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GARY WATKINS
How Fittipaldi was key to Marlboro millions

MARK HUGHES
The flaws that keep haunting title challenges





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POLE POSITION

Hectic Monday puts the sport in a rush

MONDAY WAS A BUSY ONE FOR OUR SPORT: McLAREN celebrated 50 years as one of its heavyweights; Daniel Ricciardo's dream move to Red Bull was (finally) confirmed; and a Hollywood blockbuster – *Rush* – was premiered in Leicester Square.

We've concocted an eclectic mix of stories from McLaren's past to its present, from founder Bruce to current F1 team custodian Martin Whitmarsh, via first world champion Emerson Fittipaldi and 10 of its finest creations. Mark Hughes also delves deep into its fabric, and comes up with a fascinating theory about why it hasn't delivered more titles given its impressive resources.

As predicted here last week, Ricciardo's promotion from Toro Rosso to Red Bull is his big break. Being Sebastian Vettel's team-mate will be a tall order and how this Aussie gels with the German, given Mark Webber's previous, will be intriguing to monitor.

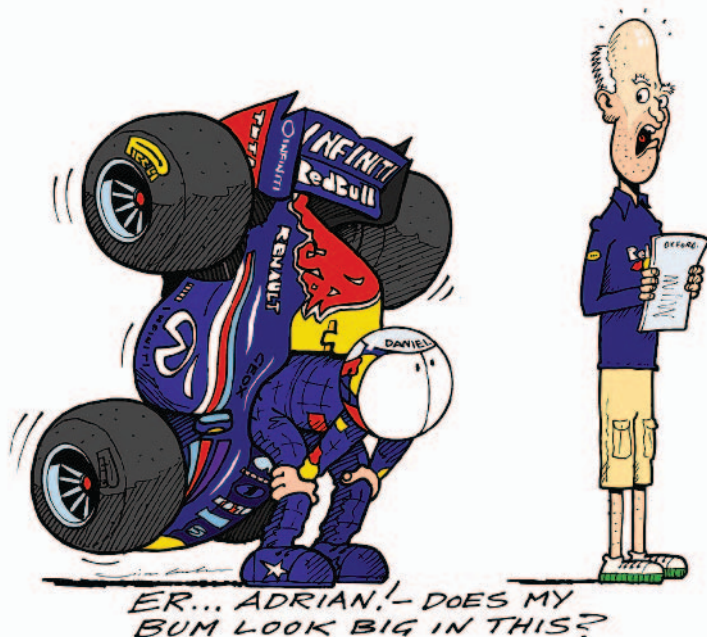
● There's a new component to the magazine this week: **AUTOSPORT Performance**. Aimed at competitors, our experts give the benefit of their vast experience by suggesting techniques to make you faster. Even if you don't compete yourself, we hope you'll find it an interesting addition to your understanding of this complex sport.



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BAMBER'S WEEK



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Alan Eldridge

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This week in F1



ALONSO BUYS CYCLING TEAM

Fernando Alonso is to become a team owner at the top level of world cycling after buying the Euskaltel Euskadi team.

The Basque squad last month announced it would not be able to compete next season because of a lack of sponsorship. But Alonso has acquired the company that owns the team and its WorldTour Licence, which guarantees it an entry to top-level events such as the Tour de France.

A statement released by the squad revealed that Alonso is determined to run the team on a clean basis in an environment where the sport has been dogged by high-profile doping controversies in recent years.

“Enthusiasm, seriousness, sacrifice, evolution and transparency are the words on which this team will build its foundations,” said the statement.

“Alonso is thrilled to be forming an active part in cycling and to be able to improve the image of this sport.”

Details of the name of the team and how much of its existing structure will remain have yet to be revealed.

DID YOU KNOW?

Fernando Alonso is not the only world champion in charge of a cycling team. Nigel Mansell is the owner of the Team UK Youth squad, which competes in continental-level events.



KOVALAINEN WON'T PAY

Heikki Kovalainen insists he is still not willing to bring money to a Formula 1 team as he bids to return to a race seat next year. The 2008 Hungarian GP winner is this season restricted to third-driver duties at Caterham (right). “I will not bring money and if that’s going to be an obstacle again then it’s out of my hands,” he said.



“ I didn’t seriously seek to prevent Lewis’s efforts to explore new pastures with Mercedes – perhaps it was a necessary part of his maturation ”

McLaren chairman Ron Dennis on last year’s departure of Lewis Hamilton



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GIBSON/LAT

Ward announces FIA candidacy

David Ward has confirmed that he will stand for the FIA presidency when current incumbent Jean Todt's term comes to an end in October. Ward has resigned his role as director of the FIA Foundation to stand. The 56-year-old has been a major player in road safety for the past 18 years and was a key advisor to former president Max Mosley.



STALEY/LAT

SURTEES FOR ASI SHOW

British motorsport legend John Surtees has confirmed his attendance at AUTOSPORT International, at Birmingham's NEC on January 9-12.

"AUTOSPORT International is a major part of the motorsport calendar and I'm delighted to be attending," said the 1964 world champion.

Allison boost for Ferrari

Ex-Lotus man James Allison (pictured) started work as Ferrari's chassis technical director last week. The Scuderia's director of engineering Pat Fry said: "For me, it is good because I will have more time to concentrate on what will make the car quick."

COTES/LAT



Renault key to Raikkonen deal

Lotus team owner Gerard Lopez believes that the establishment of a long-term relationship with Renault is key to Kimi Raikkonen remaining at the team. "As long as he gets what he wants from us, which is technical guarantees in terms of how close we are with Renault, then there is a high chance he will stay," he said.



FERRARO/LAT

CALADO GETS FORCE INDIA ROLE

Britain's James Calado will make his debut as Force India reserve and test driver at Monza tomorrow (Friday) following a successful trial in July's young driver test at Silverstone.

The GP2 race winner has a deal for several Friday outings this year, and AUTOSPORT understands that he will continue in the role in 2014.

Team boss Vijay Mallya said: "We worked with him at the Silverstone test and he impressed everyone. We've always tried to support young drivers and this is a great opportunity for James to gain some valuable experience of driving at F1 events."

Calado will dovetail his Force India outings with his GP2 title bid.



STALEY/LAT

The reserves who made it work

PAUL DI RESTA

Drove eight times during Friday practice in 2010 while racing in the DTM, before landing F1 race seat the following year.

JULES BIANCHI

Narrowly missed out on a race seat alongside di Resta this year after nine

outings in Friday practice in 2012. Now racing for Marussia.

NICO HULKENBERG

After a year racing for Williams in 2010, Hulkenberg drove 14 times during Friday practice in '11 for Force India. Promoted to a race drive for '12.

Sauber close to new Ferrari deal

Sauber is close to finalising a new engine deal with Ferrari. Team principal Monisha Kaltenborn said: "The talks are progressing very well and we hope we can very soon come to the conclusion."

SAUBER ENGINE SUPPLIERS

ILMOR (1993)

Ahead of Mercedes entering officially, Sauber runs with an Ilmor-developed V8.

MERCEDES (1994)

Mercedes puts its name to the Ilmor unit.

FORD (1995-1996)

As Mercedes moves to McLaren, Sauber becomes Ford's works team.

'PETRONAS' (1997-2005)

Customer Ferrari engines, but badged in deference to major sponsor (right).

BMW (2006-2009)

BMW acquires a majority stake in the squad and turns it into a works team.

FERRARI (2010-2013)

After BMW's withdrawal, Sauber reunites with its old engine supplier.



LAT

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Mark Hughes

MPH

Who goes where for 2014? It's not just about drivers, but top personnel too. Specifically, what would be a good challenge for Ross Brawn?

While the silly season has concerned itself with who may be driving where in 2014, it has paid scant attention to which senior figures could be moving on to new pastures.

What, for example, are Ross Brawn's plans for next season? He currently heads up Mercedes Grand Prix, having sold to Mercedes the team he'd won the 2009 title with as Brawn, this after having bought it for a nominal fee from the departing Honda during the 2008-09 off-season. But his future there has been less than clear ever since earlier this year Mercedes moved its man Toto Wolff into the position of executive director of the team. Previously, Wolff had held that position at Williams, and while he was there had been putting in place plans to recruit Paddy Lowe from McLaren, with the idea of making him a team principal with a technical background.

That plan was put on hold when Wolff received his surprise offer to head up Mercedes' motorsport programme, effectively replacing the departing Norbert Haug. But once installed at Mercedes GP, Wolff continued his negotiations with Lowe and they came to fruition a few months ago as Paddy joined Mercedes as executive director (technical). This is a position senior to that of technical director, and it is believed that Lowe has joined on the understanding that he will in due course be made team principal. But in the meantime, Brawn still holds



Well, what about taking a once-mighty grand prix team that has in recent years fallen a long way, which no longer contends for the prizes it once used to monopolise, and building it back up to recapture those glory days? What if that were the team at which Ross actually began his F1 career as a lowly machinist? What a fantastic challenge that would be, and into the bargain it would lend his career a lovely 'completing-the-circle' aspect.

Now, what if there were someone who has shares in Williams who would be willing to transfer them to Ross, perhaps as part of a golden handshake package?

“There is a sense that having three senior men at the helm at Mercedes is not permanent”

that position, even though he has sold his remaining shares in the team to Mercedes.

There is a sense that this arrangement of three senior men at the helm is not a permanent one amid constant rumours of negotiations between the team and Brawn of an amicable arrangement for his moving on. He could then take whatever settlement he negotiates to go fishing, hiking and messing about with his classic cars. But he's only 58 and is one hugely competitive individual. He can do all those things later. If he were to leave Mercedes, would he not be looking for one final challenge?

For a man who, first as technical director, latterly as team principal, has taken Benetton, Ferrari and his own team to multiple world championships and overseen the progression of Mercedes GP into serial polesetters and race winners, what challenge could F1 still have to offer him?

Hmm, hang on! Toto Wolff could do it! He retains shares in Williams, which isn't really ideal anyway as he heads up a rival team. A transfer to Brawn would be perfect, surely...

There is a possible complication. Pat Symonds recently joined Williams as chief technical officer. Would the arrival of Brawn make that a difficult join? Not necessarily. Symonds would remain in technical charge; Brawn would be a technical man running the team itself. It would reunite a formidable partnership that took Benetton to double championships in the 1990s and would combine the forces of two of the great minds of F1. The team retains its great facilities and people, and it somehow has always felt 'wrong' that Williams should not be up front where it always used to be.

Personally, I find this an even more fascinating prospect than the colour of the 2014 overalls of Fernando Alonso or Kimi Raikkonen. ☼

This week in motorsport



HYUNDAI WRC BUILD-UP GATHERS PACE

There's growing confidence in the Hyundai team following a positive test for the i20 WRC in Finland last week.

The Korean firm's all-new WRC challenger completed 500 miles in five days with local star Juho Hanninen behind the wheel. By the end of

the test, team principal Michel Nandan admitted it had delivered more than expected.

"I think we can be quite OK now," said Nandan. "Finland is about the jumps and, even on the base set-up of the suspension, we were OK. This was the first time we tested the car on fast gravel

and we are happy with what we found."

Hanninen added: "After the first day I already said to the boss that I'm really surprised in a positive way. The i20 is an easy car to drive and it works well. We have been mainly working on the suspension, the driveability and aerodynamics."

8



Lopez in frame for 2014 Citroen

Citroen carried out its first serious test with its new C-Elysee World Touring Car at Hungaroring earlier this month, with 2014 race drivers Sebastien Loeb and Yvan Muller sharing the driving.

Prior to the recent test in Hungary, Citroen's running had been limited to a shakedown at Val de Vienne and some promotional running at Paul Ricard. Citroen Racing team boss Yves Matton told AUTOSPORT that the initial feedback from the drivers was positive.

"Both drivers were very happy with

the car," he said. "It is reacting well, and we are also happy from a technical point of view. The idea is mainly to do a lot of kilometres. There is no special brief, but we are where we expected to be."

Citroen is also considering adding a third car to its line-up, with Jose Maria Lopez, who won on his first weekend in the WTCC with BMW on home soil in Argentina last month, scheduled to test for the squad at Valencia on September 9-10. Other drivers are also being considered.

MERCEDES CONSIDERS EXPANDING DTM LINE-UP

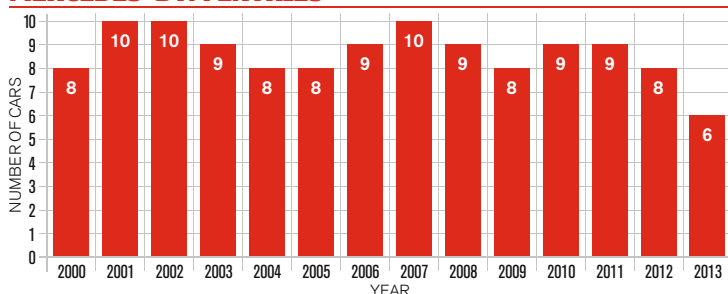
Mercedes could increase its DTM entry back to eight cars for next year, after downsizing to a six-car line-up for 2013. The marque's motorsport boss, Toto Wolff, said the decision to run a smaller squad this year was to make sure every car was competitive, that the DTM project was financially viable, and to keep team spirit high.

"If we can keep these things at a high level, then we might increase to eight cars [for 2014]," he said.



XPB/LAT

MERCEDES' DTM ENTRIES



For all the breaking news, visit AUTOSPORT.COM

STEWART BACKS BUSCH FOR INDY 500 START

Kurt Busch's quest to race in the Indianapolis 500 in 2014 has the backing of his soon-to-be NASCAR team boss Tony Stewart.

Busch, whose switch to Stewart-Haas was announced last week, has been pursuing an Indy 500 debut since testing for Andretti Autosport at the Speedway earlier this year. He is also working to race in this year's finale at Fontana.

Busch, who won the 2004 Cup title, said: "I mentioned it to Tony when we got together. He said, 'Man, if you're going to run Fontana this year, I'm going to be there with you'. Indy is something that's still on the table, we're working on things."

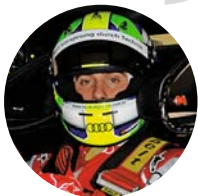
Stewart, the 1997 Indy Racing League champion, made five Indy 500 starts before focusing solely on NASCAR.



STEWART'S INDY 500 RECORD

1996	1997	1998	1999	2001
Team Menard	Team Menard	Team Menard	TriStar Motorsports	Chip Ganassi Racing
Start: 1st	Start: 2nd	Start: 4th	Start: 24th	Start: 7th
Finish: DNF	Finish: 5th	Finish: DNF	Finish: 9th	Finish: 6th

I've got a mid-term contract with Audi and I fully identify with the LMP programme for which I'm scheduled again next year



Lucas di Grassi dismisses a switch to the DTM following his test with Audi last week



No joy for big names in rallycross

All three WRC stars missed out on a Loheac Rallycross win last weekend. Much to the disappointment of the locals, Sebastien Loeb missed out on the final, while Kris Meeke was disqualified and Petter Solberg finished second.

JANI TESTS UPDATED PORSCHE

Neel Jani enjoyed his first full test of Porsche's updated LMP1 hybrid as part of an ongoing testing programme ahead of the German marque's 2014 World Endurance Championship entry.

Jani had previously completed a brief shakedown at the team's Weissach test track, but had a far more comprehensive run as Porsche switches its attention to

running on "international circuits."

AUTOSPORT understands Porsche also used the test to trial new upgrades and practice its first pitstop and refueling drills.

The firm intends to test throughout the remainder of 2013 and into next year, with the intention of bringing new parts to each run.

In brief



LARSON TO GANASSI

Earnhardt Ganassi Racing has revealed that 21-year-old Kyle Larson will replace Juan Pablo Montoya in the NASCAR Sprint Cup next year. Team boss Chip Ganassi described Larson, who is currently seventh in the Nationwide series, as the team's "first choice".

ALLMENDINGER BACK

AJ Allmendinger will return to full-time NASCAR action in 2014 for the first time since his drugs suspension last season. The American has signed a deal with JTG Daugherty, for which he has made a handful of Sprint Cup starts this year.

SKODA R5 IN WORKS

Skoda has admitted to a R5 programme for the first time – although the new car is not expected to appear until 2015. Driver Jan Kopecky has already tested a prototype version of the machine.

MULLER SWITCH

German racer Sven Muller has switched from Ma-Con to Van Amersfoort Racing for the remainder of the Formula 3 European Championship, starting from the Zandvoort round at the end of this month. Muller, a race winner with Prema last season, has yet to finish on the podium this year.

T-SPORT RETURNS

T-Sport will contest the British F3 finale at the Nurburgring on September 21-22. The team will take one of its ThreeBond/Nissan-powered Dallaras to the German circuit for Australian Spike Goddard to drive.

JIMMY BLUMER

Jimmy Blumer, who died last month at the age of 82, was an accomplished sports car and touring car racer. The BRDC member appeared for such teams as Ecurie Ecosse, Border Reivers and Equipe Endeavour, and finished fifth in the 1963 British Saloon Car Championship, driving a Class B Alan Andrews Racing Ford Cortina GT.



PETRONAS
SYNTIUM

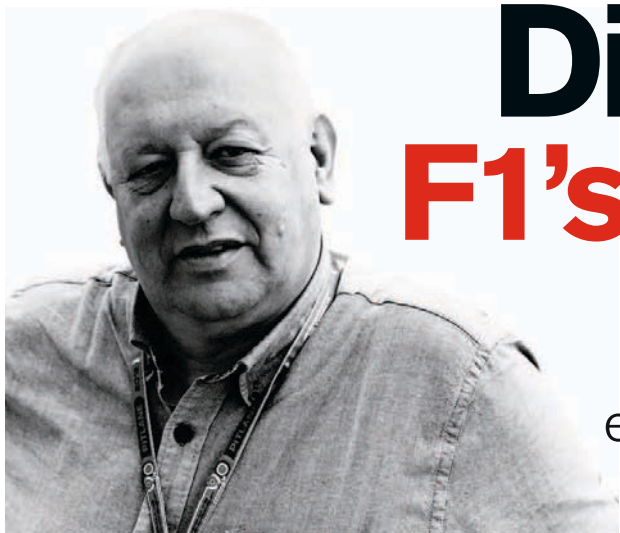
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Dieter Rencken

F1's political animal

FIA presidential elections are due at the end of this year, but what sort of state does motorsport's governing body find itself in?

FIA, FIFA, FINA, FIS – there hardly exists an alphabetic letter (or two) not appended to the abbreviation for Federation International to denote an international sporting body of some genre or other. True, the International Olympic Committee does without 'F'; but then the IOC caters for various physical sports on a quadrennial basis, rather than being an individual sporting discipline.

However, what sets the Federation Internationale de l'Automobile – and its two-wheel FIM counterpart – apart from the balance of acronymic organisations is that the FIA (est. 1904) is not purely a sporting authority, but represents the full spectrum of four-wheel activities across the globe.

It is best equated to being an athletics federation catering not only for sprinters and runners, but hikers, mountaineers, casual strollers and dog walkers.

While motorsport is without doubt the FIA's most visible portfolio, it makes up but a percentage of the body's activities, which include global promotion and co-ordination of 250 motoring organisations (think RAC) and member rights, with emphasis on safety, mobility, environment and law in 135 countries with utterly diverse procedures and operating conditions.

Factor in the activities of the related FIA Institute and Foundation entities, and the FIA's responsibilities are fundamental to the overall function of our mobile world.

'i' in the regulations and crossing every 't' while controlling the individual budgets of teams from McLaren to Marussia.

Given the FIA's remit this is clearly an impossible ask, as proven by the ineffective acrimony into which the sport sank under his predecessor Max Mosley, who attempted just that through micro-management before stepping aside in October 2009.

Not only did such as the WRC and WEC suffer in the process – and been revitalised under Todt – but he stood accused of neglecting Touring and Mobility, so much so that the American Automobile Association (est. 1902, 52 million members) early in 2010 withdrew from FIA affiliation despite being a founding member, citing the need for an organisation that “provides meaningful services and benefits to its members”.

Todt adopted a different tack, concentrating on touring and safety matters across the globe, believing these had been neglected in the past. He considers F1 to be big and strong enough to look after itself – and, given the global entities on the grid, it surely is an indictment of their management that they need hands clasped at every turn. Surely grown men (and woman) can look after themselves?

That said, it is a question of balance: where Mosley over-concentrated on F1, as could be expected from one who was not only team owner but played a crucial role in the formation of the Formula One Constructors' Association with friend Bernie Ecclestone before crossing

“Formula 1 demands the FIA president devotes the governing body's full resources to the sport”

The FIA administers its own world championships (F1, WRC, WEC, WTCC) and sanctioned regional series, and facilitates global development of the sport and cross-border competition. Thus, should a Mongolian wish to race monostops in Monaco, FIA licencing procedures ensure international safety standards are followed.

Its halo championship is, of course, the Formula 1 World Championship, which makes up just five per cent of the FIA's total responsibilities despite being statistically the world's largest continuous sporting block. Compare this with FIFA, which is consumed by World Cup and UEFA competitions, or FINA, which concentrates on but five aquatic disciplines.

Yet F1, being what it is, demands that the FIA president, currently the former rally co-driver Jean Todt – he of rally and sportscar fame (Peugeot) and Ferrari's noughties F1 hegemony – devotes the governing body's full resources to the sport, attending each race and personally dotting every

to the 'other' side, Todt's critics (predominantly in the F1 paddock) maintain he swung too far the other way – no doubt a legacy of his corporate days.

With FIA presidential elections looming – the General Membership, ie representatives from affiliated clubs, go to the polls in Paris on December 9 to determine the next president – this patent disparity between Sport and Mobility is sure to feature top of individual manifestos.

David Ward, until last week the FIA Foundation's Director-General and staunch Mosleyite, has announced his candidacy, while Todt is expected to confirm his availability for another four-year term within weeks. A third candidate may yet elect to throw his hat into the ring.

The overall winner is, though, likely to be the FIA, which was last restructured comprehensively in 1993, when Mosley widened his power base by wholly incorporating FISA, the FIA's then-sporting arm, into the parent body, creating this unsustainable imbalance. ❧

THE BIG PICTURE

McLaren chief Ron Dennis had a unique relationship with Ayrton Senna. Here Ron has the great Brazilian's 1989 German GP hopes in his hands – quite literally!







A great driver, engineer and leader, Bruce McLaren ran team with good humour

BRUCE McLAREN

THE GENIUS BEHIND THE NAME

He was a fine driver, but Bruce McLaren's greatest strengths came to the fore outside the cockpit. **PAUL FEARNLEY** recalls the man who started a legend

Bruce McLaren was a smiler rather than a shouter. He led by example and with a light touch. He'd had it tough as a kid, spending months immobile in casts and traction because of a rare hip condition that left him with a permanent limp and powerful shoulders.

This character-building, albeit tiresome, experience also left him with a measured outlook. As a result, he tended to make things

look easy even when they were not.

When voices were raised, he had a quiet word or told an uproarious joke. When the pressure was on, he took a nap: he could sleep on a clothes line – or a pile of tyres. Willing to listen and incorporate, while possessing a powerful and inquiring mind of his own, he was the boss you dreamed of. His team reflected that.

"I'd been at the National Gas Turbine Establishment, barring two years of National Service, since 1952: a very secure if very sober job," says Gordon Coppuck, who joined the fledgling Bruce McLaren Motor Racing Ltd in December 1965 as assistant designer. "I took two weeks' holiday and spent them at its Feltham factory [McLaren was soon to relocate a mite further west to Colnbrook] to see if I would be right for the job.

"I was very impressed by the atmosphere: magnificently friendly, full of good humour and practical jokes. It wasn't long before my stuffy Civil Service background seemed an age away. McLaren was a very exciting place to be. And it always strikes me that we were ridiculously young to believe that we'd achieve the things we subsequently did."

Bruce was just 26 – and a long way from home – when he struck out on his own in late 1963. (Though he continued to race for Cooper in Formula 1 until 1965 and for Ford in the world sportscar championship until 1967.) Then the youngest winner of a grand prix, he was able to do so because already he had ticked so many boxes. His business partner Teddy Mayer, a legally trained Pennsylvanian with a knack for rubbing people up the wrong way, rubber-stamped the remainder.

"Bruce was very charismatic within our group," says Robin Herd, McLaren's first chief designer. "He supplied the infectious enthusiasm while



Dream team (from left): Robin Herd, Bruce and Teddy Mayer



Teddy applied the discipline, finance and systems. A nice guy, Teddy's reputation as our bad cop stemmed from the fact that he was more prepared than Bruce to make the difficult decisions. He would stand up to people if he felt they were wrong. Bruce was the personality, the public face, but in truth it might have been a bit of a balls-up without Teddy behind the scenes."

The employment of Herd was typical of Bruce's open-mindedness and ability to spot a good 'un.

Herd's CV was impressive – a double first from Oxford followed by a senior engineering/design post on the Concorde supersonic project – but his only connection with motor racing was a passion for it.

Herd: "I had written to BRM about a job. I'm still waiting for the reply. Bruce in contrast took a gamble on me. He realised that he needed a highly trained engineer who could work to a certain spec. He contacted me and invited me for dinner at his house that night. It was very informal: me, Bruce and Teddy.

"Bruce was a very good engineer. What was great about him was that he was able to relate the engineering side to the driving side. That link was vital and allowed us to grow and become successful very quickly. He was able to analyse what was happening to a car and work on ways of making it better. He was also a pretty good racing driver. And we got all this for free."

Fellow New Zealander Howden Ganley, a future driver and constructor of note, was another perspicacious pick: "I joined in June 1964. The team then comprised Bruce and his faithful mechanic Wally Willmott, plus PR man Eoin Young [both Kiwis] and Americans Teddy Mayer ▶

and Tyler Alexander: there was still a kinship between these countries lingering from the war.

"I was the gofer to begin with. That changed when I decided to make some chassis stands from tubing. I worked all night and did a pretty good job. Kiwis are self-sufficient because they have to be; if you wanted to race an exotic car thousands of miles from any centralised support, you had to use your ingenuity to keep it up and running. Anyway, the guys were amazed when they came back the next morning and I was immediately promoted to fabricator.

"There was a fabulous atmosphere. It was a happy outfit. Bruce was one of those guys to whom you'd say 'OK' if he asked you to march across the Sahara with him."

Later arrival Alastair Caldwell, another New Zealander – Bruce didn't seek them out, they naturally gravitated to him – has a similar story to tell. Persistence got him through the door; competence allowed him to climb through the ranks. He'd travelled halfway around the world to work with his hero. A pilgrimage, it was too far to come to fail. No wonder McLaren's desire, adaptability and esprit de corps were so strong.

"It was the most talented group of people I have ever come across, by some distance," continues Herd. "But it was the team that mattered. Though there was some delineation, everybody chipped in and it worked out all right, with Bruce gluing it together. Most things, barring the finances, were communal decisions. Everybody was encouraged to come up with ideas. Even the cleaner had a good one once.

"People somewhat disparagingly label this design-by-committee, but I prefer it this way. It would have been stupid not to take onboard the knowledge and experience of these people.



The boss was never afraid to muck in the early days

However, I took absolute responsibility for the final design. That was the way it had to be. I'm quite shy and amazed that I was able to do this as a 26-year-old in his first job in motor racing. That I did says as much about the team as it does me."

Bruce, who had an engineering degree, personally favoured the 'whoosh-bonk' approach. Whoosh! There's your chassis. Bonk! There's your engine and gearbox. He was not averse, however, to be innovative with methods and hi-tech materials.

Herd: "Our real rival in the early days was Chaparral's Jim Hall [with the tacit support of General Motors] in Can-Am. He used very advanced technology. Bruce and Teddy were very keen that we compete in this respect and I was aware of composite construction and bonding rather than riveting. I see now that, with their help, we were ahead of the game. We would

have had a wing in 1966, too, but for our strife with engines. Sourcing an engine [for the new three-litre Formula 1] was our biggest problem."

The team ran a rear wing on a single-seater during a Firestone tyre test at Zandvoort as early as 1965. Staggered by the huge performance gain it apparently delivered, it was removed in a hurry – and 'forgotten'. A similar, taller item was next seen in 1968, and was often assessed attached high above a Mini van (with bathroom scales in the back to measure downforce) on the road between Colnbrook and Staines.

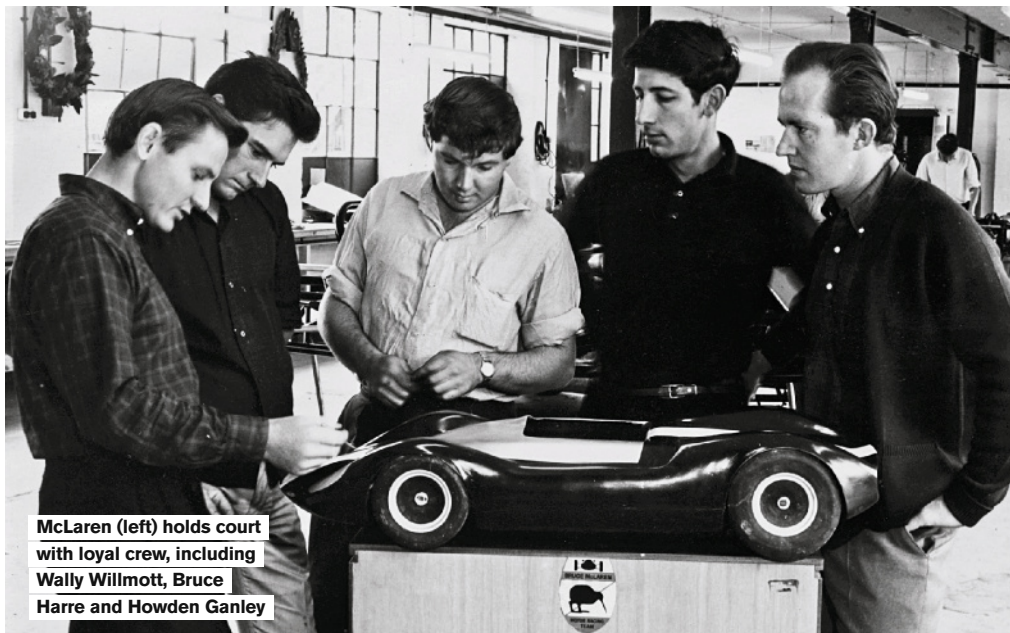
"Bruce was always looking for a new mod," says Coppuck. "In contrast Denny would only want it if Bruce started to go quicker than him. At which point Bruce would be happy to hand it to Denny, the faster driver."

That's Denny Hulme, the 1967 F1 world champion who promptly transferred full-time from Brabham to his compatriot's burgeoning team having contested that year's Can-Am Challenge Cup with it. Tough, no-nonsense and quick, he was a perfect fit.

Yet Bruce the driver was not entirely in his shadow. It was Bruce who won the lucrative Can-Am title in 1967 – and again in 1969. It was Bruce who notched up McLaren's first F1 pole position and win – both on the M7A's debut in the 1968 Race of Champions; he led throughout and set fastest lap. And it was Bruce who scored the team's first world championship victory, albeit in fortuitous fashion, at Spa later that same year. It would be Hulme, however, who arrived at the Mexico finale still in with a chance of becoming world champion.

The money generated by its Can-Am successes, plus the Cosworth DFV's increased availability, allowed McLaren to stabilise its F1 platform and

Herd: "I did F1 with March but we were a bunch of tossers compared to McLaren"



McLaren (left) holds court with loyal crew, including Wally Willmott, Bruce Harre and Howden Ganley

make inroads – but not before the surprise departure of Herd caused it to wobble. Hulme "went ballistic" when he heard. McLaren, who fought to keep Herd, offering to double his salary and award him shares in the company, felt betrayed. His tight little ship had sprung a leak.

"Although we complemented each other, I sometimes felt I wasn't helping," says Herd. "After Monza 1967 [where Bruce put Herd's underpowered M5A on the front row for only its second GP] every team wanted me, but I felt I was riding on the back of the quality at McLaren and short-changing it with my inexperience. I knew my weaknesses and wanted to learn from the master: Keith Duckworth. The decision made itself. It was a fait accompli – and, in retrospect, a mistake.

"My regret is passing up my one opportunity to do F1 properly. The M7A [designed by Herd and detailed by Coppuck] with a DFV in its tail was a competitive proposition; to have spent a season focused on race-engineering Bruce and Denny would have been fantastic. I subsequently did F1 with March. We had some memorable moments but never enough money. We were a bunch of

BRUCE McLAREN'S F1 CAREER - 1958-'70



Starts 100
Wins 4
Podiums 27
Poles 0
Fastest laps 3
Best championship
2nd (1960)



1967 Race of Champions
win at Brands was first in
F1 for fledgling squad

ALL PICS: LAT ARCHIVE

17

tossers compared to McLaren in that respect.”

Herd's departure was a tremor. The earthquake occurred at Goodwood on June 2, 1970, Bruce's M8D crashing after losing bodywork and killing its creator. Bruce had a way with words – his AUTOSPORT columns were entertaining and touching in equal measure – but he was laconic rather than loquacious. Even so, the silence that descended on McLaren that day was forbidding.

The team, with Coppuck and newcomer Jo Marquart sharing design duties, was just beginning to find its feet again: Can-Am's cash cow had been milked dry in 1969, with 11 wins from 11 starts; Denny had won the last GP of that season; and McLaren had impressed on its first acquaintance of Indy (in 1970). But could it continue so cruelly shorn of its founding father, its spirit?

“What struck me about Bruce's death was the sheer catastrophe of it, besides the sadness,” says Coppuck. “He was very hands-on and knew what each of us was doing on each day. His parting left an enormous void, which a lot of people believed we could never fill. We didn't, of course – but we survived. Plenty of people left. Even those who stayed weren't sure we could keep the show on the road. The only thing we knew was that Bruce would have wanted us to try.”

“We still had a very good atmosphere in the fullness of time. But it was different. Perhaps we were a bit more intense. It wasn't possible to get things back as they were. That was also because the nature of the company was changing. It was growing. Although we had not yet reached the stage at which a boss could only keep tabs via his department heads, even Bruce would have been

forced to work that way sooner rather than later.

“He always stressed that above all the company needed to be commercially successful. To that end he would have made exactly the same decisions we did in the early 1970s. He would have been 100 per cent with us. It must, however, have been a terrible strain on Teddy to have the confidence to keep everything going.”

Mayer had experienced such agonies before, choosing to continue in the sport despite the fatal accident of his racing driver brother Timmy in the final Tasman Series race of 1964 at the wheel of a McLaren-run Cooper.

“I went home again and thought long and hard,” said Mayer, who died in January 2009. “McLaren had a lot of good people that Bruce had worked so hard to assemble and I saw no reason to sit

back and watch that break up.”

It wasn't that McLaren survived despite what happened to Bruce. It survived because of 'his' people and the attitude he instilled in them. McLaren today is a very different animal. Dour, silvery-grey rather than sunny orange, it can be heavy-handed and occasionally put its foot in it. Its success and diversity, however, plus the loyalty and pride it engenders within its staff, would have delighted Bruce. For the nice guy who did win, with silky style and velvety charm, possessed an iron will and steely ambition.

“I had to get tougher after his death,” said Mayer. “I had to be to keep control, to make sure that we were all pulling in the same direction. Bruce had made this part appear easy. That was his greatest strength. We missed his smiley face.”



McLaren took his
second Can-Am title
in 1969 aboard M8B

Ten of the best McLarens

McLaren has produced many great cars over its first half-century – from F1 to Can-Am to IndyCar to Le Mans racers – but which were its finest? **GARY WATKINS** is your guide

McLaren-Cosworth M7

1968-'70

F1 World Championship stats:



The M7 was the car that put McLaren on the Formula 1 map — and gave the fledgling marque its first grand prix victories in just the third season after Bruce McLaren had left Cooper to build F1 machinery bearing his own name.

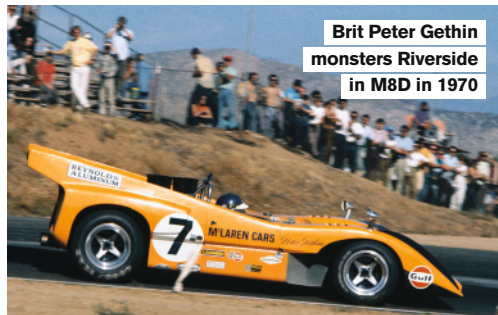
The turning point in McLaren's F1 history came for 1968 when the team was awarded a supply of Ford Cosworth DFVs, the engine that was in the process of altering the face of F1. The fortunes of a team that had run an eclectic array of engines since its move into F1 at the start of the three-litre formula changed at a stroke. Robin Herd laid down a neat monocoque design around the fully-stressed DFV, then promptly left for Cosworth, leaving Gordon Coppuck and McLaren himself to finish drawing the car.

The original version would win three GPs that season — the boss taking a maiden triumph for McLaren at Spa and Denny Hulme following it up with back-to-back victories in Italy (Monza) and Canada (Mont-Tremblant) — to give McLaren second place in the constructors' points.

M7 made its world championship debut at Jarama in '68

DID YOU KNOW?

The M7 didn't win a points-paying grand prix until Bruce McLaren triumphed at the third time of asking in Belgium, but it had actually won its first two races. Bruce gave the car a debut victory at the Race of Champions at Brands Hatch in March and then Denny Hulme triumphed at the Silverstone International Trophy ahead of his team boss. Only the following month would the car make its world championship debut at Jarama.



Brit Peter Gethin monsters Riverside in M8D in 1970

McLaren-Chevrolet M8

1968-'71

Can-Am stats:



Interserie stats:



It had been dubbed the 'The Bruce and Denny Show' even before McLaren ramped up its attack on the Canadian-American Challenge with the introduction of the M8 for 1968.

Bruce McLaren, Denny Hulme and the M6A had dominated Can-Am the previous year and they continued in the same vein on the arrival of the new car, and then took that domination to another level

in 1969. Now armed with the B-spec version of Swiss Jo Marquart's Chevrolet-engined Can-Am design, the McLaren factory duo was never beaten over 11 races, and in eight of them they finished one-two! The supporting cast that had popped in the odd victory in previous years was relegated to little more than walk-on roles.

More of the same looked on the cards for 1970 with perhaps the definitive, and certainly the most beautiful of all the M8s, the 'D'. The outlandish aerodynamics of '69 had been outlawed and a new low-slung rear wing provided the perfect end point to the rakish design.

The story would continue without team founder Bruce. He was killed testing an M8D at Goodwood less than two weeks before the opening Can-Am round in June 1970. The show had to go on, and Dan Gurney and Hulme continued to rack up the wins, Hulme succeeding his late team boss as champion.

