential flashpoints.



When Spain's second GP arrived in 2008, it was talked up as a modern rival to Monaco. Aside from the presence of a few nearby boats and a distinct lack of overtaking, the similarities have thus far proved to be few and far between. The street track is quick and dusty, meaning that grip levels are low at the start of the weekend, and the track takes some time to completely rubber in. In terms of downforce levels, braking and tyre wear it is fairly middle of the road, much like most of the races that it's hosted thus far.

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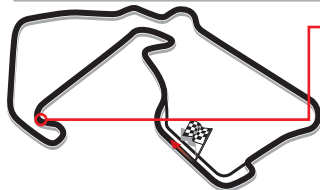
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GREAT BRITAIN Silverstone, July 10

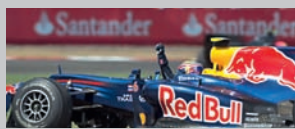
Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone With passing at Brooklands last year, there are rewards to be had if a driver can get a tow on the exit of Arena.

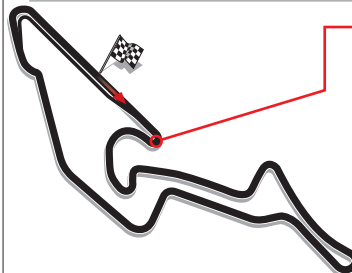
This year will be the second run on Silverstone's new Arena layout, which was hailed for the improved spectating opportunities by fans, but drew a more ambivalent reaction from drivers due to a large bump at Abbey. Regardless, the track remains a long-time favourite, and with the Donington debacle consigned to distant memory, Silverstone is primed to retain its status for the foreseeable future. The track's hallmark has always been speed, but it's also tough on tyres, which could spice things up with the new Pirellis.

UK race start time 1300
2010 winner Mark Webber
2010 polesitter Sebastian Vettel
1m29.615s
Lap record Fernando Alonso
1m30.874s (2010)
Track specialist Mark Webber



GERMANY Nurburgring, July 24

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



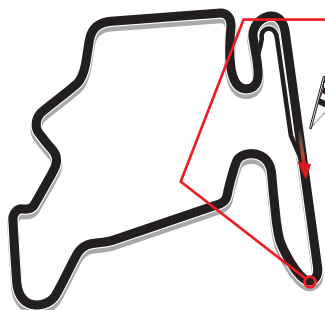
Action zone The first corner is one of the best places for passing. Notable alternatives include the Veodol chicane.

It would be difficult for any modern circuit to shine if it had the majestic Nordschleife just over the fence, but the Nurburgring has produced more exciting races than it's given credit for. This often has something to do with the region's erratic weather, but it's still a good place to watch F1. The circuit remains the only one to have hosted three different GPs, having been the home of the German, European and Luxembourg GPs. The track returns to the calendar after a year's break due to the race-sharing deal with Hockenheim.

UK race start time 1300
2010 winner Fernando Alonso
(Hockenheim)
2010 polesitter Sebastian Vettel
(Hockenheim)
Lap record Michael Schumacher
1m29.468s (2004)
Track specialist Paul di Resta

HUNGARY Hungaroring, July 31

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



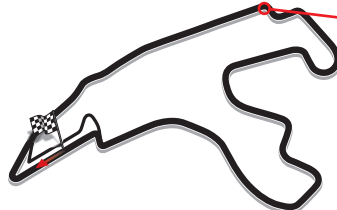
Action zone 'Overtaking spot' is a loose term at the Hungaroring, but Turn 1 tends to have the best strike rate.

Conventional wisdom has it that overtaking is impossible at the Hungaroring. It's not. It's just very, very difficult. There's not a lot in the way of straights, which means big downforce - think Monaco, but without the barriers. Delivering a solid result depends on finding a good rhythm, and mistakes are punished by the sheer difficulty of trying to make up lost ground. The track's location a few miles outside Budapest made it a novelty when it first appeared in 1986, but it's now a firm fixture with a unique vibe.

UK race start time 1300
2010 winner Mark Webber
2010 polesitter Sebastian Vettel
1m18.773s
Lap record Michael Schumacher
1m19.071s (2004)
Track specialist Timo Glock

BELGIUM Spa-Francorchamps, August 28

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone Les Combes is the best place for overtaking at Spa, and one of the best in F1. It's also a bit of an accident black spot.

Few corners in F1 spark the imagination like Eau Rouge, and while the current cars can sweep through without lifting, it is still a heck of a place to stand as a spectator. The unique combination of heritage, driver challenge, a stunning layout weaving through the Ardennes, and the high likelihood of tricky weather conditions all help contribute to the circuit's iconic status. Like Hungary, Spa is all about rhythm, as carrying speed through the quick corners is imperative. Unlike Hungary, it is extremely fast.

UK race start time 1300
2010 winner Mark Webber
2010 polesitter Lewis Hamilton
1m49.069s
Lap record Kimi Raikkonen
1m45.108s (2004)
Track specialist Michael Schumacher



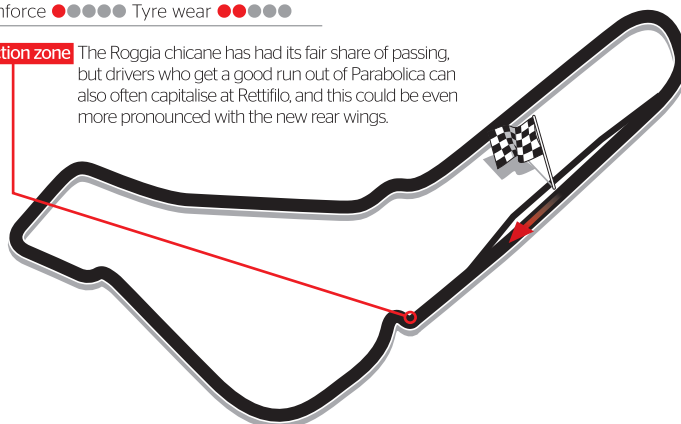
ITALY Monza, September 11

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●

UK race start time 1300
2010 winner Fernando Alonso
2010 polesitter Fernando Alonso
1m21.962s
Lap record Rubens Barrichello
1m21.046s (2004)
Track specialist Adrian Sutil



Action zone The Roggia chicane has had its fair share of passing, but drivers who get a good run out of Parabolica can also often capitalise at Rettifilo, and this could be even more pronounced with the new rear wings.



With the huge, crumbling banking from a bygone era still looming between the trees and probably the loudest and most passionate (and partisan) fans on the planet, there are few places that can hold a candle to Monza in terms of atmosphere. And even with the chicanes, it remains F1's biggest shrine to outright speed. Wings are accordingly stripped back to their minimum, and focus instead is directed towards achieving stability under braking. For the drivers, it's a place for careful kerb hopping and controlled aggression.

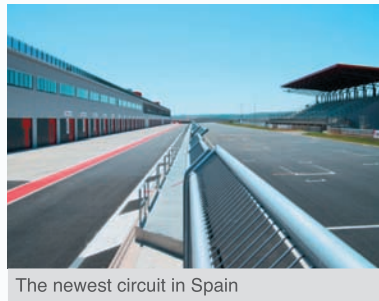
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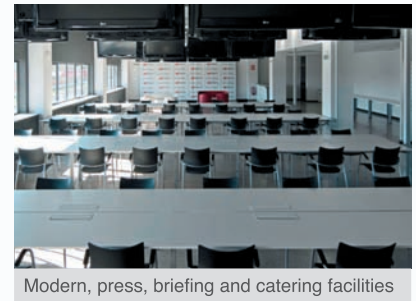
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Main straight: 800 m.

Turns: 15 (6 left y 9 right)

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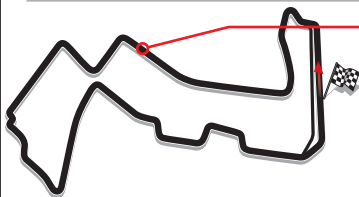
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Vitoria: 65 km.		Santander: 262 km.	
Zaragoza: 150 km.			

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SINGAPORE Marina Bay, September 25

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone The long run from Turn 5 to Turn 7 should produce passing – but watch for bumps under braking.

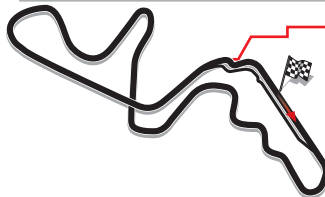
Formula 1's first night race three years ago will live in infamy, after Nelson Piquet was ordered to crash to set up a victory for Renault team-mate Fernando Alonso. But that race will also be remembered for the arrival of a true 'Monaco of the east' on the F1 calendar. The twisty, bumpy track near the famous Raffles Hotel hasn't produced much overtaking in recent years, but the adjustable rear wing should change all that. It's a big challenge for drivers, who must deal with the humidity and reduced visibility.

UK race start time 1300
2010 winner Fernando Alonso
2010 polesitter Fernando Alonso
1m45.390s
Lap record Kimi Raikkonen
1m45.599s (2008)
Track specialist Fernando Alonso



JAPAN Suzuka, October 9

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone The chicane that follows 130R has been the scene of some classic battles and will be again in 2011.

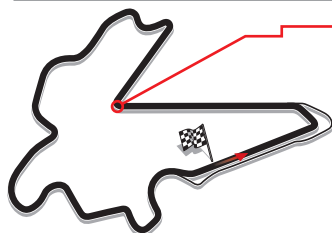
One of the most aero-dependent tracks in F1, Suzuka's fast sweeps show up a car's strengths and weaknesses like no other. Little surprise that, for the past two years, Red Bull has been utterly dominant around the classic track. Along with Spa, frequently cited by drivers as their favourite, the Honda-owned track sorts the men from the boys, with off-track moments often rewarded with high-speed visits to the tyre wall. It's produced some classic F1 moments – notably the Senna/Prost clashes of 1989 and '90.

UK race start time 0700
2010 winner Sebastian Vettel
2010 polesitter Sebastian Vettel
1m30.785s
Lap record Kimi Raikkonen
1m31.540s (2005)
Track specialist Jarno Trulli



KOREA Yeongam, October 16

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



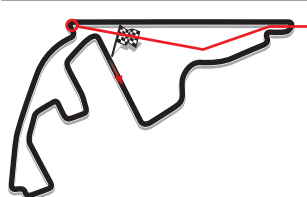
Action zone The run to Turn 3 is F1's longest straight so you can guarantee this will be a good rear-wing adjusting zone.

Completed last year at the 11th hour, the Yeongam circuit produced an engaging inaugural Korean GP. The long straights of the opening sector lead into the rapid 'mini-Suzuka' before the lap finishes in the tight confines of a pseudo street circuit. In short, it has everything you need to satisfy drivers and fans, and this year's race – on a track no longer rough round the edges after a few tweaks – could be a classic.

UK race start time 0700
2010 winner Fernando Alonso
2010 polesitter Sebastian Vettel
1m50.257s
Lap record Fernando Alonso
1m50.257s (2010)
Track specialist Nico Rosberg

ABU DHABI Yas Marina, November 13

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●



Action zone The mighty back straight on the run to Turn 8 is the only place you are likely to see overtaking.