DID YOU KNOW?

Factory-run M8s, distinguished by their papaya orange livery, won a total of 32 Can-Am races between 1968 and '71. That represents a win percentage of 86.5 per cent.

McLaren-Offenhauser M16

1971-'76

Indycar stats:

 **18** USAC wins  **3** Indy 500 wins

Three times an Indy 500 winner, the McLaren M16 has been dubbed the first modern Indycar. And perhaps rightly so. It introduced F1 aerodynamic thinking into Indycar circles, Gordon Coppuck borrowing the wedge design of the Lotus 72 even before he had the confidence to adopt it for his F1 designs.

That line of thought impressed no less than Roger Penske, who was on a shopping trip to England to buy his Indy fleet from Lola for 1971. He changed tack, opted for the McLaren and kicked started a domination of the 500 by British-built machinery.

Peter Revson took pole in the Penske McLaren that year before Mark Donohue finished the job in

“Gordon Coppuck came up with a very futuristic design. It was a very well-balanced race car and a dream to drive. I always enjoyed driving it, and not just because I won a lot of races in it.”

Johnny Rutherford, two-time Indy 500 winner in the M16

'72, taking a first win for the M16. Two years later, Johnny Rutherford added victory number two in a works-run car and reprised his triumph in 1976.

From then until the creation of the Indy Racing League for 1996, all but two 500 winners would be built in the UK. Lotus and Lola had lit the fires in the 1960s, but McLaren was the British revolutionary that tore down the barricades with the M16.



M23 was a winner in four consecutive F1 seasons

McLaren-Cosworth M23

1973-'77

F1 World Championship stats:

 **16** wins  **14** poles  **10** fastest laps

Longevity, back in the less spendthrift days of the 1970s, was a badge of honour for a Formula 1 car, and McLaren's M23 matched the six-year career of that other classic, the Lotus 72, at least of sorts. And, like the Lotus, it took some replacing.

The M23's successor, the M26, was sent back to the drawing board after appearing once in the second half of 1976 and only superseded a car that was still capable of running at the front mid-season the following year.

The M23 won grands prix in each its first four seasons and should have won in its swansong year with the works in 1977. And a design that had appeared at the beginning of 1973 was still good enough to qualify for grands prix with privateers deep into 1978.

DID YOU KNOW?

Gilles Villeneuve and Bruno Giacomelli made their respective grand prix debuts in the M23 chassis in which James Hunt anchored his successful world title campaign in 1976 and then started the following season. Even the nosecone on the car, chassis #8/2, was ex-Hunt when Giacomelli made his maiden GP start. "I was number 14 and underneath you can still see the number 1," says the Italian today. "That means it was James's nose from earlier in the season. I still have it in my garage."



Revson took pole in the Penske McLaren M16 for '71 Indy 500

McLaren-Cosworth MP4/1

1981-'83

F1 World Championship stats:

 **6** wins  **10** poles  **5** fastest laps

Designer John Barnard had an idea, team boss Ron Dennis had a vision and Marlboro had a problem as a new decade dawned in 1980. Their collision begat the McLaren MP4/1.

A car that was originally known simply as the MP4 – it became the MP4/1 retrospectively – takes its place in the history books as the first carbonfibre chassis F1 car thanks to Barnard's aerodynamic prowess. The use of carbon was a means to an end: to enable him to squeeze in the monocoque to maximise ground-effect venturi width.

Yet the original MP4 is more important than that. Would Marlboro have engineered a link-up between the aspirational Project 4 F2 squad and the ailing McLaren outfit had team boss Dennis been peddling an aluminium-tubed design? Probably not. MP4 was the foundation stone of 'modern McLaren'.

“It was a significant step forward for McLaren, and not just because the chassis was made of carbonfibre. The concept of the car was based on a young and ambitious engineer's amazing understanding of aerodynamics and packaging that brought a level of design quality that hadn't been seen before.”

John Watson, McLaren driver 1979-'83 and '85



Carbonfibre MP4/1 may well have saved ailing McLaren team

McLaren-TAG/Porsche MP4/2

1984-'86

F1 World Championship stats:

 **22** wins  **P1 7** poles  **16** fastest laps

The record books show that the MP4/2 – in its original 1984 specification and its B and C iterations – is one of the all-time great F1 cars. No other F1 car has yielded a team three drivers' titles, and its CV also boasts a pair of constructors' championships.

The MP4/2 wasn't an all-new design – its tub was based on the original MP4. But the car and the new TAG-Porsche twin-turbo V6 were exactly how designer John Barnard wanted them. He'd read Porsche the riot act after its foot-in-the-water campaign with the engine in '83 and ended up with the neatly packaged powerplant he wanted.

The result was a car good enough to win 12 of 16 races in its debut season and to keep on winning grands prix and world championships over a three-year period.

Prost leads Lauda at Zandvoort in 1985. The #1 MP4/2 would win...



DID YOU KNOW?

Barnard never wanted to race the TAG V6 in the reworked MP4/1 in 1983. He wanted to wait until 1984 to hit the ground running with a bespoke car. The change of plan that resulted in the E-spec MP4/1 arriving for the final races of '83 was motivated by Niki Lauda. The Austrian went above the team's head to try to bring forward the debut of the turbocar. "Niki went to the head of Marlboro in Europe, Aleardo Bussi, and told him that McLaren was pissing around with the Cosworth," explains Lauda's team-mate, John Watson. "That caused a major row between Ron [Dennis] and John Barnard."

Senna, seen here winning in Hungary, took '88 title in MP4/4



McLaren-Honda MP4/4

1988

F1 World Championship stats:

 **15** wins  **P1 15** poles  **10** fastest laps

The MP4/4 is up there on the list of all-time great racing cars from any discipline. Of that there can be no debate. What is disputed is who should take credit for a car beaten only once – and for a bizarre reason – on the way to a clean sweep of drivers' and constructors'

titles for Ayrton Senna and McLaren in '88.

That ongoing tiff is probably a storm in a tea cup. Steve Nichols and his team drew the car, and even if they were already heading in the same direction that newly installed tech boss Gordon Murray wanted to take the project, the ex-Brabham man was instrumental in persuading Honda to produce a new low-line version of its V6 engine for one season only.

Murray also made the most of it, coming up with a novel three-shaft gearbox. Lotus had the same engine and tilted it up, front to rear! At a stroke, its benefits were negated.

“It was one of those cars where every component spoke to every other component in the same language. There was a harmony to that car; that was the key to its success.”

Emanuele Pirro, McLaren test driver for the MP4/4 in Japan

Multiple F1 GTRs bought a renewed vigour to GT racing



McLaren-BMW F1 GTR

1995-'97

BPR stats:

17 wins **2** titles (1995-96)

FIA GT stats:

5 wins **0** titles

All-Japan GT stats:

4 wins **1** title (1996)

McLaren didn't want to go racing with its new F1 supercar, but its customers didn't give it much choice. Nor did it want the race version of the BMW-powered machine to go to the Le Mans 24 Hours in year one in 1995. Again, the customers won the day.

McLaren developed the F1 GTR, on a shoestring and in haste, at the behest of

DID YOU KNOW?

The winning McLaren at Le Mans in 1995 completed the race with a clutch-release bearing that had already completed a full 24-hour distance. A manufacturing issue with a new batch of bearings raised its head in qualifying and the Lanzante team and engineer Graham Humphrys chose to run an old bearing used in testing. It proved crucial in its victory.

Ray Bellm and Thomas Bscher and then rushed through an endurance package when the first batch of customers all said they wanted to take the new car to Le Mans. Amazingly, the car beat the prototypes in horrendous conditions to claim an historic victory in the hands of JJ Lehto, Yannick Dalmas and Masanori Sekiya.

The F1 GTR will be always remembered for that victory, but its arrival in the BPR-run Global Endurance GT Series raised the profile of the championship and gave the GT revival a new impetus.

First real 'Newey' McLaren cleaned up in 1998



McLaren-Mercedes MP4/13

1998

F1 World Championship stats:

9 wins **P1 12** poles **9** fastest laps

Adrian Newey's departure from Williams even before Damon Hill had secured the 1996 world title almost certainly helped new employer McLaren return to the winner's circle after a three-year absence in 1997. But it was on the arrival of the first Newey-designed McLaren in 1998 that the team returned to its rightful place as a world championship challenger.

Newey exploited the biggest revolution in the F1 rulebook since 1983 to create a car that was good enough to lap the field at the season opener in Australia in the hands of Mika Hakkinen. Newey's stroke of genius had been to increase the wheelbase of the car, not only in the interests of aerodynamic efficiency but also diagonal stability.

Hakkinen would win seven more times – and team-mate David Coulthard once – on the way to a McLaren double of drivers' and constructors' titles.

“We needed that badly. We were always expected to be winning championships and in the 1990s we needed to get back to that. The 1998 season was the completion of a cycle that had really started in 1992 when we knew we were going to lose Honda, so it was very significant and very satisfying.”

Martin Whitmarsh, McLaren boss

McLaren-Mercedes MP4-20

2005

F1 World Championship stats:

10 wins **P1 7** poles **12** fastest laps

Adrian Newey's final design for McLaren was his most effective since his title winners of 1998 and '99 and arguably the class of the 2005 F1 field, at least for four-fifths of the season. Only a slow start to its championship campaign deprived the Woking team of the drivers' and constructors' titles.

Kimi Raikkonen and Juan Pablo Montoya won 10 of the 18 races between them, started seven from pole position and notched up 12 fastest laps, but it was Renault that had hit the ground running by winning the first four races. That meant Renault's Fernando Alonso was 29 points ahead of the Finn and McLaren was 21 points behind in the constructors' rankings before Raikkonen made it into the winner's circle in Spain.

Raikkonen ultimately fell short by 21 points, while McLaren missed out on the constructors' title glory by just nine.



The 2005 MP4-20 missed out on both titles after slow start

What Fittipaldi brought to McLaren's F1 story

Emerson Fittipaldi didn't just win McLaren's first world drivers' title in 1974, he also brought Marlboro's millions as well. He tells **GARY WATKINS** about a decision that spawned a legacy



McLarens would never look the same again after Marlboro arrived

Emerson Fittipaldi has to be one of the most important figures in the history of McLaren. It's not just that he delivered the team its first Formula 1 world title. That was just a consequence of a much more important decision, made by the man himself, that set the organisation on course for greatness. McLaren didn't recruit Fittipaldi with Marlboro money; it was Fittipaldi who took the Marlboro cash to McLaren.

Fittipaldi had been approached by the cigarette company in the middle of the 1973 season at a time when the bosses at parent company Philip Morris were becoming disillusioned with its relationship with BRM – and the fading team's

middling results. They went to the reigning world champion and effectively gave him carte blanche to take their sponsorship to whichever team he wanted to drive for in 1974.

"I knew a lot of the people at Philip Morris because their European headquarters were in Lausanne in Switzerland and I was already living there," he explains. "They came to me in the middle of the year and told me, 'It is your decision where you go.' I was really making the decision for them."

It wasn't any easy call for Fittipaldi. First he had to make up his mind that he wanted to leave Lotus. It was, after all, the marque with which he'd won a Formula 3 title in Britain after arriving in Europe in 1969, the team with which he had made his F1 debut the following season,

and the organisation that had made him a world champion at the age of just 25.

"It was such a hard decision, because I had a great relationship with Colin Chapman, Peter Warr and all the mechanics," continues the 66-year-old. "The Lotus 72 was still a good car; it was the fastest car in '73.

"I could easily have won the championship that year. I won three times and had three more podiums in the first six races, and then we had one problem after another. I didn't score any more points until Germany."

It was in the immediate aftermath of the 1973 Italian Grand Prix that Fittipaldi decided to take up Marlboro's offer.

"At Monza, we made an agreement before the race, because I could still be world champion,



TAKING HIS SECOND TITLE

The determination that first attracted Emerson Fittipaldi to McLaren for the 1974 season was central to the Brazilian notching up a second world championship success that year. The Cosworth-engined M23 wasn't the fastest car that season, an honour taken by Ferrari's 312B3, but it was the most consistent and, even more importantly, arguably the most reliable.

"McLaren was very good at adapting the M23 to each track," explains Fittipaldi. "We had three different wheelbase configurations that helped make the car very effective on different types of track. Then, for Brands Hatch, Gordon Coppuck [the designer of the M23] came up with a new rear-suspension geometry that made the car work much better on bumpy circuits. That was very important in the championship that year."

Consistency was always going to be key in such a closely fought season. No fewer than five drivers – Fittipaldi, Clay Regazzoni, Jody Scheckter, Niki Lauda and Ronnie Peterson – were still in contention for the title as the F1 circus left Europe after Monza for the Canadian and US grands prix. Fittipaldi and Ferrari driver Regazzoni would then go into the finale at Watkins Glen level on points, with Scheckter still in with a mathematical chance.

The McLaren and Ferrari qualified only eighth and ninth in the US and Regazzoni briefly muscled ahead at the start, only for Fittipaldi to get a better run out of the Esses and move alongside the Ferrari on the run to Turn 5.

"Typical Clay, as I got alongside, he moved over on me and put me on the grass," recalls Fittipaldi. "I thought to myself, 'OK it is do or die,' and I put my front wheel alongside his cockpit and pushed him. He had to move and I passed on the inside."

Regazzoni quickly dropped back and Fittipaldi stroked his M23 home in fourth place to secure his second and McLaren's first drivers' title, and the constructors' title went to Colnbrook as well.



McLaren not Brabham:
Emmo chose M23 over
BT44, so Brabham (7)
was white in Brazil '74



FITTIPALDI AT McLAREN
Races 28 (+1 NS)
Wins 5
Poles 2
Fastest laps 1
Points 100
Champ pos 1st
(1974), 2nd (1975)

"I had a good relationship with Brabham, but there was something I liked at McLaren"

that if Ronnie [Peterson, his team-mate at Lotus] was leading and I was second, Colin would give him a signal to let me win," reveals Fittipaldi.

"That was what happened, except there was no pitboard. We had driven away from everyone and then nothing happened with 15 laps to go, nor with 14 laps to go, or 13. So after 10 laps, I started pushing and finished right on Ronnie's gearbox. That was when I made my decision to leave Lotus."

Leaving his long-time employer was only one half of Fittipaldi's decision. Now he had to select a squad to join – and take the Marlboro money to.

"I looked at Brabham and I looked at Tyrrell; they were both good options," he continues. "I

had a good relationship with [Brabham boss] Bernie [Ecclestone] and I could see that Gordon Murray was going to be a great designer, but there was something I liked about McLaren.

"It was clear that the McLaren M23 had a lot of potential, but it was more than that. It was such a hard-working team full of very enthusiastic and determined people.

"It seemed like 90 per cent of the people there were from New Zealand, except Teddy Mayer and Tyler Alexander, who were from America of course. In motor racing, you have a different level of commitment when you go across the ocean to start a new life away from home. That gives you extra determination to succeed. It's like a Brazilian driver going to Europe or the US."

Fittipaldi's deal to join McLaren was done some time before the end of the 1973 season, although his recruitment wouldn't be announced until early January '74 thanks to his contractual obligations to Lotus and sponsor John Player. He was, however, given dispensation to test for McLaren in December.

"There was a tremendous pressure on me going to the first races of that season," says Fittipaldi. "I was wondering if I had made the right decision and the results in Argentina [where team-mate Denny Hulme won] and my victory in Brazil proved to Philip Morris that I had been right.

"But deep down, I knew before that. I knew I was right at that first test with the M23 at Paul Ricard." ❄

“There’s Bruce, Teddy and Ron; even to have my name in the same sentence as those three is a huge honour”

Martin Whitmarsh has some tough people to follow as McLaren’s Formula 1 team boss, but has already contributed a great deal to its success. EDD STRAW looks back with him

Only four men have known what it means to take charge of the McLaren Formula 1 team. Martin Whitmarsh is now in his fifth season at the helm having succeeded Ron Dennis ahead of the 2009 season and now leads the squad into its second half-century. During his tenure, he has steered the ship through some troubled waters – the loss of Lewis Hamilton, uncompetitive machinery in both his first and the current season, the end of Mercedes’s co-ownership of the company and the striking up of a fresh alliance with Honda for 2015. It has certainly never been dull.

The 55-year-old joined McLaren from British Aerospace as head of operations in 1989. Over the years, he accumulated ever-more responsibility, becoming first managing director and then chief executive officer of the team, emerging as a

seemingly eternal team principal-in-waiting until Dennis finally stepped down. Ostensibly, it was a seamless step, a logical move to just another level of responsibility. But Whitmarsh soon found it meant far more, such is a mystique of the team.

“Much more than I realised,” he said when asked what it means to be team principal of McLaren in emotional terms. “I didn’t have a massive demand to be team principal, oddly. I turned it down on numerous occasions saying until Ron was totally comfortable with it I didn’t want it. And when it did happen, I thought it was more symbolic. But it hadn’t dawned on me... I look back and ask myself how could I have been so lacking in understanding?”

“I had been on the podium quite a few times over the years but when I went on the podium in Hungary 2009 it was the first time I stood there as a team principal. It was much more emotional, much bigger than I ever imagined it being.

There’s Bruce, Teddy and Ron; even to have my name in the same sentence as those three is a huge honour.”

Inevitably, Whitmarsh has been exposed to plenty of criticism. As with anyone following a legendary figure like Dennis, any shortcomings in the team’s progress is vastly exaggerated while his predecessor’s virtues are multiplied. After only one race in the role he was given a stark lesson in just how much scrutiny he was under after it emerged Lewis Hamilton and sporting director Dave Ryan had lied to the stewards in the previous race at Melbourne. To his credit, Whitmarsh fielded some pretty aggressive questions in Malaysia the following weekend and showed himself capable of being calm under fire. Such pressure comes with any team for which winning is considered the norm, rather than the exception.

While Whitmarsh takes tremendous pride in the 182 grand prix victories the famous team has

claimed (112 of which have been since he joined the team), victories are not the primary source of satisfaction. While perceived on the outside as a grey, clinical team, McLaren is one of the teams that engenders the most employee loyalty. Certainly, Whitmarsh enjoys watching the progress of those who join its number.

It also comes as no surprise to learn that double world champion Mika Hakkinen is a driver for which he has tremendous affection.

“The biggest pleasure is seeing the development of people,” he says. “The satisfaction of seeing the Tim Gosses, the Phil Prews, people who I recruited as young graduates, become technical directors and chief engineers is massively satisfying.

“It’s the same, to an extent, with drivers. Alain Prost and Ayrton Senna were here when I joined and we have had some other great ones, but to have worked with a driver like Mika [Hakkinen] from when he was a kid through to being a world champion is very satisfying. Mika’s first win [at Jerez in 1997] was one of those moments I remember. It was three or four o’clock in the morning afterwards and for some reason I was staring at the stars thinking it doesn’t get any better than this! It’s a moment I’m going to remember for the rest of my life.”

Inevitably, there was a similar relationship with Lewis Hamilton. While Ron Dennis is usually credited as the man behind Hamilton, which is to an extent true, it was Whitmarsh who had more day-to-day responsibility for him. While the relationship was not always easy – for example after Hamilton’s first season in F3 in 2004 he attempted to leave McLaren and go his own way to step up to GP2 a year earlier than he eventually did – the first victory in Canada 2007 was a special one for Whitmarsh.

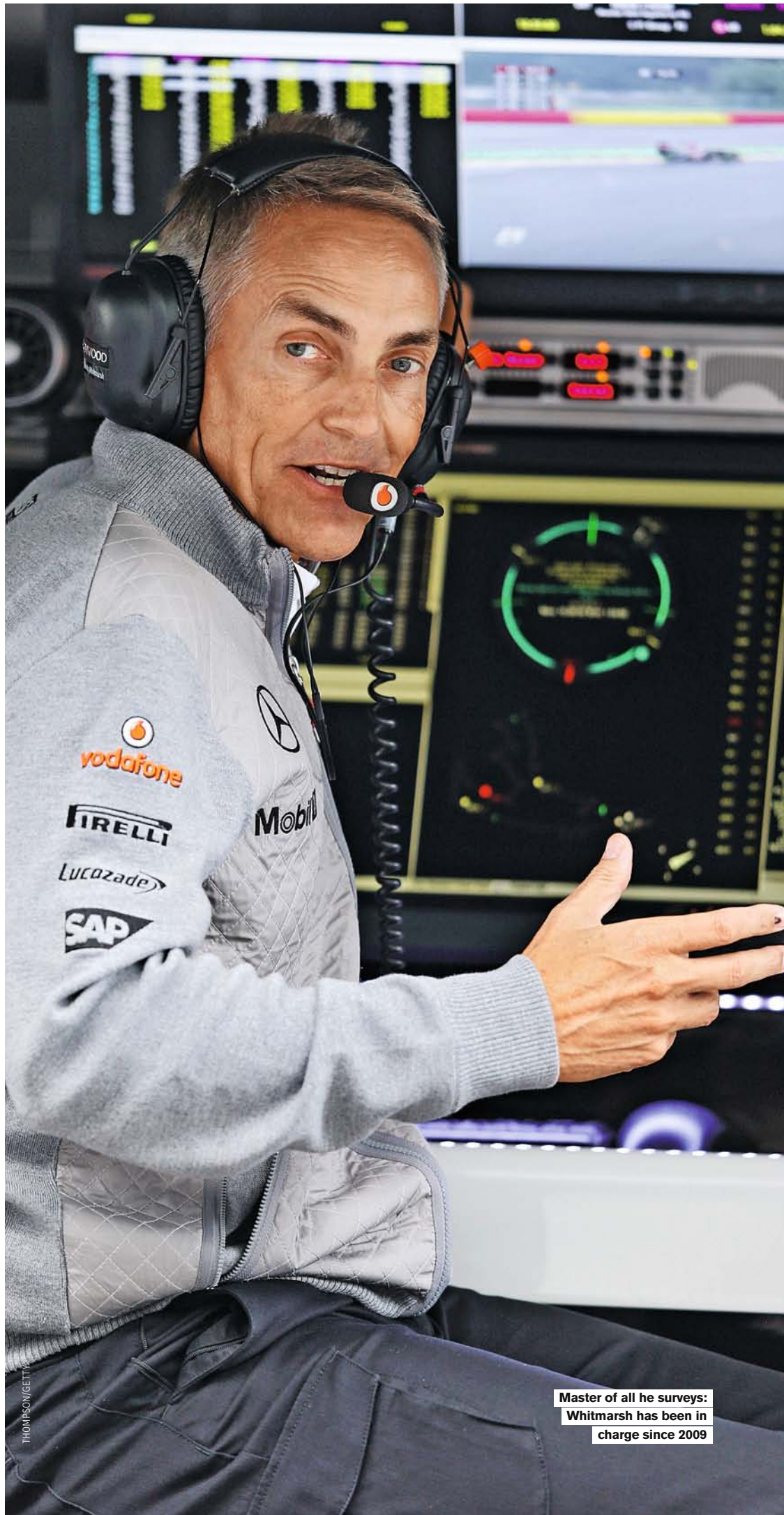
“Lewis in Canada was one of those moments but it was an odd one,” continues Whitmarsh. “I don’t go onto the podium often but I wanted to because I’d worked with Lewis from the end of his karting career onwards and had some interesting incidents with him and his father!

“The other two on the podium were Nick Heidfeld, who we were involved with in F3 and did an F3000 team for, and Alexander Wurz who was involved with McLaren after he fell out of Benetton. I had been involved in all their careers so it was an enormously special moment. Then there was Brazil 2008, obviously, which was one of the most exciting crescendo-finishes to a grand prix there has been!”

There have been the bad moments, too. Whitmarsh learned that the hard way. He cites the controversies of 2007, when the needle between Fernando Alonso and Lewis Hamilton and the spy scandal threatened to tear the team apart, Hakkinen’s life-threatening shunt at Adelaide in 1995, and Imola 1994. But for all the negatives, the overriding narrative of McLaren during Whitmarsh’s time there has been one of tremendous growth. The company has been transformed beyond all recognition.

“My initial impression in 1989 was that there was an incredible lack of structure and noticeable process,” he recalls. “But rather than there being a lack of accountability, everyone felt accountable. I found that really interesting at first.”

Whitmarsh has attempted to preserve some of that flexibility and ensure individual responsibility was maintained even as the team grew, at the same time as playing a key role in bringing some of the engineering structures ▶



THOMPSON/GETTY

Master of all he surveys:
Whitmarsh has been in
charge since 2009

"This is my time"

David Coulthard



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With Heidfeld, Hamilton and Wurz, Canada '07

BELLANCA/LAT

McLAREN'S TEAM BOSSES



BRUCE McLAREN

1963-1970. Wins: 4

Started racing in self-prepped 1929 Austin 7, now on show on the McLaren Technology Centre 'boulevard', before emerging as a GP winner with Cooper. Started McLaren in 1963, taking the team's first world championship race win at Spa in 1968. He died a McLaren M8D Can-Am crash at Goodwood in June 1970.



TEDDY MAYER

1970-1980. Wins: 20

A lawyer by training, Mayer joined McLaren in its first year and was the driving force behind its survival after the death of its founder. He led the team to two drivers' titles and a constructors' crown but after three winless years lost control of the team in September 1980. Remained as co-managing director until 1982.



RON DENNIS

1980-2009. Wins: 138

Effectively gained control of the team after the Marlboro-triggered merger of McLaren and his own Project 4 concern, Dennis turned the team into the dominant force in grand prix racing through alliances with Porsche, Honda and Mercedes. Won nine drivers' and seven constructors' crowns.

MARTIN WHITMARSH

2009-to date Wins: 20

After a two-decade apprenticeship, succeeded Dennis for the 2009 season. Has yet to lead the team to a world title, but McLaren has won races every season under him save for the current one, and he has struck a key deal with Honda to run its engines from the start of 2015.

"You have to give a huge amount of credit to the dedication of Ron Dennis"



used in the aerospace industry to modernise the team. While you could argue it failed to accommodate a free-spirited genius like Adrian Newey as well as it should have, on balance that has been a positive influence. Most importantly, McLaren has had to move with the times.

"It's fascinating to look back," says Whitmarsh. "Several years into my time at McLaren, we had a mega-complicated car in 1993 with active ride, power braking, drive-by-wire, lots of instrumentation and data logging. We thought that it was an incredibly complex car.

"But pull the covers off MP4/8 now and there's nothing there! It looks so simple. Every year you have a set of increasingly restrictive technical

regulations aimed at making the car slower and every year we have got to make the car quicker. We just couldn't envisage that in that era. The engineering office was 10-12 people when I joined and we were a big team!"

The transformation of the race team is just part of the equation. McLaren is now a group of companies, an ambitious performance road-car manufacturer and one of the leading suppliers of electronics to motorsport all over the world.

"You could see there was huge potential," he says. "To an extent, our brand had been subsumed by tobacco.

Marlboro was a fantastic thing for us but our brand has now emerged. Today, we are a set of businesses with a tremendous brand, people, facilities, capability and intellectual property and we monetise that a variety of ways. The most obvious manifestation of that is automotive.

"You have to give a huge amount of credit to Ron for having the bravery, the conviction and the dedication to do it. It would have been easy to have sucked revenues out of the team, but Ron was willing to put it back in.

"He doesn't always make friends but what he has done is have massive ambition and foresight. I don't think Ron always gets the credit that he very obviously deserves." ❧

LAT

LAT

COATES/LAT



McLaren's inconvenient truth

One of the world's most consistent title-challenging F1 teams has underachieved in terms of championships delivered. Given its might, **MARK HUGHES** asks why



Red Bull currently stands poised to have its driver take a fourth consecutive world championship. To go back far enough in history to find the past four McLaren drivers' titles, we tick off Lewis Hamilton (2008), Mika Hakkinen (1999, 1998) and Ayrton Senna (1991); in other words, we have to go back 22 years to see as many McLaren world champions as we (likely) will have seen from Red Bull in the past four. To find four consecutive McLaren world champions we have to go back to the 1988-91 run of Senna/Prost/Senna/Senna.

Yet in the decades since the Senna/Prost heyday McLaren has remained a team of the absolute front rank, enjoying unrivalled facilities and depth of resource. But there's something – some ghost in the machine – that has prevented that fact tallying with championship trophies. With such a big sample of years built up it cannot be bad luck.

Looking at the specifics, from 1992-97 – the Williams years – McLaren lagged in aerodynamic (and sometimes engine) performance to its rivals from Oxfordshire. Adrian Newey was the architect of those Williams-Renaults and was recruited to McLaren in '97. Whether it was fortuitous timing or the difference of Newey's genius, two consecutive McLaren titles were immediately delivered.

In the Ferrari years that followed, McLaren was usually Maranello's main competition but many times fell victim to technical rulings that denied it an advantage: kinetic energy recovery, fiddle brakes, beryllium, torque-sensing differentials. All these McLaren innovations and more were banned by the FIA, in the first and last cases before they had even raced. The Schumacher-Ferrari titles (2000-04) whirled by thanks to a mix of talent and institutionalised advantage, the nature of which concerned Ferrari's then very close relationship with the sport's governing body. It later emerged that in 1998 team boss Jean Todt had negotiated a technical-regulations rules veto for Ferrari (something that continues to this day). Any technical development that did not meet with Ferrari's approval could in theory be refused by the FIA. It is difficult not to see some of those rulings against McLaren's innovations in this light.

In early 2006 McLaren lost Newey to Red Bull at just the time the dissolving of the Schumacher-Ross Brawn-Todt relationship at Ferrari might have



been expected to play to McLaren's advantage. It had delivered F1's fastest car in 2005, but engine unreliability ensured that unofficial title was the only 'honour' it took that year. In '06 it lost its way, but '07, as the talent within the now Newey-less system rose to the challenge, was looking good until that fateful Woking copy-shop visit that led ultimately to disqualification from the constructors' championship. Hamilton delivered the title one year later, but thereafter Newey's Red Bulls were in the ascendant.

In summary, McLaren has been providing the strongest competition to three different eras of dominance by someone else – Williams, then Ferrari, and now Red Bull – without ever retaining technical supremacy for long enough to make its own era, the last of which dates back to the late 1980s/early '90s. The question is: why?

The specific limitations of any given season have been clear enough. The bigger question is why there should have been this series of limitations; what is there in McLaren's DNA that over the years has scuppered its potential from being achieved, what traits in its make-up?

McLaren is aggressively ambitious technically, scientific and systems-driven. This applies to all ▶



2013-spec McLaren: far from fighting for title, it's been battling Force India

Hamilton's Chinese GP blunder arguably cost 2007 world title



Team turned its back on proven MP4-27 in bid for 2013 dominance

◀ F1 teams to a greater or lesser extent but to McLaren most of all. It has more technical muscle power than any other team within its facilities and backs itself to succeed, setting exceptionally ambitious technical targets.

With the wild expansion in size of teams in the late 1990s/early 2000s came matrix management systems, with vertical and horizontal reporting structures – the only way of keeping control of organisations that would otherwise have become unwieldy. McLaren fine-honed the science in a way that was very much in keeping with the perfectionist ethos of its ultimate boss Ron Dennis.

But such systems aren't perfect, and cannot be. They are not intuitive and occasionally require real-life people to intervene, to recognise when the system is subverting the cause and to tweak things accordingly, to allow a little human input – a 'fudge factor', something that is absolute anathema to scientists, and McLaren is by far the most scientific of all the teams. McLaren's natural response to shortfalls in a system would never be to apply a fudge factor to make it work, but to further

refine the system, to micro-manage. This wasn't an environment Newey felt comfortable in and although some attempt was made to bend the structure around his abilities, he became increasingly frustrated as the proportions of the total surface areas of the cars that he actually designed grew smaller, at the insistence of the ever-more intricate management and simulation systems.

Red Bull was able to recruit Newey through granting him more technical freedom, to have control of the system. It's a much more simply structured team than McLaren, more old-school in many respects. It has deliberately prevented its overall technical direction to be led by systems – and instead uses them only to feed, not to lead. Former team members say that McLaren went further the other way upon Newey's departure, more systems-driven than ever. Eventually the system itself became so unwieldy that the team could lose control of it.

Combined with the team's penchant for aggressively high targets, this is what happened in the conceptualisation of this year's car, the MP4-28. McLaren aimed for a big jump in performance, from a car with a flow structure totally unrelated to that of the very successful 2012 design, and relied on all the tiny micro-managed components within the system to add up to the big number it had targeted. But there were so many individual components within that system that a variance of error on each of them could add up to a very significant number in the wrong direction. Which it did.

"It didn't come together in a harmonious package," said Martin Whitmarsh last month. "We lost sight of the overall structure and we ended up with a situation where we were uncompetitive. The goal is to come out with a dominant car.

"There are a whole lot of studies that are going on all the time. The feeling was, 'Right, let's try

to make a big step. Let's incorporate this, this, this and this'. We believed all the tests we'd done validated those concepts and the best thing to do was bring them together."

No correlation tools ever exactly mimic the reality at the circuit and the trick is inevitably to use a fudge factor in having them align. This will work acceptably in a well-honed design, the product of long development. But introduce a new airflow concept and the potential is there for that difference between simulation tool and reality to become significant. Introduce lots of new airflow concepts and the chances of that happening get exponentially bigger.

The MP4-28 had new concepts of front wing, front suspension, sidepods and rear bodywork. Performance was being squeezed from each of those areas, each inevitably with its small degree of simulation error in the concept stage. The potential for each of those differences between simulation and reality to magnify the total as the airflow moved down the car was very real – and is in fact what happened.

But that's only the detail of what went wrong. McLaren's simulation tools are not inherently bad; in fact they may even be the best in F1. But what was very characteristically McLaren in this example was a) the ambitious target and b) the absolute belief that the systems would deliver. For the final season of the current formula, every other team produced developments of their existing cars. By contrast McLaren decided to try for a big step, striving for dominance. "We were greedy and overambitious technically," admits Whitmarsh, "and took too many risks that didn't bear fruit. Then we were not sufficiently diligent in managing the whole flow structure, in making sure there was enough synergy and cohesion between the different elements."

But this is merely what went wrong this year. These are symptoms of McLaren's personality and



Dennis's first season in charge: 1981, with John Watson



FERRARIO/LAT

it is to that personality we must look to see why the team has underachieved over the years. It was Ron Dennis's vision that transformed McLaren from a team on the brink of extinction when he took over to the fabulous colossus that it became. He invested in the expansion of the sport itself to make McLaren an F1 team the like of which had never been seen before. He was the harbinger of a new era, where teams were transformed from garagistes to mini-corporations.

But inevitably men of vision stamp their personality throughout their organisation. Ron is mechanistic rather than intuitive and this remains McLaren's personality today. He no longer heads up the F1 team, and in fact has not directly run it since 1997, but his beliefs and values are still at its core.

Dennis's personality was not best suited to dealing with the injustices inherent in the FIA's relationship with Ferrari a few years ago. He and FIA president Max Mosley antagonised each other and that was very damaging to McLaren. McLaren's response to Ferrari's increasing dominance during the Schumacher years was to aggressively pursue new technical concepts, only to be frustrated at every turn by the FIA. The more the governing body tried to strangle the team's technical ingenuity, the more it responded with technical ingenuity in a process that must have burned a lot of people out.

Mario Illien, then in charge of Brixworth-based Mercedes Performance Engines, shared McLaren's technical ambition and in an era before standardisation of engine specs, rev restrictions or number of engines used, the company made aggressive advances. But in combination with equally aggressive aerodynamic targets that affected engine packaging and cooling, reliability was not usually a match for Ferrari's — something that cost the team at least the 2000 and '05 championships.

That adversarial, no-compromise relationship

with the governing body hurt the team even more in 2007 when the industrial-espionage incident blew up. A disaffected Ferrari employee had given a McLaren staffer a hugely detailed document of Ferrari's car: not very ethical, but the discovery was seized upon by Mosley. His reaction could hardly be described as underzealous as McLaren was fined \$100 million and lost its constructors' points. Had Dennis's relationship with the governing body's president not been so adversarial, the matter could almost certainly have been resolved with less pain. A few months later Renault was found to have an ex-McLaren employee bringing with him technical details of the McLaren but received no punishment. A few years earlier two ex-Ferrari employees were found to have supplied technical details to Toyota and the matter was settled between the two teams without the FIA seeing the need to get involved.

In 2009 both Dennis and Mosley stood down from their positions, each having inflicted mortal wounds upon the other in a war that had endured for over a decade. It was not right that their poor personal relationship should have impacted upon

the prospects of the team, but inevitably it had. In that idealised refusal to accept the practicalities and imperfections of a situation, in that railing against perceived injustices, in that total belief that McLaren could prevail by force of might and right, was much of the attitude that, applied to the technicalities of producing F1 cars, tripped up the team.

On the track and off, McLaren expended huge energy in vanquishing everything that was against it. Ultimately this led to a Whitmarsh-directed team that is warmer around the edges and more accepting of reality. But the total belief in its systems is hard-wired in. It's in many ways admirable, a very pure philosophy of a pursuit of perfection. But the real world has had this annoying habit of tripping it up.

How much the debacle of the MP4-28 will have informed the team of its weaknesses is difficult to say. But within it still is the stuff of greatness that could yet allow it to carry on where it left off in 1991. In partnership with Honda once more, as it was then, the next McLaren era may be just around the corner. ❧



Senna completed four in a row for McLaren with 1991 title

LAT/ARCHIVE

Ricciardo has earned his switch, but he still has a lot to prove

Red Bull has confirmed Daniel Ricciardo will partner Sebastian Vettel next year.

EDD STRAW looks at how he has landed this chance, and what he still has to do

Should Daniel Ricciardo need any reminding of the challenge awaiting him at Red Bull, Helmut Marko has made it explicitly clear. The Red Bull junior programme supremo, who has steered Ricciardo's career for six years, has offered "three-to-five" races for the Australian to get acclimatised to his new surroundings. By mid-season, he expects him to be pushing Sebastian Vettel hard. Ricciardo has earned his chance, but expectations of him will be sky-high in 2014.

The 24-year-old has answered all of the questions asked of him by Red Bull to become only the second driver from its junior programme, after Vettel, to climb the ranks all the way to the top of the energy drink giant's motorsport ladder. But next season, the demands placed on him will be more extreme than any he has faced before.

RAW SPEED

What he has proved: The foundation of any successful grand prix driver is speed. Ricciardo has shown he has it in abundance. In Germany and Hungary this year, he dragged a Toro Rosso into Q3 ahead of quicker cars by getting the most out of it and he has consistently outperformed team-mate Jean-Eric Vergne in qualifying. **What he still has to prove:** That he is capable of being as quick as, or close to, Vettel. The German excels in qualifying and has 39 pole positions to his name. We know Ricciardo is very quick, startlingly



Silverstone test showed Red Bull what he can do

so on occasion, but so is Mark Webber. The question is, does Ricciardo have the final half-a-per cent required?

RACE PACE

What he has proved: It is often difficult to assess race performance in the midfield, especially in a team with no known quantity as a yardstick. But Ricciardo's performances are better than he is given credit for, particularly in races in which having over-achieved in qualifying he has inevitably slipped back.

What he still has to prove: That he has the consistency to deliver week-in, week-out in race conditions. Ricciardo has had the odd race where he has run near the front from strong grid positions, notably China and Britain this year, but Vettel will brutally expose any shortcomings in this area.

MENTAL STRENGTH

What he has proved: When it was revealed that Mark Webber's seat would become available next season ahead of the British GP, it was clear to both Toro Rosso

drivers that the next few races could be career-defining. Points finishes at Silverstone and Spa, as well as three Q3 appearances for Ricciardo, proves he has mental strength and determination that belies his affable, cheery demeanour. He has also shown the ability to recognise when he has failed and tackle any shortcomings. **What he still has to prove:** The history of grand prix racing is littered with very good drivers made to look ordinary by great team-mates. Ricciardo must be consistently strong and able to accept that there will be days when Vettel is difficult to get near, particularly early on.

WHEEL-TO-WHEEL

What he has proved: Ricciardo has generally held his own in battle, although inevitably in the midfield melee it's difficult to keep track of every move. Defensively, he is calm under pressure and he has been involved in very few on-track scrapes.

What he still has to prove: Vettel has excelled at making key overtaking moves when he needs

to, with his pass on Lewis Hamilton for the lead at Spa a good example. Ricciardo has not been in that situation against the top guns. Also, he has sometimes become stuck behind slower cars and been unable to find a way past, so he needs to show he can be as decisive in traffic as he needs to be to make the difference between winning and losing.

TECHNICAL SKILLS

What he has proved: Ricciardo's feedback in his Red Bull outing at the young driver test matched that of Vettel and Webber. At Toro Rosso, while he has occasionally lost his way with set-up he has improved with experience. **What he still has to prove:** Red Bull develops more aggressively than any other team. Compared with Toro Rosso, the development rate will be sky-high. There is also the added challenge of the 2014 1.6-litre, turbo V6 engines, which will mean Ricciardo will be expected to give top-level feedback during pre-season testing.

EXPERT VIEW



FERRARO/LAT

VITANTONIO LIUZZI

Former team-mate of Vettel and Ricciardo

Daniel is a fast driver and it makes sense for Red Bull after they've spent so much money in the development programme to choose him. It's the more obvious decision.

Comparing him with Vettel, I think he can be competitive. Where Vettel was when he was my team-mate in 2007 is where Daniel was as well when he was my team-mate in 2011. Now, Sebastian is three-time world champion. I don't think there is another obvious choice.

At HRT in 2011, Daniel was all right. But, and it was the same for Vettel, when he did the first race he'd already driven so many kilometres.

Daniel struggled a bit at Silverstone

[in 2011], then had a few good races, and then struggled again. But overall, he was pretty similar to when Vettel started with me at Toro Rosso.

The Red Bull is still the best car in F1, so I'm sure Daniel can show a good performance.

Vitantonio Liuzzi was talking to Andrew van Leeuwen

Liuzzi was Vettel's team-mate in 2007



TEE/LAT



RICCIARDO'S F1 MARKERS

Daniel Ricciardo has spent much of his F1 career in the midfield, but he has managed to shine.

EYE-CATCHING DEBUT

Jerez 2009

Comfortably tops the times at the inaugural young driver test at Jerez, impressing the team both with his speed and his attitude on his first taste of F1 machinery (below).



THOMPSON/GETTY

QUALIFYING LAP OF THE YEAR

Bahrain 2012

Produces the qualifying lap of the season with a stunning sixth in Bahrain, outpacing poleman Vettel for a decent proportion of the lap.

HOLDING OFF SCHUMACHER

Japan 2012

Fends off charging Merc of Michael Schumacher, who is on fresher rubber in a quicker car, to secure the final point at Suzuka (below).



COATES/LAT

DELIVERING WHEN IT COUNTS

Britain 2013

Two days after it is revealed Mark Webber's seat is available, Ricciardo bounces back from two disappointing weekends and qualifies a career-best fifth at Silverstone.

SALVAGE JOB

Belgium 2013

Doesn't enjoy the most comfortable of weekends, but from 19th on the grid a strong first stint on hard rubber lays the foundation for gutsy ninth (below).



GETTY

Time for 'new' teams to deliver

Caterham and Marussia have yet to make their mark, but 2014 offers a fresh start. By **EDD STRAW**



34

Since making their debuts in the 2010 Bahrain Grand Prix as Lotus and Virgin, Caterham and Marussia have failed to make an impact. With 69 starts apiece and no top 10 finishes, they share the record for most races without a point. When next year's regulations, built around the new 1.6-litre turbocharged V6 engines, are introduced it will be time for the two teams to step up.

Expectations must be realistic. They are the two smallest teams in F1 so it's natural for them to be at the back, but for much of the past three-and-a-half seasons Caterham and Marussia have been cast adrift in their own private battle. Their

plights underline just how tough it is to build up a team and establish it as a credible force in F1.

But there are reasons to expect things to change next year, with both teams evolving technically at an impressive rate.

CATERHAM

The team's technical director Mark Smith believes that the difficulty of building up a new team from scratch in the 21st century is vastly underestimated.

Along with Gary Anderson and Andrew Green, now Force India technical director, he was part of a three-man team that produced the Jordan 191 that finished a remarkable

fifth overall in the team's first year.

"Those were the days when even the bigger teams had relatively small numbers so the game was very different," said Smith.

Caterham's challenge has been complicated by a necessary move to a new facility in Leafield, completed during last year's August break. It now has a driver-in-the-loop simulator online, although its use of a 50 per cent scale windtunnel rather than the maximum permitted 60 per cent is a limitation.

Smith is happy with progress but believes that building experience within the team is key to success.

"The team was started not too long ago from scratch and doing that is never easy," he says. "It takes time to build up the experience or to attract that experience from other teams. The whole thing has to gather momentum."

That momentum is building. Results have improved dramatically this year, but Caterham's full focus is now on 2014.

"I don't have any strong expectations that because it's a big change we can necessarily use that to make a big step forward," says Smith. "But I'm very confident with the group of people we have that our ability to model, analyse and predict

"We have to spend more money on the engine but hope it gives us an overall performance opportunity"

GRAEME LOWDON

has improved significantly. We should now be on a path where we are making steady progress."

MARUSSIA

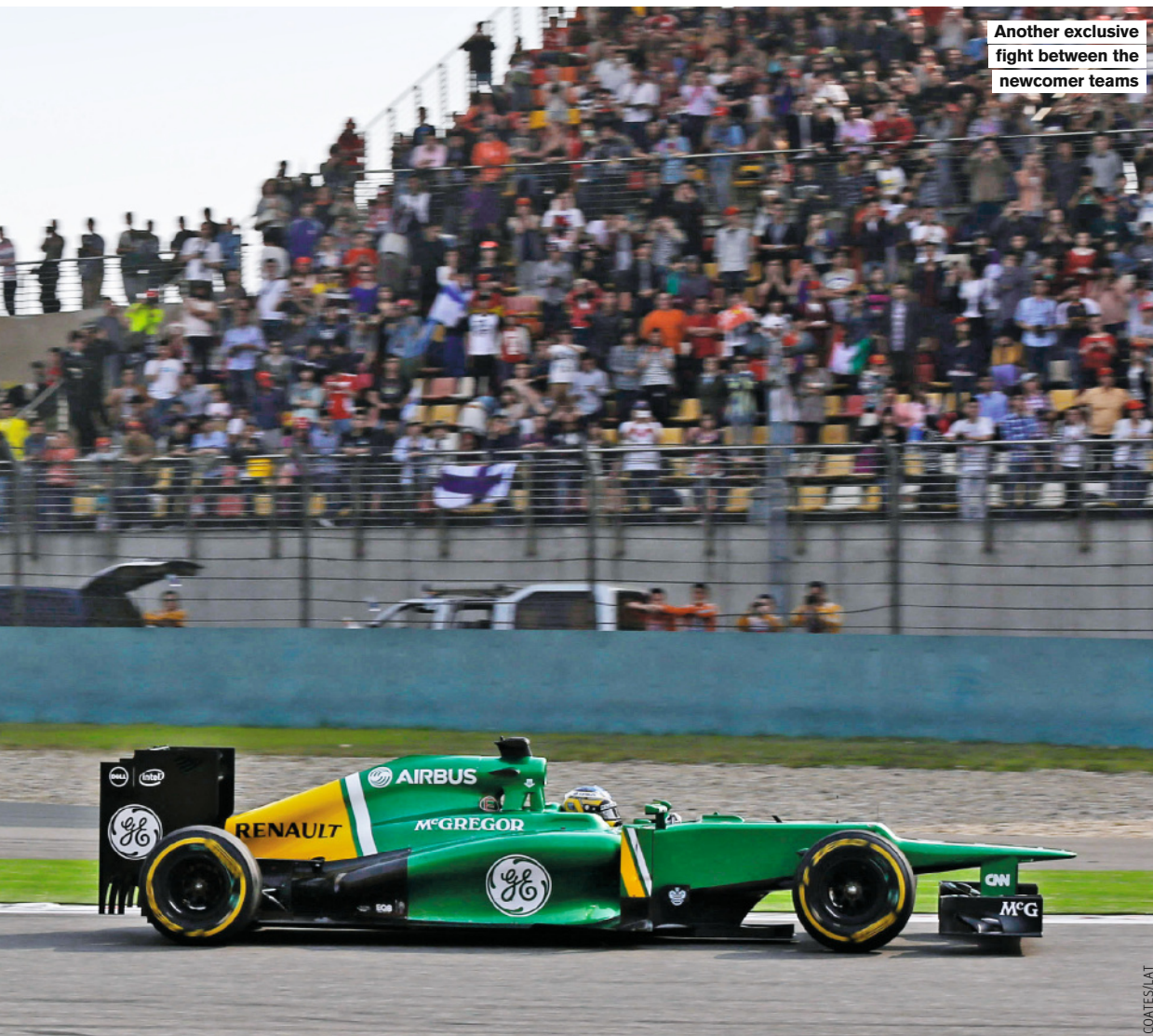
Unlike Caterham, Marussia will have a change of engine in 2014. Its Cosworth units are estimated to give away six-to-seven tenths of a second per lap to the rest, and sporting director Graeme Lowdon is confident the switch to Ferrari powerplants will allow it to go into the new season on a competitive footing.

"We have to spend more money on the engine but hope it will give us an overall performance opportunity," he said. "It will be a huge step forward in terms of parity compared with some of the other teams."

Like Caterham, Marussia has had to make major changes to give it the technical foundations it needs to become a credible lower-midfielder.



Smith (left) takes a patient approach at Caterham



Another exclusive fight between the newcomer teams

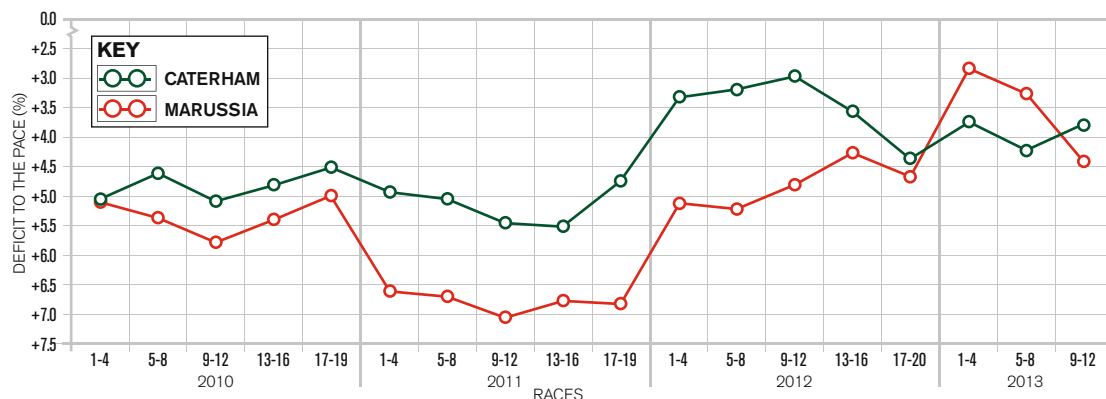
COATES/LAT

PERFORMANCE ANALYSIS: CATERHAM & MARUSSIA

Since joining the F1 grid at the start of the 2010 season, Caterham (then Lotus) and Marussia (then Virgin) have yet to emerge as genuine contenders in the lower midfield. Their progress towards

the frontrunning pace has been stuttering, particularly thanks to the rise of the tricky-to-perfect exhaust-blown technology that set both back during 2011 in particular.

This shows the deficit to the pace in percentage terms based upon the fastest individual lap of each team over a grand prix weekend. Races are grouped in fours (or three if at the end of a season).



Nick Wirth's much-vaunted all-CFD approach was abandoned during 2011. The team ousted Wirth and took over his facility in Banbury, moving the whole team there. Under Pat Symonds, who has since left for Williams, Marussia made good technical progress. Effectively, the team had to write off much of the work done during

its early days, which has played a part in it taking so long to improve. In addition to its own Banbury base and Ferrari engine link-up, Marussia also has access to McLaren's facilities. This deal has been key in Marussia catching up with Caterham. While Marussia's budget is the lowest in F1 – at £51 million it is

around £14 million less than Caterham's – it has established the technical foundations it needs to take a step forward next season. Even with Symonds's successor yet to be appointed, confidence abounds about the new rules. "This is the kind of step change we need and we are quietly optimistic," said Lowdon.

THE AGE OF THE FORMULA 1 GRID

With only three-and-a-half seasons in F1 under their belts, Caterham and Marussia are still the infants of grand prix racing.

FERRARI 1948

The first Ferrari F1 car made its debut at the 1948 Italian Grand Prix and has competed every year since.



LAT

McLAREN 1966

Celebrates its 50th anniversary this week and has been on the F1 grid since the 1966 Monaco Grand Prix.



LAT

WILLIAMS 1977

Frank Williams's second F1 team made its first appearance in 1977 running customer March machinery.



LAT

LOTUS 1981

The Enstone team first appeared as Toleman in 1981 and has also competed as Benetton and Renault.



LAT

TORO ROSSO 1985

Red Bull bought what was the Minardi team in September 2005. It still operates out of the Italian outfit's Faenza base.



LAT

FORCE INDIA 1991

Since coming into the sport in 1991 as Jordan, the Silverstone team has had several facelifts.



LAT

SAUBER 1993

Switched from sportscars to F1 in 1993. Spent four years as BMW but is now 100 per cent Swiss.



LAT

RED BULL 1997

Still uses an expanded version of the Milton Keynes base that housed first Stewart and then Jaguar.



LAT

MERCEDES 1999

The BAR team, which morphed into Honda, Brawn and finally Mercedes, was effectively built up from scratch after acquiring the Tyrrell outfit.



LAT

CATERHAM 2010

Entered F1 as Lotus Racing four years ago, becoming Caterham ahead of last season.



COATES/LAT

MARUSSIA 2010

Raced for two years as Virgin before Russian car firm Marussia bought into the team and changed its identity.



ETHERINGTON/LAT

GP2 cuts its cloth for the first time

As Formula 1's feeder category nears the end of its ninth season, series bosses are trimming budgets for the future. **CHARLES BRADLEY** explains how they are going to make it work



36

Global recession is nothing new, but it is for a relatively fresh-faced race series such as GP2. It embarks on its 10th season next year, and retains its standing as king of the sub-F1 single-seater jungle. But this premium-brand status comes at a cost. Last winter was the toughest ever for GP2's teams as the ripples of economic crisis caught up with the series.

Two did not make it, and in particular the loss of former series champion iSport was seismic. The British squad simply could not find drivers of adequate quality with

sufficient budget to run its business at anything other than a loss. As team chief Paul Jackson said when AUTOSPORT broke the story: "We're not prepared to bankrupt ourselves."

New teams eagerly filled the places, each clearly with the financial capacity to run at a loss in the short term at the very least. That meant it would have been simple for series boss Bruno Michel to cover his ears and pretend his garden was rosy, but instead he is taking action to ensure further casualties don't happen.

"Generally speaking, the series has been going very well," said Michel. "But the economic crisis has been hitting the industry, and we've been having some difficulties – which wasn't the case in 2008, strangely enough. Everybody is feeling it here for the first time."

A three-point cost-cutting plan has been hatched for 2014, which coincides with the start of a new three-year cycle. This cycle will, for the first time in GP2 history, not include a new chassis. Together with this, there will be a trimming of spare parts prices from Dallara and engine leases from Mecachrome, plus a revision to the calendar, potentially chopping out two expensive flyaways (see panel, top right). This should mean teams will make "substantial savings", according to Michel.

"We understand now that it's quite difficult to find 26 drivers with that level of budget, so we have taken some steps to lower the cost of the series for next season and beyond," he added. "I can't give precise figures, because these will vary from one team to another, but these moves will allow them to decrease their costs by a significant percentage."

It is certainly tricky to pin down exactly how much teams charge their customers (the drivers). As a rule of thumb, the French teams spend (and therefore have to charge) more than the English, who spend more than Italians. But this is a moving target, as successful teams tend to charge more anyway, while others offer more of a package deal, including extras such as simulator time and ties to the F1 paddock.

But, having canvassed paddock

opinion, we can give a ballpark figure: a decent drive in GP2 costs in the region of €1.8 million per season (just over £1.5 million).

"GP2 remains more a drivers' championship than a teams' championship," said Michel. "It's about getting the strongest drivers, but that includes those who struggle to get a full budget [perfect example: Robin Frijns]. They will be able to decrease their costs by quite a good percentage. We're doing it because we have to ensure our teams can live correctly. We want them to be healthy."

Too late for iSport and Ocean Racing Technology, which recently bailed out (and, for entirely different reasons, Coloni). But in their place have come Russian Time, Hilmer Motorsport and MP Motorsport.

"Losing three teams is never good," Michel admitted. "But the fact we



Understanding the market is key for Michel

STALEY/GP2



Few teams remain from the 2005 grid



GP2 budgets are set to decrease from around €1.8m

found three new teams proves that this series is still very attractive. We now only have four teams who were with us in 2005 [when GP2 began]. It proves the way that the business and economy is moving.

“Now we have a different type of team, we have people coming in with less of a motor racing background but more entrepreneurs. Of the new teams that have come in, two have won races. It’s good to see people arriving and be on the pace straight away – it’s a good incentive for others.”

Michel’s accountancy background means he is as sharp as anyone on supply and demand and, with the entry tenders open for the next three-year cycle, it will give him a great indication of the appetite of further new teams.

“Our aim is to make sure all our teams are sustainable; we understand

the market has changed,” he said. “A team boss, who runs cars in many categories, said to me, ‘If everybody had the money, everybody would be going to GP2’. But if you don’t have the money, you can’t race – so the idea is to give as much chance as possible for the best teams and drivers to come to GP2. We all know it’s the best possibility for a driver before they go to Formula 1.”

While teams have welcomed the news, and are thankful that it shows a shift by the series to acknowledge their financial plight, some are concerned that not publicising exactly how much can be saved may simply give drivers ammunition to nail them over budgets.

It remains a tricky balance for teams to operate with a sensible bottom line, while giving their drivers good value. After all, not all will win races.

2014 CALENDAR THE REAL KEY

The biggest saving that GP2 can offer its teams is in staging fewer substantial reductions in freight costs. But when Formula 1 is travelling ever further afield, how can this tally with GP2’s USP of track time on grand prix weekends, on Pirelli’s F1-esque tyres, in front of the bigwigs?

GP2 currently boasts four expensive flyaway events – Bahrain, Malaysia, Singapore and Abu Dhabi. But with new F1 support events possible in Russia (a must, given Russian Time is a new GP2 team) and Austria (which might help get Red Bull back on board) next year, AUTOSPORT understands that Malaysia and Singapore are most likely to make way.

“We’re going to look very carefully at our calendar,” assures Michel. “We’ll be looking to go by boat as much as possible, and I believe we can cut our freight costs by 50 per cent.

“We’re not talking about little figures. We’ve discussed at length with the teams and they agree it’s a good package that they can pass on to the drivers in terms of the budgets. We’re confident this is the right way to go.

“After 2014 we will look again at the market, see how the new F1 cars look, ask ourselves about long-term engines and whatever. We’re very reactive.”

The proof of that will begin when the 2014 calendar is issued, the teams set out their budgets and, ultimately, if there are 26 drivers on the grid.

Singapore could be short-lived on the GP2 schedule



DUNBAR/GP2

GONE BUT NOT FORGOTTEN

Teams that have left GP2 since the series started in 2005*

BCN Competicion 2005-08

Best finish: 2nd



STALEY/GP2

iSport International 2005-12

Wins: 19
2007 champion



STALEY/GP2

Durango 2005-09

Wins: 3



Coloni 2005-12

Wins: 11



DPR 2005-10

Wins: 3



Ocean Racing Technology 2009-12

Wins: 2



GIBSON/GP2

Super Nova International 2005-11

Wins: 7



* not including name changes and rebranding, such as Piquet Sports now Rapax, Campos now Addax, etc

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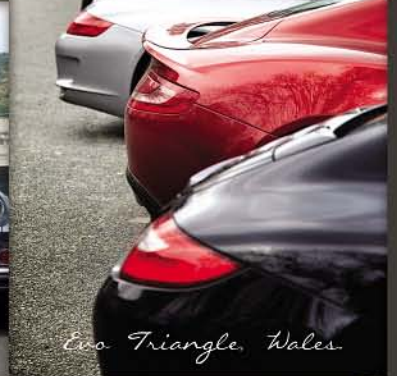
Ultimate Grantour



24 Heures du Mans



Classic Grantour



Two Triangle, Wales



Supercar Sunday Lunch



Avon 574, Abu Dhabi



Dune Buggies, Dubai



Italian Grantour



Spa Francorchamps

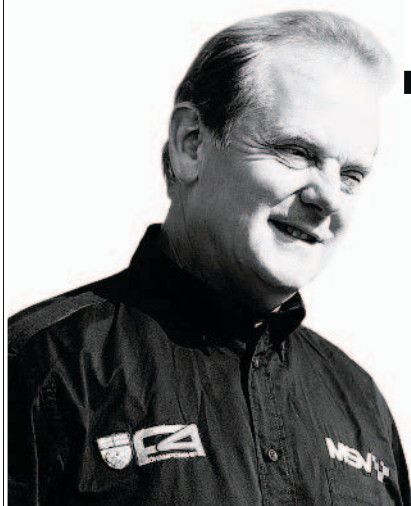


Italian Grantour



Ice Driving, Sweden

*Club Mulholland. A members club for driving enthusiasts.
It's simple to join, just go to the website...*



Jonathan Palmer

The inside line

The former grand prix driver-turned circuit boss extols the virtues of the new-for-2014 circuit-limit clampdown and says it will benefit drivers *and* tracks

Track limits have become an increasingly topical subject over the past few years, particularly since the MSA changed the regulation for the 2010 season to mirror that of the FIA, which states that providing one wheel is inside the white line, the rest of the car may be anywhere – on kerb, grass, mud or concrete.

The FIA regulation works pretty well for the kind of racing it was originally conceived to regulate – F1 cars on international F1 circuits. However, such tracks are very different to our traditional UK circuits. F1 tracks generally have very big kerbs – often 1.5m wide – and beyond that big concrete, asphalt or AstroTurf run-off surfaces. But these circuits work on a totally different financial model – the cost of kerb construction alone would be many times the value of most UK race circuits!

Competitors always want to find time in any way they can, and either cutting the apex or running wide on the exit is bound to be quicker – providing the loss from a poorer surface is less than the gain from widening the line. In the 1980s and earlier this was rarely an option because kerbs were more aggressive, the grass more bumpy beyond, and cars were more fragile. Since those days, though, there has been a continual quest to improve safety, so kerbs and run-off areas have become much smoother to minimise loss of control. Furthermore all of our circuits are also used for motorcycle racing, which requires gentler kerbs still.

The combination of a relaxed track-limit regulation and

there is a need for such sanctions in this age of mild kerbs and smooth run-off areas.

There has been concern about the policing of the new regulation and this is a very important point, though one that applies equally well to the existing rule. In fact, it will be a lot easier for observers to see if an outer wheel has gone beyond a kerb than the inside wheel beyond the white line. Furthermore it will be easier for a competitor to feel if the outside wheel has gone beyond the edge of a kerb – white lines are impossible to feel!

It will be helpful to clerks of the course for photographic evidence to be available as much as possible to both help them make decisions and demonstrate the facts to any penalised competitors to avoid time-consuming disputes and resentment. This is something MotorSportVision is intending to implement at key areas on the track, as well as reviewing the kerbs at our circuits generally.

It is also going to be very important – as it is now – for officials to take a careful, accurate and intelligent view before applying penalties. What must be stopped is deliberate abuse of track limits in the quest for lap time or even indeed from just sloppiness. However, a car going beyond track limits unavoidably as a result of, for example, a big mid-corner moment or being squeezed out by another car should not be penalised.

Some competitors will no doubt bemoan the introduction of the new rule, generally due to a lack of full understanding.

“Many drivers will be delighted that they will no longer be pressured into driving beyond kerbs”

less physical deterrent has resulted in a major problem for circuits over the past few years – the grass margins beyond the kerbs have basically become part of the racetrack and circuit operators either have the choice of continually battling to repair damage, or put down unsightly and expensive concrete beyond the kerbs for competitors to drive on.

Clearly this is a silly situation – most sensible racing drivers and indeed others involved in British motor racing would agree that the track limit should either be the white lines edging the circuit or, where one exists, the outer edge of any kerb. This is indeed what the new-for-2014 MSA regulation for track limits now states – after very careful consideration.

Of course how it will be applied needs addressing carefully. While no-one likes penalties affecting performance and results, unfortunately unless circuits have physical track limits, such as the barriers at Monaco,

But many will be delighted that they will no longer be pressured into driving beyond kerbs, causing damage to their cars to find those last few tenths. There will also be far less mud, dirt and gravel dragged onto the track, to the benefit of drivers and circuits alike.

It will take a bit of time for competitors and officials to get used to the new rule and apply it sensibly. But once that's done there will be many benefits; fairer racing, safer racing, less car damage and cost, neater circuits with reduced maintenance costs.

Importantly too, it means the artistry and elegance of the best racing can return. The beautiful precision of line that masters such as Jackie Stewart and Alain Prost would demonstrate can be admired again, as indeed was evident by Marc Marquez and Jorge Lorenzo at Silverstone last weekend in MotoGP – those guys barely even touch a kerb, and the racing's the better for it. Circuit racing is just that, not rallying. ❧



ITALIAN GP PREVIEW

IN ASSOCIATION WITH **sky SPORTS F1 HD**

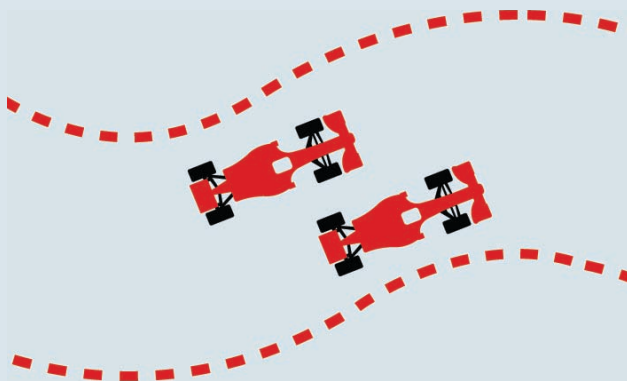
FIRST CORNER



With top speeds on the approach to T1, Variante del Rettifilo, reaching 211 mph (the fastest all year), drivers need the full 630m run-in to the tight chicane to sort themselves out before the track funnels down. Finding a perfect braking point into the chicane is a challenge that most drivers say lasts for the whole race.

OVERTAKING STATS

Monza ranked seventh for the highest number of overtakes in the 2012 season, although last year's victor Lewis Hamilton raced to his maiden Italian GP win from lights to flag without contributing to the passing tally.



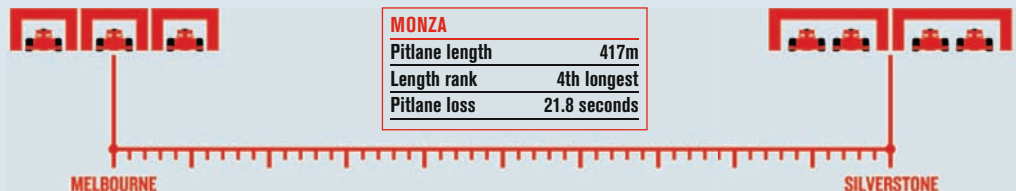
FULL THROTTLE



A staggering 76 per cent of the laptime at Monza is spent at full throttle – so much so that Jenson Button has said that he often finishes the race with a headache!

PITLANE

At 417m, Monza's pitlane is the fourth-longest of the season, and one the drivers can happily avoid, with one stop-strategies often being preferred – especially with the relatively high pitlane loss of 21.8 seconds.



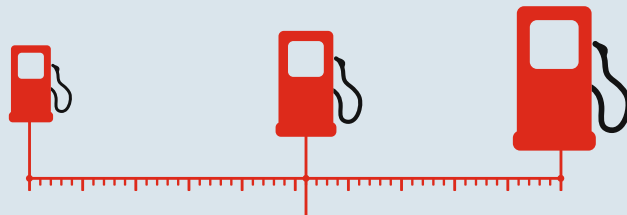
MONZA	
Pitlane length	417m
Length rank	4th longest
Pitlane loss	21.8 seconds

SAFETY CARS

The safety car is not a major factor in race-strategy planning, but cannot be ignored completely. Monza lies some way down the list in 13th of the table of safety car interventions with an average of 0.4 appearances per race.



FUEL PENALTY



A lap of the Autodromo Nazionale di Monza requires 2.6kg of fuel, an average amount for the season as a whole. Every 10kg of fuel costs 0.3s per lap – again, around par for the year.

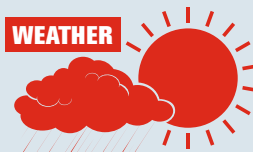
GEAR CHANGES

It's a fairly easy time for the gearbox at the Italian GP, with each lap requiring the third-lowest number of selections – 46 in total – to complete a lap, the same as required around China's Shanghai circuit.



MONZA	
Circuit Length	3.599 miles
Race Laps	53
Race Distance	190.787 miles
Lap Record	Rubens Barrichello, 1m21.046s (2004)
Corners	11 (4 left, 7 right)
Circuit Direction	Clockwise
Corners <62mph	2
Corners >155mph	1

WEATHER



MONTHLY AVERAGES	
Daily sunshine	9.1 hrs
Rainfall	92 mm
Min temp	14.7 C
Max temp	25.2 C

Monza's Royal Park has a typical submediterranean climate of the Po valley, with races rarely affected by adverse weather – but when it does rain, the garages often flood with water!

COMPLETE COVERAGE OF THE ENTIRE RACE WEEKEND ON **sky SPORTS F1 HD**

THURSDAY

1400 Sky Sports F1
LIVE Drivers' Press Conference

FRIDAY

0845 Sky Sports F1
LIVE F1 Practice 1
1245 Sky Sports F1
LIVE F1 Practice 2

SATURDAY

0945 Sky Sports F1
LIVE F1 Practice 3
1200 Sky Sports F1
LIVE F1 Qualifying

SUNDAY

0930 Sky Sports F1
LIVE GP2 Sprint Race
1130 Sky Sports F1
LIVE Italian GP

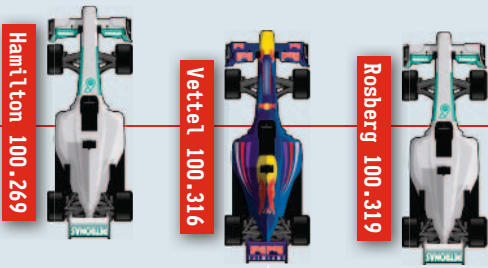
ALL WEEK

Classic Italian GP races throughout the week
Sunday 1615
F1 Legends: Alain Prost

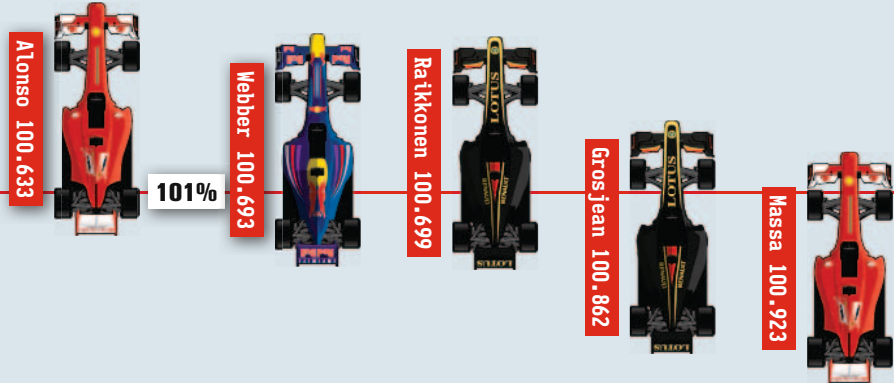
100%

GRAND PRIX SUPERGRID

AUTOSPORT's technical correspondent Gary Anderson has compiled this index, created by taking each driver's percentage deficit to the outright pace so far this year. The graphic shows each driver's average over the 11 races run so far in 2013 compared with the theoretical absolute pace, which is expressed as 100.



Sebastian Vettel's dominant Belgian GP performance – his second for Red Bull at Spa – means he now splits the Mercs of Lewis Hamilton and Nico Rosberg. But it's close!

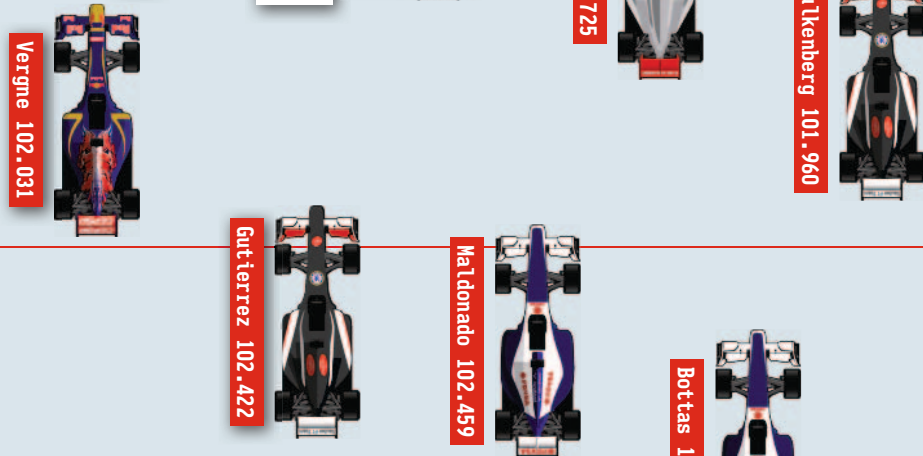


101%



102%

An improved performance by Jenson Button and McLaren at Spa – the Brit qualified and finished sixth – has allowed him to edge further ahead of STR's Daniel Ricciardo.



103%

Pastor Maldonado moved ahead of Esteban Gutierrez after scoring for Williams in Hungary but has slipped back behind the Mexican, who was swift around Spa.

AND THE REST...

Strong practice pace from Charles Pic has moved the Caterham driver ahead of Marussia rival Jules Bianchi – and that's even after he missed FP1 to give Heikki Kovalainen a run.

Pic (Caterham)	104.138
Bianchi (Marussia)	104.258
Van der Garde (Caterham)	105.072
Chilton (Marussia)	105.191

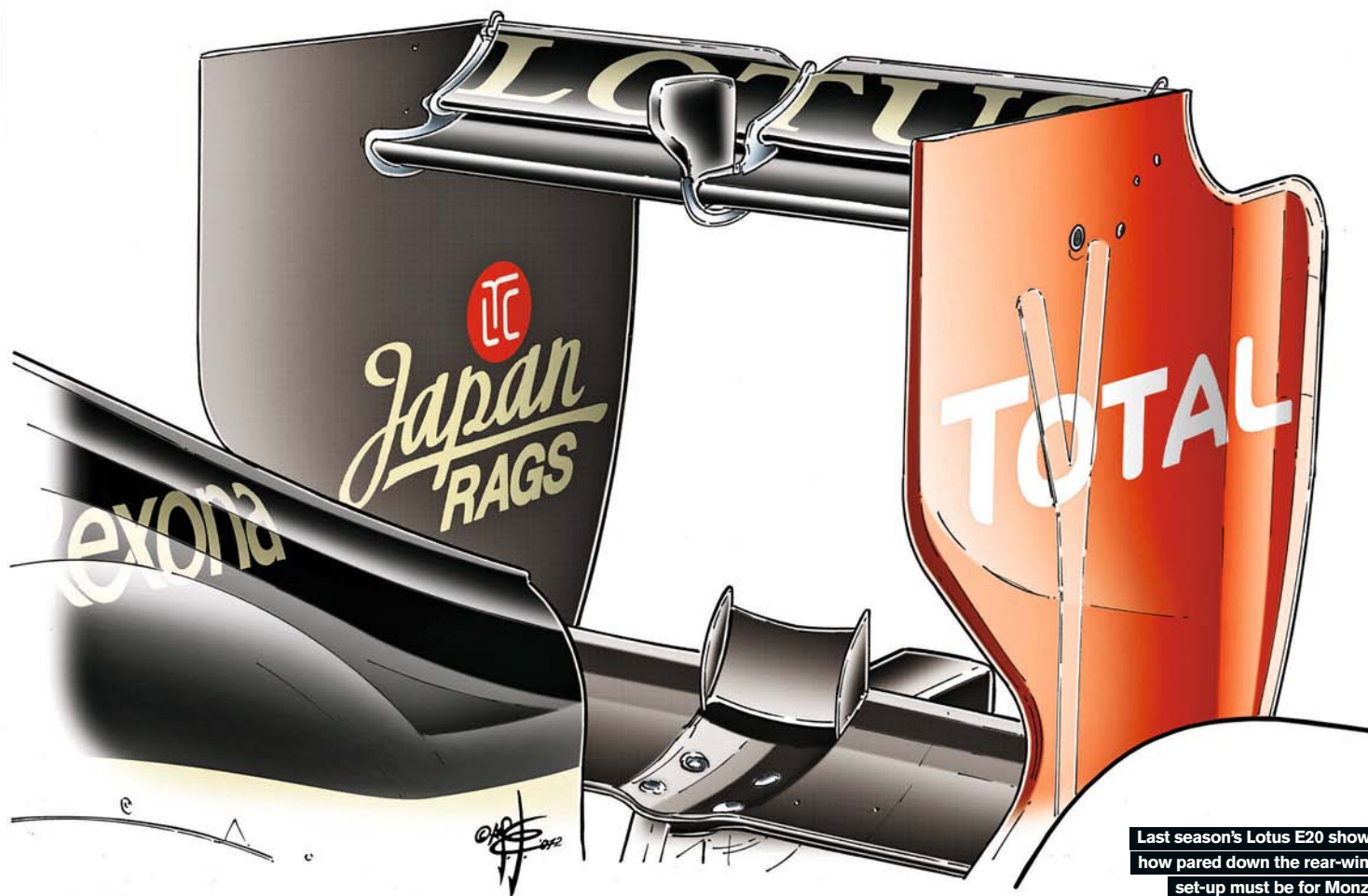
Watch the Italian Grand Prix on Sky Sports F1 HD – go to sky.com/F1 or call 08442410826



ITALIAN GP PREVIEW

Low-drag expectation

Monza requires a unique aerodynamic set-up to make the most of the long straights and three chicanes that primarily make up the fabled venue. **GARY ANDERSON** explains the teams' plight



Last season's Lotus E20 shows how pared down the rear-wing set-up must be for Monza

At this weekend's Italian Grand Prix, Formula 1 cars will run with the lowest downforce levels that will be seen all season. The combination of long straights with very few quick corners means that a low-drag car is needed to be competitive. This means teams produce Monza-specific packages with downforce levels not seen at any other races on the calendar, effectively creating what is very much a one-off race in which the competitive order can be shuffled.