Built at vast expense and with its grand prix running through dusk and ending under floodlights, the Abu Dhabi circuit is undoubtedly the jewel in the crown of F1 in the middle east. Located in the desert to the east of Abu Dhabi itself, the track has already found its place in F1 legend by hosting last year's four-driver title shoot out. Perhaps a little twisty to be ideally suited to racing, drivers enjoy the rhythm that they build up, but as Fernando Alonso learned last year, passing is far from easy here.

UK race start time 1700
2010 winner Sebastian Vettel
2010 polesitter Sebastian Vettel
1m39.394s
Lap record Sebastian Vettel
1m40.279s (2009)
Track specialist Sebastian Vettel



P94 INDIA'S FIRST GP CIRCUIT TAKES SHAPE

BRAZIL Interlagos, November 27

Full throttle ●●●●● Braking ●●●●● Downforce ●●●●● Tyre wear ●●●●●

UK race start time 1300
2010 winner Sebastian Vettel
2010 polesitter Nico Hulkenberg
1m14.470s
Lap record Juan Pablo Montoya
1m11.473s (2004)
Track specialist Kamui Kobayashi



Action zone The Senna S has produced more wheel-to-wheel action than any other corner in F1 in recent years.



The track is creaky, the paddock tiny and facilities very much in the dark ages compared with the rest of the tracks on the calendar, but Interlagos is one of the best venues of the season. The track has been an ever-present on the calendar for the past two decades and it's easy to see why. It's bumpy, has plenty of elevation change, a combination of fast and technical corners and the guarantee that the weather will mix things up. It returns to the end of the season this year and may well produce a worthy championship finale.

 **Indian GP guide**

Delhi adds spice

KARUN CHANDHOK assesses progress on his home country's new grand prix track



In the interests of honesty, I should declare something here. With my father Vicky having just taken over as the president of the FMSCI,

India's motorsport regulatory body, and my being in the loop with the race organisers, I'm not totally a neutral party when it comes to the Indian Grand Prix.

Nevertheless, I think it's looking like being a good venue. I've driven on the layout a few times now, and I've got a pretty good idea of what it's going to look like. What they've tried to focus on is creating overtaking opportunities, which is obviously the big talking point now in F1. The angle of the apex of the corners, the width of the circuit on corner entry, these are all areas the FIAs Charlie Whiting has suggested they look at with overtaking opportunities in mind, and the circuit builders have tried to create something that will work.

I always get asked to draw comparisons with the circuits that are already on the calendar, but I can't honestly say that it's like any other track. If pushed, I'd actually say that it's probably closest to Bahrain, because it has the one very long straight of 1.2 kilometres, and another straight that is also reasonably long. It has got some undulations, and a few second and third-gear corners. There's a double-apex right-hander through Turns 10 and 11 which has some banking and will be really fun for the drivers - it looks like it will be similar speed to Turn 8 in Turkey.

We all saw what happened with Korea


last year, when there were stories questioning whether everything would be ready virtually up until a week or two before the grand prix. From a purely driving point of view I think everyone really enjoyed the Korea layout, although obviously they had a big delay in getting things finished.

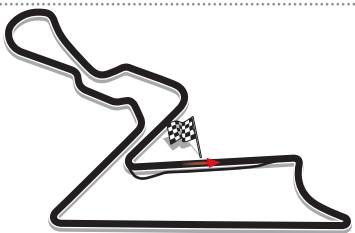
India is a bit different - based on Charlie Whiting's recent visit and from what I've seen when I've been there, things are pretty much on schedule. The original completion date was July 31, so that still gives them the whole of August, September and October in case of a problem. At worst, it may not be finished until the middle of August. But they're moving people in all the time. When I was there in September, there were under 1000 people working there. I returned in December and there were 1500. Then I went back again in January, and they were up to 7000. Basically, they've recruited nearly 1000 people a week between December and January. You have to see the kitchen - there are 150 cooks in there!

There have been a few new countries joining the F1 calendar in recent years, and India is an obvious place for the sport to visit. And I think India is ready for F1. Well, okay, I don't know if anyone is ever really ready for F1, but at the end of the day we're at a stage where virtually every major car manufacturer in the world is selling cars in India. Pretty much every major sponsor in F1 is selling into India. So I think F1 needs India as much as India would like to have F1. It's a place where companies can gain an early foothold because it's still growing.

True, people said the same thing about China. The difference is that in India there is already an interest in motorsport. When we went to Shanghai, the bloke in the hotel didn't even know there was a grand prix on. It was only when we were checking out that he said, 'Oh, are you part of a group?' And this place had Red Bull, us... I think there were three F1 teams in the hotel!

In India, there's a lot of press coverage and hype about the race already. There's already a buzz. We've got 27 million

 **INDIA** New Delhi



Action zone	Hard to say before the cars run there, but the long drag to Turn 4 looks tailor-made for overtaking
Circuit length	3190 miles
Number of laps	61
UK race start time	TBC
First F1 race	October 30 2011

people who watch F1 in India, and that's not a small number. If just five per cent of them wanted to come to the race, that's almost 1.4 million people. The key will be ticket prices - I think they're still being worked out, but I hope they keep them affordable. It's not a government-backed race, it's a private venture by the JayPee Group, which is a huge infrastructure company. They'll want to recoup some investment, so any income will be important to them.

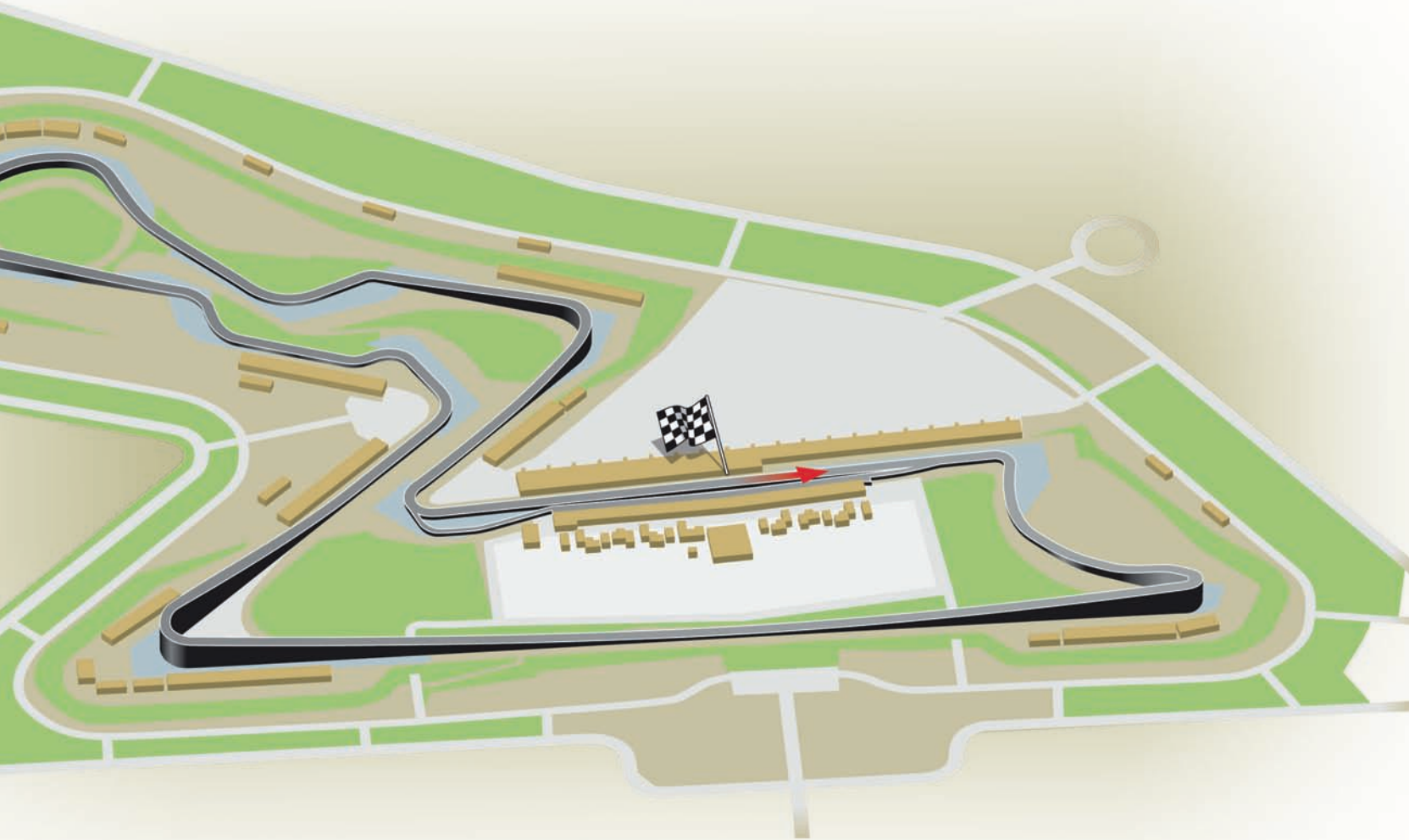
Grand prix aside, the big task will be keeping the circuit busy when F1 is not there. We don't want it to be the next Istanbul Park or Shanghai. We're going to run two rounds of the JK Tyre National Racing Championship, we've got the VW Polo Cup, and we're going to try to do something with VW in single-seaters as well in the near future. We've got some motorcycle racing planned at the end of the year, and I think there will be more happening next year. There isn't going to be any racing at the track before the grand prix; the promoters would like Formula 1 to be their first event. For 2012, JayPee have initiated talks with Dorna for MotoGP, which will be very good since India is the largest two-wheeler market in the world. The last thing we want is to turn the track into a white elephant. ❧



Bernie Ecclestone looks at early plans



PICTURE: TEEJAN JAYPEE CIRCUIT



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A. Sebastian Vettel

B. Lewis Hamilton

C. Jenson Button

Closing date
March 31
2011

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- Winner **Juan Manuel Silva**
- Pole position **Silva**
- Heat winners **Silva/Llaver**



Decent start to the season for Argentina's top saloon series



Silva heads Munoz Marchesi and Yannantuoni

TC2000 GENERAL ROCA (RA), MARCH 13, RD 1/12

Silva surfs to victory on his first start in Focus

FORMER CHAMPION Juan Manuel Silva scored a dream win on his first start with Ford in TC2000, in the season-opening round at General Roca, down south in Argentina's Patagonia region.

Silva, a former Honda and Renault racer and a multiple round winner, led all the way aboard his works Focus in the final, having also won the early-morning heat two. Bernardo Llaver won the first heat for Toyota.

Silva led away the 34-car final from pole, with Llaver's Toyota following the leading Focus into the first left-hander, ahead of Guillermo Ortelli (Renault Fluence), Matias Munoz Marchesi (Peugeot 307), Fabian Yannantuoni (Ford), and Matias Rossi (Toyota Corolla). The division's reigning champion, former Sauber F1 driver Norberto

Fontana, was making up for lost ground after starting from row eight in his works Focus, until he collided with a rival and ended his race on the second lap.

Ortelli remained in contention for the runner-up spot until a bolt in his Renault's gearbox linkage came adrift, forcing him to pit. Llaver kept trying for the lead, but by one-third distance Silva had eked out a 1.5s advantage. Shortly after, Llaver spun off due to his gearbox going on the blink, and the safety car came out.