While the recent Belgian GP was held at the low-downforce Spa circuit, also requiring tailor-made aerodynamic parts, Monza is another substantial

step along that path. For example, Ferrari is traditionally strong there as it usually focuses plenty of resources into its package. Last year, Fernando Alonso would likely have taken pole position but for an anti-roll bar failure in Q3.

"It's quite different to Spa," explains McLaren sporting director Sam Michael. "If you look at the frontal area of the wings we had at Spa and then look at Monza, it's a decent step down."

"The wings for Spa are bespoke as well, which means Spa and Monza are almost turning into the most expensive races because you use the packages once and that's it. Montreal is now at the bottom-end of your maximum downforce wing, probably because

of the DRS. Ten years ago, the Montreal package would be similar to Spa but you can get away with a low setting now. You used to be able to run the Monza wings at Hockenheim, but now it's two bespoke packages for one race each."

But it is not as simple as just trimming the wings back to nothing. Braking is important, thanks to Monza's three chicanes, while the two Lesmos and the Parabolica, as well as the brisk Ascari chicane, do require downforce. This makes it a very fine balancing act for the teams. Those teams that have very aero-efficient downforce-producing parts will thrive, for that allows them the upside of extra grip without so big a drag penalty.

Famously, in 2011 Sebastian Vettel won the race despite being the slowest car through the main speed trap in qualifying, which proves that top speed is not everything. What matters is how quickly you get there, which is a consequence of speed out of the corners and gearing, as well as the overall wing level. The trade-off is not as simple as you might think.

All of which makes the Italian GP one of the more interesting races from a technical standpoint. As Ferrari engineering director Pat Fry put it last year: "It's a little bit of an extreme circuit here and I'm sure there will be different downforce-level, which should make for an entertaining race anyway."

THE CIRCUIT BRIEF



ALAN PERMANE
LOTUS TRACKSIDE OPERATIONS DIRECTOR

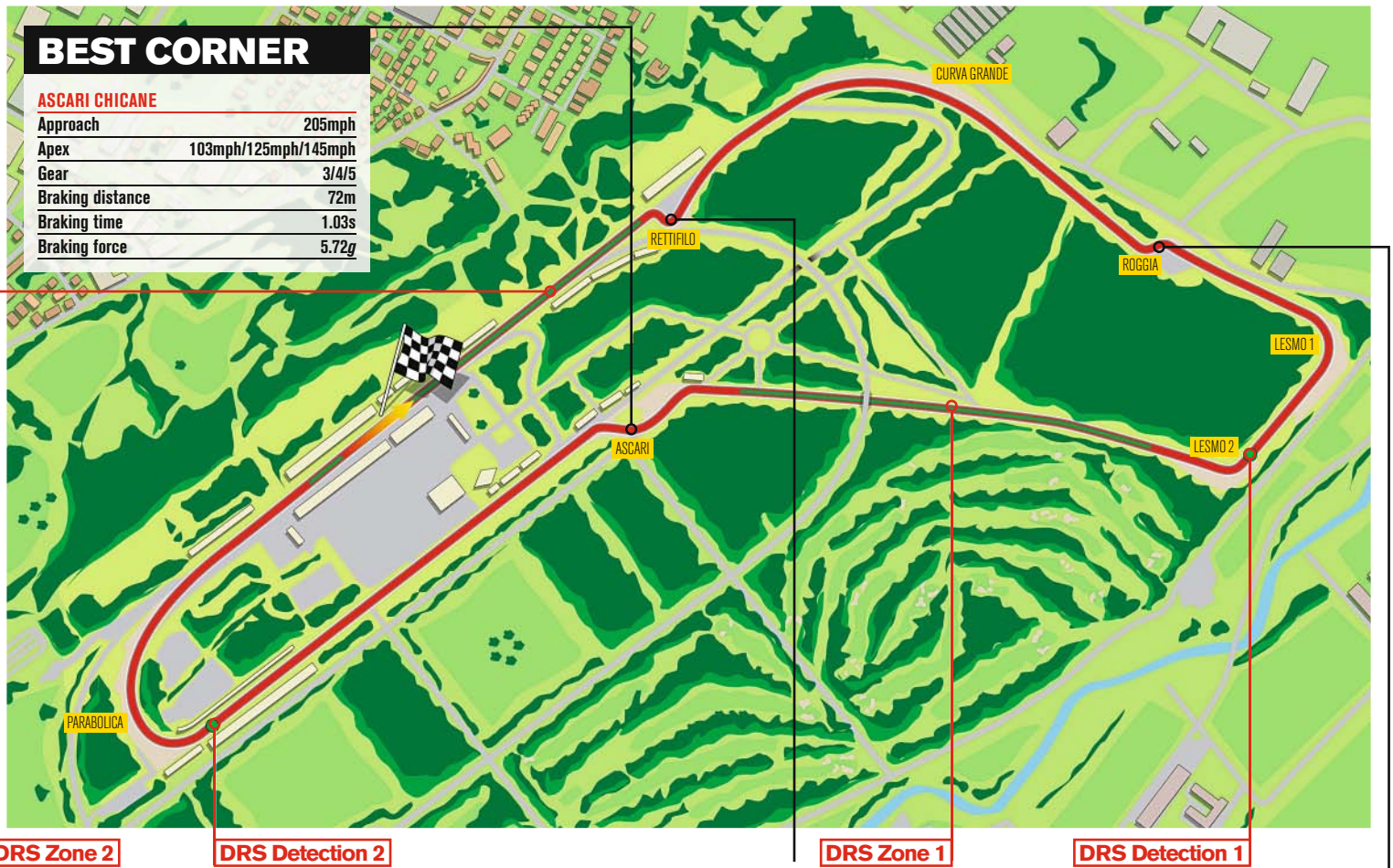
Monza requires minimal drag so you can make the most of the long straights. This means using Monza-specific rear wings while using the front wings in a complementary configuration. There's also the challenge of getting the gearing

right to make the most of the package. You need an aerodynamically efficient car and a powerful engine – and a good change of direction for the interruptions to the straights. Some of Monza's challenges have diminished over time; an example being the kerbs. They're not as aggressive as they once were. You still need to have the suspension sufficiently compliant to enable kerb usage, but it's not as much of a consideration as before.



Monza requires a unique aero and gearing package

DUNBAR/LAT



THE STORY OF 2012

Lewis Hamilton resisted a charging Sauber of Sergio Perez to win at Monza last year, while Fernando Alonso completed the podium after a scary moment when he was put on the grass at Curva Grande by Sebastian Vettel. The German had a race to forget from then on, serving a drive-through penalty for the incident before he was forced to retire his Red Bull with alternator problems.



Hamilton won for McLaren

PASSING SPOT

RETTIFILLO CHICANE	
Approach	211mph
Apex	47mph/42mph
Gear	1
Braking distance	136m
Braking time	2.65s
Braking force	5.90g



Rettifilo chicane is key for passing

POTENTIAL FLASHPOINT



Two into one often doesn't work here

ROGGIA CHICANE			
Approach	203mph	Braking distance	106m
Apex	64mph/72mph	Braking time	1.93s
Gear	2	Braking force	5.25g

ETHERINGTON/LAT

RACE CENTRE

REPORTS • NEWS • ANALYSIS • OPINION

61 **ALMS Baltimore** Olivier Beretta and Wolf Henzler check out the damage to their erstwhile frontrunning GT cars in a shunt that happened *before* the first corner



DAVIS/LAT



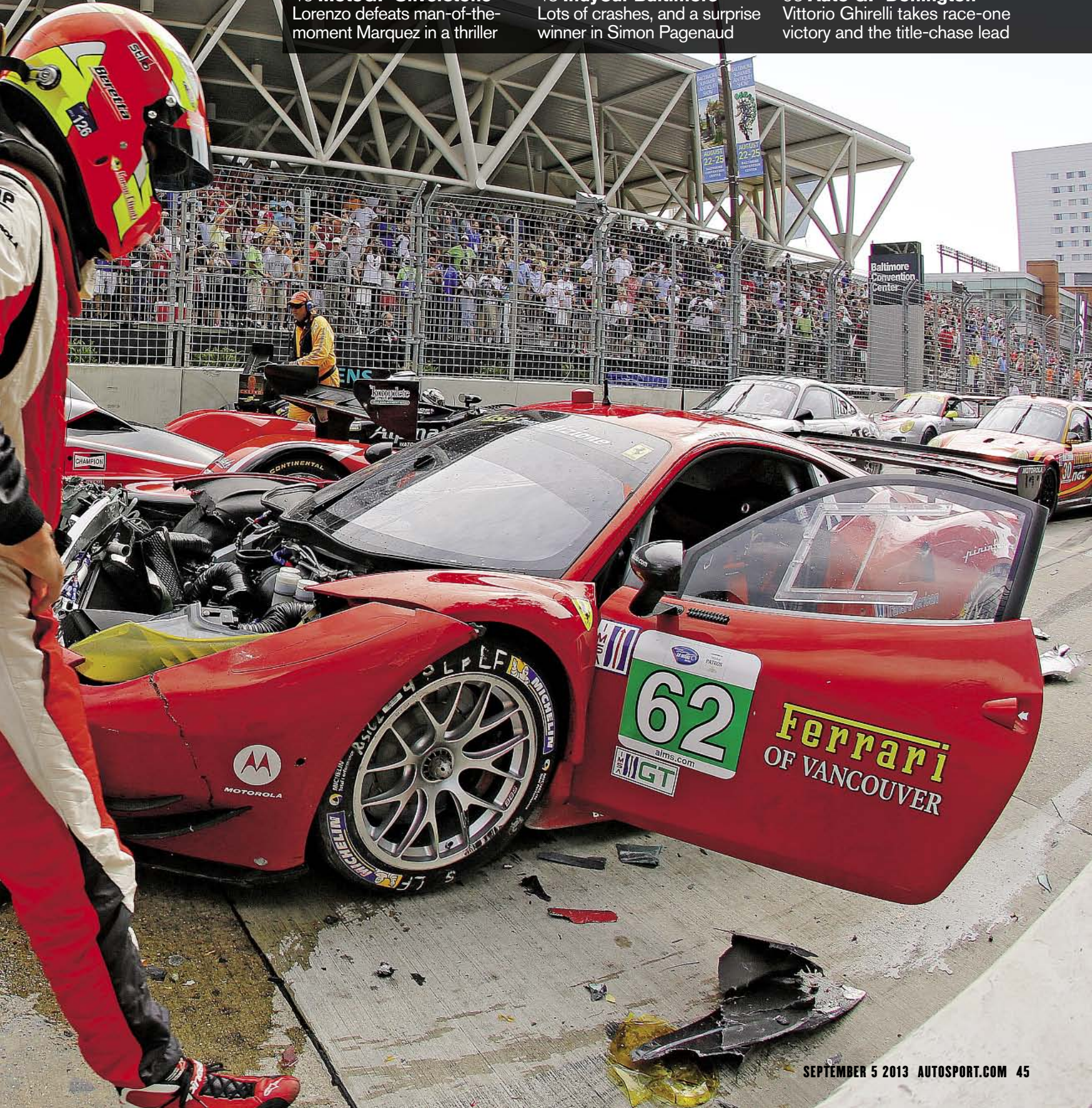
46 MotoGP Silverstone
Lorenzo defeats man-of-the-moment Marquez in a thriller



48 IndyCar Baltimore
Lots of crashes, and a surprise winner in Simon Pagenaud



53 Auto GP Donington
Vittorio Ghirelli takes race-one victory and the title-chase lead

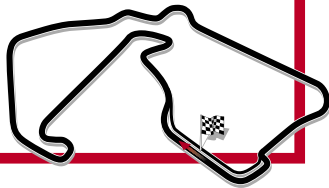


MOTO GP

Silverstone (GB)

September 1

Round 12/18



RESULTS

20 LAPS, 73.325 MILES

1	JORGE LORENZO (E)	40m52.515s
Yamaha Factory Racing Yamaha YZR-M1; Grid: 2nd-2m00.819s		
2	MARC MARQUEZ (E)	+0.081s
Repsol Honda Team Honda RCV213V; Grid: 1st-2m00.691s		
3	DANI PEDROSA (E)	+1.551s
Repsol Honda Team Honda RCV213V; Grid: 5th-2m01.624s		
4	VALENTINO ROSSI (I)	+13.233s
Yamaha Factory Racing Yamaha YZR-M1; Grid: 6th-2m02.109s		
5	ALVARO BAUTISTA (E)	+13.298s
Honda Gresini Honda RCV213V; Grid: 8th-2m02.252s		
6	STEFAN BRADL (D)	+20.227s
LCR Honda MotoGP Honda RCV213V; Grid: 4th-2m01.558s		
7	CAL CRUTCHLOW (GB)	+26.299s
Monster Yamaha Tech 3 Yamaha YZR-M1; Grid: 3rd-2m01.425s		
8	NICKY HAYDEN (USA)	+35.993s
Ducati Team Ducati Desmosedici GP13 ; Grid: 9th-2m02.289s		
9	BRADLEY SMITH (GB)	+36.119s
Monster Yamaha Tech 3 Yamaha YZR-M1; Grid: 10th-2m02.409s		
10	ALEX ESPARGARO (E)	+53.196s
Power Electronics Aspar ART-Aprilia; Grid: 12th - no qual time, 2m03.464s in FP3		
11	ANDREA IANNONE (I)	+59.058s
Pramac Racing Team Ducati Desmosedici GP13; Grid: 16th-2m04.692s		
12	MICHELE PIRRO (I)	+1m00.710s
Pramac Racing Team Ducati Desmosedici GP13; Grid: 15th-2m04.680s		
13	HECTOR BARBERA (E)	+1m01.690s
Avintia Blusens FTR-Kawasaki; Grid: 14th- 2m04.236s		
14	COLIN EDWARDS (USA)	+1m01.843s
NGM Mobile Forward Racing FTR-Kawasaki; Grid: 11th-2m04.032s		
15	DANILO PETRUCCI (I)	+1m08.833s
Came IodaRacing Project Ioda-Suter; Grid: 18th-2m04.798s		
16	RANDY DE PUNIET (F)	+1m09.863s
Power Electronics Aspar ART-Aprilia; Grid: 13th-2m04.114s		
17	CLAUDIO CORTI (I)	+1m16.474s
NGM Mobile Forward Racing FTR-Kawasaki; Grid: 20th-2m05.356s		
18	HIROSHI AOYAMA (J)	+1m16.535s
Avintia Blusens FTR-Kawasaki; Grid: 21st-2m05.622s		
19	MICHAEL LAVERTY (GB)	+1m32.057s
Paul Bird Motorsport PBM-Aprilia; Grid: 19th-2m04.936s		
20	YONNY HERNANDEZ (CO)	+1m36.224s
Paul Bird Motorsport ART-Aprilia; Grid: 17th-2m04.749s		
21	BRYAN STARING (AUS)	+2m00.635s
Honda Gresini FTR-Honda; Grid: 23rd-2m07.300s		
R	ANDREA DOVIZIOSO (I)	18 laps - accident
Ducati Team Ducati Desmosedici GP13 ; Grid: 7th-2m02.123s		
R	LUKAS PESEK (CZ)	1 lap - accident
Came IodaRacing Project Ioda-Suter; Grid: 22nd-2m07.261s		

Winner's average speed: 107.632mph. Fastest lap: Pedrosa, 2m01.941s, 108.236mph.

RIDERS' CHAMPIONSHIP

1	MARQUEZ	233	6	BRADL	113
2	PEDROSA	203	7	BAUTISTA	103
3	LORENZO	194	8	DOVIZIOSO	96
4	ROSSI	156	9	HAYDEN	88
5	CRUTCHLOW	136	10	ESPARGARO	68

TEAMS' CHAMPIONSHIP

1	REPSOL HONDA	436	4	DUCATI TEAM	184
2	YAMAHA FACTORY	350	5	LCR HONDA	113
3	TECH 3	202	6	HONDA GRESINI	105



Marquez has increased lead

POINTS SYSTEM EXPLAINED In each race: 25-20-16-13-11-10-9-8-7-6-5-4-3-2-1 for top 15 finishers. Riders on CRT bikes do not score separate points.

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Lorenzo pips Marquez in epic Silverstone duel

The Yamaha and Honda stars put on a superb battle for victory that raged right to the finish line. **SAM TREMAYNE** reports

THERE IS A PARLANCE DEVELOPED IN CYCLING, BACK from the dark days of underground doping, to describe performances too good to be easily believed: 'pas normal'. There was nothing normal about the performances of either Jorge Lorenzo or Marc Marquez in the British Grand Prix, but – in contrast to those murky cycling connotations – that is the highest of compliments. This was, quite simply, a stunning race.

For 20 laps the pair demonstrated their mastery on a Silverstone canvas, waging an epic battle that raged until the final corner. For 20 laps, they held the watching world entranced.

It was hard to know who to marvel at more. Lorenzo had no right to be in a fight against a Honda that was visibly better in almost every

department. The next-best Yamaha, of seven-time champion Valentino Rossi, was 13 seconds down the road in fourth. Under race-long pressure, in the knowledge his hopes of a third crown would be all but shot were he to lose, Lorenzo refused to crack.

Marquez meanwhile had no physical right to be there. Just three hours before he was due to start from pole, he fell in the warm-up and dislocated his shoulder. Debate raged: would he race? The rookie's answer was resounding: a race-long pursuit of victory, a championship advantage extended to 30 points, and another example of his ability to make a routine of the exceptional.

The pair's fight was all-the-more welcome to a 70,000-strong crowd given a lacklustre race for home favourite Cal Crutchlow. The Briton ultimately paid the price for crashing three times before raceday, including a massive 180mph-plus off. Robbed of time to hone set-ups, unusually devoid of confidence and battling against his injuries, Crutchlow could only limp home seventh.

"Ultimately I never performed," Crutchlow said. "I don't make excuses, I had a bad weekend. We had no bike set-up over the weekend and no confidence in the race. That's not like me at all."

His Tech 3 team-mate and compatriot Bradley Smith did at least keep it on the black stuff, but fared little better on Sunday and came home ninth.

Even if the Britons had been at the sharper end of the field, it would have been impossible to tear away from the lead fight. As was the case at Brno it ostensibly also included Dani Pedrosa, but he



Crutchlow gives out-of-fuel Rossi a lift home

Lorenzo delights
in his defeat of the
factory Honda pair



BIG NUMBER

0.081s

Marc Marquez fell just 0.081s short of a fifth consecutive MotoGP win. Valentino Rossi is the only man to achieve the feat in the past decade, kicking off a run of five victories after a classic battle with Casey Stoner at Laguna Seca in 2008.

was unable to fully assert himself and ended up effectively watching on, albeit at the distance of a few metres, as Lorenzo and Marquez went to war.

After being passed at Brooklands on lap 18, and reasserting himself at Vale one tour later, Lorenzo led into the final lap and had pulled clear by Abbey. A mistake by the #99 Yamaha at the Loop allowed Marquez to close, and set up a thrilling finale. Into Brooklands Marquez once more stole ahead, but Lorenzo refused to cede ground and found an inside gap at Luffield, squeezing by and winning the drag to the flag by just 0.081s.

Pedrosa was third, while Rossi prevailed in another last-lap dice with the satellite Gresini Honda of Alvaro Bautista. Stefan Bradl made it four Hondas in the top six, while Crutchlow – who had started from the front row – completed the top seven in lonely fashion, 26s down on the leaders.

MOTO2 SILVERSTONE (GB), SEPTEMBER 1, RD 11/17

Redding ups title ante with home win

SCOTT REDDING CLAIMED AN EMPHATIC HOME win at Silverstone to take a commanding lead in this year's Moto2 championship.

His main rival, Tech 3 Yamaha-bound Pol Espargaro, was never a factor and finished eighth after flirting with the fringes of the top 10 throughout the race. As a result Redding, who has now won three times this season, leads by 38 points heading into the final six races.

The 20-year-old took an early stranglehold on the race, diving down the inside of polesitter Takaaki Nakagami at the start and setting a pace that only the Japanese rider and Thomas Luthi were able to match.

The trio spent the first half of the encounter in that order, and all covered by less than one second, before Nakagami hit the front for the

first time at the Loop.

Redding wouldn't allow him to escape, however, and the pressure finally told when, with three laps to run, Nakagami ran deep into the Loop. He recovered almost instantly, but Redding was perfectly placed, and stole back ahead around the outside.

Nakagami fell to third but was not done, and on the final lap launched a new attack on Luthi – which ultimately handed Redding the breathing space he needed to seal victory. Nakagami and Luthi meanwhile traded places at almost every corner over the second half of the final lap, before Nakagami prevailed by just one tenth of a second.

Tito Rabat's late charge meanwhile brought a new lap record and fourth place.



Redding won for the
third time this year

Lorenzo almost ceded victory

JORGE LORENZO ADMITS HE NEARLY CEDED British GP victory to Marc Marquez, but had a sudden change of heart that prompted his final-corner pass.

With Marquez diving down the inside at Brooklands, the penultimate corner of the race, Lorenzo said he had almost resigned himself to defeat before resolving upon the do-or-die move at Luffield that earned him a first victory in six races.

"When he passed me I thought, 'OK, second', but then suddenly I thought, 'I have to try' and when he opened the gap a bit, it was now or never," Lorenzo explained.

"Thankfully we didn't crash, and I'm so pleased with the win. This is one of the best victories of my career.

"I pushed from the beginning as always, trying to open the gap, but it was impossible: even after his warm-up [crash] Marc was very brave and never gave up.

"I knew he was going to try [to overtake] and finally he did it at Brooklands, but thankfully he left a little gap."



Lorenzo never gave up
against Marquez (93)



Sixth win for Salom
extended points lead

SALOM TAKES MOTO3 WIN #6

Luis Salom earned himself some breathing space at the head of the Moto3 championship after beating Alex Rins to victory at Silverstone. Maverick Vinales, Salom's nearest rival, was edged down to fourth by Alex Marquez, and is now 26 points adrift.

REDDING IN MOTOGP SWITCH

Scott Redding will graduate to MotoGP next year after signing for Honda's satellite Gresini squad. The Briton has agreed a two-year deal to ride a 'production' Honda alongside the team's current rider Alvaro Bautista.

ROSSI HAILS LORENZO

Valentino Rossi hailed team-mate Jorge Lorenzo's victory at Silverstone, saying: "Jorge was incredible. He is able to go very fast from the first lap, and he stayed there at the end. He deserved the victory – it's an important win."

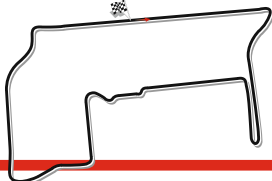
MARQUEZ ADMITS: I WON'T STOP ATTACKING

Marc Marquez says his race-long attack is proof that he will not abandon his swashbuckling style despite extending his points lead: "It's true, taking 20 points was important for the championship – but you saw that I still take the same risks, with or without those points. Always I will try to push and be there."

INDYCAR Baltimore (USA)

September 1

Round 14/16



RESULTS

75 LAPS, 153.00 MILES

1	SIMON PAGENAUD (F)	2h16m32.3443s	
	Schmidt Hamilton Motorsports Dallara-Honda; Grid: 3rd-1m18.4307s		
2	JOSEF NEWGARDEN (USA)	+4.1592s	
	Sarah Fisher Hartman Racing Dallara-Honda; Grid: 5th-1m18.9022s		
3	SEBASTIEN BOURDAIS (F)	+7.9588s	
	Dragon Racing Dallara-Chevrolet; Grid: 22nd-no time		
4	JUSTIN WILSON (GB)	+10.7598s	
	Dale Coyne Racing Dallara-Honda; Grid: 4th-1m18.8698s		
5	SIMONA DE SILVESTRO (CH)	+11.6017s	
	KV Racing Technology Dallara-Chevrolet; Grid: 17th-1m18.9829s		
6	CHARLIE KIMBALL (USA)	+21.4160s	
	Chip Ganassi Racing Dallara-Honda; Grid: 9th-1m19.0523s		
7	JAMES HINCHCLIFFE (CDN)	+22.8422s	
	Andretti Autosport Dallara-Chevrolet; Grid: 11th-1m19.3182s		
8	SEBASTIAN SAAVEDRA (CO)	+25.5377s	
	Dragon Racing Dallara-Chevrolet; Grid: 19th-1m19.2440s		
9	HELIO CASTRONEVES (BR)	+29.3117s	
	Team Penske Dallara-Chevrolet; Grid: 7th-1m19.0288s		
10	MARCO ANDRETTI (USA)	+40.5499s	
	Andretti Autosport Dallara-Chevrolet; Grid: 16th-1m19.4738s		
11	TRISTAN VAUTIER (F)	-1 lap	
	Schmidt Peterson Dallara-Honda; Grid: 6th-1m19.0380s		
12	ORIOLE SERVA (E)	-1 lap	
	Panther Racing Dallara-Chevrolet; Grid: 15th-1m18.8075s		
13	EJ VISO (YV)	-1 lap	
	Andretti Autosport/HVM Dallara-Chevrolet; Grid: 20th-2m16.3120s		
14	ED CARPENTER (USA)	-1 lap	
	Ed Carpenter Racing Dallara-Chevrolet; Grid: 18th-1m20.5694s		
15	TONY KANAAN (BR)	73 laps-accident	
	KV Racing Technology Dallara-Chevrolet; Grid: 14th-1m19.3051s		
16	STEFAN WILSON (GB)	-3 laps	
	Dale Coyne Racing Dallara-Honda; Grid: 21st-1m20.1871s		
17	GRAHAM RAHAL (USA)	68 laps-accident	
	Rahal Letterman Lanigan Racing Dallara-Honda; Grid: 12th-1m22.2045s		
18	WILL POWER (AUS)	-8 laps	
	Team Penske Dallara-Chevrolet; Grid: 2nd-1m18.1171s		
19	SCOTT DIXON (NZ)	52 laps-accident	
	Chip Ganassi Racing Dallara-Honda; Grid: 1st-1m18.0838s		
20	RYAN HUNTER-REAY (USA)	42 laps-electronics	
	Andretti Autosport Dallara-Chevrolet; Grid: 8th-1m19.0367s		
21	DARIO FRANCHITTI (GB)	22 laps-brakes	
	Chip Ganassi Racing Dallara-Honda; Grid: 24th-1m18.6694s*		
22	LUCA FILIPPI (I)	12 laps-engine	
	Bryan Herta Autosport Dallara-Honda; Grid: 13th-1m19.1242s		
23	JAMES JAKES (GB)	5 laps-gearbox	
	Rahal Letterman Lanigan Racing Dallara-Honda; Grid: 23rd-1m18.6398s*		
24	TAKUMA SATO (J)	4 laps-engine	
	AJ Foyt Racing Dallara-Honda; Grid: 10th-1m19.2216s		

Winner's average speed: 67.234mph. Fastest lap: Bourdais, 1m19.9419s, 91.867mph. All drivers in Dallara DW12

* - grid penalty

CHAMPIONSHIP

1	CASTRONEVES	501	6	J WILSON	393
2	DIXON	452	7	FRANCHITTI	388
3	PAGENAUD	431	8	HINCHCLIFFE	376
4	ANDRETTI	430	9	POWER	371
5	HUNTER-REAY	427	10	KIMBALL	363

POINTS SYSTEM EXPLAINED:

50-40-35-32-30-28-26-24-22-20-19-18-17-16-15-14-13-12-11-10-9-8-7-6 for the top 24, with 5 for all other starters. 2 points for leading the most laps, 1 point for leading at least one lap, 1 point for pole position.



Power led Dixon until their clash



Pagenaud on fire at spicy Baltimore

Frenchman keeps it smooth – and quick – as rivals throw themselves at each other in wild street race. By **MARK GLEN DENNING**

AMORES PERROS, LOOSE TRANSLATED AS 'LOVE'S A Bitch', was an Oscar-winning film made a little over a decade ago. Set in Mexico City, it told three otherwise unrelated stories that were connected by a single event – in this case, a car accident. The art world would classify it as a triptych: three parts that combine to create a whole.

In that regard, it shares something with the events of last Sunday afternoon on the streets of Baltimore. There was an IndyCar race, and Simon Pagenaud won. But that doesn't even begin to scrape the surface.

Pagenaud's victory was a story unto itself, but other equally significant narratives were playing out simultaneously, and with complete independence of what the Frenchman was doing up at the front. First, Helio Castroneves was once again extending his points lead despite having the weekend from hell. And second, the uneasy truce

between Team Penske and Chip Ganassi Racing that had been hammered out in the wake of the pitlane incident at Sonoma a week ago was thrown into the shredder.

Last time out at Sonoma, Scott Dixon was penalised for hitting one of Will Power's pit crew, an incident that Ganassi star Dixon was convinced had sprung from excessive gamesmanship on the part of Power's Penske team. That cost him the shot at a race win, and he'd just started to put the incident behind him when another potential victory was destroyed as the result of an encounter with the Australian.

All three plotlines were equally important in defining the flavour of the Baltimore race, yet for the most part they were unrelated. *Amores Perros*, Maryland style: three stories with no real connection beyond the fact that they all took place on the same racetrack.

Pagenaud's win deserves top billing, because the Schmidt Hamilton Motorsports driver did an exceptionally good job. Both he and rookie team-mate Tristan Vautier had been quick right through the weekend, but Pagenaud's prospects in the race had been cast into doubt by a string of yellows that swung the advantage toward a cluster of drivers that had made an early call to go off-sequence with their pitstops.

A combination of fading brakes, cold tyres and double-file restarts on the tight Baltimore layout meant that every caution period tended to be followed by an accident on the restart, which inevitably led to more time under yellows. This happened so often that Pagenaud was more or less brought back into synch with the out-of-sequence



Spectacular Bourdais took podium spot

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Pagnaud leads from Wilson and Newgard

rivals around him; drivers who had previously been looking forward to the prospect of being able to complete the race without making the final pitstop that the cars on conventional strategies would require.

There was also the fact that Pagnaud was getting incredible life from his tyres. He was on the harder compound, but as well as extracting similar pace to those on the softer reds, he was also able to make them last pretty much at will. Presumably they had some degree of drop-off, but you wouldn't have known it from watching him.

"We were really fast on the blacks," he said. "We actually did the same time on the red [alternate] tyres as we did on the blacks in practice."

The yellows eventually began to work in his favour, and although he went into the latter stages of the race nursing a slightly damaged car, that was no real handicap – by the time the race reached three-quarter distance, pretty much every car in the field bore scars.

The really tense part from Pagnaud's point of view was a seven-lap burst of mayhem that followed the penultimate restart, during which the top six changed places seemingly at will. At that point he was second to Marco Andretti, and simultaneously under pressure from Sebastien Bourdais. He claimed the lead after triumphing in a tyre-smoking braking duel with Andretti into Turn 1, but Bourdais managed to pass Andretti as well and immediately launched an attack on Pagnaud for the lead. In doing so the Frenchman ran slightly wide, thus eliminating himself as a threat, but bringing Andretti and the suddenly-charging Josef Newgard into the fray. Newgard dispatched

Andretti quickly, and within a couple of laps he reduced Pagnaud's lead from 1.9s to 0.9s.

But in doing so, he overcooked the brakes on his Sarah Fisher Hartman Racing car and his challenge faded, giving Pagnaud a relatively stress-free run to the flag. He crossed the line with a 2.9s advantage over Newgard.

"It was obviously a difficult day for everybody, lots of contact," Pagnaud said. "Everybody is getting pretty excited as the season comes to an end."

Newgard managed to hold on for second. It was his first IndyCar podium, and a just reward for a good drive. Equally impressive was the third place earned by Bourdais, who had gone off strategy early on in the hope of compensating for qualifying 22nd. Early on, the multiple Champ Car title winner had looked like a contender for the win when he rejoined ahead of then-leader Power after his second stop, giving him both track position and a strategic advantage over his rival.

That appeared to be dashed when he was hit from behind by Oriol Servia – one of seemingly countless incidents to occur on restarts – and lost several positions. The move on Andretti for second came later, followed unfortunately by the ill-fated attack on Pagnaud for the lead that resulted in the Dragon Racing car running wide and losing two spots. But Bourdais profited from the late-race fade of Andretti to reclaim third and secure his third podium of the year. Justin Wilson and Simona de Silvestro completed the top five.

The championship battle? Once again, Helio Castroneves had a terrible race and yet still managed to come out of the weekend having



Panoramic view of challenging track

CARR/GETTY

extended his points lead, the Brazilian exhibiting a resilience that would shame even the most unkillable horror movie character. Having been forced to pit for repairs after damaging his front wing in a low-percentage move on the opening lap, Castroneves went on to also tick the boxes labelled 'get dropped off your jack in a pitstop before your front-right wheel is attached' and 'serve a drive-through penalty for hitting your own spare wheel in the pits', and yet still make a net gain in points through the virtue of his rivals encountering even greater disasters.

Dario Franchitti, whose recent return to form had prompted Castroneves to count him among the title threats, had an even worse trip to Charm City. Consigned to the rear of the grid after suffering two engine failures earlier in the weekend, Franchitti then found himself in a world of brake-fade hell that ultimately led to an early retirement.

And then there's Dixon. The Kiwi had been in Power's orbit at the front of the pack during the early stages, and they'd just started to catch and pass some of the off-sequence cars ahead of them when they were forced to line up for a restart following a caution. Bourdais was slow to react to the green flag and Power jinked to the right to pass him, unaware that Dixon had already spotted an opportunity and was steaming up the inside. Dixon's machine was slammed against the wall, suffering damage that ended its participation in the race, although the team was convinced that it could have repaired the damage and salvaged some more points had IndyCar returned the car to the pits.

Equally significant was the fact that, for the second time in seven days, Power was the architect of Dixon's downfall. It didn't appear to be deliberate on Power's part – after all, he was in contention for the win himself, and also had a lot to lose by risking damage. But an unintentional mistake is still a mistake and, in *Spinal Tap* parlance, this one turns the Ganassi/Penske rivalry up to eleven.

There are three races left. There's a lot to play for. That part hasn't changed. The difference is that, for better or for worse, the battle is starting to become personal. ▶



Castroneves extended points lead despite tough weekend

CARR/GETTY

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IN THE PADDOCK

Mark Glendenning



SCOTT DIXON IS RIGHT TO FEEL AGGRIEVED about what has happened to him over the past couple of weeks. A few weeks ago he was shaping up as the favourite to win the title, but two potential wins have been denied him in as many weekends, with Will Power a central player on both occasions. At Sonoma, Power's pit crew was skittled by Dixon on his way out of his pit bay. In Baltimore, it was Power that body-checked Dixon's car against the wall.

But neither was Power's fault. Whether or not there was Penske gamesmanship in play during the Sonoma incident, the bottom line is that a crew member was knocked over by Dixon's car and, as the rules are written, that is a penalty.

In Baltimore, Power's move was poorly judged, but it's



CARR/GETTY

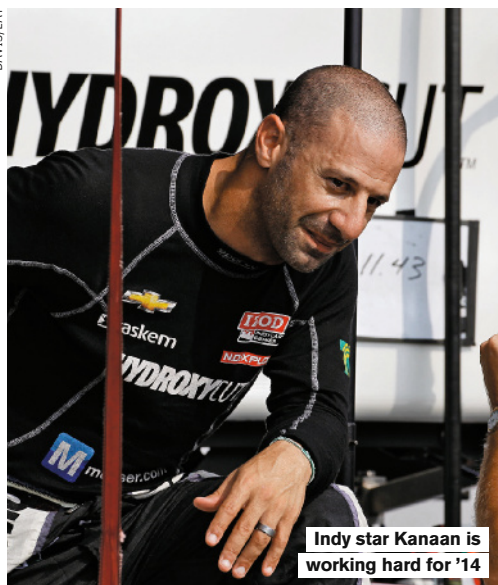
Dixon fumes as Power gets repairs

hard to imagine it was deliberate. He was also in contention for a win, and had a lot to lose from such a move. The real shame is that Dixon's car doesn't seem to have been too badly damaged, and yet he was denied an opportunity to rejoin the race because IndyCar would not return it to pitlane, despite the regulations indicating otherwise.

IndyCar justified its decision on the grounds that due to the length of the caution period and the extent of the damage to the car, its best option was to simply move it out of the way and return to green as soon as possible. A bold call, given that someone's championship was on the line. And one that raises a question. What's more important: the integrity of a race, or the integrity of the title battle?

Kanaan hopes to stay at KV

DAVIS/LAT



Indy star Kanaan is working hard for '14

INDY 500 WINNER TONY KANAAN SAYS THAT HE is hopeful of remaining with KV Racing next year, but admits that any deal is some way off.

The Brazilian, who joined the team in an eleventh-hour deal at the start of 2011, said that he is in negotiations for an extension of the contract that ends this season, but that nothing will be secured unless funding can be secured.

"It's too early to say that we're close, but we and KV are working extremely hard to get something together," he said.

"I'm a little anxious because last time I was in this position we signed a deal the Sunday before the first race, and I don't want to go through that again. We have a good thing going right now. I'm going to Brazil during the three-week break [before the next race in Houston] to sort my guys out down there; pass the hat and see what they can do.

"Right now, I'd say that we have all the intentions. But we all have to lock everything down before we can say, OK, this is 100 per cent what we're doing."

IndyCar reacts to Dixon snafu

INDYCAR ANNOUNCED A CHANGE ITS PITLANE rules in reaction to the incident that led to Scott Dixon being penalised for toppling a member of the Team Penske pit crew at Sonoma last week.

Dixon's Chip Ganassi Racing team insisted at the time that Penske had deliberately attempted to interfere with Dixon's pit exit, and the series has sought to address this by introducing a rule to prevent teams from obstructing rivals in the pits.

Rule 7.9.17 now states that 'Any participant who, in the opinion of the officials, positions a car, equipment, and/or personnel so as to create a hazard or disruption of the event or to interfere with the activities of another competitor may be penalised.'

The series also introduced clearer pit box



Cars can't interfere with others in pits

markings at Baltimore as well as 'courtesy lines' intended to indicate the extent to which a car may pass through a rival's pit box while entering or exiting the pits, although these lines serve only as reference points and carry no judicial weight.



Vautier got bad-boy qualifying penalty

VAUTIER: FINE AND PROBATION

Rookie Tristan Vautier has been fined \$10,000 and placed on probation for the remainder of the season for running into Graham Rahal's stranded car under yellow flags during qualifying at Baltimore.

DOUBLE-FILE QUESTIONED

Several drivers have called for the double-file restart procedure to be reviewed on street courses after several accidents on restarts at Baltimore on Sunday. "The problem with these double-file restarts is that they breed another one," said Sebastien Bourdais.

KANAAN'S STARTS RECORD...

Tony Kanaan set a new record for most consecutive starts when he registered 212 at the green flag in Baltimore on Sunday. The record was previously held by Kanaan's current team boss Jimmy Vasser.

...AND IRE FROM RAHAL

Graham Rahal was on target for one of his best results of the year until he was taken out by Tony Kanaan. The RLL driver was running with the leaders at the time of the incident. "He just drove into the side of me," he said. "I'm going to have some words with him."

HAWKSWORTH'S INDYCAR TEST

Indy Lights title contender Jack Hawksworth will test an IndyCar for the first time in two weeks. The Brit is scheduled to run with Rahal Letterman Lanigan Racing at Sebring on September 17.

WILSON JR FINISHES DEBUT

Britain's Stefan Wilson made his IndyCar debut alongside brother Justin at Dale Coyne Racing. The 23-year-old crashed after being caught out by marbles mid-way through the race, but was able to rejoin after repairs and finished 16th.



Wilson joined his brother in Coyne line-up

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AUTO GP DONINGTON PARK (GB), AUGUST 31-SEPTEMBER 1, RD 7/8

Nice sight: Auto GP field
blasts off to Redgate

Ghirelli is shooting star for Super Nova



THE TIGHTENING OF THE POINTS spread between the top four drivers in the Auto GP standings, a process observable since mid-season when Super Nova's drivers initiated a surge in performance, was finally reflected in an upheaval to the championship order at Donington.

Vittorio Ghirelli vaulted into the lead of the points after taking a hard-fought second win of the season in Donington's opener, while team-mate Narain Karthikeyan highlighted the squad's enviable recent form by claiming his fourth consecutive pole position.

The Indian had struggled to conceal his excitement at the prospect of returning to Donington,

a track he first became acquainted to in Formula Vauxhall Junior in 1993. Given the 13-year interval since his last visit to the Leicestershire venue, Karthikeyan was surprised at how quickly he got back in the groove.

After extending an early lead in the feature race, the onset of severe tyre graining put paid to Karthikeyan's hopes of victory, although a stirring win in the reversed-grid race provided some recompense and maintained his outside title hopes. The Super Nova double in this penultimate round of the series also had the result of bagging the Norfolk team a second consecutive teams' title.

Ghirelli's ascent to the top of the leaderboard would not have been

made possible without, arguably, the first self-induced drama of the season for erstwhile points leader Kimiya Sato. Uncharacteristically, the even-tempered Kobe racer threw his car off the road while making a determined charge from the midfield in race one. Long-standing title rival Sergio Campana also held his hand up to a costly case of over-ambition. The Italian ran onto the grass at the Old Hairpin on cold tyres late in race two, losing valuable points as he slipped from second to sixth.

Ghirelli was made to sweat for his race one win after dropping from the outside of the front row to third away from the lights. Karthikeyan had less drama and led the opening lap from Kevin Giovesi. The battle for second between the two part-time GP2 drivers came alive on lap eight when Ghirelli finally forced an error.

Giovesi ran too deep into Coppice, allowing fellow 18-year-old Ghirelli to grab second place into the Esses. The FR3.5 graduate was faced with a 2.4s deficit to Karthikeyan, and immediately clawed back 0.5s. When the extent of Karthikeyan's worsening graining became apparent, the Super Nova pitwall became proactive and called him in on lap 14, far earlier than planned, for new tyres.

With no such concerns, Ghirelli maintained impressive pace until his scheduled stop two laps from home. Karthikeyan closed to within a second of Ghirelli at the chequered

flag, but resisted a desperate passing attempt on his team-mate.

Giovesi's hopes of exiting the pits ahead of Karthikeyan were shot by a jammed front wheel, but the Ghinzani driver would secure the first of his weekend's two third places.

Meindert van Buuren picked up the reversed-grid pole, and produced a mature drive to take his maiden podium. The Dutchman was not passed on track, only losing out to faster men Karthikeyan and Campana during the pitstop sequence, and regained second when Campana ran wide at the Old Hairpin two laps from home. Sato staged a strong recovery from the back of the grid to take fifth, just three seconds behind Ghirelli, who admitted to being in risk-free mode given his new-found status as championship leader.

● Peter Mills

RESULTS

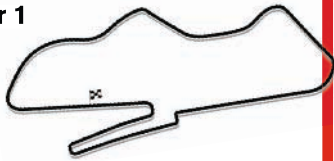
Race 1 1 Vittorio Ghirelli (Super Nova International), 21 laps in 28m06.082s; 2 Narain Karthikeyan (Super Nova), +0.479s; 3 Kevin Giovesi (Team Ghinzani); 4 Robert Visioiu (Ghinzani); 5 Sergio Campana (Ibiza Racing Team); 6 Daniel de Jong (Manor MP Motorsport). **Fastest lap** Kimiya Sato (Euronova Racing), 1m17.707s, 115.23mph. **Race 2 1 Karthikeyan**, 21 laps in 28m00.985s; 2 Meindert van Buuren (Manor MP), +13.684s; 3 Giovesi; 4 Ghirelli; 5 Sato; 6 Campana. **FL** Karthikeyan, 1m17.824s, 115.06mph. **Points** 1 Ghirelli, 191; 2 Sato, 180; 3 Campana, 174; 4 Karthikeyan, 170; 5 Giovesi, 85; 6 Tamas Pal Kiss, 80.

Ghirelli's win gave him points lead



Superstars Donington Park (GB) September 1

Round 6/8



RESULTS

RACE 1: 16 LAPS, 39.80 MILES

1	LUIGI FERRARA (I)	27m18.861s
	Roma Racing Team Mercedes AMG C63 Coupe; Grid: 1st-1m33.899s	
2	GIOVANNI BERTON (I)	+1.874s
	Team BMW Dinamic BMW M3 E92; Grid: 3rd-1m34.183s	
3	THOMAS BIAGI (I)	+2.678s
	Romeo Ferraris Mercedes AMG C63; Grid: 5th-1m34.345s	
4	GIANNI MORBIDELLI (I)	+2.926s
	Audi Sport Italia Audi RS5; Grid: 4th-1m34.219s	
5	VITANTONIO LIUZZI (I)	+5.202s
	Romeo Ferraris Mercedes AMG C63; Grid: 2nd-1m33.915s	
6	MAX MUGELLI (I)	+8.187s
	Team BMW Dinamic BMW M3 E92; Grid: 7th-1m34.860s	
7	ANDREA BACCI (I)	+18.592s
	CAAL Racing Mercedes AMG C63; Grid: 9th-1m36.250s	
8	MAURO TRENTIN (I)	+19.073s
	Team Dinamic BMW M3 E92; Grid: 10th-1m36.292s	
9	GIANNI GIUDICI (I)	-1 lap
	Scuderia Giudici BMW M3 E92; Grid: 14th-1m38.434s	
10	COLIN TURKINGTON (GB)	11 laps (DNF)
	Scuderia Giudici BMW M3 E92; Grid: 6th-1m34.648s	

Winners' average speed: 87.42mph. Fastest lap: Morbidelli, 1m34.933s, 94.32mph.

RACE 2: 17 LAPS, 42.28 MILES

1	MORBIDELLI	27m13.077s
	Audi; Grid: 5th	
2	BIAGI	+8.544s
	Mercedes; Grid: 8th	
3	MUGELLI	+9.322s
	BMW; Grid: 3rd	
4	BERTON	+10.916s
	BMW; Grid: 7th	
5	TRENTIN	+39.145s
	BMW; Grid: 1st	
6	TURKINGTON	+49.167s
	BMW; Grid: 10th	
7	ROBERTO PAPINI (I)	+49.993s
	CAAL Racing Mercedes AMG C63; Grid: 15th	
8	DOMENICO SCHIATTARELLA (I)	+1m03.231s
	Solaris Motorsport Chevrolet Lumina; Grid: 13th	
9	FRANCESCO ASCANI (I)	+1m13.322s
	Todi Corse BMW M3 E90; Grid: 12th	
10	GIUDICI	+1m42.490s
	BMW; Grid: 9th	

Winners' average speed: 93.21mph. Fastest lap: Biagi, 1m35.352s, 93.91mph.

CHAMPIONSHIP

1	BIAGI	173	6	MUGELLI	65
=	MORBIDELLI	173	7	BACCI	53
3	BERTON	136	8	TRENTIN	47
4	LIUZZI	132	9	SINI	41
5	FERRARA	113	10	VANTHOOR	34

TEAMS

1	ROMEO FERRARIS	305	4	ROMA RACING TEAM	113
2	AUDI SPORT ITALIA	214	5	CAAL RACING	84
3	TEAM DINAMIC	206	6	SOLARIS MOTORSPORT	50

POINTS SYSTEM EXPLAINED

In each race: 20-15-12-10-8-6-4-3-2-1 to top 10. 1 for pole; 1 for fastest lap; 1 for starting



Two podiums gave Biagi a share of the points lead



Morbidelli kept up title momentum with a win and a fourth for Audi

Morbidelli marches on as Biagi bides his time

IT WASN'T SO LONG AGO THAT GIANNI MORBIDELLI and Audi Sport Italia looked nothing like contenders. Now, with four races left to run, it's hard to see anybody stopping the Superstars veteran from steamrolling his way to a fourth title.

The Donington Park weekend was another beauty for Morbidelli. It wasn't quite as clinical as the past two meetings – the Italian came into the round having won four races on the trot – but a win, a fourth and a fastest lap were enough to leave him and Romeo Ferraris Mercedes driver Thomas Biagi tied on points.

In fairness, it could well have been two wins for Morbidelli. Just like at the last round in Portugal, Morbidelli's speed all seemed to come late in the race. And in race one, he was sitting third, with leader Luigi Ferrara in his sights, only to spin on oil left behind by Diego Romanini's Lexus at the Melbourne hairpin.

It wasn't a complete disaster, and Morbidelli wasn't the only one to be caught out by the oil. But it did cost him any chance of a win, the former F1 driver settling for fourth behind Ferrara, Dinamic BMW's Giovanni Berton, who sailed past a bunch of spun cars to nab an unlikely second, and Biagi.

Race two was much more straightforward for both title contenders. Starting next to each other on the third row, they both powered their way clear of the field on the first lap, Biagi taking the lead from the Audi.

With Biagi's team-mate Tonio Liuzzi retiring on the first lap with a transmission problem, and Ferrara buried in traffic, it quickly boiled down to a two-horse race. And when Biagi's tyres started to go off mid-race, Morbidelli pounced, sweeping past the Mercedes through Redgate to take the lead. The final margin stood emphatically at more than eight seconds, leaving Biagi somewhat mystified.

"In the end I had to push 120 per cent to try to keep Gianni behind me, but at the moment it's impossible," he admitted. "I pushed in the beginning, and I used a lot of the tyre.



Ferrara's Merc leads from pole en route to race-one victory

"It's a miracle [that we're still locked on points], given his performance and speed against mine. At the moment, he's in another category."

Morbidelli simply pointed out that the win will be bad news in terms of the balance of performance come Imola, and that the title is still a long way from being won.

"The car is good everywhere now, because we've worked hard," he said. "We are improving all the time, and we need to be because of the ongoing balance of performance.

"I think the fight will go until the end. It will be fun for the people watching."

Ferrara had a bizarre weekend. His practice time was limited to a handful of laps in free practice one thanks to a water pump problem followed by an engine failure, yet he still stormed his way to an impressive pole position.

Then, in race one, the Roma Racing Mercedes driver's luck really did change. As the leader, Ferrara was the first to arrive at the oil slick at the hairpin. But while he did run a little wide, he managed to keep the car straight and leave the spinning cars in his rear-view mirror. It effectively won him his first race of the season.

The luck didn't last long. Just when a top-four result was beckoning in race two, Ferrara pulled into the pits and jumped out of the car 10 minutes from the end, the water pump having failed again.

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IN THE PADDOCK

Andrew van Leeuwen



FOR THE SECOND YEAR IN A ROW, TONIO Liuzzi's Superstars season is turning into a real 'what might have been' affair.

Based on pure speed, the Romeo Ferraris Mercedes driver should be right up there with his team-mate Thomas Biagi and Audi's Gianni Morbidelli in the title fight. In fact, after the opening round at Monza, it looked for all money like Liuzzi was going to win the title at a canter. Instead, he's fourth, 41 points behind the leaders.

It's played out that way largely due to factors beyond Liuzzi's power. There was Brno, where second in race one was snatched away by an electrical problem. In Slovakia, Tonio won the first race so easily, and probably would have easily won race two if his car hadn't burst into flames for some reason.

Lady luck wasn't on Liuzzi's side at Donington, either. In race one, he fared worst of all of the cars that spun on the oil at the hairpin, dropping from second to fifth. In race two, who knows; he was in pitlane with a broken car before the end of the formation lap.

If Liuzzi and Luigi Ferrara had been a little luckier so far, we could have a genuine four-way fight for the title.

It's a shame, but there's no use complaining. After all, the Biagi/Morbidelli scrap is shaping up to be an absolute belter.



Luck has not gone
Liuzzi's way this year

REMEMBER WHEN



Luigi Ferrara last won a Superstars race? It came in race one at Misano in June 2011, when the Italian was driving a Mercedes C63 for CAAL Racing.

BTCC ace eyes further race outings

COLIN TURKINGTON SAYS HE IS SATISFIED

with his Superstars International Series debut, and won't rule out further appearances in the future.

The British Touring Car Championship regular took the wheel of the second Scuderia Giudici BMW last weekend, in a deal that has been in the making since before the British round of Superstars in 2012.

Despite the radical differences between the Superstars-spec M3 and his regular BTCC mount, Turkington was quick throughout the weekend, and managed to shrug off an unlucky race-one DNF (he spun late in the race after a touch from another car) to come through the field to sixth in race two.

"The pace has been okay. I've been near the sharp end all weekend," he said.

"The biggest thing to understand is the brakes. The brakes feel like they're not big enough, you have to be very careful. If you hit the pedal too hard, they'll cook. So you have to manage the brakes throughout the race.

"But it's just a learning curve. I've enjoyed it. I knew it would be challenging."



Turkington took P6
in the second race

Turkington added that more outings with the team were certainly an option.

"I'd love to do more. We don't do enough racing. We have 10 events in BTCC, but we still have so many free weekends. And it's all good experience for a driver. Experienced drivers are always the best, and you can always learn more."

Brits put on a show in GT race

IT WAS A STRONG WEEKEND FOR BRITISH

drivers in GT Sprint, with Richard Westbrook and Oliver Jarvis finishing on the podium in both one-hour races.

Westbrook did a last-minute deal to join Team Ukraine, sharing a Ferrari 458 with Ruslan Tsyplakov, while Audi-contracted Jarvis joined Thomas Schoffler in the MTM Audi R8 LMS.

Both Brits starred in qualifying, Jarvis setting the pace in the first session before Westbrook secured the race-two pole by going fastest in the second session.

But neither pole turned into a win, the lead Team Ukraine Ferrari 458 of Raffaele Giammaria and Andrii Kruglyk winning both races comfortably.

That left the Brits fighting it out for the podium spots, the Westbrook/Tsyplakov entry making it a Team Ukraine one-time each time, the Jarvis/Schoffler Audi settling for a pair of thirds.

According to Westbrook, not having driven the 458 before the first practice session wasn't a handicap. "It's a nice car and it's a pleasure to drive for this team," he said.

"I know the circuit well, so I didn't have to think about that. In practice, I could just focus on learning the car. And it's a nice, balanced car.

"It was a late call-up, but if I wasn't here I'd be sitting at home. And I'd much rather be here on the podium!"

Glauco Solieri (Autorlando Porsche) was fourth in both races, leaving him just eight points adrift of Schoffler in the championship.



Giammaria/Kruglyk
won both GT Sprint
races in Ferrari 458



Audi RS5s got
heavier and taller

AUDIS GAIN WEIGHT AND HEIGHT...

The Audi RS5 was the subject of more balance-of-performance penalties at Donington, with an extra 40 kilograms of weight and a rideheight increase from 75mm to 90mm. Meanwhile, the Chevrolet Camaro was given a 20kg weight reduction.

... AS MORBIDELLI SHUNS PENALTY

Gianni Morbidelli's race-two win has the Italian a little worried about Imola. "At the next race, we'll probably only be allowed to have three wheels," he said, the comment a less-than-subtle jibe at the Audi's weight and rideheight handicaps.

NO SHINING FOR SOLARIS CHEVYS

Francesco Sini and Solaris Chevrolet had a shocker at Donington. After being in the top four in both practice sessions, a clutch problem left Sini just 12th on the grid. His weekend ended in the pit-straight wall after he turned across the front of Andrea Bacci's Mercedes in race one.

MUGELLI TAKES FIRST 2013 PODIUM

Dinamic BMW's Max Mugelli had another solid weekend, culminating in his first podium of the season with third in race two. He was sixth in race one, and subsequently sits sixth in the points.

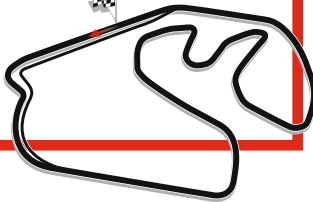
JAGS AND PORSCHE ABSENT

There were no Jaguars or Porsches on the grid at Donington, with Petri Corse and Adria Racing System absent. Both are expected to return to action at Imola.

WEC Interlagos (BR) September 1



Round 4/8



RESULTS

235 LAPS, 629.21 MILES

1	M FASSLER (CH)/A LOTTERER (D)/B TRELUYER (F)	
	LMP1 Audi Sport Team Joest Audi R18 e-tron quattro (Q1)	6h01m26.209s
2	A McNISH (GB)/L DUVAL (F)/T KRISTENSEN (DK)	
	LMP1 Audi Sport Team Joest Audi R18 e-tron quattro (Q2)	-3 laps
3	N PROST (F)/N HEIDFELD (D)/M BECHE (CH)	
	LMP1 Rebellion Racing Lola-Toyota B12/60 (Q4)	-5 laps
4	M CONWAY (GB)/J MARTIN (AUS)/R RUSINOV (RUS)	
	LMP2 G-Drive Racing/Delta-ADR ORECA-Nissan O3 (Q5)	-13 laps
5	B BAGUETTE (B)/M PLOWMAN (GB)/R GONZALEZ (MEX)	
	LMP2 OAK Racing Morgan-Nissan LMP2 (Q7)	-14 laps
6	N MINASSIAN (F)/P KAFFER (D)/L PEREZ COMPANC (RA)	
	LMP2 Pecom Racing (AF Corse) ORECA-Nissan O3 (Q6)	-14 laps
7	B WIRDHEIM (S)/G JEANNETTE (USA)/C ZUGEL (D)	
	LMP2 Greaves Motorsport Zytec-Nissan Z11SN (Q8)	-18 laps
8	J NICOLET (F)/J-M MERLIN (F)/K IHARA (J)	
	LMP2 OAK Racing Morgan-Nissan LMP2 (Q12)	-21 laps
9	G BRUNI (I)/G FISICHELLA (I)	
	GTE Pro AF Corse Ferrari 458 Italia (Q18)	-23 laps
10	D TURNER (GB)/S MUCKE (D)	
	GTE Pro Aston Martin Racing (Prodrive) Aston Martin Vantage V8 (Q16)	-23 laps
11	O PLA (F)/A BRUNDLE (GB)/D HEINEMEIER HANSSON (DK)	
	LMP2 OAK Racing Morgan-Nissan LMP2 (Q10)	-23 laps
12	J BERGMEISTER (D)/P PILET (F)	
	GTE Pro Porsche AG Team Manthey Porsche 911 RSR (Q20)	-25 laps
13	M LIEB (D)/R LIETZ (A)	
	GTE Pro Porsche AG Team Manthey Porsche 911 RSR (Q15)	-26 laps
14	S HALL (GB)/J CAMPBELL-WALTER (GB)	
	GTE Am Aston Martin Racing (Prodrive) Aston Martin Vantage V8 (Q23)	-27 laps
15	D RIGON (I)/R AGUAS (P)/E POTOLICCHIO (YV)	
	GTE Am 8 Star Motorsports (AF Corse) Ferrari 458 Italia (Q22)	-27 laps
16	P RUBERTI (I)/C RIED (D)/G RODA (I)	
	GTE Am Proton Competition Porsche 911 GT3-RSR (Q24)	-28 laps
17	J-K VERNAY (F)/R NARAC (F)/C BOURRET (F)	
	GTE Am Imsa Performance Matmut Porsche 911 GT3-RSR (Q27)	-28 laps
18	M MEDIANI (I)/N JONSSON (S)/T KROHN (USA)	
	GTE Am Krohn Racing Ferrari 458 Italia (Q26)	-32 laps
19	F REES (BR)/J CANAL (F)/P BORNHAUSER (F)	
	GTE Am Larbre Competition Chevrolet Corvette C6.R (Q25)	-41 laps
20	P PLAMY (P)/R STANAWAY (NZ)/P DALLA LANA (F)	
	GTE Pro Aston Martin Racing (Prodrive) Aston Martin Vantage V8 (Q22)	-49 laps

In each car, first-named driver started race.

Winners' average speed: 104.45mph. Fastest lap: Kristensen, 1m21.177s, 118.74mph; LMP2: Conway, 1m27.502s, 110.16mph; GTE Pro: Mucke, 1m33.850s, 102.71mph; GTE Am: Ruberti, 1m34.911s, 101.56mph. There were 28 starters.

CHAMPIONSHIPS: LMP DRIVERS

1	McNISH/DUVAL/KR'SEN	112	4	DI GRASSI/GENE/JARVIS	45
2	LOTT/R/TRELR/FASSLER	90	5	WURZ/LAPIERRE	37
3	DAVIDSON/BUEMI/SAZIN	63	6	HEIDFELD/PROST	36

GTE DRIVERS

1	TURNER/MUCKE	86	3	FISICHELLA/BRUNI	81
2	LIEB/LIETZ	84	4	DUMAS	72

LMP1 MANUFACTURERS

1	AUDI	128	2	TOYOTA	67
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GTE MANUFACTURERS

1	FERRARI	149	3	ASTON MARTIN	134
2	PORSCHE	145			

LMP2 DRIVERS

1	BAGUET/P'MAN/GON'EZ	95	3	MIN'IAN/KAFFER/C'PANC	80
2	BRUNDLE/PLA/HANSSON	81	4	MARTIN/CONWAY/R'NOV	46

GTE AM DRIVERS

1	VERNAY/NARAC	76	3	BOURRET	68
2	CAMPBELL-WALTER/HALL	70	4	AGUAS/POTOLICCHIO	66

POINTS SYSTEM EXPLAINED

Drivers' championships: 25-18-15-12-10-8-6-4-2-1 to top 10 finishers, 0.5 for all other finishers, 1 for pole. In GTE manufacturers, top two cars from each make score points.

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Wheel of fortune spins in champions' favour

Audi's 2012 kings Lotterer, Fassler and Treluyer were given an enormous break in Brazil when the sister machine lost a wheel as battle raged for victory. **GARY WATKINS** reports

THIS WAS A RACE OF 'WHAT IF'S?' WHAT IF LOIC Duval had not lost a wheel exiting the pits? Would the #2 Audi have been able to take the fight to its sister car over the second half of the Sao Paulo 6 Hours? And what if Stephane Sarrazin had not been barged into the barriers after little more than half an hour? Would Toyota have been able to challenge the German cars over the course of last weekend's event?

Round four of the 2013 World Endurance Championship posed as many questions as it answered, but only two facts of any substance emerged from the second running of the Brazilian enduro on the 2.68-mile Interlagos circuit: Audi maintained its 100 per cent record in this year's

series by notching up a third one-two of the season; and Marcel Fassler, Andre Lotterer and Benoit Treluyer did exactly what they needed to keep their championship challenge well and truly alive by taking a maximum score.

The eventual three-lap margin in favour of Fassler and his team-mates told nothing of the battle between the two Audi R18 e-tron quattros. Duval, Allan McNish and Tom Kristensen bounced back to full competitiveness – a state of affairs that didn't exist at either Spa or the Le Mans 24 Hours. They were in the mix through free practice and qualifying and had the measure of their team-mates at different stages of the race.

McNish had got the jump on the pole-winning



Whatever Sarrazin did, the Toyota wasn't going to get back in this race



Fassler salutes victory for the #1 Audi at Interlagos

Audi started by Fassler when the gantry lights malfunctioned. The Scot went for it as soon as he crossed the startline, while his Swiss team-mate hesitated.

More significantly, McNish had the edge over Fassler, who said he was struggling with high tyre pressures, for the first 35 minutes before the safety car was deployed as a result of Sarrazin's clash with Dominik Kraihamer's LMP2 Lotus.

The #2 car was eight seconds up at this stage, and McNish was confident that he would have been significantly ahead had the race not been interrupted and he'd run a triple-stint – a single, followed by a double on one set of tyres – as planned.

The safety car proved to be a double whammy for the #2 Audi. First it undid McNish's good work and then Kristensen got caught behind a slow GTE Am car that failed to get up to speed as it left the pits, allowing Lotterer to move into the lead when he took over the #1 car a lap later.

Lotterer pulled 18s on Kristensen over the following double stint, and then Treluyer found himself with half a minute in hand over Duval after the next round of stops.

Duval, though, was able to knock nine seconds out of that lead. What's more, the two Audis were on slightly different strategies, which would have left the #2 car on fresher tyres for the run to the flag in McNish's hands.

The Scot was confident that he could have turned the tables on Fassler.

"We would have had the better tyres at the end and we'd already shown that we were more than a match for them," he said. "There's no question in my mind that we should have won this one."

McNish never got the chance to prove that.

Duval lost the right-rear wheel after taking on a new set of Michelins. The car didn't lose a lap making its way back to the pits – bizarrely with the errant wheel wedged on the rear deck – but it lost more time with two stop-go penalties: 30s for pitlane speeding and 60s for an unsafe release.

Toyota's race ended when Kraihamer lost it on the exit of Turn 3 just as Sarrazin was overtaking the Lotus on the outside. The Frenchman was 15s down at this point, which suggested that the TSO30 HYBRID wasn't quite as competitive as it had looked in practice and qualifying.

The race pace of the Audis did surprise Toyota, but it pointed out that the times of the respective LMP1 contenders were coming together as the opening stint wore on.

"The lap times were nicely converging," said Toyota Motorsport GmbH technical director Pascal Vasselon. "We saw a tyre degradation that we were expecting from the Audi, but, of course, we never found out if we could double-stint and at an acceptable speed."

That wasn't the only unknown that makes it difficult to assess Toyota's contention that it was in the fight at Interlagos. The Audis only double-stinted their Michelins once during the race, but then again, with any competition out of the way, there was no need to.

Toyota's theory was that it would have been close enough to the Audis to challenge because the German cars were due to make at least one extra stop – and a significant stop at that – for fuel. But a theory is all that remains for the moment, until it has a second chance to prove the competitiveness of its new high-downforce aero package at Austin later this month.



Ferrari held on in tense battle with Aston

GTE

Ferrari pair in 'perfect race'

FERRARI AND THE AF CORSE SQUAD WEREN'T confident ahead of the race at Interlagos. The Italians reckoned they had little in their armoury to take the fight to Aston Martin, which had been in front through practice and qualifying in Brazil. Yet Gianmaria Bruni and Giancarlo Fisichella produced the perfect race to edge GTE Pro honours aboard their 458 Italia.

Bruni and Fisichella ended up winning by just 1.4s after a fraught race, during which they had the Aston Vantage GTE shared by Darren Turner and Stefan Mucke more or less locked on their tail for five and a half of the six hours. There was little to choose between the cars. So little, in fact, that neither Turner nor Mucke made a significant move for the lead.

Central to the story of the race was a quick getaway and a furious opening few laps from Bruni. He jumped from fifth to third at the start, while Turner went from third to sixth during the confused start.

Bruni made quick progress, moving ahead of Marc Lieb in the best of the factory Manthey-run Porsche 911 RSRs on lap two and then passing Pedro Lamy's Aston, which the Portuguese and impressive sportscar newcomer Richie Stanaway had qualified on pole, on lap four.

Turner, meanwhile, had to scrabble his way through the field and just made it to second by the time the safety car came out.

Even Bruni admitted that the start was crucial. "That was 40 per cent of our victory today," said the Italian, who is insistent that the Aston remains the quicker car despite a reduction in air-restrictor diameter for this race. "After that it was a case of driving every lap like it was qualifying."

A real bid for the lead was always going to be difficult, reckoned Turner. "Anytime we got close, we lost the rear end," he explained, "but the Ferrari was at least a match for us. Normally we are good at looking after our tyres, but the Ferrari was as good if not better."

Porsche took third and fourth places courtesy of attrition among its rivals on a day when it couldn't repeat the form that took it to class victory in the Le Mans 24 Hours in June, thanks in part to the same restrictor reduction as the Aston. Jorg Bergmeister and Patrick Pilet took third, while the faster car of Lieb and Richard Lietz was a lap down after Kamui Kobayashi drove into the car in the opening exchanges and destroyed a rim.

The other two Pro Astons hit trouble. Stanaway became stranded in sixth gear straight after taking over the car he shared with Lamy and Paul Dalla Lana, while the Vantage driven by Bruno Senna and Rob Bell went out with suspension damage. ▶

IN THE PADDOCK

Gary Watkins



I'M NOT ADMITTING I WAS WRONG, NOT JUST yet anyway. But there were signs at Interlagos that the four-lap aggregate qualifying system might have some merit, and not be the lame duck I've previously suggested. The battle for outright pole was a case in point. Marcel Fassler topped the times in the #1 Audi ahead of Loic Duval after the first runs, before Tom Kristensen reversed the order at the top of the chart.

The Dane abandoned his attempt to lower the average of the #2 car, but Benoit Treluyer stayed out, did a cooling-down lap and then pumped in a time that leapfrogged him ahead of his team-mate by just 0.05s. The battle for GTE Am pole was even more exciting. Marco Cioci and Matt Griffin were second in their AF Corse Ferrari after the Irishman had completed his two laps. He, too, rested his tyres and went again. His next lap lowered his average to tie with the Danish-crewed Aston qualified by Nicki Thiim and Kristian Poulsen and then went quicker again to snatch pole by less than 0.01s. It didn't matter that the AF car was excluded at scrutineering after failing the rideheight test. The efforts of Treluyer and Griffin prove that this format can be exciting. Now it needs to happen regularly.



Qualifying perked up by Sao Paulo skyline

The flames were so aggressive that I thought the car was going to explode

Toni Vilander explains his Hollywood-style exit and ultra-swift departure from the vicinity of his burning AF Corse Ferrari. A fuel leak was the suspected cause of the conflagration that all but destroyed the car he shared with Kamui Kobayashi.



Middle of podium (l-r): Conway, Rusinov and Martin celebrate

LMP2

Conway and co construct a win

MIKE CONWAY, ROMAN RUSINOV AND JOHN MARTIN finally achieved what they have been threatening to do all season. The G-Drive/Delta-ADR trio notched up an LMP2 victory at the fourth time of asking aboard their ORECA-Nissan o3 at Interlagos, and what's more they did it in style. No one else got much of a look-in last weekend.

Conway and Martin claimed the pole by a full half a second, before the former anchored victory with a drive lasting half the race. The Briton had a clear edge on pace, pulling out eight seconds on Nicolas Minassian in the Pecom/AF ORECA before the first safety car and, uniquely, the lead Delta-ADR ORECA was able to double stint its Dunlop tyres, which only served to increase its advantage at the head of the field.

Rusinov, the #26 car's silver-rated driver, doubled stinted too. By the time Martin climbed aboard, Delta-ADR had this one in the bag, which meant the team played it safe at the final pitstops and gave him a fresh set of Dunlops.

There wasn't really much to say about such a dominant performance, though Conway probably got it right when he said succinctly: "The team did a good job and so did we drivers."

The misfortune that has dogged Delta-ADR this year didn't disappear in Brazil, it was just that it was monopolised by the sister car shared by James Walker, Tor Graves and team returnee Robbie Kerr. They started from the back of the P2 field after the car sustained a puncture in qualifying and didn't complete four timed laps. It started misfiring on the grid – a problem that was cured and then returned – before the disappearance of any oil pressure put it out of the race in the third hour.

The margin of victory between the winning Delta-ADR car and the best of the OAK Racing Morgan-Nissan LMP2s was a full lap at the finish. Bertrand Baguette, Martin Plowman and Ricardo

Gonzalez ended up second after a difficult race during which the Morgan not only struggled for grip, but also lost over a minute during the first safety car period.

OAK changed tactics at this point for both the Baguette car and the sister Morgan shared by Olivier Pla, Alex Brundle and David Heinemeier Hansson. They went into fuel-conservation mode in an effort to save a pitstop, something that Baguette and his co-drivers ultimately achieved. It was this that gave them the runner-up spot ahead of the AF-run Pecom ORECA-Nissan o3 driven by Minassian, Pierre Kaffer and Luis Perez Companc.

"We didn't have any other option," explained OAK team boss Sebastien Philippe. "Bertrand did an amazing job; he did two stints saving five to six per cent on the fuel every lap. I think his experience from IndyCars was a big help because he knew exactly what to do."

The second OAK Morgan ran in tandem with the Baguette car for much of the race and would have been at least third had not a suspension pick-up point failed in the closing stages, the resulting delay leaving the car sixth at the chequered flag.

The Pecom ORECA, which uniquely in P2 in the WEC runs on Michelin tyres, had the pace to finish second, but ultimately made too many pitstops. The team cycled amateur driver Companc through the car during the first safety car, a tactic that paid dividends, but an attempt to double-stint the Michelins in the middle of the race had to be abandoned, which ultimately proved to be the difference between second and third.

The Kodewa squad's Lotus-Praga T128s showed signs of improvement after a two-day test with new front-end parts at Lausitz. The best of the two cars qualified fifth in class and briefly ran fourth in Dominik Kraihamer's hands before his clash with the LMP1 Toyota.



Leading OAK Morgan saved fuel to claim second in class

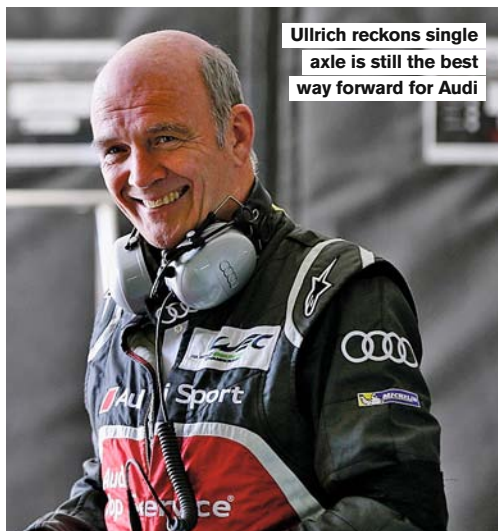
Big guns differ on energy harvest

AUDI'S AND TOYOTA'S ALL-NEW

challengers for the 2014 energy-based LMP1 formula will differ in the way they harvest kinetic energy and then return it to the track.

The current hybrid system on Audi's R18 e-tron quattro works off the front axle, while Toyota's employs the rear axle. Next year, when the amount of permissible hybrid boost goes up dramatically, Audi will be sticking with the front wheels, while Toyota will employ both axles.

Audi Sport boss Wolfgang Ullrich said: "We think



Ullrich reckons single axle is still the best way forward for Audi

we will stay with one axle and the system we have. We feel we can capture enough energy with our current system; we can't use everything that we recuperate now."

Pascal Vasselon, technical director at Toyota Motorsport GmbH, revealed that the new car from TMG in Cologne will use one motor-generator unit on each axle. He explained that this was linked to the increase in the amount of energy going through the hybrid system.

Toyota has confirmed that the conventional engine in its 2014 contender will be based on its existing 3.4-litre normally-aspirated V8 petrol engine. Vasselon explained that Toyota's simulations indicated that a bigger engine will be the most efficient route for a petrol-powered car.

"There are two schools of thought," said Vasselon. "One is for a small-capacity turbo and the other is a large-capacity normally-aspirated engine, and our engine people are convinced that a big normally-aspirated engine is better."

That position is in contrast to Porsche, which is known to have chosen the turbo route for its return to the top level of prototype racing in 2014.

Audi will remain with a turbodiesel powerplant for next year, though the nearest it has come to a confirmation has been a comment from the boss of the LMP programme, Christopher Reinke, that there is "no need to change the philosophy".

Audi is still working to a target to test its new car in the autumn. Toyota believes it won't be ready to hit the track with its new contender until early in the new year.