Silva again escaped from his pursuers at the restart. Second was now the Peugeot of Munoz Marchesi, who from the start had been busy fending off Ford man Yannantuoni, who in turn had Rossi's Toyota filling his mirrors. By mid-race, Mariano Altuna was the top Honda in fifth, under

pressure from Mariano Werner (Toyota).

Silva reeled off the remaining laps, with Munoz Marchesi too busy closing all the gaps as Yannantuoni tried to make it a one-two for Ford. Altuna had several goes at Rossi's fourth place but had to settle for fifth.

Former GP2 racer and Renault F1 test driver Jose Maria Lopez (TC2000 champion in 2008 and '09 with Honda) crept into the top 10 on his debut with the Fiat squad, but his Linea model was sidelined by a misfire.

● Tony Watson

RESULTS

- 1 Juan Manuel Silva (Ford Focus)**, 30 laps in 50m57.757s; 2 Matias Munoz Marchesi (Peugeot 307), +2.427s; 3 Fabian Yannantuoni (Ford); 4 Matias Rossi (Toyota Corolla); 5 Mariano Altuna (Honda Civic); 6 Mariano Werner (Toyota); 7 Leonel Pernia (Honda); 8 Agustín Canapino (Chevrolet Vectra); 9 Gabriel Ponce de Leon (Fiat Linea); 10 Emiliano Spataro (Fiat). **Points** 1 Silva, 31; 2 Munoz Marchesi, 25; 3 Yannantuoni, 21; 4 Rossi, 18; 5 Altuna, 16; 6 Werner, 13.

NASCAR TRUCKS DARLINGTON (USA), MARCH 12, RD 3/25



Kahne beat the Truck regulars

Kahne scores on rare day off

CUP STAR Kasey Kahne made his first, and probably only, NASCAR Truck Series start of the year at Darlington on Saturday evening, and scored a convincing victory.

Kahne was driving in place of fellow big name Kyle Busch, who was holidaying in Mexico as NASCAR's top two leagues took the weekend off. The Red Bull regular held off a huge effort from series veteran Todd Bodine at the final restart, but Bodine's effort to 'squish' Kahne into the wall at Turn 1 failed, and

instead he got loose and lost his second place to Ron Hornaday. Poleman Cole Whitt finished eighth on only his fourth series start. Nelson Piquet crashed out.

● Chuck Bradbury Sr

RESULTS

- 1 Kasey Kahne (Toyota Tundra)**, 147 laps in 1h59m44s; 2 Ron Hornaday (Chevrolet Silverado), +1.116s; 3 Todd Bodine (Toyota); 4 Matt Crafton (Chevy); 5 James Buescher (Chevy); 6 Timothy Peters (Toyota). **Points** 1 Crafton, 111; 2 Cole Whitt, 105; 3 Peters, 104; 4 Clay Rogers, 103; 5 Johnny Sauter, 102; 6 Hornaday, 99.

NEW ZEALAND V8 TAUPO (NZ), MARCH 13, RD 6/7

Young Kiwi's landmark win

THREE DIFFERENT drivers, two of them Australian-based, won races at Taupo's penultimate round of the NZ V8 championship.

Kayne Scott qualified on pole and dominated race one to finish comfortably clear of fellow Ford driver John McIntyre. Scott got swamped at the rolling start to race two, as Australian V8 Supercar driver Jason Bargwanna put his brand-new Ford in front and won, with McIntyre again second.

The reversed-grid finale saw 17-year-old Scott McLaughlin — a Kiwi living in Australia — become the

Bargwanna flames out



youngest ever NZ V8 winner in his Holden Commodore. He had started 15th after coming fifth in race two.

McIntyre finished fifth in the final to secure the overall victory, while Angus Fogg (Ford) stayed on top of the points table in spite of a difficult weekend, which included a puncture.

● Bernard Carpinter



CURRENT STANDINGS

- | | | |
|---------------------------|---|---------------|
| 1 Sebastian Vettel | ◇ | 24,200 |
| 2 Mark Webber | ◇ | 22,079 |
| 3 Sebastien Loeb | ◇ | 21,108 |
| 4 Fernando Alonso | ◇ | 20,467 |
| 5 Lewis Hamilton | ◇ | 19,217 |

Ranking the world's best drivers

WHAT HAPPENED THIS WEEK

Juan Manuel Silva entered the Castrol EDGE Rankings at 883rd after winning the TC2000 opener, while surprise runner-up Matias Munoz Marchesi (1170) was another new entrant. Kasey Kahne's (35) NASCAR Truck Series win kept him on the verge of the top 30.

To see the full list, visit castroldriverrankings.com

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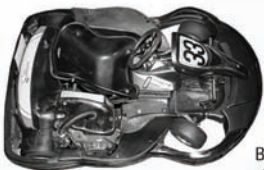
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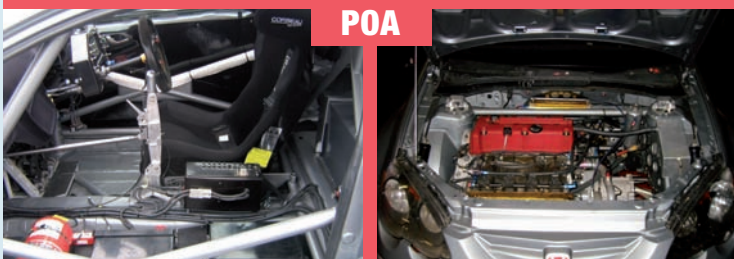
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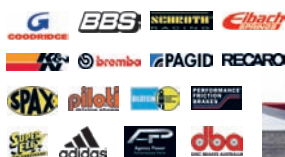
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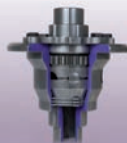
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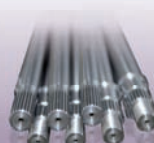
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SPEED had a tough time of it in the UK

AUTOSPORT SAYS...

BEN ANDERSON
EDITORIAL ASSISTANT

ben.anderson@haymarket.com



A CHANGE of scenery can often do the world of good, and the SPEED EuroSeries is a great example of the potent power of renewal.

The category was conceived (in VdeV UK guise) as a chance for club racers to experience Le Mans-style racing, but has walked a shaky tightrope since coming to these shores in 2007, and found it tough to deliver double-figure grids last year.

But a winter of hard work and the signing of a few key deals have transformed its fortunes. By aiming a little higher and branching out beyond our borders, SPEED looks ready to realise its potential as a proper Le Mans feeder formula.

Gaining ORECA Formula Le Mans prize drives, Honda manufacturer support, and FIA championship status have all helped swell interest – to the point where at least 30 CN prototypes are expected to appear in 2011, 20 of which already have their two-driver line-ups sorted.

The key move has been securing a spot alongside the Le Mans Series. The prestige of the world's premier sportscar racing package – and all the fanfare, TV and promotional potential that comes with it – has turned SPEED from a costly clubman category into a cost-effective, semi-professional one.

A £200,000 fee for the season looks steep on a low-key UK-only platform, but a steal if you're racing on an international stage with plenty of fans and top-line sportscar manufacturers watching on.

With a substantial host of ex-F1 drivers and rapid up-and-comers already paired alongside wealthy amateurs with designs on one day racing in the Le Mans 24 Hours, it seems SPEED has finally settled on the right recipe.

More star names to SPEED

Aussie F3 champ, BTCC ace and FIA GT race winner sign up to CN series

FORMER AUSTRALIAN Formula 3 champion Joey Foster, BTCC ace Steven Kane, and FIA GT race winner Ryan Sharp are the latest drivers to commit to racing in the new SPEED EuroSeries.

Foster will share a second Team WFR entry with reigning Formula Palmer Audi champion and McLaren AUTOSPORT BRDC Award finalist Nigel Moore, while Kane will partner Humaid al Masood in an HMR-run ex-Jota Sport Ligier JS49.

BTCC race winner Kane, who hopes to graduate to the ALMS and LMS with the squad in 2012 said: "It's a shame to turn my back on touring cars, but I could scrape around for a budget or I could accept an amazing opportunity like this. It's the chance for me to become a professional driver and to hopefully race at the Le Mans 24 Hours in the future."

Hitech Racing boss Sharp will share an If Motorsport Ligier with Brazilian Pietro Fantin in the season opener at Paul Ricard, so his charge can learn the circuit

before British F3 races there in July.

Former British F3 champion Robbie Kerr and ex-Formula 1 drivers Alex Caffi and Philippe Alliot have already confirmed SPEED campaigns for 2011, and organisers are expecting grids of at least 30 cars.

The CN prototype category struggled for numbers in the UK last season, but interest has boomed since organisers announced it would become a pan-European contest supporting the Le Mans Series at five of SPEED's six 2011 events.

The SPEED EuroSeries has support from engine manufacturer Honda, will offer prize drives in the ORECA Formula Le Mans prototype to its winners, and last week confirmed it has also gained FIA championship status for its first season.

Championship promoter

Oli McCrudden believes the deal to support the high profile LMS has made the series

more attractive to teams, drivers and chassis manufacturers.

"There didn't seem to be a big enough market for it in the UK and it was too expensive for European teams to come across," McCrudden told AUTOSPORT. "Going to Anglesey – as much as we love going there – is not going to attract a lot of teams from abroad."

"Being on the LMS package has also given it LMS glamour. You've got an FIA championship that's running at LMS events, with LMS-like sportscars – you're talking about a different standard of event."

"A lot of hard work has gone into it to get there, but the teams have bought into it, the manufacturers have bought into it and the drivers have bought into it, so it's the right way to go."

Foster tested SPEED machine at Donington



SPEED EuroSeries: Selected Entries

DRIVERS	TEAM	CAR
Joey Foster/Nigel Moore	Team WFR	WFR03
Ryan Sharp/Pietro Fantin	If Motorsport	Ligier JS49
Robbie Kerr/Alex Craven	Lanan Racing	Ligier JS51
Steven Kane/Humaid al Masood	HMR	Ligier JS49
Alex Caffi/Maurizio Pratti	Wolf	Wolf GBO8
Philippe Alliot/Franck Lamanna	Blue One	Ligier JS51

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CONTENTS

p123 REPORT MASTERS



British GT

Century to run G55 in Brit GT

Nathan Freke's squad commits to developing new Ginetta in GT3 championship

New Ginetta tested at Silverstone

GINETTA'S NEW G55 will race in the British GT Championship this season.

Leading Ginetta squad Century Motorsport is set to run at least one of the 3.7-litre cars, and ex-GT4 G50 racer Ian Stinton is also planning a campaign.

Former G50 Cup frontrunner Freddie Hetherington will drive Century's G55,

and could be joined by Formula Renault BARC convert Jake Rattenbury.

A G55 was tested by FIA equalisation driver Jean-Marc Gounon at Silverstone last week, in preparation for homologation into GT3.

The car ran with Ginetta GT Supercup aero and engine specs, and is not expected to be on the pace until

upgrades are brought in.

Century boss Nathan Freke said: "The plan is to work with Ginetta to develop the car. There'll be two upgrades during the year, one probably aero and the second could be engine.

"We know at the beginning of the year we won't be on the pace, but the plan is to be right up there by the

end of the season."

Stinton, who will drive with Mike Simpson, said: "I wanted to go with a British manufacturer and it's a cost-effective way of going GT3 racing.