Rebellion breaks podium jinx

THE REBELLION SQUAD DIDN'T HAVE ANY privateer LMP1 opposition following the withdrawal of Strakka Racing, but the successful Anglo-Swiss squad did achieve a first at Interlagos — it notched up a maiden overall podium in the WEC.

The team's solo Lola-Toyota B12/60 shared by Nick Heidfeld, Nicolas Prost and Mathias Beche finished third, five laps down on the winning Audi. It didn't have the pace to benefit from the #2 Audi's problems but it was still a result to savour, reckoned team stalwart Prost.

"Every time one of the factory cars has had a problem in the past, so have we," said the Frenchman, referring

to last year's Sebring and Bahrain rounds, the only WEC events so far that haven't been podium lock-outs by the factories. "It's nice to be on the podium."

Rebellion team manager Bart Hayden explained that the squad had used this event to try things that may or may not be useful for next year, when it will return to the series with a bespoke ORECA-built LMP1 chassis bearing its own name.

"We're using it as a bit of test session to try things on set-up that you wouldn't normally risk," he explained.

"Whether it will be useful for next year, only time will tell, but we are also evaluating some technology for next year that I can't talk about at the moment."



Privateer Lola would take third place



Ihara had her first run in eccentrically-liveried Morgan

EBREV/LAT

IHARA SWITCHES TO OAK

Japanese LMP2 driver Keiko Ihara switched to the OAK Racing team for Interlagos and will also contest the final three WEC races at Fuji, Shanghai and Bahrain alongside team boss Jacques Nicolet and Jean-Marc Merlin. The switch follows the withdrawal of Fabien Giroix's Gulf Racing Middle East squad from the championship.

BRITS BEAT DANES IN AM FIGHT

GTE Am honours went to one Aston Martin Racing entry after another hit problems. Jamie Campbell-Walter and Stuart Hall, who had lost time during the opening safety car and then with a delaminated tyre, came through to win when the Vantage GTE driven by Danes Nicki Thiim, Kristian Poulsen and Christoffer Nygaard lost a wheel late in the fifth hour.

RIGON JOINS 8STAR LINE-UP

Ex-Superleague Formula title winner Davide Rigon, a Ferrari-contracted driver, joined the AF Corse-run 8Star Motorsports squad alongside team boss Enzo Potolicchio and Rui Aguas in Brazil. The Italian was nominated by Ferrari as per Potolicchio's deal with AF, but there is no word yet on whether he will return to the team for subsequent races.

TRIBUTE TO ALLAN SIMONSEN

Black armbands were worn on the grid ahead of the race in Brazil as a mark of respect for the late Allan Simonsen, who was killed at the Le Mans 24 Hours in June. Each car in the race also ran a sticker in his memory. The Danish Automobil Sports Union has established the Allan Simonsen Memorial Foundation to secure the future of his fiancée, Carina Lundbye Hansen, and their daughter, Mie-Mai. Any amount can be transferred to Jyske Bank A/S, account 5078 1117416. IBAN number: DK 1350780001117416. Swift (BIC-address) JYBADKKK.



NASCAR SPRINT CUP ATLANTA (USA), SEPTEMBER 1 RD 25/36

Busch win seals Chase spot

KYLE BUSCH CEMENTED HIS PLACE IN the NASCAR Sprint Cup Chase with victory in Sunday night's 500-mile race at Atlanta Motor Speedway.

Busch was ambivalent about his Joe Gibbs Racing Toyota's handling but, once swift pit work had moved him into the lead for the final stint, he was still able to take control and claim the win. Joey Logano loomed behind him late on as he clawed his way back towards the front having gone off-sequence on pitstops due to a vibration. Second proved to be the Penske Ford man's limit.

Despite sustaining a fractured wrist at Bristol a week earlier, Martin Truex Jr was able to finish third, while the winner's brother Kurt turned 32nd on the grid into fourth place with a tigering drive.

Reigning champion Brad Keselowski now needs a massive result in the Richmond Chase-field decider this weekend to even have a hope of taking his second title. His Penske Ford dropped a cylinder as he ran second and, after limping around as long as possible, he was ultimately classified 35th, now 15th in points.

Jimmie Johnson still leads the points despite ending up four laps down in 28th following two on-track incidents. Though the Chase reset



Busch leads final restart with Logano chasing

will render his current lead irrelevant, it was still unnerving for Johnson to realise that his once-ample advantage had dwindled so much that Clint Bowyer would have usurped him but for an engine failure.

Juan Pablo Montoya and Carl Edwards both had long spells in the lead before fading to seventh and 18th respectively. Rookie Ricky Stenhouse Jr took his maiden pole, but tumbled to 16th.

● Connell Sanders Jr

RESULTS

1 Kyle Busch (Toyota Camry), 325 laps in 3h42m14s; 2 Joey Logano (Ford Fusion), +0.740s; 3 Martin Truex Jr (Toyota); 4 Kurt Busch (Chevrolet SS); 5 Ryan Newman (Chevy); 6 Jeff Gordon (Chevy); 7 Juan Pablo Montoya (Chevy); 8 Dale Earnhardt Jr (Chevy); 9 Kevin Harvick (Chevy); 10 Brian Vickers (Toyota).
Points 1 Jimmie Johnson, 837; 2 Clint Bowyer, 809; 3 Harvick, 795; 4 Carl Edwards, 795; 5 Kyle Busch, 786; 6 Matt Kenseth, 768; 7 Earnhardt, 750; 8 Logano, 729; 9 Greg Biffle, 727; 10 Kurt Busch, 719.

EUROPEAN RALLYCROSS CHAMPIONSHIP LOHEAC (F), AUGUST 31-SEPTEMBER 1 RD 7/9

Bakkerud thwarts Solberg

NORWEGIAN YOUNGSTER ANDREAS Bakkerud claimed his second European Rallycross Championship victory in a row at Loheac in France.

Bakkerud shared the front row with fellow countryman Petter Solberg, but it was Solberg who made the best start with Bakkerud's similar Citroen attached to his rear bumper. Third-placed starter Davy Jeanney took his joker on lap one, while Tanner Foust and Timur Timerzyanov fought over third.

On lap two Bakkerud made a move to pass Solberg but ran deep, allowing Solberg back through. He made the same move on lap three and made it stick – not bad for someone still in his debut season.

Solberg was next to take his joker, returning to the main circuit in second, while Bakkerud pulled enough of a lead to take his joker and win the race by over two seconds, with Jeanney making it to third place at his home event.

"What a crazy race!" said Bakkerud. "I was pushing to the limit. Petter was really fast off the line but then I think he overheated his tyres."

Further back, Foust and Timerzyanov battled it out for fourth. The American ended up in



Bakkerud (right) and Solberg were on top in France

the wall and finished last as a result, behind fifth-placed Gaetan Serazin.

The star of the weekend, nine-time world rally champion Sebastien Loeb, finished fourth in his semi-final in his Citroen, just 0.4s behind Timerzyanov and a place in the final. Fellow rally ace Kris Meeke was classified 18th and didn't make it to the semi-final stages. Fast all weekend, Meeke picked up a puncture in heat two and a

disqualification in heat three.

● Hal Ridge

RESULTS

1 Andreas Bakkerud (Citroen DS3), 6 laps in 3m49.297s; 2 Petter Solberg (Citroen DS3), +2.5s; 3 Davy Jeanney (Citroen C4); 4 Timur Timerzyanov (Citroen DS3); 5 Gaetan Serazin (Peugeot 207); 6 Tanner Foust (Ford Fiesta).
Points 1 Timerzyanov, 143; 2 Timmy Hansen, 128; 3 Jeanney, 123; 4 Bakkerud, 115; 5 Anton Marklund, 74; 6 Alexander Hvaal, 74.



CZOBAT/LAT

NASCAR NATIONWIDE

Kevin Harvick (above, 33) held off everything that Kyle Busch could throw at him on the final lap at Atlanta last Saturday night to win his first Nationwide victory of the season. Sam Hornish extended his series lead in third place, as title rival Austin Dillon could only manage eighth.

NASCAR TRUCKS

Chase Elliott scored his first victory at Mosport in Canada after punting off leader Ty Dillon at the final corner of the last lap.

FORMULA RENAULT NEC

Eurocup leader Oliver Rowland scored two race wins from pole at the Most circuit in the Czech Republic. Steijn Schothorst won race three, but the big news of the weekend was runaway points leader Matt Parry's nightmare weekend. He scored zero points after a series of disasters, so Jack Aitken has now closed to within 75 points.

BRAZILIAN STOCK CARS

Marcos Gomes got his second win of the season at the fast Cascavel circuit by playing the safest bet and changing his right-rear tyre during the mandatory refuelling pitstop. Polesitter Rubens Barrichello didn't and his right-rear suffered a blow-out, ruining his challenge for victory with four laps to go.

ITALIAN GT

ROAL Motorsport-run BMW Z4s scored a convincing one-two in race one at Imola, with Stefanos Colombo and Comandini combining to beat soloist Michela Cerruti. In race two, Cerruti claimed victory despite serving a success penalty in the pits.

ADAC FORMULA MASTERS

Maximilian Gunther claimed his maiden victory at Lausitz from Alessio Picariello, and then repeated the feat in the second race. Fabian Schiller won the reversed-grid race.

CROSS-COUNTRY RALLY

Aleksandr Zheludov was the surprise winner of Baja Poland, the Szczecin-based FIA Cross-Country Rally World Cup event.

NZ V8 SUPERTOURERS

Greg Murphy won the first trophy of New Zealand's V8 SuperTourer 2013 season when he wrapped up the four-round sprint series on a wild day at Taupo. Shane van Gisbergen, Scott McLaughlin (below, middle), Ant Pedersen and Murphy himself were involved in collisions or received penalties.



EUAN CAMERON

Chaos at Baltimore
as Lazzaro punts
Tucker into spin



AMERICAN LE MANS SERIES BALTIMORE (USA), AUGUST 31 RD 7/10

Luhr Muscles past Extreme moments

EXTREME SPEED MOTORSPORTS

didn't win at Baltimore, but its two HPD LMP2 cars played a key role in the outcome of the race.

It started just seconds after the green flag fell. When the left lane accelerated before the agreed point, ESM's Anthony Lazzaro in the right reacted and ran into the back of Scott Tucker, spinning him around and causing chaos in the pack.

Over an hour was lost as the wrecks, which included four

leading GT entries, were cleared.

When racing finally resumed, it took just four corners for the sister ESM car of Ed Brown to nullify the race as he tipped the leading LMPC car of Chris Cumming into the wall.

ESM's coup de grace came at the final restart, when Scott Sharp walloped the tyres in the chicane. This created a bottleneck behind in which overall leader Lucas Luhr hit the brakes and was whacked from behind by the GT-leading BMW of

Dirk Muller. As this pair slowed, Guy Smith nicked by to grab the lead, while Jan Magnussen passed Muller and Corvette team-mate Tommy Milner in one go to head the GTs.

"I was covering the line to stop the BMW coming back," said Magnussen. "I locked the left front and slid down inside of Tommy. I wasn't planning to overtake him, but when I was there, I thought, 'Why not?'"

With his car damaged, Luhr had to work hard to chase down and pass

Smith to secure Pickett Racing's sixth straight win and wrap up the teams' championship.

With every other car in the class hitting trouble, Marino Franchitti and new team-mate Guy Cosmo won P2 for Level 5, while LMPC was decided in the final minutes when leader Colin Braun was forced to pit as team-mate Jonathan Bennett hadn't driven for long enough, and new leader Dane Cameron hit the wall with under 90 seconds remaining. Tristan Nunez and Charlie Shears inherited the win.

The best battle was for GTC honours, which fell to Dion von Moltke and Seth Neiman, while a four-car battle raged for second, which Jeroen Bleekemolen won on the line from the charging Jan Heylen.

● Andrew van de Burgt

RESULTS

1 Klaus Graf/Lucas Luhr (HPD ARX-03c), 41 laps in 1h31m38.287s; 2 Chris Dyson/Guy Smith (Lola-Mazda B12/60), +3.867s; 3 Scott Tucker/Marino Franchitti/Guy Cosmo (HPD ARX-03b); 4 Scott Sharp/Anthony Lazzaro (HPD ARX-03b); 5 Jan Magnussen/Antonio Garcia (Chevrolet Corvette C6.R); 6 Oliver Gavin/Tom Milner (Chevy). **GT 1** Magnussen/Garcia; 2 Gavin/Milner; 3 Dirk Muller/Joey Hand (BMW Z4). **Points** 1 Luhr/Graf, 142; 2 Heidfeld/Jani, 58. **GT 1** Gavin/Milner, 94; 2 Magnussen/Garcia, 92; 3 Muller, 86.



Hawksworth: happy
with third victory

INDY LIGHTS BALTIMORE (USA), SEPTEMBER 1 RD 10/12

Hawksworth gets bid back on track

JACK HAWKSWORTH GAVE HIS title hopes a huge boost with a commanding performance around the streets of Baltimore.

After starting from pole position, the Brit utterly dominated the entire race, coming home over 13 seconds clear of his Schmidt Peterson team-mates Sage Karam and Gabby Chaves.

Hawksworth's only concerns came following two early safety car periods, especially the first restart when Karam had a half-chance of making the move for the lead.

But given a clear track, Hawksworth was untouchable and

reeled off his third win of the year.

"It was a perfect weekend from start to finish," he said. "It rolled off the truck and it was good."

Second for Karam has given him the points lead after Carlos Munoz crashed out early on with a suspected brake problem.

● Andrew van de Burgt

RESULTS

1 Jack Hawksworth, 35 laps in 56m50.6921s; 2 Sage Karam, +13.4655s; 3 Gabby Chaves; 4 Peter Dempsey; 5 Jorge Goncalvez; 6 Matthew Di Leo. **Points** 1 Karam, 373; 2 Carlos Munoz, 371; 3 Chaves, 369; 4 Hawksworth, 362; 5 Dempsey, 338; 6 Zach Veach, 281.

GERMAN F3 CUP LAUSITZ (D), AUGUST 31-SEPTEMBER 1 RD 7/9

Markelov wins as Kirchhofer charges

RUSSIAN ARTEM MARKELOV SCORED a brace of wins at Lausitz, finally breaking his season duck for 2013.

Markelov pipped Emil Bernstorff at the start of race one, while runaway points leader Marvin Kirchhofer made it a Motopark/Lotus 1-2-3. Kirchhofer made it all the way from the back of the grid after having his pole position taken away due to the track on the front axle of his car being too wide.

Kirchhofer quickly moved up through the ranks to take his ninth win of the season in the reversed-grid race. Markelov finished second from polesitter Matteo Cairoli.

Markelov won again in the final

race, while Kirchhofer again charged from the back to finish second.

● Rene de Boer

RESULTS

Race 1 1 Artem Markelov, 19 laps in 27m58.778s; 2 Emil Bernstorff, +0.184s; 3 Marvin Kirchhofer; 4 Gustavo Menezes; 5 John Bryant-Meisner; 6 Tomasz Krzeminski. **Race 2 1** Kirchhofer, 14 laps in 20m43.163s; 2 Markelov, +6.844s; 3 Matteo Cairoli; 4 Menezes; 5 Krzeminski; 6 Nabil Jeffri. **Race 3 1** Markelov, 24 laps in 31m01.612s; 2 Kirchhofer, +0.233s; 3 Bryant-Meisner; 4 Menezes; 5 Bernstorff; 6 Krzeminski. All top six finishers in Dallara-VW F311. **Points** 1 Kirchhofer, 383; 2 Markelov, 289; 3 Bernstorff, 259; 4 Menezes, 172; 5 Bryant-Meisner, 151; 6 Thomas Jager, 117.



Markelov (right) beat
Bernstorff in opener

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EUROPEAN RALLY CHAMPIONSHIP RALLY ZLIN (CZ), AUGUST 30-SEPTEMBER 1 RD 8/12

Kopeccky in cruise control at home

WITH A LOCKOUT OF STAGE BESTS ON leg one, the only thing standing in the way of a fifth 2013 ERC victory for Jan Kopeccky was the weather.

From sunshine on Saturday, overnight rain left the notoriously slippery Czech roads even more treacherous. Running in 10th after the leading order was reversed for the final day, the works Skoda ace said it was a case of surviving rather than chasing fastest stage times as mud and other debris added to the challenge.

"Jan showed he could be fast on Saturday but could use his brain when the conditions were tricky," said co-driver Pavel Dresler.

While things got easier for Kopeccky when the stages began to dry out for the afternoon loop, it was the opposite for Czech ace Vaclav Pech. He'd set his Mini John Cooper Works S2000 for full-wet conditions and struggled as a result. But with his main Czech title threat, Roman Kresta, going from being 15.7s down to stopping to change a puncture, Pech just had to make it through to the end to be champion.

He could have faced a bigger fight had Jaromir Tarabus, who finished a Zlin-best third, not lost time with a puncture and when co-driver Daniel Trunkat checked them into service one minute ahead of schedule on Saturday afternoon.

Esapekka Lappi had been in the mix for the podium when he skated off the road on a patch of gravel on stage six, inflicting damage to his



Kopeccky extended his considerable points advantage

Fabia's rollage that proved too great to allow him to continue beyond afternoon service on Saturday.

That promoted Sepp Wiegand, in a third factory Fabia, into fourth, although Tarabus was ahead by the completion of leg one, with Wiegand electing to hold station on Sunday.

Pavel Valousek gave the Ford Fiesta

R5 its ERC debut and scored two stage wins, but languished in eighth after losing time with a puncture and broken powersteering.

● Graham Lister

RESULTS

1 Jan Kopeccky/Pavel Dresler (Skoda Fabia 2000), 2h15m23.0s; 2 Vaclav Pech/Petr Uhel

(Mini S2000) +1m01.6s; 3 Jaromir Tarabus/Daniel Trunkat (Skoda Fabia 2000); 4 Sepp Wiegand/Frank Christian (Skoda Fabia 2000); 5 Roman Kresta/Petr Gross (Skoda Fabia 2000); 6 Miroslav Jakes/Igor Norek (Mitsubishi Lancer Evolution IX).

Points 1 Kopeccky, 223; 2 Craig Breen, 114; 3 Bryan Bouffier, 99; 4 Francois Delecour, 75; 5 Pech, 49; 6 Jari Ketomaa, 39.

ADAC GT MASTERS LAUSITZ (D), AUGUST 31-SEPTEMBER 1 RD 6/8

Alessi & Keilwitz boost title hopes

CALLAWAY CORVETTE DUO DIEGO Alessi and Daniel Keilwitz continued their winning streak in the first race at Lausitz to bring their season total to four.

Polesitter Mario Farnbacher (Porsche 911) and Rene Rast (Audi R8) fought an early battle for the lead. But when Farnbacher tried to attack leader Rast, he damaged both his car and a kerbstone when running wide in the first corner. To repair the kerb the race was first neutralised and then red-flagged for 20 minutes.

Rast led proceedings after the restart, but then was penalised for overtaking the safety car, dropping him to 14th. Keilwitz inherited the lead and went on to win, despite massive pressure from Dominik Baumann, who shared his BMW with Claudia Hürtgen. Robert

Renauer and Martin Ragginger finished third in their Porsche.

In the second race, Renauer and Ragginger led all the way to secure the first victory for Porsche in the series this season. They overcame two safety car interventions in the final third of the race following crashes by Sebastian Asch and Christian Engelhart.

"I was really focused on the restarts," said Renauer. For both drivers and their Herberth Motorsport team, it was also the maiden win in the category.

Hürtgen and Baumann repeated their second place from the previous day, while Markus Winkelhock and Christer Jons came home third in their Audi R8.

With his success, Renauer moves up to second place in the drivers' standings, three points



Corvette duo moved into series lead with win

down on leaders Alessi/Keilwitz.

● Rene de Boer

RESULTS

Race 1 1 Diego Alessi/Daniel Keilwitz (Chevrolet Corvette Z06R), 30 laps in 1h00m26.315s; 2 Claudia Hürtgen/Dominik Baumann (BMW Z4 GT3), +0.776s; 3 Robert Renauer/Martin Ragginger (Porsche 911 GT3-R); 4 Frank Kechele/Dominik Schwager (Ford GT);

5 Christer Jons/Markus Winkelhock (Audi R8 LMS ultra); 6 Simon Knap/Jeroen den Boer (BMW). **Race 2 1 Renauer/Ragginger**, 41 laps in 1h00m08.173s; 2 Hürtgen/Baumann, +1.630s; 3 Jons/Winkelhock; 4 Maximilian Gotz/Maximilian Buhk (Mercedes SLS AMG GT3); 5 Alessi/Keilwitz; 6 Rene Rast/Christopher Mies (Audi). **Points** 1 Alessi/Keilwitz, 136; 2 Renauer, 133; 3 Hürtgen/Baumann, 120; 4 Buhk/Gotz, 120; 5 Ragginger, 113; 6 Rast/Mies, 100.

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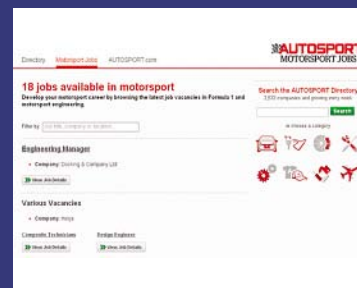
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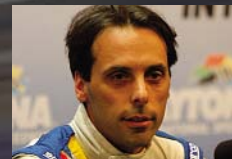
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Up and coming stars have been pushing themselves to win the Sunoco 2014 Challenges. Current Sunoco Daytona Challenge leader, Radical SR3 racer Bradley Smith, is nearly there but can fellow Radical racer Lewis Plato keep ahead of the other 100+ challengers in the Sunoco GRAND-AM Challenge?

The Rolex 24 At Daytona is the first big international race of the season and therefore you can expect to get up and close to drivers such as Juan Pablo Montoya, Dario Franchitti, Richard Westbrook, Jimmy Johnson, Scott Pruett, Rubens Barrichello etc on the grid walk.



2014 who will it be ???



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2014 who will it be ???



2013 Lawrence Davey



2012 Aaron Steele

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WALLBANK



Road-legal race car will come with GRDC package

Ginetta plots new novice series

Yorkshire marque aims to bring more drivers in with its G40R initiative

GINETTA HAS LAUNCHED

an initiative that it hopes will encourage new drivers into racing.

The new-for-2014 Ginetta Racing Drivers Club is designed to guide those with limited or no track experience through to competing in a dedicated series, all covered by an up-front payment of £24,250+VAT.

It will be the first race series for Ginetta's 1.8-litre, road-legal G40R, and will support four rounds of the British GT championship, either as a standalone series or on the back of the GT5 Challenge grid.

A road-registered G40R with 12 months road tax will be included in the cost, as well as an ARDS race licence package and two track days with one-on-one tuition.

It has been inspired by the success of the Caterham Academy, introduced in 1995, a concept that was also adopted by Radical for its new SR1 Cup this year. Ginetta factory driver

and sales director Mike Simpson said that it made sense to go down the same route as Caterham and Radical, but claimed Ginetta is trying to offer something different at the same time.

"Ginetta is mostly about career progression and we're missing a massive market for those who want to start off small," he said. "Caterham and Radical do it fantastically. The Academy is an amazing success story. But you get more for your money with what we're doing."

"We've been missing a market, and this will be a quirky club – we're trying to break the mould a bit."

Members will get two track days, likely to be in February, and Ginetta plans to book a circuit to put all drivers through their ARDS tests together.

Entry for each of the race meetings, which will consist of Friday practice sessions, qualifying and two sprint races, is covered in the initial cost.

A calendar is yet to be confirmed

but will likely include races at Silverstone, Brands Hatch, Donington Park and Oulton Park.

No professional teams will be allowed to enter, though spare parts and technical support will be made available by Ginetta, and entries will be strictly limited to those with a National B race licence.

Simpson believes it is important to stick to entry-level criteria and make the club attractive to the right people, which is why membership extends to various social events, including an annual trip to the Le Mans 24 Hours.

"It's a complete package to attract new people," he added. "It needs to be. Ideally these are people who have the time and budget but are not sure how to do it. We'll hold their hand and start them off. The more people we can bring in the better for everyone."

"Everyone complains about [entry] numbers dropping; this is our way of doing something about it."

BEN ANDERSON NATIONAL EDITOR

ben.anderson@haymarket.com @BenAndersonAuto



WHATEVER YOUR FEELINGS

about Ginetta Cars, you cannot accuse the Yorkshire manufacturer of resting on its laurels.

Lawrence Tomlinson has spent the last half-decade building up Ginetta's own racing ladder, much in the same way Phil Abbott has done with his Radical Sportscars series, and Caterham had grown its plethora of Lotus Seven categories before that.

Radical aped Caterham's super-successful Academy concept (first run in the mid-'90s) for the new SR1 Cup, which has done very well so far in its first year, and brought none other than Olympic cycling legend Chris Hoy into the sport.

Now Ginetta wants its own slice of that action, using the roadgoing version of its G40 model to bring yet more people into its racing fold.

History tells us that people appreciate a helping hand into a sport that can be bafflingly complex to the uninitiated. Provided the price is right (it looks pretty competitive on face value compared with the others) and the factory support is strong, there's no reason to suspect the Ginetta Racing Drivers Club will be anything other than another success story for novice-racing initiatives.

Speaking of newcomers to the sport, it will be interesting to see how British Superbike ace Tommy Hill gets on when he tackles the final round of the VW Racing Cup at Donington Park next month (see page 80).

It's always difficult to shake off the racing bug, and it sounds as though Tommy is itching for some wheel-to-wheel action again after deciding to take a year out from racing to focus on his design business.

We wish him well in making the transition from two wheels to four, because it's never easy – just ask Isle of Man TT ace Guy Martin...

DRIVING LESSONS How the GRDC stacks up



Ginetta Racing Drivers Club

Cost: £24,250+VAT.

Car: Road-legal Ginetta G40R: 1.8-litre Ford Duratec engine, 175bhp, five-speed gearbox.

Includes: Road-legal car with 12 months road tax, ARDS test, two track days, four race entries and GRDC membership.

Calendar: Four rounds, likely to be Silverstone, Brands Hatch, Donington Park and Oulton Park.



Caterham Academy

Cost: £21,495+VAT (component kit) or £24,495 (factory built).

Car: Road-legal Caterham Seven: 1.6-litre Ford Sigma engine, 125bhp, five-speed gearbox.

Includes: Road-legal car, ARDS test, one test day, one car-control handling day, two sprint events and five race entries.

Calendar: Aintree, Snetterton, Blyton, Donington Park, Brands Hatch, Rockingham and Silverstone.



Radical SR1 Cup

Cost: £37,500+VAT.

Car: Radical SR1: 1.3-litre Suzuki bike engine, 185bhp, six-speed sequential gearbox.

Includes: Car, race suit, ARDS test, two exclusive track days at Snetterton and Brands Hatch Indy and one at Bedford Autodrome, four race entries.

Calendar: Brands Hatch Indy, Oulton Park, Cadwell Park, Snetterton 300.



Hill is excited by VW Cup chance



Hill finished third in 2012 BSB series before taking time out

VW Racing Cup

Hill to try car racing in VW Cup

FORMER BRITISH SUPERBIKE champion Tommy Hill will make his car-racing debut in the final round of the Volkswagen Racing Cup next month.

Hill, who won the superbike title in 2011, will drive a JWB Motorsport Golf GTI at Donington Park on October 6.

The 28-year-old finished third in BSB last season but was unable to find the budget to race overseas and announced he would take a sabbatical

in 2013 to "take a step backwards" and focus on his design business.

But he has been coaxed into taking part in the VW Cup, in which friend and former bike racer Josh Caygill is contesting his first season, after spending the Brands Hatch round in August trackside.

"I'm impressed by it," said Hill, who will use the event to help raise awareness of rider safety charity the CJ Riders Fund.

"I popped along at Brands Hatch and saw the show, someone got in touch and we went from there. I'm really looking forward to it.

"It's something different for me and I want to go and enjoy it. Running at the top of my game on bikes week in, week out adds a lot of pressure and a lot of the enjoyment goes out of the sport."

JWB boss Nick Beaumont will help Hill through his ARDS test, but the

biker will not drive the car before the pre-Donington test.

Hill is excited by the prospect of a new challenge.

"I'm keen to give it a good shot," he added. "I've never raced a car but have always liked racing karts, which gives me a lot more of an adrenalin buzz than I get from racing a bike – I've been on bikes since I was six and it's the norm for me. I'm pretty excited about this."

Formula Renault NEC

Most nightmare for leader Parry delays his European coronation

MATT PARRY WILL HAVE TO WAIT

until the final round of the season at Zandvoort to wrap up the Formula Renault NEC title.

Caterham junior Parry endured a disastrous time at Most in the Czech Republic last weekend, non-scoring in each of the three races. Contact in race one meant he failed to finish, and he could only manage 23rd from last in the second. A race-three puncture meant he ended the weekend finishing 26th and a lap down.

This means Fortec team-mate Jack Aitken has trimmed the gap to 75 points, with 90 on offer in the Netherlands.

Eurocup points leader Oliver Rowland made a rare but successful NEC showing, qualifying on pole for the first two races and taking two wins. Third in the final race



Rowland won twice as Parry faltered

of the weekend means the Racing Steps Foundation-backed driver is sixth in the standings, despite only competing in six of the 14 races held so far.

Fellow Brit Raoul Owens is one place behind in the points after a brace of ninth-place finishes helped him climb above the absent Mikko Pakari.

FIA Formula 4

FIA expects South America and Australia to launch F4 in 2014

THE FIA IS HOPEFUL THAT

Formula 4 will launch in South America and Australia for next season.

A group of South American racers and team bosses plans to introduce the FIA F4 concept into the region in 2014, while FIA sporting chief Frederic Bertrand hopes Australia will move to F4 after discontinuing its national Formula Ford series.

The South American proposals were recently unveiled to FIA president Jean Todt. The new category wants to use Signatech chassis powered by a Fiat Abarth turbo engine, and is seeking agreement from the international governing body. Ford also wants dispensation to use its EcoBoost turbo

engine in a UK version of FIA F4 from '15.

German governing body ADAC recently announced a one-year extension to its tyre and engine deals with Dunlop and VW for the Formel Masters category, suggesting FIA F4 will arrive there in '15.

The FIA's Single-Seater Commission was due to ratify the F4 regulations on Tuesday (September 3). Bertrand said six chassis constructors had registered, including Mygale, Dallara and Tatuus.



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British GT

United Autosports withdraws its McLarens from British GT

UNITED AUTOSPORTS HAS withdrawn its pair of McLaren GT3 cars from British GT for the rest of this year.

The Richard Dean-run squad has fielded two MP4-12Cs in the first five rounds, but will pare back to a single Audi R8 LMS ultra for the final two races.

Dean is known to be unhappy with the McLaren's balance of performance in British GT this season. He said his team would focus on Audi pair Mark Patterson and Rob Bell, who lie fourth in the points.

"We find ourselves in an uncompetitive situation with McLaren within British GT," Dean said. "We race to win and therefore the team will focus on where we can win."

UA will continue to run a McLaren in the European Supercar Challenge, where it lies second with Jim and Glynn Geddie.

● Former British GT and BTCC race winner Luke Hines will return to British GT at Zandvoort this weekend. Hines, who raced a Ginetta G55 with Optimum Motorsport at Brands Hatch last season, will partner Derek Johnston at MTECH, which has switched from a Ferrari 458 to a G55 due to "unforeseen circumstances".

British Endurance Championship aces Paul Bailey and Andy Schulz will also race at Zandvoort, sharing a 458 run by Scuderia Vittoria in British GT and driving their McLaren in European Supercars.



UA has struggled with McLarens this year

EBREY/LAT



Schrey is top Porsche pedaller around Dutch dunes

Michael Schrey's Porsche 935 led a marque 1-2-3-4-5-6 in the Youngtimer Trophy at Zandvoort last weekend, almost exactly 50 years since the original 911 (then known as the 901) broke cover at the Frankfurt Motor Show

British Formula Ford

Dex links up with SWB for his British Formula Ford debut

EX-FORMULA RENAULT RACER Jack Dex will make his British Formula Ford debut at Rockingham this month with SWB Motorsport.

Dex was among the first drivers to test the new car at Silverstone last year and will

fill the Sinter seat left vacant since Zaid Ashkanani raced at Snetterton.

"I would like to do Silverstone as well," said the 21-year-old, "but we will wait to see how we get on, and then hopefully do a full season next year."

"SWB has been making good steps with the Sinter and it would be nice to get a result and prove it's as good as a Mygale."

Macau racer Chang Wing Chung will also make his series debut in a Falcon Motorsport Mygale at Rockingham. Chang, who is in the middle of a European and World Karting campaign, also intends to compete in the Silverstone round.



Dex tested winged FFord last winter

EBREY

HUMBLE PYE

The voice of club racing



Sir Frank Williams was there to see monument unveiled

Fallen British aces honoured by new Zandvoort memorial

The lives of British rising stars Piers Courage and Roger Williamson, tragically taken on two of the blackest afternoons in Zandvoort's history, were remembered with the official unveiling of a joint memorial last Friday during the Dutch circuit's second Historic Grand Prix event.

Piers was just 28 years old and Roger 25 when they died in fiery accidents – all too common in Formula 1 racing then, yet today's motorsport fanatics have thankfully rarely witnessed repetitions – during world championship GPs at the venue on June 21 1970 and July 29 1973 respectively.

Courage's widow Sally, sons Jason and Amos, and grandsons attended the ceremony, as did Sir Frank Williams – Piers's best friend and mentor, whose de Tomaso he was driving on the fateful day – and Kevin Wheatcroft, whose late father Tom's patronage took Roger from club racing to the cusp of greatness.

Initiative of Dutch competitor, commentator and Anglophile Allard Kalff (an engaging character whom I first met as an eager FF1600 racer in England in the early 1980s) and Williams, the Jan Machiela-designed memorial has done much to unite everybody affected by the loss of both drivers.

Jason Courage, who I got to know when he was racing Formula Fords in New Zealand over the

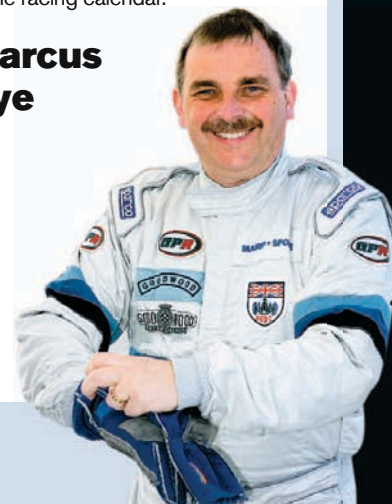
winter of 1990-91, was a small child when his father was killed. He had been to Zandvoort to be shown the crash scene by commentator Rob Petersen, and was touched by the tastefully arranged ceremony.

Kevin Wheatcroft missed the '73 Grand Prix, and had not been to Zandvoort in the 40 years since the hard-charging lad who was treated like a son by Tom perished in shameful circumstances. "I don't think my father could have coped with today, but I'm glad I came. It needed to be done," he said.

Alas I never saw Courage or Williamson race. Piers did not start the '67 British GP at Silverstone and, although I was at Brands Hatch on raceday in '72, the F3 support race Roger dominated in the Wheatcroft GRD was run on the Friday (I'm not counting his lap into the GP mayhem in '73). Each had carved promising careers during the void in my education.

Both men deserve to be honoured. Indeed, every fan of racing of yesteryear should rendezvous to pay homage at the 2014 Historic GP. In just two years Zandvoort's event has become one of the sporting and social highlights of the racing calendar.

Marcus Pye



"The memorial has done much to unite everybody affected by the loss of both drivers"

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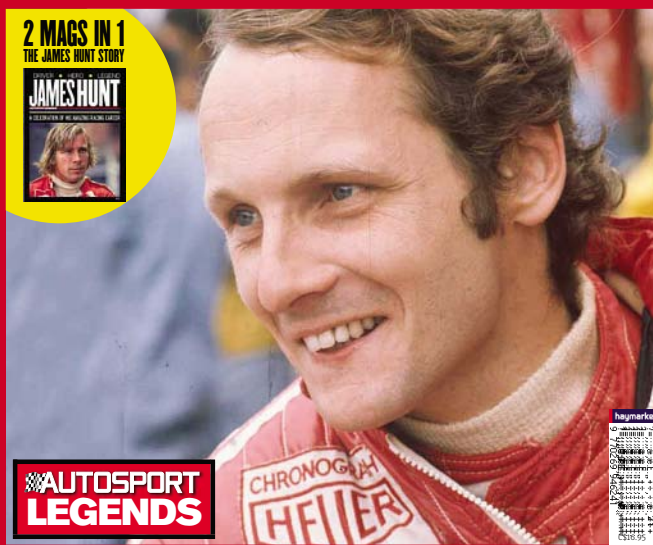
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Dalton started well with MGR but has now left for Lanan

BRDC F4

Dalton leaves MGR squad as Mason steps in

BRDC FORMULA 4 FRONTRUNNER

Jake Dalton will contest the final two rounds of the season with Lanan Racing after leaving Mark Godwin Racing.

Dalton led the championship at the halfway stage but has slipped back to fifth after disappointing rounds at Brands Hatch and Silverstone. He joins current points leader Jake Hughes at Lanan.

Dalton's seat will be filled by 2012 InterSteps runner-up Matt Mason.

MGR team boss Mark Godwin

confirmed that Dalton's decision came as a surprise. "It's a mystery to me," Godwin told AUTOSPORT. "It's left us in the lurch and it's disappointing he's given up on his championship challenge with a team he made a commitment with at the start of the season."

Mason, who was set to test with MGR yesterday (Wednesday), was already due to race at the Donington Park finale.

Godwin says this will enable him to get up to speed after a season on the sidelines.

"We lost faith in Jake a little bit," Godwin added. "Him going is not great but it's given us the opportunity to put Matt in the car. It's been extremely difficult for him, and he's probably going to be a touch rusty. But he's a hard racer."

Lanan's Graham Johnson said: "We were approached by Jake to run with us. He's a good driver and we didn't want to turn the opportunity down."

Dalton was unavailable for comment as AUTOSPORT closed for press.



Ginetta ace to Britcar

Ginetta GT5 Challenge title contender Oliver Basey-Fisher (pictured above) is planning to contest the Britcar 1000km event at Silverstone later this month. "I am sharing a G40 with my coach James Harrison, Chris Webster and one more driver," he said. "It will be good experience as I want to do endurance racing in the future."

Kents to headline Festival

The headline class for this year's Formula Ford Festival at Brands Hatch will be the Kent-engined category, for the first time since 1992. BRSCC competitions director Drew Furlong, who confirmed Duratec and Zetec competitors will still be offered the chance to have their own races, said: "The Kent class is by far the strongest of the various Formula Ford categories in terms of entry numbers, so it makes sporting and financial sense for them to have top billing."

Fletcher gets back out

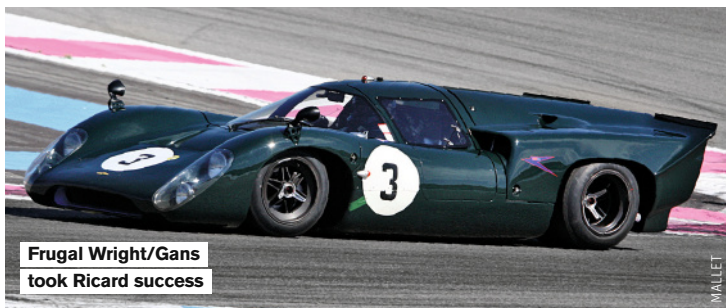
BRDC F4 racer James Fletcher has completed his first run since dislocating a shoulder at Silverstone last month. He drove in Donington Park's general test last Thursday alongside rivals Charlie Robertson, Raoul Hyman and Jack Barlow. "It's still a bit painful but with the next rounds at Snetterton getting closer I needed to get out again," he said.

Ferrari duo try Aston

Ferrari stalwarts Adam Wilcox and Phil Burton had their first run in a GT3-spec Aston Martin at Donington Park last Thursday. "It's a possibility at the moment for the final British GT round at Donington," said Burton, who has only contested one British GT event this season in an MTECH-run 458.

Abbott loses points lead

Hunter Abbott (below) lost his lead of the Porsche GT3 Cup Challenge Benelux despite a strong showing at Zolder last weekend. Victory in the feature race with team-mate Jeffrey van Hooydonk was followed by second in the race two sprint. But van Hooydonk won his individual sprint race to claim a four-point advantage.



Frugal Wright/Gans took Ricard success

Historics

Tactical victory for Lola duo

EXPATRIATE AMERICANS JASON

Wright and Michael Gans used tactics to defeat quicker rivals Martin Stretton and Grant Tromans in a Lola T70 Mk3B battle for 1000km series honours at Paul Ricard last Sunday.

Defying their rivals' computer, Wolfe Manufacturing's crew – mechanic Freddie Young and truckie Nick Worsley – calculated that Wright and Gans could run the two and a half hours without refuelling, if their pace was right.

Stretton was happy to dice with

Wright, on a fuel-conservation strategy, before blasting clear, certain that Tromans would be able to consolidate the advantage over Gans. It did not work that way, though, for Chris Fox's team was baffled when the green car ran to the end and Tromans had to stop twice.

Although he was unable to drive his Lotus Cortina in the U2TC race, there was consolation for Tromans. Richard Meaden soloed it to victory after the faster Alfa Romeo GTA of Frank Stippler/Alex Furiani retired.

Formula Renault BARC

Single event for FR Autumn Cup

FORMULA RENAULT BARC WILL

run its 2013 winter series over a single race meeting at Rockingham in November.

The renamed Autumn Cup will take place on the International Super Sports Car Circuit over the weekend of November 16-17, with a qualifying session and two races taking place on each day.

The Cup will also include a separate class for pre-2006 Tatuus FR2000 chassis. Last year's winter series took place across two separate race weekends, supporting the BTCC finale at Brands Hatch before a standalone finale at Rockingham last November.

Series promoter Simon North said the move was designed to make the Autumn Cup cheaper for drivers.

"Running the entire event across just one weekend makes it much more cost-effective for the teams and drivers and we're offering a lot of track time," he said. "The schedule seems popular with teams and we're hopeful of seeing a healthy line-up."

Ford Fiestas

Record Fiesta entry hits Brands

FORD RACING UK'S KEVIN SHORTIS

is hoping 100 Fiestas will compete in the supporting races at Brands Hatch's Formula Ford Festival after a record entry at the Kent circuit last weekend.

Class C, for Fiesta STs, attracted 31 starters alone. Around 12-14 Fiesta Juniors and a contingent from the Irish series are also expected for the

Festival on October 26-27.

Shortis said: "Class C had a record entry of 32, although 31 raced. There were 45 cars [across four classes] entered, which is a record."

"We will see Class C maybe growing over the next two to three years and we may get a reserve situation before the new Class D comes on stream."



ST class had record entry





Walker's Lotus won both pre-1961 GP encounters

SAWYER

HISTORIC GRAND PRIX ZANDVOORT, AUGUST 31-SEPTEMBER 1 HARC

Lotus stars near sun and sea

84

FORMULA 1 CARS SPANNING 1932-83 thrilled almost 46,000 spectators at Zandvoort's second Historic Grand Prix. Just as the Cosworth DFV story began here with Jim Clark's victory in June '67, shrill three-litre V8 machines monopolised the FIA Masters championship rounds, but the partisan crowd roared its approval as the early HGPCA set provided some stirring battles.

The challenging seaside circuit was a happy hunting ground for Team Lotus, indeed Type 16-mounted Innes Ireland placed fourth in the 1959 Dutch GP. Philip Walker's similar car was a double winner last weekend, although Julian Bronson's growling Scarab finished directly

behind on Saturday. "I'm quicker than Philip on parts of the circuit, but need another 20 foot-pounds of torque round here," said Bronson.

Alas Bronson's lusty steed was silenced when its coil lead popped off on Sunday's opening lap, thus Walker did not have to push as hard. Rod Jolley (ex-Jack Fairman Lister-Jaguar 'Monzapolis') and Marshall Bailey (loving his 16) were up for the fight, however, matching Walker's conservative times. After a long chase, Bailey skittered through for second at Tarzan.

"The number of spectators up in the dunes all round the circuit was amazing," said Walker, clutching a stunning limited-edition Zandvoort

watch that event sponsor Chopard presented to the major winners. "Apart from Goodwood, this is the biggest and most enthusiastic crowd we'll actually see [as we go round] while racing all year."

The packed stands had much to cheer, for behind the top three the Maserati 250Fs of Allan Miles and howeromni Peter Alexander van der Lof – whose father Dries raced an HWM in 1952's inaugural world championship Dutch GP – sandwiched Nick Eden's rasping ex-Alan Brown/Fangio Cooper-Bristol. Meanwhile Eden's class rivals Paul Grant and Ian Nuthall finished 0.005s apart after an extraordinary duel in similar cars.

Learning the circuit for this weekend's British GT round, Jason Minshaw (Tasman Brabham BT4) hung about for nobody in the Pre-'66 races, in which hard-charging Miles Griffiths (in John Bond-Smith's F1 Cooper T51) kept him in sight initially. Saturday's third man Peter Horsman was out of luck 24 hours later when his engine died, stranding him at Tarzan.

Fifty years after Jim Clark's Dutch GP win in a Lotus 25, Andy Middlehurst brought tears to veteran racegoers' eyes by howling Australian John Bowers's example to 1500cc V8 class victory and a fine third overall. Fellow Classic Team Lotus men Andrew Beaumont and Dan Collins (in ex-Innes Ireland 24 and 21 respectively) finished fourth and ninth, Collins scything the '61 US GP winner through the field to earn 1500cc four-cylinder F1 class victory.

Michael Lyons switched horses to his family's Hesketh 308E for the FIA Masters Historic F1 rounds and proved – not that rivals needed reminding – that he could beat them in almost anything. Lyons screamed away from Simon Fish (Ensign N180) and Greg Thornton (JPS Lotus 92) on both days, setting a cracking 100mph lap record second time out.

Having finally got the better of Christophe d'Ansembourg's McLaren M26 in a safety car interrupted race, Thornton's Saturday podium was a Lauda class first, but the chasing pack contained the real battles. Masters boss Ron Maydon (Amon)

HGPCA PRE-'61 GRAND PRIX CARS (BOTH 10 LAPS)

1 Philip Walker (Lotus 16); 2 Julian Bronson (Scarab-Offenhauser) +0.597s; 3 Rod Jolley (Lister-Jaguar Monzapolis); 4 Marshall Bailey (Lotus 16); 5 Allan Miles (Maserati 250F CM7); 6 Nick Eden (Cooper-Bristol Mk2). **Class winners** Jolley; Miles; Eden; John Bussey (Cooper T43); Stephan Rettenmaier (Maserati 4CM). **Fastest lap** Bronson 2m00.349s (80.05mph). **RACE 2 (16 LAPS)** 1 Walker; 2 Bailey +2.659s; 3 Jolley; 4 Miles; 5 Eden; 6 Alexander van der Lof (Maserati 250F). **CW** Jolley; Miles; Eden; Bussey; Rettenmaier; Michel Oprey (Bugatti T51). **FL** Walker 2m03.518s (78.00mph).

HGPCA PRE-'66 GRAND PRIX CARS (BOTH 12 LAPS)

1 Jason Minshaw (Brabham BT4); 2 Miles Griffiths (Cooper T51) +21.143s; 3 Peter Horsman (Lotus 18/21); 4 Andy Middlehurst (Lotus 25 R4); 5 Max Blees (Brabham BT7A); 6 Will Nuthall (Cooper T53). **CW** Griffiths; Middlehurst; Peter Studer (Lotus 24); John Davies (Cooper T45). **FL** Minshaw 1m53.176s (85.12mph). **RACE 2 (11 LAPS)** 1 Minshaw; 2 Griffiths +23.351s; 3 Middlehurst; 4 Andrew Beaumont (Lotus 24); 5 Blees; 6 Sid Hoole (Cooper T66). **CW** Griffiths; Middlehurst; Dan Collins (Lotus 21); Davies. **FL** Minshaw 1m52.147s (85.90mph). **FIA MASTERS HISTORIC F1 (14 LAPS)** 1 Michael Lyons (Hesketh 308E); 2 Simon Fish (Ensign N180) +27.861s; 3 Greg Thornton (Lotus 92/5); 4 Christophe d'Ansembourg (McLaren M26); 5 Ron Maydon (Amon F101); 6 Andrew

Beaumont (Lotus 76/1). **CW** Fish; Thornton; John Delane (Tyrrell 002). **FL** Lyons 1m36.354s (99.99mph).

RACE 2 (16 LAPS) 1 Lyons; 2 Fish +22.911s; 3 Thornton; 4 Beaumont; 5 d'Ansembourg; 6 Daryl Taylor (Shadow DN1/3A). **CW** Fish; Thornton; Delane. **FL** Lyons 1m36.285s (100.06mph).

HISTORIC F2 (15 LAPS) 1 Nick Fleming (Ralt-BDG RT1); 2 Matthew Watts (March-BMW 772) +0.297s; 3 Neil Fowler (Chevron-BDG B34D); 4 Mark Dwyer (March-BDG 742); 5 Andy Smith (March-BDG 742); 6 Jamie Brashaw (March-BMW 782). **CW** Robert Simac (March-BDA 712M); Bob Sellix (Lyncar-BDA 005). **FL** Watts 1m38.761s (97.55mph).

RACE 2 (14 LAPS) 1 Watts; 2 Fleming +0.019s; 3 Smith; 4 Brashaw; 5 Phil Hall (March-BMW 752); 6 Hugh Price (Chevron-Hart B42). **CW** Tim Barrington (Lola-BDA T240); Sellix. **FL** Watts 1m38.876s (97.43mph).

FIA MASTERS HISTORIC SPORTSCARS (33 LAPS)

1 Leo Voyazides/Simon Hadfield (Lola T70 Mk3B); 2 Manfredo Rossi di Montelera (Abarth Osella PA1) +45.834s; 3 Steve Tandy (T70 Mk3B/c); 4 Steve Allen/David Gathercole (Lola T212/c); 5 Jamie Boot (Chevron B16/c); 6 Keith Ahlers/Billy Bellinger (Cooper Monaco King Cobra). **CW** Rossi; Boot; Ahlers/Bellinger; Mark Bates (Porsche 911 RSR); Rick Carlino/Brian Johnson (GRD S74); Daryl Taylor (Chevron B8); Thomas & Tim Bailey (Lotus 23B). **FL** Hadfield 1m44.916s (86.41mph). **MASTERS PRE-'66 TOURING CARS (28 LAPS)**

1 Leo Voyazides/Simon Hadfield (Ford Falcon); 2 Mike Gardiner/Phil Keen (Ford Falcon) +24.140s; 3 Graham Wilson/Andy Wolfe (Ford Lotus Cortina); 4 Ron Maydon (Austin Cooper S); 5 Laurent Majou (Austin Cooper S); 6 Steve Jones (Morris Cooper S). **CW** Wilson/Wolfe; Maydon. **FL** Voyazides 2m04.765s (77.22mph). **DUTCH GT (10 LAPS)** 1 Graham Wilson (Lotus Elan); 2 Arie Luyendyk (Bizzarrini 5300GT) +0.771s; 3 Rob Bergmans (Iso Rivolta); 4 Armand Adriaans (Shelby Mustang GT350); 5 Georg Stummeyer (Ford GT40); 6 Frits Campagne (Ford Falcon). **FL** Stummeyer 2m01.479s (79.30mph).

RACE 2 (12 LAPS) 1 Luyendyk; 2 Wilson +2.273s; 3 Roman Caresani (Porsche 904/6); 4 Stummeyer; 5 Bergmans; 6 Jip van Putten (Chevrolet Corvette Stingray). **FL** Stummeyer 2m02.399s (78.71mph). **HISTORIC FORMULA JUNIOR (BOTH 13 LAPS)**

1 Pete Morton (Lightning Envolette); 2 Manfredo Rossi di Montelera (Lotus 22) +11.280s; 3 John Fyda (Lotus 22); 4 Ivo Goeckmann (Jolus); 5 Don Thallon (MRC 22); 6 Jens Rauschen (Brabham BT6). **CW** Goeckmann; Charles Cook (Envy Mk1); Mark Woodhouse (Elva Mk1); Comte de Graves (Volpini). **FL** Morton 1m57.339s (82.10mph). **RACE 2 (13 LAPS)** 1 Morton; 2 Fyda +41.371s; 3 Thallon; 4 Goeckmann; 5 Rauschen; 6 Kim Shearn (Lotus 18). **CW** Goeckmann; Shearn; Woodhouse; Jan Biekens (Stanguellini). **FL** Morton 1m56.782s (82.49mph).



Fleming (4) and Watts (2) shared F2 wins

staved off Andrew Beaumont (Lotus 76) for fifth on day one, while Daryl Taylor's sixth on Sunday in the ex-Graham Hill Embassy Shadow DN1 will have delighted its designer Tony Southgate, present as FIA technical delegate.

After a hefty Saturday shunt, which bent two corners of his Benetton Tyrrell 012 and its wings, Ian Simmonds's CMS crew did a tremendous job getting it out the following day. The combo finished eighth, to rapturous applause from the stands.

The weekend's tightest lead struggle came in a sensational Historic F2 opener. Nick Fleming repelled everything Matthew Watts threw at him for the entire distance – the polesitter even inching alongside over the brow at Hunslerug – to claim victory. Fleming flattened his Ralt RT1's wing to counter the straight-line speed of Watts's ex-Norman Dickson March-BMW 772 on Sunday, then found it lacked grip. Watts's car was also leaking water, which gave pursuers a few scary moments.

A late full-course caution, triggered by the Chevrons of fourth

placed Phil Gladman careering off at Scheivlak and third man Neil Fowler sliding off at the chicane, reunited the field. The safety car's lights were off as it pulled into the pits at the end of the last lap and Watts just outraged Fleming and Andy Smith's misfiring March 742 to the line, 100 metres away.

Among the 160cc cars, Alsatian ace Robert Simac (March) defied a misfire to narrowly beat defending champion Tim Barrington (Lola) on the road both days, but the points leader was angry to be docked 20s for an infringement that dropped him to second on Sunday.

Bad vibrations forced Dutchman David Hart to retire his Lola T70 while leading the FIA Masters Sportscar counter, but it looked improbable that he could keep the similar car of Leo Voyazides/Simon Hadfield behind. Manfredo Rossi's Abarth Osella finished second, with Steve Tandy's late-model T70 bearing down on it.

Voyazides and Hadfield also won the thin Masters tin-top race, seeing off Mike Gardiner/Phil Keen as the Falcons grunted clear of Graham Wilson/Andy Wolfe (in the only



Hall coaxed his Cobra to Masters enduro success

MASTERS GENTLEMEN DRIVERS ZANDVOORT AUGUST 31-SEPTEMBER 1

Snake bites Cobra charmer Coronel in the Dutch dunes

TOM CORONEL GRABBED DAVID Hart's 'Red Stripe' Cobra by the neck in Sunday's Masters Gentlemen Drivers enduro, delighting the crowd as he hammered round the seaside rollercoaster on the limit of adhesion, orchestrating a savage V8 soundtrack. But the Dutch pro trudged in on foot – "the car was fabulous until I started to feel a small vibration under acceleration" – and crew chief Gary Spencer confirmed gearbox failure.

Experienced Cobra tamer Rob Hall watched Coronel build a half-minute lead, not expecting it to last: "Tom set off as if somebody told him his house was on fire, but getting these cars to the finish is not easy." Indeed, Hall's car had a misfire after its alternator packed up, but he remained clear of Simon Hadfield in Leo Voyazides' version. "This is a proper, proper track. You have to be committed to go quickly," said Hall.

Voyazides worked hard to shake off Dave Methley, who forged Ron Maydon's Ginetta G4 twin-cam ahead of Lotus Elan rivals Ed Morris

and Graham Wilson. The class, (and third overall) nevertheless fell deservedly to Wilson and Andy Wolfe, who had caught and passed Maydon before he ran out of fuel.

Following diff failure that precluded a qualifying run, Hans Hugenoltz – son of John, designer of the original Zandvoort circuit in the 1940s – and Alexander van der Lof piloted the DHG 'Black Stripe' Cobra from the back to fourth.

Miles Griffiths, flying in Philip Walker's single-cam Lotus 11, finished fifth, ahead of Jeremy Welch/Mark Pangborn (Jaguar E), Jurgen Barth/Roman Caresani (in Kees Kooij's Porsche 904/6) and John Watson's Elan, in which Nelson Rowe lapped quicker than Wolfe.

RESULTS (46 LAPS)

1 Rob Hall (AC Cobra); 2 Leo Voyazides/Simon Hadfield (AC Cobra) +15.599s; 3 Graham Wilson/Andy Wolfe (Lotus Elan); 4 Hans Hugenoltz/Alexander van der Lof (AC Cobra); 5 Philip Walker/Miles Griffiths (Lotus 11); 6 Mark Pangborn/Jeremy Welch (Jaguar E-type). CW Wilson/Wolfe; Walker/Griffiths; Billy Bellinger/Keith Ahlers (Morgan SLR); Simon & Mark Ashworth (TVR Grantura). FL Tom Coronel (AC Cobra) 1m59.488s (80.63mph).

Lotus Cortina) and Ron Maydon and Laurent Majou in the quickest Minis.

In arguably the performance of the weekend, Luxembourg-based Graham Wilson – in his second season of competition – drove his Lotus Elan brilliantly to stave off twice Indianapolis 500 winner Arie Luyendyk's snarling Bizzarrini and Rob Bergmans' unusual Iso Rivolta for victory in Saturday's frenetic 51-car NHKGT leg. Luyendyk turned the tables on Sunday, however,

doing just enough to win the prize watch on aggregate.

Lightning struck twice in Formula Junior, Pete Morton (Envoyette) scoring two very neat victories over Lotus men Manfredo Rossi and John Fyda respectively. Poleman James Murray finally conquered electrical woes on Sunday, whereupon his Lola broke a driveshaft. Rossi spun on day two, but Australian Don Thallon deserved third in his MRC.

● Marcus Pye



Minshaw warmed up for GT bout with two HGPCA victories



Wilson held off Luyendyk in first Dutch GT race



2CV hordes get ready for the off at Snett

STYLES

2CV 24 HOURS SNETTERTON 200, AUGUST 31-SEPTEMBER 1 BARC

Belgians win the day (and night) as Fritchley takes title

AFTER LAST YEAR'S RACE WAS swamped by a night-time deluge, the 23rd running of the 2CV 24 Hours was mercifully dry. But there was no shortage of drama and incident as a strong grid of UK championship machines and a smattering of their modified Belgian cousins fought for victory.

With the leading Belgian BNLL/GTR Racing squad significantly quicker than the home entry, it was no surprise it took overall honours by a six-lap margin. But the team's race wasn't without issues. Twice it had to recover from mechanical failures, including engine problems and a three-lap penalty for being towed in after stopping on track.

Most eyes, though, were on the battle for UK honours, where not

only was the prolific RB Racing squad aiming for its fourth straight 24 Hour win, but five drivers were in with a shout of the championship title. The most likely contenders were all past 24 Hour winners, including Sammie Fritchley in Porky Boys (run by the crack Tete Rouge squad), Pete Sparrow in the well-prepared Team Sea Lion machine, and RB Racing's Alec Graham.

After some frantic opening laps, where the frontrunning UK teams slipstreamed and squabbled with admirable disregard of the hours still to come, the race settled down. As ever, consistency and reliability were keys, and among early frontrunners that fell away was Old Time, which impressed in the first six hours until a raft of problems close to midnight.

Significantly, RB Racing, which also led the UK teams, saw its chances disappear at half-distance after a lengthy pitstop for engine problems and a fuel pump issue. Its car's demise extinguished Graham's title hopes. The rapid Gadget Team also fell back with suspension damage after being forced over the kerbs.

As the hours counted down towards the finish, three leading UK runners emerged, with the perennially popular Team Stinky going into the final stint ahead, desperate for its first 24 hour win.

A lap behind was Porky Boys, with championship leader Fritchley at the wheel, knowing that she just needed to hold station to clinch the title and deny the slender hopes of Sparrow, whose Team Sea Lion car

was next up, albeit two laps further in arrears.

The tension was high, but for once there was no late drama – Team Stinky took a deserved win, and a delighted Fritchley secured the title.

● Oliver Timson

RESULT (723 LAPS) 1 BNLL/GTR Racing Team (Thierry DeBonhomme/Guy Brevien/Pierre Kodeck/Marc Coppieters); 2 Team Stinky (Chris Yates/Neil Savage/Christer Hallgren) -6 laps; 3 Porky Boys & Tete Rouge (Steve Jaques/Francis Rottenburg/Richard Lambert/Sammie Fritchley); 4 Team Sea Lion (Martin Harrold/Jon Davis/Paul Rowland/Pete Sparrow); 5 CGS - RacingTeam (Christophe Hooreman/Steve Hooreman/Masson Bernard/Michael Herr); 6 Crisis Too Racing (Nick Roads/Caryl Willis/Kris Tovey/David Fisk). **Class winner Team Stinky. **Fastest lap** BNLL/GTR Racing Team 1m40.067s (71.37mph).**

CLASSIC THUNDER & BLUE OVAL SALOONS SNETTERTON, AUGUST 31 BARC

Cook mistakes flag signal but still takes a double win

HAVING SET A POLE TIME ALMOST five seconds quicker than anyone else, Peter Cook's Mitsubishi Evo looked to have too much in hand over the combined Classic Thunder and Blue Oval Saloons field.

But Cook didn't get it all his own way in race one. He claimed the lead at the start, but had Stuart Day's Escort WRC in his mirrors for much of the opening six laps, with reprieve only coming when Day faded into retirement.

James Macintyre-Ure (BMW E46) took up the chase and briefly led when Cook overshot Brundle on lap 11. Cook responded with a rapid lap, which allowed him to reclaim the lead next time around.

Once back ahead, he eased to victory.

Cook and Macintyre-Ure held top spots throughout race two, with Cook building a substantial lead only for a slow lap to reduce it to four seconds. "I saw the black-and-orange flag and thought it was for me," he explained.

When he realised his error, Cook put his foot back down and eased away to clinch his second victory.

Meanwhile, Olly Allen was delighted to complete the podium in his Ford Fiesta, having spent the last two years building the car.

Terence Clark took a distant fourth ahead of David Margalies, who battled past John Edwards-Parton and Matt Edwards to claim fifth.

● Oliver Timson



Cook's Evo 9 was the dominant force in Classic Thunder

STYLES

RESULTS (BOTH 15 LAPS) 1 Peter Cook (Mitsubishi Evo 9); 2 James Macintyre-Ure (BMW E46 M3) +2.003s; 3 Craig Rainer (Ford Mk2); 4 Alexander Owen (Ford Sierra RS Cosworth); 5 Olly Allen (Ford Fiesta); 6 Terence Clark (Ford Fiesta ST). **CW Macintyre-Ure; Rainer; Owen; John Edwards-Parton (Ford Fiesta); Alan Eason (Ford Fiesta**

XR2); Daniel Burrows (Simca Rallye 2); Amanda Ewings (BMW E30 M3 Evo). **FL Cook 1m17.992s (91.70mph). **RACE 2 1 Cook;** 2 Macintyre-Ure +13.542s; 3 Allen; 4 Clark; 5 David Margalies (BMW M3); 6 Edwards-Parton. **CW** Macintyre-Ure; Edwards-Parton; Graham Ewings (BMW E30 325i); Eason; Burrows. **FL** Cook 1m17.361s (92.32mph).**



Sprigg Sr's Anglia leads son Steven in Lotus Cortina



STYLES

Pre-'83 Touring Cars

Championship leader Tim Scott Andrews guided his Rover Vitesse (above) to its fifth and sixth wins of the year in the double-header for Pre-83 Touring Cars at Snetterton. He led throughout in race one, keeping a careful eye on his mirrors to stay clear of closest challenger Mark Osborne's Triumph Dolomite Sprint. Meanwhile, Osborne had to stave off the attentions of Mark Fowler (Capri) in the final four laps to secure runner-up spot. Behind them, Nic Strong's Capri recovered from a poor start to overhaul John Wright (Escort) in the closing laps to secure fourth. Although Osborne initially grabbed the lead at the start of race two, Scott Andrews quickly blasted past on Bentley Straight on lap two and went on to secure an emphatic win. Fowler also passed Osborne and looked set to keep him behind until the finish, only for late retirement to gift the place back to his rival. Behind, Strong narrowly won a race-long dispute with Wright and Francis Butcher for third.

Pre-'93 & '05 Tourers

In the first race for the combined Pre-93 Tourers and Pre-2005 Production Cars, poleman Richard Millar (below) recovered from a stuttering start in his Sierra Cosworth to overtake the similar car of Jim McLoughlin and Paul Bellamy's M3 to win at Snetterton. While McLoughlin had to settle for second, Fowler fended off the persistent efforts of David Hickton's M3 to steal third place. Miller had to come from behind again in the sequel, having dropped to third at the lights. "I had another bad start - I need to get some lessons!" he joked. He made short work of snatching second from Hickton's less-powerful M3 on Bentley Straight on lap two, before pulling a great move on the outside of Riches next time round to secure the lead from McLoughlin. Undeterred, both McLoughlin and third-placed Hickton closed on the leader in the closing minutes. The trio swept together into the last lap, with Millar holding his nerve to win again.



STYLES

CLASSIC SALOONS & HISTORIC TOURING CARS SNETTERTON 200, AUGUST 31 BARC

Sprigg family feuds entertain saloon fans

THIS PAIR OF RACES PROVIDED SOME of the best battles of the event, with father and son Richard and Steven Sprigg pushing each other hard for victory in their evocative Fords.

In race one they were joined by James Burrows's nimble Mini Seven, which headed the lead trio in the early skirmishes before fading into mid-race retirement.

The Spriggs continued unabated, with Steven (Lotus Cortina) indulging in some exotic angles through the corners as he tried to prise the lead away from his dad's Anglia. Although he briefly succeeded with a mighty move round the outside of Coram

on lap six, problems engaging second gear contributed to him running wide on the exit at Murray's, allowing Sprigg Sr to snatch victory.

Pete Wright's Austin A40 Farina was a distant third, ahead of a tight three-way scrap for fourth in which Tony Preston's Morris Minor beat the Austins of Paul Clayton and Luc Wilson.

It was Sprigg v Sprigg again in the sequel, and this time Senior overcooked it as they swept through Murray's for the last time, allowing his son to steal past and snatch the glory. "It was my race to lose, and I lost it!" he explained ruefully.

Behind, Julian Crossley's Mini burst from ninth on the grid to do battle for third with Wright, who was delighted to prevail in a close fight.

● Oliver Timson

RESULTS (BOTH 10 LAPS) 1 Richard Sprigg (Ford Anglia 105E); 2 Steven Sprigg (Ford Lotus Cortina Mk1) +1.008s; 3 Pete Wright (Austin A40 Farina); 4 Tony Preston (Morris Minor); 5 Paul Clayton (Austin A35); 6 Luc Wilson (Austin A40). CW S Sprigg; Wright; Preston; Stuart Radford (Triumph 2000). FL S Sprigg 1m33.525s (76.37mph). RACE 2 1 S Sprigg; 2 R Sprigg +1.422s; 3 Wright; 4 Julian Crossley (Morris Mini); 5 Wilson; 6 Preston. CW R Sprigg; Wright; Wilson; Radford. FL R Sprigg 1m32.938s (76.85mph).



Moran is within sight of retaking the British title

WALDER

BRITISH HILLCLIMB CHAMPIONSHIP PRESCOTT, AUGUST 31-SEPTEMBER 1

Moran closing in on crown

CHAMPIONSHIP LEADER SCOTT MORAN and rival Trevor Willis ran mirror-image performances with reversed first and third places at Prescott.

Moran has the edge on dropped scores, as Willis needs to lose five points at season's end from his current tally. Moran needs just nine more points to take the crown.

An almost resigned Willis said: "We are keeping it [the fight] going for as long as possible."

The little cars were again the stars, as Alex Summers and Man of the Meeting Jos Goodyear reduced their class records on a day when 10 were

reset throughout the field.

Summers split Moran and Willis each time and dropped his standing two-litre record by an astonishing 1.94 seconds in qualifying. Later, Goodyear dropped his own 1600cc record, keeping it still faster than Summers's larger-capacity mark.

Tom New gained another place in the points, having arrived from nowhere in the last two meetings, and is likely to retain his top 10 spot.

Wallace Menzies was out of sorts after a last-minute differential change, but his third overall is safe from attack.

ROUND 29 1 Scott Moran (3.5 Gould-NME GR61X) 36.24s BTD; 2 Alex Summers (1.3s DJ-Suzuki Firehawk) 36.33s; 3 Trevor Willis (3.2 OMS-Powertec 28) 36.75s; 4 Jos Goodyear (1.6 GWR Raptor Extreme) 36.76s; 5 Wallace Menzies (3.2 DJ-Cosworth Firestorm) 37.25s; 6 Roger Moran (3.5 Gould-NME GR61X) 37.37s; 7 Will Hall (3.5 Force-Nissan WH) 37.64s; 8 Tom New (4.0 Gould-Judd GR55) 37.68s; 9 Alastair Crawford (2.8 Gould-NME GR55) 37.84s; 10 Paul Haines (1.3t Gould-Suzuki GR59) 37.86s; 11 Richard Spedding (1.6 Force-Suzuki PC) 38.03s; 12 Sue Young (4.0 Gould-Judd GR51B) 38.82s.

ROUND 30 1 Willis 36.29s; 2 Summers 36.49s; 3 S Moran 36.52s; 4 Goodyear 36.97s; 5 New 37.39s; 6 Hall 37.48s; 7 R Moran 37.66s; 8 John Bradburn (3.5 Gould-Cosworth HB GR55) 37.77s; 9 Menzies 37.80s; 10 Crawford 37.85s; 11 Spedding 38.13s; 12 Haines 38.26s. CW Richard Prior (3.6 Ferrari 355) 49.40s; Tony Adams (1.8 Lotus Elise) 48.92s record; Roy Standley (2.0t Mitsubishi Lancer EVO) 46.59s record; Allan Warburton (2.4 Caterham-Duratec) 44.48s; Ralph Pinder (1.9 Peugeot 205 GTi) 47.65s; Mike Turpin (2.2 Vauxhall VX220) 44.55s; Andy Dunbar (2.0 Westfield Vauxhall) 43.33s; Graham Wynn (1.3t Force-Suzuki LMO01) 39.34s record; John Lilley (E Vindicator Sprint) 57.84s record; Rob Stevens (1.3s Force-Suzuki SR4) 39.40s record; Adam Steel (1.0 Martlet-Suzuki AS1) 38.86s record; Rob Spedding (1.6 Swift FB91 Formula Ford) 47.63s record; Goodyear 36.35s record; Summers 36.48s record; Willis 36.67s record.

POINTS 1 S Moran, 248; 2 Willis, 242; 3 Menzies, 187; 4 R Moran, 152; 5 Summers, 140; 6 Hall, 122; 7 Bradburn, 111; 8 Goodyear, 81; 9 New, 53; 10 Deryk Young, 52.

Roger Moran's fourth position is at risk from Summers if he continues to score as he has in the past two events - Moran Sr has seven points to drop to Summers's zero.

Will Hall presses on determinedly. John Bradburn scored only once at Prescott, but Hall's place is at risk if Bradburn returns to form in the last two events.

● Eddie Walder



Edwards fought through to win the final race

MAZDA MX5 CHAMPIONSHIP BRANDS HATCH, AUGUST 31-SEPTEMBER 1 BRSCC

Edwards returns and climbs the top step of the podium

REIGNING CHAMPION TOM ROCHE twice beat James Blake-Baldwin to take two textbook victories from four Mazda MX5 races, while the other two races fell to Joshua Jackson and Jade Edwards, who both drove the wheels off their cars.

Edwards' win was particularly impressive. Not only was she back in the car for the first time in 12 months, her winning margin of 14.5 seconds over Jordan Albert was quite extraordinary. "That win

was surprisingly comfortable," she said. "But it was also the longest race of my life, I think!"

While Edwards stretched ahead, the chasing pack battled to the flag with Albert pushing ahead of Alex Roberts and Eduardo Rodrigues.

Roche led from pole in the first race (in which Edwards retired with a slow puncture) and was never headed. Blake-Baldwin fended off Alan Henderson and Brett Smith, who beat Henderson to the podium.

Jackson and Dan O'Connor had an epic battle right to the flag in the second outing, with Simon Woods taking third, over 3s behind.

Then it was back to Roche to give another masterclass by leading from the front in the third race, staying ahead of Blake-Baldwin again, while Henderson and Smith engaged in another ding-dong. This time Henderson stayed ahead of Smith, annexing fastest lap en route.

● Linda Keen

RESULTS (ALL 21 LAPS) 1 Tom Roche; 2 James Blake-Baldwin +1.945s; 3 Brett Smith; 4 Alan Henderson; 5 Daniel Rogers; 6 Charlie Charman.

Fastest lap Smith 57.179s (76.05mph). **RACE 2** 1 Josh Jackson; 2 Dan O'Connor +0.612s; 3 Simon Woods; 4 Jon Hughes; 5 Sam Gendy; 6 Eduardo Rodrigues. **FL** O'Connor 58.540s (74.28mph).

RACE 3 1 Roche; 2 Blake-Baldwin +1.426s; 3 Henderson; 4 Smith; 5 Rogers; 6 Charman. **FL** Henderson 57.255s (75.95mph). **RACE 4** 1 Jade Edwards; 2 Jordan Albert +14.506s; 3 Alex Roberts; 4 Rodrigues; 5 Josh Van Hooke; 6 Callum Edwards. **FL** Edwards 58.536s (74.28mph).

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FUN CUP BRANDS HATCH, AUGUST 31-SEPTEMBER 1 BRSCC

Eco Racing wins as rivals land in some hot water

ECO RACING DUO PAUL ABRAHAM and Tom Mills inherited victory in the last 15 minutes of this four-hour Fun Cup enduro.

Before that a flurry of 60-second stop/go penalties for 'dubious' driving standards under yellow flags and the safety car were meted out to several teams, including the leading Nimbus Data car of Bram De Groot/Steve Johansen.

This allowed Eco Racing into the lead, and just 5.64s behind the winners at flagfall were Sean Cooper/Michael McCollum/Neil Smith in the Track Focused car, with third place going to Benjamin Beighton/Chloe Noyce/OJ Bryant.

Racelogic trio Julian Thomas/Joachim Ritter/Nigel Greensall led after the first hour, but eventually finished two laps down in seventh.

Team Honeywell's Neil Plimmer/Geoff Fawcett led the timesheets at the three-hour mark, but slipped back to 15th.

● Linda Keen

RESULTS (234 LAPS) 1 Eco Racing (Paul Abraham/Tom Mills); 2 Track Focused (Sean Cooper/Michael McCollum/Neil Smith) +5.644s; 3 Benjamin Beighton/Chloe Noyce/OJ Bryant; 4 Nimbus Data Racing (Bram De Groot/Steve Johansen); 5 Global Racing (John Gilbert/Steve Machin/Christian Dick); 6 Team OBR (Simon Bonham/Martin Harris/Rob Thomas). **FL** De Groot/Johansen 56.553s (76.89mph).



Eco Racing car benefited from time penalties



Napolitano heads Fiesta ST pack into Paddock

FORD FIESTA ST BRANDS HATCH, AUGUST 31-SEPTEMBER 1 BRSCC

Napolitano beats bumper pack for double victory

LEE NAPOLITANO SECURED A resounding double victory from pole position in the burgeoning Class C field, David Grady claiming runner-up position in both events.

The first race was red-flagged after 14 laps when Rex Nye's stricken Fiesta came to a halt broadside on the run up to Druids, the result being called at that point.

Grady received David Ellesley's persistent attentions over the previous couple of laps, but the shortened result kept Grady second.

Napolitano continued where he left off in the second race, he and Grady pulling clear of Matt Foley and Nicholas Bowers until Bowers

squeezed past on lap nine for third.

Ellesley was in the thick of the action again and managed to demote Andrew Foley with three laps to go to finish fifth.

Curtis Mitchell, Andrew Taylor and Daniel Holland were all in the mix too, finishing in that order after some great overtaking.

● Linda Keen

RESULTS (14 LAPS) 1 Lee Napolitano; 2 David Grady +1.152s; 3 David Ellesley; 4 Matthew Foley; 5 Andrew Foley; 6 Daniel Holland. **FL** Ellesley 55.608s (78.02mph). **RACE 2 (22 LAPS)** 1 Napolitano; 2 Grady +1.511s; 3 Nicholas Bowers; 4 M Foley; 5 Ellesley; 6 A Foley. **FL** Napolitano 55.945s (77.72mph).