"I'm not expecting it to be fast because it's in Cup spec at the moment. I hope to be within a couple of seconds and go from there in 2012."

British GT

Brit GT return for Westbrook

INTERNATIONAL GT ace Richard Westbrook will aid reigning British GT champion David Ashburn's bid to retain his title in 2011.

Westbrook made occasional appearances for Ashburn's Trackspeed Porsche squad last year. Glynn Geddie drove with Ashburn for most of the season, but Westbrook is now set to share with the experienced amateur in five events in 2011.

Ashburn said: "All the others have upgraded cars so we've upgraded the driver. Richard is the best Porsche driver in the world.

"It's going to be hard, but I hope the

car will be good and reliable."

Trackspeed has yet to confirm who will share with Ashburn when Westbrook is unavailable, or drive the second car with Gregor Fiskens.

It tested a number of drivers at Silverstone last week, including former British GT champion Jonny Cocker, 2009 Porsche Carrera Cup champion Tim Bridgman and experienced racer Ben Clucas.



Trackspeed has "upgraded" its driver line-up

Global Rallycross

Gronholm to world rallycross

FORMER WORLD Rally star Marcus Gronholm will compete in the first Global Rallycross event at Irwindale Speedway in the US later this month.

The two-time WRC champion will drive a 600bhp four-wheel-drive Ford Fiesta in the event, which is part of a new worldwide initiative for rallycross (see AUTOSPORT, March 10).

Gronholm has already appeared in the European Rallycross Championship and contested the Pikes Peak hillclimb in 2009.

"Rallycross is good fun, with lots of cars running at the same time," said the 43-year-old. "It's quite different



Gronholm will drive Ford Fiesta in US event

from rallying but it's excellent to come to the USA."

Series co-founder Chip Pankow said: "We're thrilled Marcus will join us for the first round. We are building a truly international series featuring top talent from around the world."

Also among those expected to appear at the event are American star Tanner Faust and British ex-rally driver Marcus Dodd.

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Britcar

Ex-British GT aces flock to BEC as 40-car entry lines up for 2011

FORMER BRITISH GT champion Calum Lockie plans to contest a full national series for the first time in five years this season in the British Endurance Championship.

Lockie contested Britcar – the forerunner of the BEC – in 2006, but has not had a full UK campaign since. Now he will share a Strata 21 Mosler with Paul White, with whom he has raced at the Silverstone 24 Hours.

“The team has done a lot of work over the winter, so hopefully we’ll be

there,” said Lockie. “I’ve no doubt the Mosler can fight for the championship.”

The 2000 British GT champion is expected to be part of a 40-car entry for the inaugural season of the BEC. Britcar race winners Sean and Michael McNerney have entered and will switch from their Mosler to the Ferrari 430 they raced in the 2009 Le Mans Series.

“We did two LMS races and Le Mans, and it hadn’t turned a wheel since,” said Sean after the car reappeared at the series’ test at Silverstone last week.

Ex-British GT race winners Aaron Scott and Craig Wilkins also plan to contest the full season, except the 24 Hours, with GT3 Racing’s Dodge Viper, while Backdraft Motorsport plans to run two Lamborghini Gallardos in the series.



Refettled Viper will be gunning for BEC

British Formula Ford

New Ford team offers F2 prize

SPIRIT MOTORSPORT plans to move into British Formula Ford this season and will offer a fully-funded Formula 2 seat to any driver who wins the title with the squad.

Spirit has experience in the Sports 2000 arena and is a separate entity to the ex-Formula Ford constructor of the same name. It could run up to four drivers in Ray and Mygale chassis in 2011.

Team boss John Cowan says he is offering the F2 prize, along with a £100,000 reward, for any Spirit driver who

becomes champion, as well as £10,000 for one of its drivers who wins a race from pole and sets fastest lap in the same race. He described the funding for the prize as “in place and secured”.

“I have seen several Formula Ford winners’ careers fail to progress to the next level despite having the ability to go all the way,” he added. “This should make it more financially viable.”



Can a Ford driver win a place in F2?

British Formula Ford

De Zille to race third JTR Mygale

FRONTRUNNING BRITISH Formula Ford squad JTR has signed Dan de Zille for its 2011 campaign.

De Zille finished eighth in the standings last season, his second in the category, driving a Minister-run Mygale. The 24-year-old will now race alongside Australian Geoff Uhrhane and reigning Scholarship champion Tristan Mingay in a Mygale.

De Zille, who has already started testing with the team, said: “I felt I’d

find more with JTR. Podiums and finishing in the top four in the points have got to be the targets.”

Team boss Nick Tandy, whose squad ran Tio Ellinas and Dan Cammish to race wins last year, did not rule out running a fourth entry.

“We have the equipment to run it and if we talk to the right driver there’s the possibility of running a fourth car,” he said. “We’re probably the best prepared we’ve ever been.”

MARCUS PYE

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The voice of club motor racing



Moreno soon flew on FF1600 return

The entry lists might have been thin, but last weekend’s season opener at Oulton Park and Anglesey Circuit certainly blew away the winter cobwebs. Highlight of Saturday’s Masters Historic Racing’s Oulton event was the return of Roberto Moreno, among the nicest blokes ever to grace a Formula 1 grid and still totally grounded.

The Brazilian’s ride, Ron Maydon’s Mini Cooper S, threw its fan belt before he could test it on Friday, but Moreno eagerly leapt into Simon Hadfield’s FF1600 Van Diemen RF88 – run by Martin Angeloni, who was at Bromley Motorsport in his F3000 days – to reacclimatise to a place he’d last raced at 29 years previously.

Despite circuit changes (Britten’s chicane and the Hislop’s deviation prior to Knickerbrook were new to him), Roberto set competitive times within 15 laps, and sprang from the acres of padding with immediate feedback and the biggest smile. “That was the most fun,” said one of Formula Ford’s all-time heroes.

The publicity built around Moreno’s return helped swell Saturday’s attendance and was beyond astonishing for the meeting’s gravitas, but alas his Mini pedalling was brief before the engine blew. “Roberto said, ‘Send me the bill’, but I wouldn’t dream of it – I’d have superstars like him at

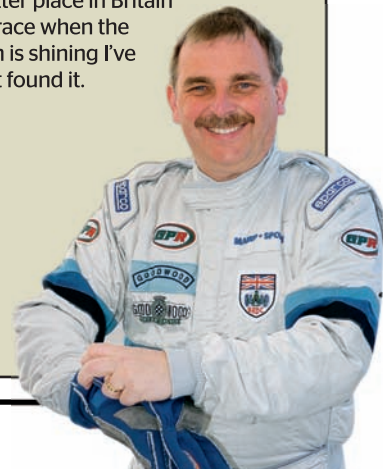
every event if it brought people through the gates,” said Maydon. “Besides, when did an F1 driver last offer to pay for anything?”

As disappointing as Oulton’s FF1600 entry was, the world’s most celebrated junior class was at its scintillating best on Anglesey 24 hours later. Sure, the stunning scenery and glorious weather (the only pocket of it in the British Isles) helped, but the 22-strong field had a quality look. Virtually all the cars were immaculate, and there were plenty of egos at work to fuel the fire of competition...

What was proven on the wonderfully sculpted coastal circuit was that you don’t need modern machinery to win. Double victor John Murphy – also the proud owner of a historic Merlyn Mk20 – saddled a Van Diemen RF90, one of David Baldwin’s iconic ‘stealth bomber’ designs, which moved the game on by a quantum leap 21 years ago.

The organisers, and unofficial paddock mediator John Loebell of pro team Medina Sport – which fields several cars from its Cheshire base – do everything possible to welcome and encourage FF1600 racers, thus the atmosphere is old-school friendly. If there is a better place in Britain to race when the sun is shining I’ve not found it.

“Roberto set competitive times within 15 laps, and sprang from the car with the biggest smile”



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IN BRIEF

SCOTT MALVERN (below) led a Jamun Mygale 1-2-3 in British Formula Ford testing at Silverstone on Monday (March 14) with a best time of 57.396s. JTR's Tristan Mingay was best of the non-Jamuns in fourth, with a 57.621s effort.



FORMULA RENAULT Winter Cup champion Alex Lynn topped the times by a large margin in last week's two-day FRenault UK test at Croft. Lynn beat Fortec Motorsport team-mate Oliver Rowland by 0.459 seconds, with Manor's Ollie Millroy third. "I was surprised how much faster we were," said Lynn.

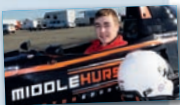
SUNOCO'S THIRD Rolex 24 at Daytona Driver Challenge will be open to competitors in the British F3, British GT and British Endurance championships this season. Radical and SPEED competitors are no longer eligible.

EX-FPA champion Adrian Willmott plans to contest the British GT Championship in 2011, sharing a 22GT Racing Aston Martin DBRS9 with Tom Alexander.

SOMETIME BRITISH GT squad Vantage Racing will run a new Aston Martin Vantage in the AM GT4 Challenge this season. Nicholas Mee Racing has also confirmed it will run two cars in the series for Karsten Le Blanc/Christaan Van Lanschot and Mark Poole/Richard Abra.

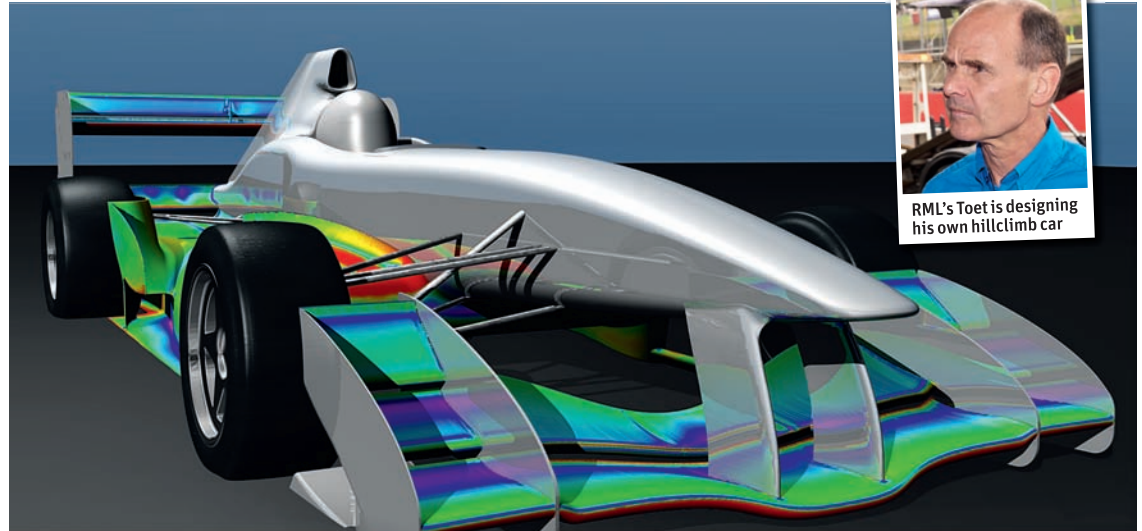
RENAULT CLIO Cup racer Rob Gaffney is switching to the Ginetta GT Supercup this year. He will drive a G50 prepared by Gaffney's own Meridian Motorsport.

CHRIS MIDDLEHURST, 16-year-old son of veteran racer Andy, made his car racing debut in the FF1600 races at Anglesey last Sunday. The youngster (right) ran sixth for much of the first race in the ex-Wayne Boyd Van Diemen LA10, only ceding a place to David McArthur three laps from home.



FORMER SCOTTISH FF1600 champion and British GT racer Rory Butcher will contest the Porsche Carrera Cup with Celtic Speed in 2011. George Richardson (Motorbase), Ahmad Al Harthy (RedLine) and Steve Parish (Motorbase) will all return to the series for a second season and compete against Butcher in Pro-Am1.

GP3 DRIVER Mitch Evans, 16, won the Denny Hulme Trophy feature race at Taupo's final round of New Zealand's Toyota Racing Series last weekend. Nick Cassidy, also 16, won the round overall by taking the first race - when Evans crashed - and the reversed-grid finale.



RML's Toet is designing his own hillclimb car

British Hillclimb

Toet in new hillclimb attack

RML MD Willem Toet plans his own car for return to British championship

FORMER BRITISH Hillclimb star Willem Toet is to make a comeback in a car of his own design.

Australian by birth, Toet worked in senior positions at the Toleman, Benetton, Reynard, Ferrari, BAR/Honda and Sauber/BMW F1 teams and was best known for his aero work. Throughout that period he was an enthusiastic hillclimber, culminating in second in the 2005 season driving his Judd-powered Pilbeam.

Pressure of work at Sauber forced

him to give up the sport in 2006.

Now MD of leading tin-top company Ray Mallock Ltd, Toet is planning a self-funded return. "When I decided to start this project I recognised that there are lot of good players in hillclimbing these days in a tough market," said the 58-year-old. "I am not getting any younger, so I need to get an edge on the opposition, such that even an old stager like myself can win.

"So I decided to use all of my over 25 years of accumulated knowledge in

designing a car. The aerodynamics will be more advanced than anything yet seen and will draw on my F1 experience."

The project is still in its early stages and Toet confirmed no engine has yet been chosen: "We have yet to decide who will build the car as RML do not do carbonfibre work. Engines are also undecided although I intend that a range of units should fit.

"At this stage I think the first car will be motorcycle powered but I want to look for a long-term engine partner."

Caterham Academy

AUTOSPORT backs series

AUTOSPORT WILL back the Caterham Academy in 2011.

The novice category, which uses a 1.6-litre Ford-engined Caterham Seven, has helped around 800 drivers into the sport since its inception in 1995.

The affiliation with Haymarket Media Group's AUTOSPORT means readers will be kept abreast of series developments in print and online. Additionally, the

magazine's news editor, Glenn Freeman, will take part in the series to gain experience of the world of Caterham racing.

AUTOSPORT editor Andy van de Burgt said: "The Caterham Seven is one of the best-known racing cars and is legendary.

"If it weren't for series like the Academy, motorsport in the UK would not have the vibrant appeal it enjoys today so we are delighted to back the '11 series."



Dutton returns to the driving seat

Fortec boss Richard Dutton had his first race since 1980 at Oulton last weekend, sharing a Lotus Cortina with Neil Brown. Halfshaft failure put the duo out

Gentleman Drivers

Ginetta V8 to take on Cobras in the UK this season



V8 Ginetta to race again

MORE THAN two decades after it was sold to the US, the only racing version of the Ginetta G10 will race in Britain this season.

The 1965 car, which runs with a 4.7-litre Ford V8 engine, was raced in period by Chris Meek and later by Rod Leach before it was sold to America in 1989. Now, Jo Bamford has bought the

car and Andy Newall's Gelscoe Engineering operation has just completed an 18-month restoration.

Newall gave the car a shakedown run at Donington Park last week. "It was just a systems check, but we'll try and do some Gentleman Drivers races with it," said Newall. "It's got the potential to beat the AC Cobras."

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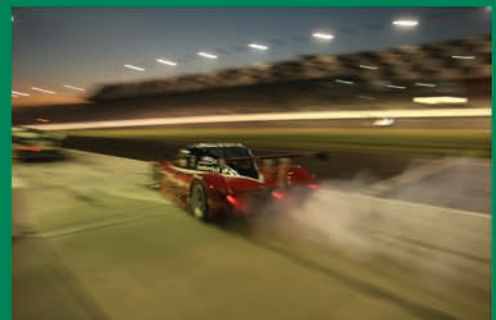
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IN BRIEF

FORMER McLAREN AUTOSPORT

BRDC Award finalist Aaron Steele (left) will contest the MSV F3 Cup this year with Gray's Motorsport. MSV boss Jonathan Palmer, commentators David Addison and Ian



Titchmarsh, and journalists Matt James and Kevin Turner will decide which of the series' drivers should win an F2 test prize.

SPORTS 2000 Duratec champion Neil Burroughs is being treated for head injuries in hospital following a bicycle accident last week. The triathlete, who fell in a training session, was being kept in a controlled coma on Monday.

JAMES TUCKER has postponed introducing his V8 Utes initiative until 2012. The Britcar boss hoped to run a series for 450bhp Holden/Vauxhall machines this season, but said: "We've put it off because we started late and Holden can't produce enough Utes."

NIPPON CHALLENGE frontrunner Vaughan Fletcher is switching to the Classic Thunder series this year, in his ScoobyClinic-prepared Subaru Impreza (left).



THE CHEVRON GR8 Challenge and the Crossle 9S Challenge are joining forces this season. Around 10 Crossles are expected to join the grid.

MASTERS HISTORIC Racing has gained MSA championship status for its Grand Prix Masters, World Sportscar Masters, Gentleman Drivers and Pre-1966 Touring Cars series.

GT AND SPORTSCAR ace Lee Atkins will share a Ginetta G50 in the GT Trophy this season with Sam Allpass.

VERSATILE VETERAN Nigel Greensall will contest the VW Fun Cup this season, sharing a car with former Radical UK Cup champion Derek Johnston and Ginetta racer Joachim Ritter. Ex-Britcar racer Simon Mason will also compete in the mini-enduro category, which has gained championship status for 2011.



Murphy leads Short and Jardine

Anglesey BRSCC

Murphy scores Anglesey wins

Formula Fordster John Murphy steps into older car and takes first '11 double

JOHN MURPHY topped both Formula Ford races at Anglesey last Sunday, as the circuit hosted the rescheduled snowed-off BRSCC November meeting. More comfortable in his Van Diemen RF90 than he ever was in his previous RFOO, Murphy secured pole for both strongly supported Star of Anglesey races. Having passed hare Martin Short (RFOO) in the opening stanza - the Medina Sport man claimed he was robbed under yellow flags into Rocket - Murphy doubled up more easily. Short bolted from P2 to head Murphy, before he was usurped.

After a brief safety-car period, David McArthur (RF04/09) ousted Jamie Jardine (Ray GRS07) and then Doug Crosbie (Van Diemen RFOO) to briefly go third. As the top six lapped debutant Amanda Hadfield (Merlyn Mk20) en masse, McArthur and Crosbie tangled, putting Crosbie out. Period Chevron B8 racer Jeff Hodgson (RF02) thus grabbed fourth behind Jardine. Race two was tamer as Murphy led Crosbie throughout. Short jiggled through David McArthur and father Neil McArthur (VD LA11) to finish third. Rob Spencer fought off challenges

from Cam Forbes (Westfield) and Doug Carter in a brand new Radical PR6 to claim both Sports, Saloon and Caterham pots in his zippy Locosaki. Having lost second to Forbes by a whisker in race one, Carter eventually zapped him in the finale. Perry Waddams's TVR Tuscan thudded to two fourths, while David Thomas (Renault Clio Cup) and Andrew Crighton's SHP Wildcat - a souped-up T-Car - headed the saloon ranks. The disparate enduro belonged to Marcus Carniel and Charles Fogg, first time out in Fogg's Lola T592.

Vernon Davies

FORMER CLUBMANS star Vernon Davies lost his battle with cancer on March 8, at the age of 70. Port Talbot steel worker Davies started racing in a Lotus 7 in the mid-1960s, then graduated to


Clubmans, becoming one of its greatest exponents, in Mallocks. Vernon rarely had any money to spend, yet gained the support of Major Arthur Mallock, Leeson gearbox man Bob 'Haggis' Le Sueur, and Claude and Emyr Price. Finally, in 1989, it all came together. Armed with a new U2 Mk28, Haggis's engineering back-up and backing from Mike Richman of Croydon Vauxhall dealer John Wilson, Davies

dominated the Supersports class. Universally liked, he is survived by his wife Daphne and two daughters.



Davies starred in 1989 season

PICS: STEVE JONES



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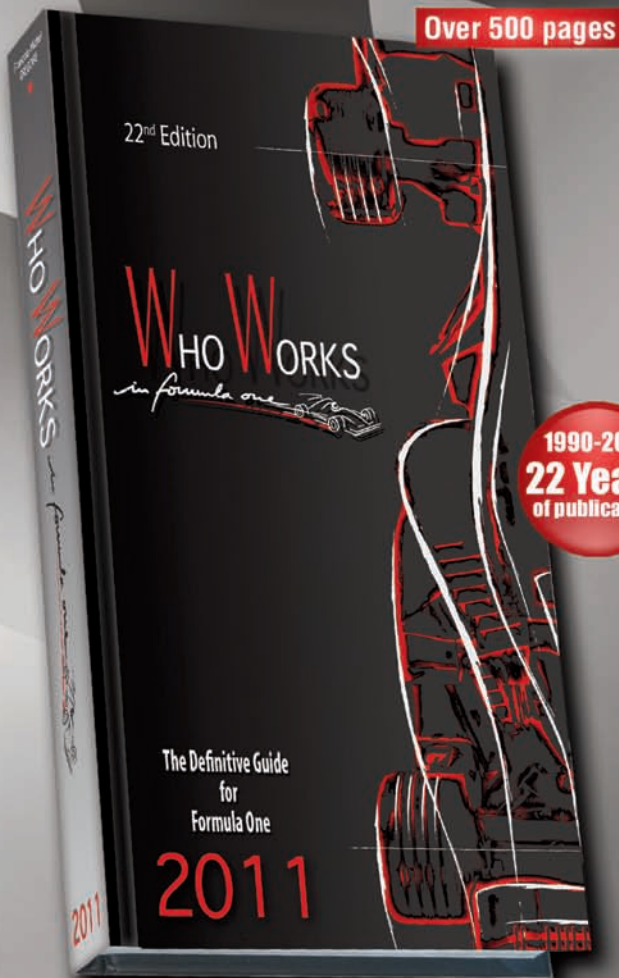
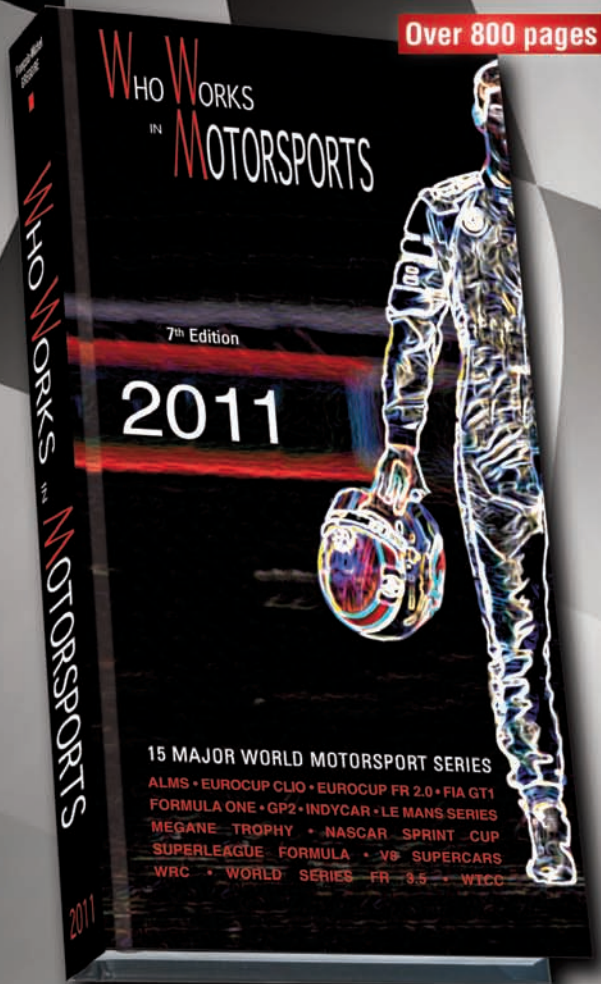
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IN BRIEF



70s CELEBRATION

Russell Paterson growled his Morgan +8 to victory in the Clay Hill Trophy '70s Celebration. Tom Pochciol led the chase in his UFO Jeans tribute-liveried Ford Capri, before the twin Porsche RSRs of Mark Bates and Paul Howells clawed past. Mark Wright (Escort Mk2) was a troubled fifth after Steve Walker retired Mike Wrigley's Mk1 version with clutch slip.



GENTLEMEN DRIVERS

The TVR Griffith of Mike Whitaker and builder Nigel Reuben outgunned the ex-Jackie Oliver Lotus Elan 26R of Simon Hadfield/Michael Schryver in the thin Cascades Trophy Pre-'66 GT event. Soloist Jamie Boot (Jaguar E-type) bagged third, having muscled inside Chris Scragg's similar car at Old Hall and completed the move when Scragg went off over the brow of Denton's.



FORMULA FORD 1600

As a six-year-old growing up in the USA, Neil Alberico got Roberto Moreno's autograph. Twelve years on, the Ray driver won on his UK race debut in the Brazilian's presence, the Old Hall Trophy event a confidence booster ahead of his Duratec campaign with Cliff Dempsey. Sam Carrington-Yates (Van Diemen) kept second in a photo finish with Jamie Jardine (Ray).

PRE-'66 TOURING CARS, OULTON PARK, MARCH 12

Hooray Henry wins for the Mann clan

ENTRIES MIGHT have been slim as Masters Historic Racing kicked off Oulton Park's 2011 season, but, starved of racing over the winter, a remarkably large audience enjoyed the five-event bill. Henry Mann starred, taking a hard-fought victory in the Avenue Trophy Pre-'66 Touring Car thrash in which ex-F1 ace Roberto Moreno also appeared, in Ron Maydon's Mini Cooper S.

Ford Lotus Cortinas were not supposed to beat the Blue Oval's V8 Americana, but – debuting the stunning Alan Mann Racing car built by period team mechanic Brian Lewis to replace John Young's Spa wreck of last September – young Henry drove coolly under pressure from David Hall (Cortina) and Nick

Swift (Cooper S) after a big overrev blew Moreno's engine asunder.

Mike Dowd had thundered his Mustang ahead at the start of the hour-long race and opened a lead of more than 40 seconds as the other Yank tanks fell like flies. Co-driver Jeremy Cooke could not match the preparer's pace, however, and was reeled in rapidly by Mann and Hall. "I ran out of brakes and talent; talent first," shrugged Cooke.

Mann ambushed Cooke at his first opportunity, boldly seizing the lead into Hislop's chicane, and Hall did not have to wait much longer to make it a Cortina one-two. "I saw David sneaking up again, but it worked out well. Actually, I had no idea I'd won until I



Mann defeated the V8s in 'new' Cortina

was called to the podium," said Mann.

Nick and Glyn Swift (racing at Oulton for the first time since 1977, in a Mini Se7en) sandwiched Christian Devereux as Cooper Ss completed the top six. Elsewhere, Minis harangued Chris Scragg's Jaguar Mk2 in an evocative flashback to the early '60s, while a promising return after 31 years out by Fortec team chief Richard Dutton

was halted by halfshaft failure in his Lotus Cortina. ● Marcus Pye

RESULTS (28 LAPS) 1 Henry Mann (Ford Lotus Cortina); 2 David Hall (Ford Lotus Cortina) +7.156s; 3 Mike Dowd/Jeremy Cooke (Ford Mustang); 4 Nick Swift (Morris Cooper S); 5 Christian Devereux (Austin Cooper S); 6 Glyn Swift (Morris Cooper S). **Class winners** Dowd/Cooke; N Swift; Ben Shuckburgh (Alfa Romeo Giulia Ti). **Fastest lap** Dowd 2m06.780s (76.44mph).

WORLD SPORTSCAR MASTERS, OULTON PARK, MARCH 12

Minshaw jumps the gun but still takes Chevron win

JASON MINSHAW'S jumped start from row two – the Chevron B8 passed Chris Fox (Lola T210) and Brian Casey (Chevron B16) with two wheels on the grass – should have cost the Demon Tweeks team World Sportscar Masters victory within 200 yards. But

despite a drive-through penalty, co-driving brother Guy took the chequered flag 46 minutes later.

Casey's pole was earned by the hugely underrated Greg Caton, but he slipped back into the pack. Fox and Mike Wrigley (B16) took up the cudgels behind

Minshaw, who visited the sin bin after three laps. Simon Hadfield had just taken Pierre Tonetti's savage Huffaker Genie V8 onto their tails when a promising battle fizzled.

Having seen Fox collide with Wrigley into the fast Island Bend sweeper,

Hadfield retired when his steering seized, fortuitously at Britten's chicane. After Fox slid off at Druids and pitted to check for damage, Wrigley was clear – until his brakes disappeared.

Minshaw was thus back ahead before his scheduled stop, and it took Guy three laps to oust late-stopper Hugh Colman (B8).

While Fox regained second, Caton was howling through the mid-order. He homed in on Colman, who hung on to third by 0.115 seconds in the final lunge. ● Marcus Pye

Minshaws started 2011 with an unlikely victory



RESULTS (23 LAPS) 1 Jason & Guy Minshaw (Chevron-BMW B8); 2 Chris Fox (Lola-FVC T210) +44.207s; 3 Hugh Colman (Chevron-BMW B8); 4 Brian Casey/Greg Caton (Chevron-FVC B16); 5 David Forsbrey (Ford GT40/C); 6 John Pearson (Lotus-t/c 23B). **CW** Casey/Caton; Forsbrey; Pearson; Paul Howells (Porsche 911 Carrera RSR). **FL** Caton 1m49.390s (88.59mph).

YOUR SAY

What you think of the motorsport news of the past week



It's raining again: will the clouds lift for McLaren?

Must McLaren play catch-up again?

What's going on at McLaren? Looks like it's really on the back foot going into the 2011 season. Many teams have done a full race simulation already and have ironed out any reliability issues. Why hasn't McLaren? It appears it'll have its work cut out to catch up once again.

If I were Jenson Button or Lewis Hamilton, I would be spitting feathers. Here we have one of the most successful teams in F1 that seems to have lost its way. Many fans will be hugely disappointed if we have a repeat of last year.

Gemma Coventry Bracknell

EDITORIAL CONTACT mail@autosport.com

Bernie Ecclestone's idea to liven up grands prix with sprinklers to make tracks artificially wet is as stupid as it is dangerous.

F1 is the pinnacle of our sport, so why trivialise it by introducing gimmicks, the like of which we haven't seen since *Wacky Races* graced our TV screens?

If we are going to meddle with the race conditions, why stop at sprinklers? Why not drop ACME anvils from a great height onto the track, or tar and feather drivers when they're exiting the pitlane?

Marie Hanerman
Saffron Walden, Essex

I heard Bernie Ecclestone is confident a date can be found to shoehorn the Bahrain GP back into this year's calendar.

This confidence is foolhardy, especially when you consider that part of Mr Ecclestone's optimism can be attributed to his idea of reassurance, being (as he says), "You never see anything about Bahrain on TV now."

Such a glib and misguided opinion highlights a tenuous understanding of global politics.

Steve Griffin
Sudbury, Suffolk

Yet again the Hispania team is the joke of F1 by not participating in any pre-season testing.

How parts can be 'stuck in customs' within Europe baffles me, especially when the team is Spanish-owned and the test was in Barcelona!

I am unable to understand why these lame ducks are allowed to continue in F1, particularly when they don't appear to have the necessary resources to make a firm commitment to the sport.

Duncan Sabiston
Didcot

With no Bahrain GP to watch, somewhat crestfallen I curled up on the sofa with AUTOSPORT.

A flick through led me to Mark Hughes' column. Immediately I was gripped by the tale being told; could this be happening soon? The Ferrari being nursed home on shot rubber and Schumi closing for the kill, I could almost hear Brundle and DC reaching fever-pitch excitement in the comms booth.

If you haven't yet read MPH (March 10), I suggest you do so immediately.
Dave Steele
Northants

AUTOSPORT.COM

TOP FIVE ON OUR WEBSITE

1. BEST WINTER STILL LEAVES RBR GUESSING
2. ALONSO: LEAD BATTLE TOO CLOSE TO CALL
3. HAMILTON: CAR NOT READY FOR TITLE FIGHT
4. HISPANIA UNVEILS ITS 2011 CHALLENGER
5. VETTEL KEEPS RED BULL ON TOP IN TESTING

AUTOSPORT.COM PLUS

TOP STORY ONLINE

INSIDE TESTING: BARCELONA BLOG PART 2

To read this exclusive feature and many others like it, log on to autosport.com/plus and choose which package you'd like. A month will cost £5.50, a year £46. Includes access to Forix – the ultimate stats website.

WIN!



ROAD ANGEL VANTAGE

This week's star letter will receive a Road Angel Vantage – a dedicated safety camera and blackspot locator that displays the legal speed limit of every road you drive, automatically and wirelessly updating its database every few minutes as you drive. For more details on Road Angel visit www.roadangelgroup.com Please ensure that your full address is included on all correspondence.

CORRECTIONS AND CLARIFICATIONS

- The Marrakech round of the WTCC was cancelled after our season preview went to press last week.
- In March 3 (p57), we said Premier Sports will show NASCAR Nationwide highlights. This is not the case, only Sprint Cup highlights will run alongside the live coverage.

It is the policy of AUTOSPORT to correct significant errors as soon as possible. Please note the issue date and page number when contacting us on autosport.editorial@haynet.com

THE LATEST GEAR

The most desirable new releases for motor racing fans: books, DVDs, models, art and gifts



1995 VOLVO 850 BTCC 1:18 MODEL

£130.99

autosport.com/shop

AUTOart's 1:18-scale 1995 Volvo 850 British Touring Car racer is fantastically detailed. The replica of the rorty, five-cylinder machine, which won six races in the hands of Swede Rickard Rydell and British veteran Tim Harvey, features opening doors, bonnet and boot, as well as working steering.

The paintjob is stunning too, suggesting these miniature versions were never raced!



OFFICIAL FERRARI T-SHIRT

£39.99

autosport.com/shop

Ferrari's official team T-shirt, produced by racewear and leisure fashion top name Puma, has landed – and it's identical to the one worn by the Scuderia crew.

The 100 per cent cotton T-shirt features team and sponsor logos and contrast panels at the shoulders and down the sides.



MOTOGP 2011 FOR XBOX 360

£30.99 (due March 18)

amazon.co.uk

The new MotoGP season kicks off this weekend, so now's the perfect time to pretend you're Valentino Rossi or Jorge Lorenzo with the latest version of the official MotoGP game, available for Xbox 360.

There are the usual career and arcade options, as well as 125cc and Moto2 bikes to try to hang on to.



1966 BRABHAM BT19 1:43

£43.20 (SMTS)

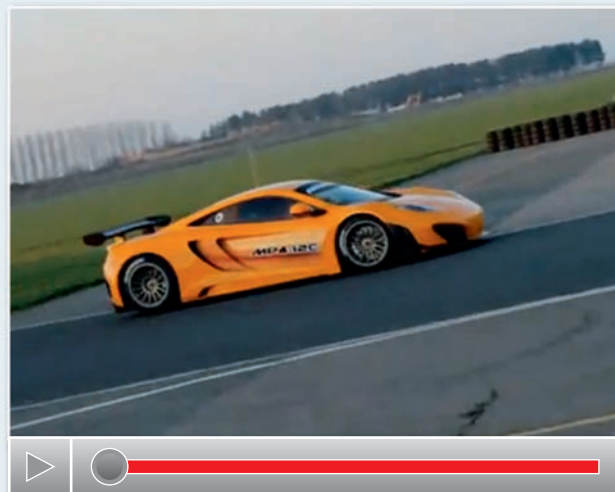
grandprixmodels.com

Scale Model Technical Services (SMTS) produce superbly detailed 1:43-scale models and its 1966 Brabham BT19 – a replica of the car used by Sir Jack to secure his third title – is no exception.

Two cars are available: the #12 French GP winner or the #5 car used to win the British GP at Brands Hatch.

HOT ON THE WEB THIS WEEK

YOUTUBE: MCLAREN MP4-12C GT3 RACER SHAKEDOWN



SEARCH FOR: MP4-12C GT3 debut test.wmv (2:59)

McLaren tester and sportscar racer Chris Goodwin introduces the all-new British-built GT3 racer for its test bow at Silverstone. Look closely, though, and you'll notice it's Scot Andrew Kirkaldy on driving duties.

WHAT'S ON...

Your guide to the best events taking place in the UK and around the world this week – plus TV and online

SNETTERTON

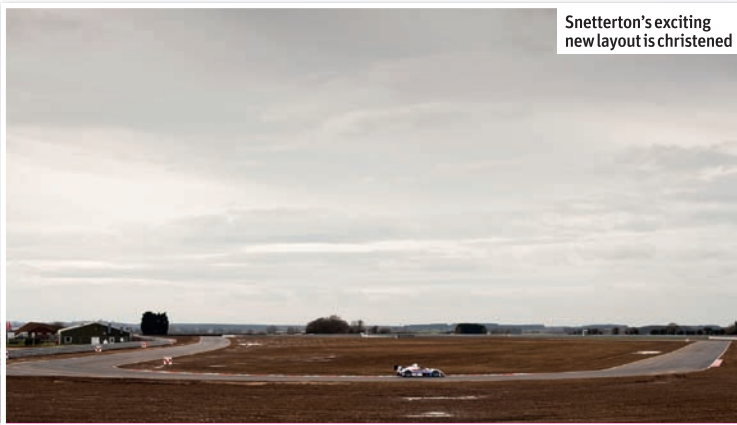
MSVR

March 19-20

Admission £13 on the gate each day; £16 for a weekend ticket (only available online)

Tel: 01953 887303

This will be the first chance for competitors and fans to see racing on the new '300' circuit, after Jonathan Palmer's multi-million-pound redevelopment of the Norfolk venue. Lotus Elise Trophy, Racing Saloons, Trackday Trophy, Lotus Cup UK, Production BMW and the MSV F3 Cup will provide the entertainment.



Snetterton's exciting new layout is christened

DONINGTON PARK

HSCC

March 20

Admission £14 (on gate)

Tel: 01332 810048

Action from Historic Formula Ford 1600, Classic F3, 70s Road Sports, Historic Road Sports, Historic Touring Cars, Classic Racing Cars, Historic Formula Junior and the Guards Trophy.



GP2 Asia moves from the UAE to, er, Italy

GP2 ASIA

Rd 2/2

Imola, Italy

March 19-20

gp2series.com

SEBRING 12 HOURS

Intercontinental Le Mans Cup Rd 1/7

American Le Mans Series Rd 1/9

Sebring, Florida, USA

March 19

americanlemans.com

AUSTRALIAN V8 SUPERCARS

Round 2/14

Adelaide, South Australia

March 19-20

v8supercar.com.au

WORLD TOURING CARS

Round 1/11

Curitiba, Brazil

March 20

fiawtcc.com

NASCAR SPRINT CUP

Rd 4/36

Bristol, Tennessee, USA

March 20

nascar.com

NASCAR NATIONWIDE

Rd 4/34

Bristol, Tennessee, USA

March 19

nationwide.nascar.com

BRAZILIAN V8 STOCK CARS

Round 1/12

Curitiba, Brazil

March 20

stockcar.globo.com

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Television

THURSDAY MARCH 17

1100-1200 ESPN Classic

Formula 1 Retro: 1979

1600-1700 ESPN Classic

Formula 1 Retro: 1980

1755-1855 Motors TV

Wyedean Forest Rally

1800-1900 Sky Sports 3

Racemax

2000-2305 Motors TV

Bathurst 12 Hours

FRIDAY MARCH 18

0145-0435,1340-1650 Motors TV

Bathurst 12 Hours

0700-0800 ESPN Classic

Formula 1 Retro: 1978

2030-2100 Motors TV

The Grid

SATURDAY MARCH 19

0010-0215 Motors TV

GP2 Asia: Bahrain

0405-0430 Five

Motorsport Mundial

0730-0755 Channel 4

The Grid

An interview with IndyCar champ Dario Franchitti, behind the scenes at McLaren, electric ice racing and drag racing in Qatar.

0900-1000 Sky Sports 3

Racemax

0900-1000 Dave

Licence to Le Mans

1310-1415 Motors TV

LMS 2010 season review

1415-1515 Motors TV

Le Mans Classic 2010

1915-2000 Eurosport 2

WTCC: Curitiba qualifying highlights

2000-2100 Motors TV

WRC: Rally Mexico highlights

2100-2235 Motors TV

Roger Albert Clark Rally

SUNDAY MARCH 20

0115-0410,1755-2100 Motors TV

Bathurst 12 Hours

0600-0700 ESPN Classic

Formula 1 Retro: 1980

0700-0730 Sky Sports 4 & 1730-1800

Sky Sports 2

Magic Mallock and Mayhem

A documentary of RML's WTCC exploits.

0730-0800 Eurosport 2

GP2 Asia

0900-1000 Dave

Licence to Le Mans

0900-1005 Motors TV

LMS: 2010 season review

1100-1145 Eurosport 2

WTCC: Curitiba

Qualifying highlights followed by live coverage of the warm-up session.

1545-1800 Eurosport LIVE

WTCC: Curitiba

Back-to-back coverage of the first two races of the new season.

1730-2230 Premier Sports LIVE

NASCAR: Bristol

Food City 500 from Bristol Motor Speedway.

1845-1945 ESPN

WRC: Rally World

A preview of Rally Portugal.

2100-2130 Motors TV

The Grid

Online

AUTOSPORT.COM

Coming up on the web this week

SEBRING 12 HOURS

The 2011 season really blasts into life this weekend, with Audi and Peugeot's first Intercontinental Le Mans Cup head-to-head in the Sebring 12 Hours, MotoGP kicking off under the Qatar lights, and the World Touring Car Championship getting underway in Brazil. AUTOSPORT.com will bring you extensive preview features plus all the news from all three.



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REVVED UP OVER WHAT'S ON THE BOX

We cast a critical eye over the best and worst of this week's TV coverage

PETROLHEADS THIRST for racing. And they can get it from a machine that beams sights and sounds from tracks all over the world into their living room. No longer do these people have to deal with the inconvenience of going anywhere, instead they can just let cathode rays administer a mind-melting shot they mistake for actual excitement.

This column is about how television ruined motor racing. And don't say it didn't. It did.

CROWDS

There was a time when it was the law to wear a hat, when the day you turned 16 you started to dress

like your dad, and when people used to have to go out into the daylight if they wanted to watch motor racing.

And people did it by the tens of thousands – standing on the outside of a barrierless corner where the magnificent men in their flying machines would race. It even coined a popular phrase: "Gordon Bennett!" people would exclaim when something spectacular happened.

Then, in October 1937, the BBC broadcast the Imperial Trophy from Crystal Palace and the die was cast. More and more racing worked its way onto the TV, and now only diehards go to the track.

MONEY

There was a time when the BBC refused to show Formula 1 due to the amount of sponsorship on the cars. A few short years later Murray Walker was calling Lotuses "John Player Specials" and McLarens "Marlboros".

The boom in sponsor dollars turned the teams from small garage operations into high-tech engineering empires.

The massive TV viewership for F1 acted like a money black hole, sucking in all the available cash from other forms of racing, making sportscars, touring cars and junior single-seater classes much the poorer.

ARTIFICE

Races are long, TV viewers' attention spans are short. There's no evidence for it, but it's a scientific fact that the average teenager is now only able to focus on something for 15 seconds before they have to Tweet on their iPhone. Lol.

Because of this, racing has to fit into an Xbox world of instant thrills. Boost buttons, joker laps, success ballast and overtaking zones are a consequence of trying to satisfy whims of a generation who've never even paid for a newspaper.

What next? Laser-guided car-to-car missiles? *Revved Up*

NASCAR evaluates Revved Up's vision



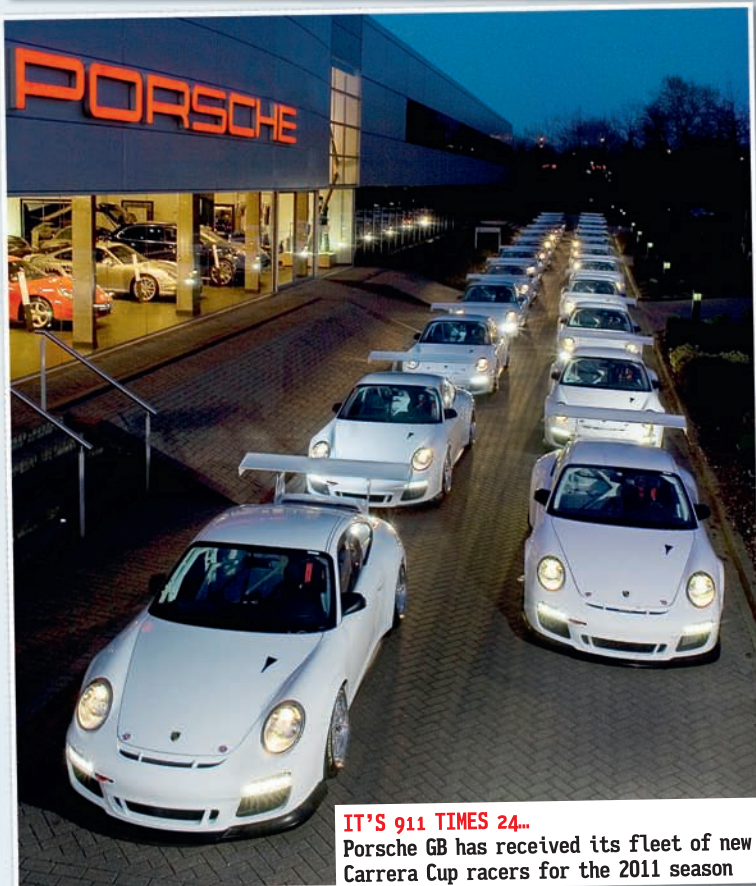
THE WEEK IN PICTURES

The lensmen pounding the beat from Barcelona to Birmingham (Alabama)



IS THIS THE YEAR SCHUEY'S BALLOON BURSTS?

Or not? Schumacher set the fastest pre-season time at Barcelona this year, but is that a false dawn for Merc?



IT'S 911 TIMES 24...

Porsche GB has received its fleet of new Carrera Cup racers for the 2011 season



ANDRETTI SIGNS NASCAR LEGEND

Sadly 'King' Richard Petty won't be driving in the Indy 500, but his famous colours are there



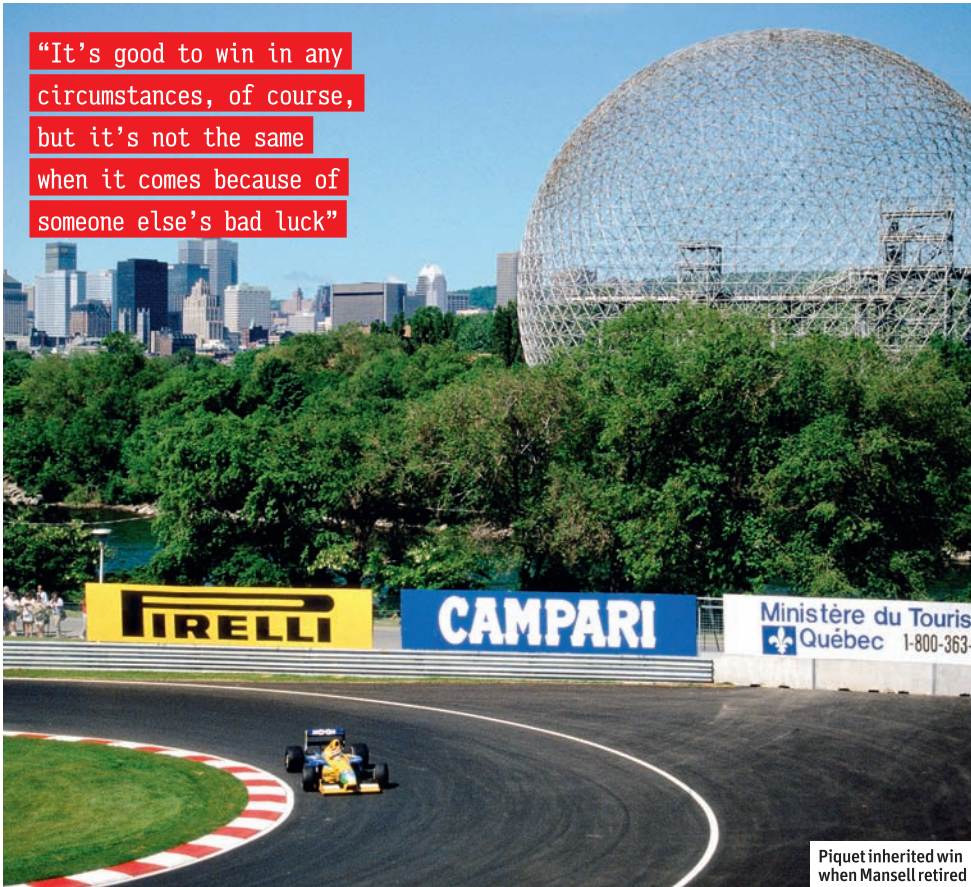
STEP OUT OF THE CAR, ADRIAN

Given Adrian Newey's recent spate of crashes, Red Bull was pleased to see him get out of his GT40 unscathed at Barcelona last week

FROM THE ARCHIVE

Pirelli's last F1 win, Canadian GP, Montreal, 1991

"It's good to win in any circumstances, of course, but it's not the same when it comes because of someone else's bad luck"



Piquet inherited win when Mansell retired

WHICHEVER CAR crosses the finish line first at next weekend's season-opening Australian Grand Prix, it will carry Italian tyre maker Pirelli to its first Formula 1 victory for nearly 20 years.

The last of its 44 F1 wins came courtesy of an unlikely final triumph in the glittering career of Brazilian triple world champion Nelson Piquet, at the Canadian Grand Prix of 1991. That success had less to do with Benetton's choice of tyre supplier than it did an unexpected twist of fate during the last of the race's 69 laps.

The Williams-Renaults of Nigel Mansell and Riccardo Patrese left the rest for dead in Montreal, and the Grove outfit looked odds-on to record a one-two until Patrese's Goodyear-shod FW14 suffered a puncture on lap 42.

Team-mate Mansell's uninhibited run to victory then came to a dramatic end on the final lap. The waving Brit happily acknowledged the frantic applause of the crowd during his final tour, but as he negotiated L'Épingle hairpin for the final time he flicked the gear lever and found only neutral. Almost simultaneously the engine stopped, and a cast-iron victory crumbled to dust.

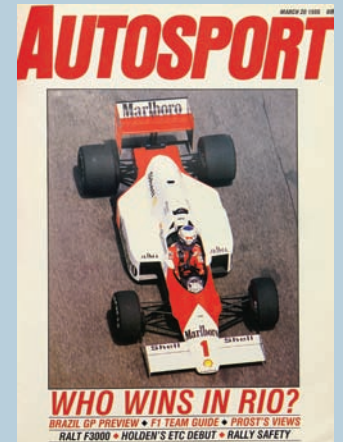
"What can I say?" said a disconsolate Mansell in a post-race interview with AUTOSPORT. "It's almost unbelievable. I started to change down from fifth to fourth – as I had the previous 68 laps. It went to neutral and just stopped – as simple as that. It appeared as if someone had switched off the engine."

Mansell refuted claims the car ran out of fuel, or that he had broken the gearbox during a late spur that netted him the fastest lap of the race with only four to run.

"It was though there was an electrical failure," he added. "The car had been perfect all the way through – no problems at all. It's one thing when the gearbox goes, but when the engine dies at the same moment... I think it must be almost as disappointing as losing the championship in 1986 in Adelaide."

Chief beneficiary of Mansell's despair was his former team-mate Piquet, who was the only runner un-lapped by the Brit and was more than a minute down when Mansell retired. "It's good to win in any circumstances of course," Piquet said. "But it's not the same when it comes because of someone else's bad luck." ❧

THIS WEEK IN...



MARCH 20 1986

ALAIN PROST is pictured in the latest McLaren (above), testing at Rio ahead of the start of the 1986 Grand Prix season. In an interview with AUTOSPORT, the Frenchman spoke about the prospects for his first season as defending champion, and how his life had changed since lifting the crown. "The big change is the workload," he said. "You spend 15 years of your life trying to get to the peak of your career and when you get there, you don't enjoy it because of the work."

Over in the States, Morgan Shepherd took the second of his four top-flight NASCAR wins when he beat Dale Earnhardt in the Motorcraft 500 at Atlanta by a car's length (below).

Elsewhere, James Weaver shook down the new Ralt RT20/86 F3000 car at Silverstone, and Tiff Needell compared a new range of BF Goodrich tyres by thrashing a Mercedes 190 and a BMW 325i around Estoril.



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MARTIN DONNELLY

■ Macau F3 GP ■ November 29, 1987 ■ TOM'S Ralt RT31-Toyota ■ Vomiting his way to prestigious victory



Donnelly kept his TOM'S Ralt out of the Macau walls

THE RACE of my life – Macau 1987 – opened a lot of doors, put me on the international market, and got me my first F1 test. That's the story in a nutshell... but there is a lot more to it than that!

The week leading up to it a good friend had a housewarming party. I was reluctant to go because next morning I was due at Gatwick. I went, there were a few drinks and, to cut a long story short, I was the last one to leave at about 3am.

Glenn Waters, my Intersport team boss, woke me with a massive thump on my bedroom window. I got dressed, finished packing, but was so hungover. As soon as we landed in Hong Kong they took us to a press conference for my sponsor Mr Juicy. That went well and afterwards, out of curiosity, I went into Hong Kong with Thomas Danielsson and Julian Bailey. You'd think I'd have learned by then...

I got back to the hotel very much the worse for wear. Next morning I had a call from reception: 'Mr Donnelly we are here to collect you for the next press meeting.'

I told them that I couldn't make it as I had really bad food poisoning. But the organisers had

"Murray Walker said, 'Martin's on pole and he's been doing a fine job. He's been suffering food poisoning.' Little did Murray know that it was alcohol poisoning!"

a show car outside and the press was already there. I got up, put my overalls on, went downstairs, and I'm not joking, three times I had to stop and have a good 'chuck'!

First qualifying was always the slowest, because the touring cars put more rubber down after it. I went out, and remember coming

down the main straight, and being sick inside my helmet. Andy Thorby, my race engineer, told me to stay in the car and he'd put new tyres on. I said, 'Listen, I've been sick. It will be a waste of tyres.'

Andy wasn't having any of it, and sent me back out. I set fastest time, got out of the car, ran 200

yards to the control-tower toilets and had a major sickness session.

That night there was a massive typhoon that lasted through the next day, so nothing happened on track. I stayed in bed all day.

It was a strong field, including Emanuele Pirro, Andy Wallace and Bernd Schneider, who was a rocketship. I made a good start, and had some hassle from Jan Lammers and Stefano Modena for a bit, but I managed to eke out a gap and win.

I watched the video at home after and Murray Walker, who did the commentary, said, 'There's Martin Donnelly sitting on pole. He's doing a fine job as I saw him this morning, and he's been suffering food poisoning.' Little did he know it was alcohol poisoning! ❗ *Martin Donnelly was talking to Andy Hallbery*

IN PROFILE



MARTIN DONNELLY was one of Britain's great racing hopes in the late 1980s. A winner in British Formula 3 for Intersport and F3000 for Eddie Jordan, he made his F1 debut with Arrows in the French GP in 1989. A move to Lotus full-time in 1990 was cut short by a devastating crash in qualifying for the Spanish GP at Jerez, which ended his professional racing career and left him with shattered legs and in a coma. After a lengthy recovery he set-up his own Formula Vauxhall and Vauxhall Junior team for 1994. He now manages young drivers and is an ambassador for Lotus.

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