LEGENDS DONINGTON PARK GP, AUGUST 31-SEPTEMBER 1 BRSCC

Legend thrills continue at Donington

FOUR DIFFERENT DRIVERS SCORED victories in the six Scottish Legends races at Donington last weekend.

David Newall was the early leader of the first heat on Saturday. By lap three he had Paul O'Brien (who had started 10th) right on his tail. When Newall got crossed up at Roberts on lap three, O'Brien took advantage and moved ahead at Redgate.

Heat two was cut short when Ross Mickel barrel rolled at Redgate after making contact with John Patterson. "We just touched wheels," said Patterson later. Robbie Burgoyne was declared the winner on countback, with Newall once again second.

O'Brien took his second win of the weekend in the final. He came from 19th on the grid and went around the outside of Patterson at Redgate on lap five to take the lead.

Patterson came out on top in heat one on Sunday, taking the initiative from Marshall at the Melbourne Hairpin with a lap to go.



Saturday winner O'Brien leads at the Old Hairpin

Newall was on pole for heat two and he duly converted it to victory. Newall worked with Patterson early on to create a buffer to the rest of the field. They were soon caught, and Patterson was swallowed up by the pack, allowing Newall to escape.

Newall also won a dramatic final. Burgoyne took the lead from Warren Allan at the beginning of the last lap, with Newall close behind. Newall dispensed of Allan and dived up the inside of Burgoyne at the final corner, crossing the line just three tenths to the good.

● Matt Upton

HEAT 1 (6 LAPS) 1 Paul O'Brien; 2 David Newall

+0.773s; 3 Lee Fitzpatrick; 4 John Patterson; 5 David Allan; 6 Gerard McCosh. **FL Patterson** 1m52.573s (79.53mph). **HEAT 2 (3 LAPS) 1 Robbie Burgoyne**; 2 Newall +1.064s; 3 O'Brien; 4 Daniel McKay; 5 Dean Brace; 6 David Hunter. **FL Brace** 1m52.444s (79.65mph). **FINAL 1 (8 LAPS) 1 O'Brien**; 2 Patterson +0.454s; 3 Brace; 4 Warren Allen; 5 David Allan; 6 Newall. **FL O'Brien** 1m51.989s (79.97mph). **HEAT 3 (6 LAPS) 1 Patterson**; 2 Ross Marshall +0.550s; 3 Newall; 4 Brace; 5 Hunter; 6 D Allan. **FL Patterson** 1m52.541s (79.53mph). **HEAT 4 (6 LAPS) 1 Newall**; 2 Hunter +1.697s; 3 Patterson; 4 Burgoyne; 5 Fitzpatrick; 6 Marshall. **FL Hunter** 1m52.436s (79.53mph). **FINAL 2 (8 LAPS) 1 Newall**; 2 Burgoyne +0.309s; 3 W Allan; 4 Fitzpatrick; 5 Kieran Gallagher; 6 Steven McGill. **FL Euan McKay** 1m52.034s (79.91mph).

NORTH WEST SPORTS SALOONS DONINGTON PARK GP, AUGUST 31-SEPTEMBER 1 BRSCC

It's the same old story as Allaway wins

SIMON ALLAWAY ONCE AGAIN RAN away with the North West Sports Saloons last weekend, leading every single lap in his Lotus Esprit V8.

The Preston driver qualified almost two and a half seconds ahead of his nearest challenger, Garry Watson. Unfortunately, Watson was unable to join Allaway on the front row of the grid. He instead started from the pitlane after his Westfield struggled to fire up. "It was a shame that Garry wasn't alongside me; he usually starts quickly and gives me a bit of work to do," said Allaway.

Watson scythed through the field, and was running eighth when he

spun at McLeans on lap three. He recovered to seventh.

Grahame Tilley (Caterham) and Rob Spencer (Locosaki) battled for the runner-up spot, until Spencer's engine broke on the eighth tour. This promoted Joe Spencer, Rob's son, up to third in his Locosaki.

The younger Spencer looked comfortable until Alistair Chalmers began to catch him late on.

"I started running out of fuel," said Joe. "At every slow bend it coughed and spluttered, luckily it picked up just in time after the last corner."

Chalmers (Caterham) had earlier scrapped with Westfield drivers

Phillip Duncan and Nick Cresswell for fourth. Cresswell defended bravely from Chalmers, but lost the place on lap seven. Duncan then further demoted Cresswell at the Fogarty Esses with two laps to run.

● Matt Upton

RESULTS (13 LAPS) 1 Simon Allaway (Lotus Esprit V8); 2 Grahame Tilley (Caterham CSR) +16.970s; 3 Joe Spencer (Stuart Taylor Locosaki); 4 Alistair Chalmers (Caterham CSR); 5 Philip Duncan (Westfield SEI); 6 Nick Cresswell (Caterham 7 R400). **Class winners** Tilley; Chalmers; Steven Parker BMW Compact; Richard Hall (Ginetta G20); Graham Saul (Ford Fiesta XR2). **FL Allaway** 1m35.803s (93.45mph).



Allaway's Esprit devastated its opposition



Ford Fiesta A, B & D

James Appleby and David Abbott shared the spoils in two epic battles at Brands (above), while Andrew Mitchell was a distant third in both outings. Cancer patient John Bateman checked an item off his bucket list by not only finishing both events but cutting a sub 60s lap with his 12th-place finish in race two.

Fiesta Junior

Rory Collingbourne and Robert Cox shared the honours after some great racing by the youngsters in the Fiesta Juniors at Brands. Both boys showed great maturity as they fought doggedly in close company. Alex Reed was third in race one, before Ben Wilcox bagged third second time out.

Euro Saloon & Sports

Paul Rose had little difficulty in bagging two easy wins in the Euro Saloon and Sportscars events at Brands. Steve Harris netted two runner-up places in his similar Saker Sportscar. Gary Prebble brought his Evo RS home in third in both races while Graham Pattle (Saker) was fourth twice.

Alfa Romeo

Roger Evans took a reasonably effortless Alfa Romeo race victory in his 147 GTA following a great start at Brands. Fellow front-row starter Ray Foley (GTV) was slow off the mark, allowing Robin Eyre-Maunsell (33) to take second. Foley lost another place in the latter stages to John Griffiths' 156.

HRDC Allstars

Mike Whitaker romped to victory at Donington in his TVR Griffith (below). Michael Squire briefly got ahead on the opening lap in his AC Cobra, but Whitaker soon got back through at Redgate. Justin Murphy's Ginetta G4 inherited third spot when the Marcos 1800GT of Richard Skinner retired with a mechanical problem two laps from the end.





Noble romped clear in race one but was beaten later on

RADICAL SR1 CUP CADWELL PARK, AUGUST 31 MSVR

Noble makes it nine in a row before Vaughan bucks trend

COLIN NOBLE JR CLAIMED A NINTH consecutive victory before Dan Vaughan halted his dominance after a wheel-to-wheel duel.

The first race lasted a few yards before Jake Bradshaw received a tap that sent him careering into Brian Harvey and brought out the red flags.

From the restart it was side-by-side between Noble and Robert Almond through Coppice, with Vaughan joining them in a three-car break on the opening lap. As Vaughan piled the pressure on Almond for second place, Noble was able to ease himself clear for another dominant win.

Heading into Mansfield for the eighth time Vaughan nosed ahead, but ran wide on the marbles. With

his advantage increased, Almond looked safe until he approached the Mountain on the following lap.

"I didn't see any flags and came onto oil totally blind, spun and couldn't get off the grass," he said.

The race was red-flagged again with Vaughan taking second and James Guess third, following an earlier battle with Chris Hoy, after both benefited when Brian Caudwell broke his chain. Elliott Goodman and Matt Brookes completed the top six.

With both Noble and Vaughan slow away at the start of race two, Almond received a tap and was on the grass, which left Hoy to charge into the lead as they headed into Coppice. But as they emerged from Park Corner both Noble and

Vaughan were through. "I made room for Colin but I was forced wide and Dan got by too," Hoy explained.

For once Noble didn't get away and Vaughan's persistence brought them into contact at Charlies on the ninth lap.

"I thought it was a perfect move, but the contact broke my rear hub and Colin's front," Vaughan explained. Both survived to the flag with Vaughan's maiden victory taken by just over seven seconds.

Hoy's hold on third was lost when he spun at the Mountain on lap four, before Caudwell vacated the place with another broken chain.

Almond then came charging through in the closing laps and ousted Bradshaw into Coppice to

claim the final podium place.

"I thought I was heading for the barriers at the start, but got back on and just pushed as hard as I could," said a delighted Almond.

Hoy came back strongly, snatching a late fourth following his recovery – "I just want a podium before the end of the season, third will do" – while Elliott Goodman and Matt Brookes completed the top six.

● Peter Scherer

RESULTS (8 LAPS) 1 Colin Noble Jr; 2 Dan Vaughan +13.336s; 3 James Guess; 4 Chris Hoy; 5 Elliott Goodman; 6 Matt Brookes.

Fastest lap Noble 1m30.928s (86.58mph).

RACE 2 (13 LAPS) 1 Vaughan; 2 Noble +7.244s; 3 Almond; 4 Hoy; 5 Jake Bradshaw; 6 Goodman. **FL** Noble 1m30.834s (86.67mph).

RADICAL CLUB CUP CADWELL PARK, AUGUST 31 MSVR

Cadwell clean sweep for super Swede Westerholm

SWEDISH YOUNGSTER JESPER

Westerholm proved that Cadwell Park was certainly PR6 country, as he took another double victory after starting both races from pole.

Lewis Plato's SR3 led the chase in race one, with Steve Burgess's SR3 battling with Oskar Kruger's PR6 for third. As the lead duo started to escape, the battle for third intensified ahead of Tom Jordan, who had Ben Dimmack's PR6 closing in.

Kruger tried everything to get past Burgess, and in the end his persistence paid off. "I was alongside lap after lap at Park, but he defended well," Kruger said. He finally breached that defence on lap 10, making a late lunge at the Mountain section. "I didn't expect that, he caught me napping," admitted Burgess later.

While Westerholm cruised home

to a dominant win, despite stretching his chain, Kruger reeled in Plato and was only 0.2s off claiming a late second. Burgess remained a strong fourth and Jordan shook off Dimmack's challenge as they completed the top six.

It was nose-to-tail between Westerholm and Kruger for the whole of race two, after Plato stalled at the start. Kruger made a determined challenge, but was unable to stop his team-mate from securing another winning double.

Jordan had been in third at the start, but went off at the Mountain, leaving Dimmack and Burgess in front while Paul Marsham had to take avoiding action as he rejoined. Dimmack managed to consolidate third for a while and retained the place despite being closed on



Westerholm flew to yet another Club double

considerably by Burgess towards the end.

Jordan successfully held off Marsham for fifth, while Plato experienced the frustrations of racing on Cadwell's tight confines and had to settle for ninth, behind Brian Murphy and Mark Abbott, having finally got going in last place.

● Peter Scherer

RESULTS (BOTH 12 LAPS) 1 Jesper Westerholm (PR6); 2 Lewis Plato (SR3) +16.169s; 3 Oskar Kruger (PR6); 4 Steve Burgess (SR3); 5 Tom Jordan (SR3); 6 Ben Dimmack (PR6). **Class winner** Plato. **FL** Westerholm 1m23.213s (94.61mph).

RACE 2 1 Westerholm; 2 Kruger +0.288s; 3 Dimmack; 4 Burgess; 5 Jordan; 6 Paul Marsham (SR3). **CW** Burgess. **FL** Westerholm 1m23.688s (94.07mph).

IRISH FORMULA FORD 1600
KIRKISTOWN, AUGUST 31 500MRCI

McCullough crowned as FFord thrills

NIALL MURRAY WAS THE IMPRESSIVE winner of Kirkistown's second FF1600 nail-biter on Saturday, as Ivor McCullough claimed the title.

As part of a hectic five-car place-swapping battle, which raged for the full 16 laps, he had been in the thick of the action all the way, but a reshuffle two laps from the finish, when front-row starters Ivor McCullough and Noel Dunne tangled at Colonial, promoted them from fifth to third behind Jonny McMullan and David McCullough.

From then on he never put a wheel wrong, slipping past David a couple of corners later before diving past McMullan at the Hairpin on the final tour to claim victory. Dunne eventually placed sixth behind Adrian Pollock.

Ivor's own recovery to pip his brother to the final podium spot secured him the title with two rounds left to run, adding to his sixth place in the first race.

That had been dominated by



Murray won epic second FF1600 race

Dunne, who controlled proceedings from pole position, having escaped on the opening lap to shake off the chasing pack.

Behind him, a vintage scrap involving both McCulloughs, Kevin O'Hara, Murray, McMullan and Pollock kept the crowd entertained. It was eventually resolved in favour of McMullan and Murray, after Ivor inadvertently punted O'Hara at the Hairpin with a couple of laps to go. McCullough resumed to finish sixth while O'Hara left the battlefield with broken rear suspension.

While the title has been decided, the rest will have to wait until the

final rounds at Mondello in two weeks' time to sort out the places.

● Richard Young

RESULTS (14 LAPS) 1 Noel Dunne (Van Diemen RFO1); 2 Jonathan McMullan (Mondiale M89S) +6.808s; 3 Niall Murray (Van Diemen RFO1); 4 David McCullough (Van Diemen RFO1); 5 Adrian Pollock (Van Diemen DPO8); 6 Ivor McCullough (Van Diemen RFO1). **CW** Dunne; McMullan; Jamesy Hagan (Reynard 84FF); Ryan Templeton (Crosle 32F). **FL** D McCullough 1m01.350s (88.72mph). **RACE 2 (16 Laps) 1** Murray; 2 McMullan +0.257s; 3 I McCullough; 4 D McCullough; 5 Pollock; 6 Dunne. **CW** Murray; McMullan; Hagan; Templeton. **FL** I McCullough 1m01.406s (88.64mph).

ROADSPORTS KIRKISTOWN, AUGUST 31 500MRCI

Returning Donnelly takes stylish double

STEPHEN DONNELLY RETURNED TO Kirkistown after several months' absence and picked up where he left off, scoring a brace of victories in his self-built S&D Honda.

Nonetheless, Jim Larkham twice made a race of it, the Radical pilot not only taking class honours – and a new class record as well – but keeping Donnelly in his sights most of the way in both races.

Behind them, the S2000 Crossles of Paul Conn and John Benson kept the one-litre hordes at bay. Mark

Campbell should have been in the thick of the action, but a misfire kept his Radical back in the pack.

Among the 'tiddlers', Alan Davidson was supreme, twice leading Jack Boal over the line and setting a new class record in the process, while ensuring that the larger-engined machinery ahead never got a chance to relax.

Elsewhere the action was fast and furious, with a number of the one-litre brigade arriving at the finish bearing the scars of battle.

Even 'fun' racing can be very serious sometimes.

● Richard Young

RESULTS (BOTH 13 LAPS) 1 Stephen Donnelly (2.0 S&D Honda); 2 Jim Larkham (1.3 Radical PRO6) +14.508s; 3 Paul Conn (2.0 Crosle 47S); 4 John Benson (2.0 Crosle 37S); 5 Alan Davidson (1.0 GMS Honda); 6 Jack Boal (1.0 Locost Honda). **CW** Donnelly; Larkham; Davidson. **FL** Larkham 59.487s (91.50mph). **RACE 2** Larkham; 2 Donnelly +2.931s; 3 Conn; 4 Benson; 5 Davidson; 6 Boal. **CW** Larkham; Donnelly; Davidson. **FL** Larkham 49.483s (91.51mph).



Donnelly eased to victory in both Roadsports races



Nippon Challenge

James Janicki's Nissan Skyline won the first race at Cadwell Park, having been chased at close quarters by Steve Lawtey's Mitsubishi GTO (above) until it lost power and was passed by Ian Collins' Renault Clio and Adam Lockwood's Nissan 200SX. But Lawtey got his reward in race two, turning the tables on Janicki as Lockwood and Collins completed the top four.

MR2 Racing Series

Aaron Pullan's MR2 was another double winner at Cadwell Park. Dave Hemingway led the first race, but a grassy moment cresting the Mountain on lap three allowed Ross Stoner to take second from Hall bends. Hemingway retained third, which was repeated in race two, after team-mates Pullan and Paul Corbridge made an early and decisive break.

Saloon/GT

Connaire Finn boomed round Kirkistown in his Ginetta G50 to take a brace of victories over David Beattie's similar car, but behind the 'plastic pair' there was plenty of action, with Philip Shields' SEAT just keeping Stephen Traub's Integra and Gerry McVeigh's Evo at bay in race one, with positions reversed later on.

Formula Sheane

Barry Rabbitt led the pack away in the first race at Kirkistown, but by the finish it was the wily Brian Hearty in front with Robbie Allen and Dave Parks in the other podium places as Rabbitt retired following contact with Allen. Kevin Sheane turned the tables on Hearty in race two, setting a new lap record along the way. Allen and Parks again followed home.

Fiesta Zetec Cup

While older brother Colin was at Donington on Superstars duty, James Turkington (below) upheld family honour at Kirkistown with another virtuoso performance that kept his winning record intact. But his pursuers, led by Ryan Campbell and Andrew Blair, are getting closer.





Northern FF1600 Pre-'90

Chris Hodgen took the lead of the championship from Jaap Blijleven after claiming his fourth victory of the season at Oulton. Jamie Jardine (Reynard 84FF) converted pole into the early lead, but Hodgen (Van Diemen RF89) took the lead on the exit of Old Hall on lap five after piling on the pressure. Dutchman Blijleven (88FF) finished third, having reclaimed the position from Wayne Poole (RF88), who had taken it at Island on the second lap.

BRSCC Porsche

Rick Styrin extended his points lead with two more dominant wins in the Boxsters at Oulton. Just six racing laps were possible in the first encounter, and Styrin led throughout. His sponsor, Ian Loggie, took the helm at the start of race two, but Styrin soon took the lead back at Hizzy's and topped a team one-two. Will Sharpe passed race-one podium finisher Steven Boyles to claim third at Old Hall on lap three. Alastair Kirkham did the 924 class double.

Mighty Minis

With championship leader Jonathan Lewis absent following an operation, it was left to Zack Booth to take the victories by a combined margin of 24s at Oulton. A three-way fight for second in the opening race was won by Steven Rideout, but in race two he and Ralph Budd tangled at Cascades on the opening lap. Budd's son Charlie therefore took up the forlorn chase of Booth, while Damien Harrington came out on top of the third-position scrap.

Super Mighty Minis

Jamie White twice came out on top of a battle with team-mate Peter Tervet at Oulton. Pat Ford made the best start to the opener to run second behind Tervet, but White ousted him at Old Hall on lap two before grabbing the lead at Island on the fifth lap. White was ahead for much of race two but although Tervet took first at Hizzy's with two laps to go, White got a good run up Clay Hill to seal the double.



Raven (25) avoided all the drama to take victory

NORTHERN FF1600 POST-'89 OULTON PARK, AUGUST 31 BRSCC

Raven swoops to claim surprise first win

JAMES RAVEN EMERGED FROM AN extraordinary final lap to take his maiden race win, defeating Luke Cooper by 0.2 seconds to head home a Swift one-two.

For the first nine laps Raven's race was largely unremarkable. He made up two places from the grid to be eighth, and then passed team-mate Cooper (SC92F) at Old Hall on lap three. Thereafter, Raven (SC10) sat seventh in a 10-car train for the lead, in a race punctuated by a single-lap safety car intervention.

Meanwhile, American Skylar Robinson (Ray GR08) was having a more eventful race. He lost third position to the flying Scott Moakes

(Van Diemen RF99) at the restart, but retrieved the position at Hislop's on lap six as Moakes was forced down the escape road. Earlier on that lap, Austin Kimberly (Ray GR08) had relieved Luke Williams (Comtec o8) of the lead at Old Hall.

On the penultimate lap, Robinson dived inside Williams to take second at Cascades. A lap later, he tried it on his team-mate Kimberly for the lead, but they collided sending the latter into the gravel as Robinson rejoined seventh.

That incident at the head of the pack had repercussions at the next corner. The badly-delayed Williams and championship leader David

McArthur (Van Diemen LA10) came off worst, tangling and ending their race in the Island barriers.

Raven and Cooper emerged ahead, with Irish visitor Morgan Dempsey (Van Diemen RFoo) third. Martin Short took the championship lead by two points from Raven with sixth and fastest lap.

● Ian Sowman

RESULTS (11 LAPS) 1 James Raven (Swift SC10); 2 Luke Cooper (Swift SC92F) +0.196s; 3 Morgan Dempsey (Van Diemen RFoo); 4 Scott Moakes (Van Diemen RF89); 5 Doug Crosbie (Van Diemen RFoo); 6 Martin Short (Van Diemen JL012K). CW Cooper. FL Short 1m49.627s (88.40mph).

XR CHALLENGE & SCOTTISH FIESTAS OULTON PARK, AUGUST 31 BRSCC

Chaos hits Ford field as Scots join in

THE FORD XR CHALLENGE RETURNED to its spiritual home of Oulton Park for the second and final time this year, but it was visitors from the Scottish Fiesta championship that came out on top in race one.

The faster STs from north of the border started after a 30s delay, but that was wiped out as a safety car was required almost immediately. The Escort of Adam Burgess ended up broadside across the track at Cascades, with three others also eliminated.

After the resumption, the XR2s continued to lead. Craig Brookfield tried to wrest the lead from Mike Heath at Britten's, but slipped back to fourth. Ralph Fernihough was successful at Lodge, but lost out to Brookfield there a lap later.

Fluid on the circuit at Island Bend caused chaos on the final lap, Fernihough surviving a big moment but third place man Steve Poole careering into the tyre barriers.



Erstwhile leaders Heath (18) and Brookfield battle

Heath crashed heavily further around, before leader Brookfield retired. Through the drama came the lead STs, Scott Robertson winning ahead of Aiden Moffat's similar car, while Fernihough and Lee Bowron (XR3i) emerged to take their respective XR class honours.

Despite starting 14th for race two, Brookfield took second place from Steve McMurrrough (XR2) at Hizzy's on lap one. Leader Peter Lancaster succumbed there on the next circuit, and two laps later was spun down the order after contact from Poole while defending third

position. Craig Readyhough took second from Fernihough on the penultimate corner, while Moffatt (sixth overall) was top ST.

● Ian Sowman

RESULTS (8 LAPS) 1 Scott Robertson (ST); 2 Aiden Moffatt (ST) +0.341s; 3 Ralph Fernihough (XR2); 4 George Orr (ST); 5 Lee Bowron (XR3i); 6 Tony Rudd (XR2). CW Fernihough; Bowron; Wayne Macaulay (XR2). FL Moffatt 2m03.871s (78.23mph). RACE 2 (10 LAPS) 1 Craig Brookfield (XR2); 2 Craig Readyhough (XR2) +0.542s; 3 Fernihough; 4 Steve Poole (XR2); 5 Rudd; 6 Moffat. CW Moffatt; Bowron; Macaulay. FL Moffatt 2m05.092s (77.47mph).

Playing with the aces in Spa's longest race

GARY WATKINS joined WRT boss Vincent Vosse to race in this year's 'Fun Cup' 25 Hours

The name, in itself, is intriguing. The two words 'Fun Cup' draw you in. They get you wondering if it does what it says on the tin. I'd always wanted a go, yet I never thought I'd get my chance in the 25-hour extravaganza, held every year since 1998 for the bizarre Beetle-bodied Belgian creations at Spa.

Nor, for that matter, did I imagine my invite would come from such an unlikely quarter. When 'Vincent Vosse' flashed up on my mobile a couple of days after the Zandvoort round of the FIA GT Series, I was expecting a tirade against Balance of Performance rules. What I got was a call to arms from an old friend and AUTOSPORT fan to gather my helmet and overalls and be at Spa three days later.

I'd be driving with Vincent in his Fun Cup racer. There should be a definite emphasis on the word *his*, because the Vosse-run WRT squad – or W-Racing Team to be full and correct – now builds these spaceframe silhouette machines.

WRT started making the cars after



the previous makers (and organiser of the series in Belgium) ran into financial difficulties. The move was linked to WRT's desire to expand into bigger premises, but Vosse – like just about every other Belgian racing driver – has competed in the 25 Hours and had no desire to see the Fun Cup die.

The former winner of the Spa 24

Hours is not alone in Belgium in having a soft spot for these cars. Everyone from Bertrand Baguette to Marc Duez took part in this year's race. Even World Rally Championship superstar-in-the-making Thierry Neuville was there.

It makes you wonder if the 25 Hours could be the second most important event on the calendar for

the racing fraternity in Belgium behind the Spa 24 Hours. Maybe it's a three-way tie between the Fun Cup enduro, the Zolder 24 Hours and something called the Belgian GP.

WRT's takeover brings the Fun Cup full circle. One of the partners, long-time Audi and Volkswagen engineer Rene Verbist, designed the Fun Cup racer in 1997 for Franz Dubois, Audi's representative in the Belgian Procar tin-top series. Dubois' co-creator was touring car driver Pascal Witmeur, best known in Britain for his 'Free Gachot' Formula 3000 exploits. They came up with the idea for a cheap way into endurance racing with a spec racer built around a bespoke spaceframe chassis but using, says Verbist, "as many production components as possible".

The masterplan hatched by Vosse and Verbist 15 years on involves bringing Fun Cup into the 21st century. They've adopted a new two-litre petrol engine, developed in conjunction with VW Motorsport, aimed at superseding the 1.8-litre carburetted original, and the 1.9

SOME OF THE CHEAPEST MOTORSPORT AROUND?

The boss of the British Fun Cup series doesn't like the term 'cheap motorsport', instead preferring 'cost-effective'. Paul Rose, whose JPR Group brought the cars to the UK in 2002, reckons it provides some of the best-value club racing on a pound-per-minute basis.

"I've resisted doing the calculations, but Ian Connell [Alfa driver-turned Fun Cup racer] worked out that we are cheaper for the mileage you get than anything else he had done," Rose says.

Hiring a car for the 25 Hours from JPR would have set you back £24,000 all in. A driver would only have to get to

Spa and find somewhere to sleep. But there are 36 hours of track time on offer over four days, so with five drivers in a car, that's under five grand for more than seven hours of track time, or more than a season's worth of driving for most club racers. Rose reckons a deal for a seat with an owner-driver could be yours for £3000.

Controlling costs is Rose's mantra. That's why he's not going to allow the latest two-litre Fun Cup into the UK series, which is now largely contested by 1.8 petrols with the latest sequential gearboxes, before it is fully proven. That means 2015 at the earliest.



UK Fun Cup series uses older cars with newer gearboxes

TODD/PETCH

MARVIN HALL



Vosse explains the Fun Cup philosophy to his friend Watkins

turbodiesel that has subsequently run alongside it.

I was driving a two-litre in the BE3 class, '3' because it is the third-generation of car. 'BE' comes from the name of the series because new organiser Kronos, which took over its running at the same time as WRT got involved, doesn't have the rights to the Fun Cup name in Belgium — at least for now.

There are six classes in total. There is a so-called 'Twin' category for each kind of car. That's twin because there are two seats, one for a driver and one for a passenger! Imagine the tremors from Motor Sport House in Colnbrook if you suggested that one to the MSA. But apparently the Belgian federation isn't keen either.

Shock is also what I experience when I get out on track in Vincent's Fun Cup car, run by the local MTE squad. It was a culture shock coming from a rusty tin box VW Golf with a cage, my normal racing fare, to what is a proper racing car.

A Fun Cup racer is a quirky thing. I struggled with the heavy steering,

"They are low-grip, low-powered cars so you have to work to be fast in them"

NIGEL GREENSALL

and I wasn't alone. Another guest driver, one Tim Sugden, "used muscles I never knew I had". Lacking muscles of any sort, I was in trouble.

I wasn't quick, though I was getting faster as our car — and likely the track — was getting slower. That said, my times went up dramatically in the night. When I asked one of my team-mates, WRT's logistics man, sometime Belcar racer and former 25 Hours winner Francois Verbist, about the effectiveness of the bolt-on light cluster, he merely grimaced.

The lights were rubbish, but then so are my eyes. Thankfully my stint went into dawn, so it wasn't long before I was back on nodding terms with the apexes.

MARVIN HALL



Watkins 'helped' Vosse crew to 12th in class



Bumper field of Fun Cup racers at Eau Rouge

MARVIN HALL

Driver coach Nigel 'Jump-in anything' Greensall, a Fun Cup regular, reckons driving one keeps him fit. But he also says the cars are excellent for drivers to both learn and hone skills.

"There's nowhere to hide because all the cars are pretty much equal," he says. "They are low-grip, low-powered cars, so you have to

work to be fast. I try to get everyone I work with into the Fun Cup."

For the record, we ended up 22nd and 12th in class. An early delay put us to the back, but we would have been higher but for my efforts.

My outing didn't quite quench my interest in the Fun Cup. I want another go, but I'll be off to the gym first. ☘

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THIS WEEK

LETTERS • BEST PICS • LATEST GEAR • ON TRACK & SCREEN • ONLINE

What you think of the motorsport news of the past week



F1's commercially controlled TV cameras ignored Spa protest

Does publicity fuel protest?

Although Greenpeace is generally a worthy organisation, its protest at the Belgian Grand Prix was misguided.

However, it was unfortunately made all the more worthwhile by AUTOSPORT's decision to publish its anti-Shell statement.

It is simple, if the motorsport news media fuels the protesters' publicity engine, then the sponsors will be

less inclined to fuel the sport that we all value so much.

Simon Childs, Cheddar, Somerset

The Greenpeace protest was a dramatic and valid news story that was actively ignored by the television cameras, which are controlled by F1's commercial arm.

What would you prefer, censored coverage or a free press? — Ed

'Greenpeace makes its point' – and it worked, didn't it, with a front-cover picture!

I don't expect AUTOSPORT to ignore controversy, just not give them the maximum publicity they so desire.

I also don't expect you to ignore, bury, or condone it, but surely the race report was enough?

Simon AC Bill
By email

Does Dieter Rencken realise

the sheer irony of dedicating an entire online column to the 'failure' of the Greenpeace protest at Spa, or does his apparent smugness on the matter immunise him from this?

Sam Jenkins
By email

We read your feature about Johnny Herbert (August 22) with great

interest and would like to share our story.

At that time we were living close to Brands Hatch and our son, Matt, wanted to become a marshal. He was just 20 years old and this was his first time in the role. As a novice, he was not given his orange overalls straight away and was put out on post 13a as it was likely to be quiet there. This, of course, was where the incident occurred.

When watching the recording, Matt, wearing black, can clearly be seen as the first person onto the track to get to Johnny's car, and in your picture on p63 is then seen running towards Foitek's car.

We were at Paddock when this was going on. We walked to post 13a and Matt was very tearful and shaken, but stayed there for the rest of the day.

Matt later sent a card to Johnny at Queen Mary's Hospital in Sidcup, sending him his best wishes, and signed

it from Matt Williams, marshal post 13a.

A short while later he received a thank you note from Johnny, who had found out Matt's address from the BRDC.

From that day Johnny was Matt's hero and he continued marshalling for several years, until he got married, but always followed Johnny's career.

Sadly, Matt died in 2010 aged 41 of a heart attack. Thank you for printing that photo and article. We were very moved when we saw it.

Sue and Paul Williams
Heathfield, East Sussex

Sorry, but am I the only one

who can't get the theme tune to *Curb Your Enthusiasm* out of my head each week when I see Mark Hughes' MPH column?

Bob McEwan
Rochford, Essex

In pictures

Wheel-lacking images, from Brazil to east Germany via the US's east coast

IT'S THE AUDI R18 E-TRON TRIO
Is Audi trialling a radical new energy-recovery system, or has Loic Duval's errant wheel ruined his, Allan McNish's and Tom Kristensen's chances at Interlagos?



EBREY/LAT

JAPAN AIRLINES FLIGHT TO BALTIMORE
At least Duval's got more wheels on track than IndyCar ace Takuma Sato, shown attacking Baltimore's notorious 'railway' chicane



FEISTMAN/LAT

CRASH LANDING
Sato may not have many wheels on the ground, but that's nothing compared to Emil Bernstorff, last seen heading for Berlin in the German F3 round at Lausitz



FITIPALDI TRIES LMP2 MORGAN AT INTERLAGOS
The great man is about the same age as some 'silver'-rated drivers, but we're not sure OAK Racing can pull a fast one that easily!



In the shops

Desirable new releases

MONZA PARABOLICA T-SHIRT

£25 – t-lab.eu

The latest design in T-lab's homage to great corners is Monza's Parabolica – that never-ending right-hander at the end of the lap at the fabled Italian GP. Joining the set – the Nurburgring Nordschleife's banked Karrussel and Spa's switchback Eau Rouge – the T-shirt is 100 per cent cotton and comes in sizes S-XL. What's next, we wonder: 130R? Becketts? Casino Square? That'd be good...



LEGO TECHNIC F1 RACER

£79.99 – legostore.com

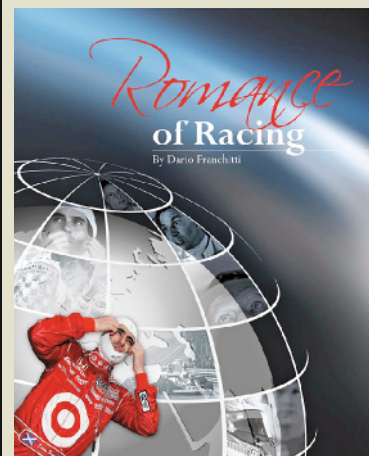
Lego's Technic set will have race fans and lovers of the iconic Danish bricks running for their internets. The detail on the two-foot-long Grand Prix Racer is incredible: working suspension and steering, and an opening engine cover that reveals oscillating pistons. You can also construct a racing truck using the same bits.



ROMANCE OF RACING BOOK

£42 – romanceofracing.com

IndyCar ace and racing history lover Dario Franchitti and ex-AUTOSPORT editor Andy Hallbery have created a collection of essays on the Scot's heroes and friends in the sport, combined with superb photography. Special offers are available until the end of September – see the website for full details.



WHAT'S ON

ON TRACK IN THE UK

SNETTERTON

MSVR

September 7-8

snetterton.co.uk

The BRDC Formula 4 Championship heads back to Norfolk for the penultimate round of its inaugural season. Jake Hughes has opened up a 34-point lead in what had hitherto been a very tight title race. Early leader Jake Dalton will join Hughes at Lanan Racing after switching from rival team MGR, which will give former InterSteps and Formula Renault BARC ace Matt Mason his series debut this weekend. Also on the bill are F3 Cup, Monoposto, GT Cup and Bernie's Historic V8s.

Formula 4 makes its second visit to Snetterton



JAKOB EBREY

OULTON PARK

MGCC

September 7

oultontpark.co.uk

The popular Porsche Club and Morgan Challenge championships join the MG Car Club's MG Trophy, Metro Cup, Ecurie GTS, Peter Best Challenge (including Iconic '50s Sportscars), Cockshoot Cup and Midget & Sprite Challenge for a 10-race programme at the Cheshire parkland circuit.

ROCKINGHAM

BRSCC

September 7

rockingham.co.uk

Production Golf GTis, TVR Challenge, Caterham Academy, and Civic Cup, plus two Pickup Trucks races on the oval.

GARY HAWKINS



Caterham Academy goes to Rockingham

CADWELL PARK

BARC

September 7-8

cadwellpark.co.uk

The rejuvenated Mazda MaX5 championship, plus MG

Owners' Club, Caterham Graduates, the North West Sports Saloons and the British Superkart UK Cup for 125cc and 250cc Superkarts.

SILVERSTONE

MSVR

September 7

silverstone.co.uk

An eight-race programme on the National Circuit, including

Atom Cup, Track Day Trophy, Team Trophy, Intermarque and the Quaife MV Saloons & Cannons Tin Tops.

CROFT

DDMC

September 8

croftcircuit.co.uk

The various classes of the Northern Saloon and Sports Car Championship have two races each, plus two non-championship sprint races and a 60-minute mini-enduro.

ON TRACK AROUND THE WORLD

ITALIAN GRAND PRIX

Formula 1 World

Championship

Rd 12/19

Monza, Italy

September 8

formula1.com



It's swoopy Sonoma for the WTCC

PORSCHE SUPERCUP

Rd 7/8

Monza, Italy

September 8

porsche.com/motorsport

WORLD TOURING CAR CHAMPIONSHIP

Rd 9/12

Sonoma, California, USA

September 8

fiawtcc.com

GP2 SERIES

Rd 9/11

Monza, Italy

September 7-8

gp2series.com

GP3 SERIES

Rd 7/8

Monza, Italy

September 7-8

gp3series.com

NASCAR SPRINT CUP

Rd 26/36

Richmond, Virginia, USA

September 7

nascar.com

SUPER GT

Rd 6/8

Fuji, Japan

September 8, supergt.net

GRAND-AM

Rd 11/12

Laguna Seca, California,

USA, September 8

grand-am.com

SCANDINAVIAN TOURING CAR CHAMPIONSHIP

Rd 7/8

Tierp, Sweden

September 7

stcc.se

INTERNATIONAL GT OPEN

Rd 6/8

Spa, Belgium

September 7-8

gtopen.net

EUROPEAN F3 OPEN

Rd 6/8

Spa, Belgium

September 7-8

f3open.net

BRITISH GT CHAMPIONSHIP

Rd 6/7

Zandvoort, Netherlands

September 7-8

britishgt.com



Brit GT heads for Holland

EBREY/LAT

Your guide to the best events taking place in the UK and around the world – plus TV and online

ON TELEVISION

THURSDAY SEPTEMBER 5

1400-1445 **Sky Sports F1 LIVE**

F1 Italian GP: Drivers' Press Conference

1730-1830 **Eurosport**

European Rallycross: France Highlights

FRIDAY SEPTEMBER 6

0845-1100 **Sky Sports F1 LIVE**

F1 Italian GP: Free Practice 1

0855-1035 **BBC2 LIVE**

F1 Italian GP: Free Practice 1

1100-1135 **Sky Sports F1 LIVE**

GP2: Italy Practice

1210-1415 **Motors TV**

FIA WEC: Interlagos Highlights

1245-1450 **Sky Sports F1 LIVE**

F1 Italian GP: Free Practice 2

1300-1435 **BBC2 LIVE**

F1 Italian GP: Free Practice 2

1450-1535 **Sky Sports F1 LIVE**

GP2: Italy Qualifying

1615-1700 **Sky Sports F1**

F1 Italian GP: Team Principals' Press Conference

1800-1845 **Sky Sports F1**

F1 Classic GPs: Italy 1988

SATURDAY SEPTEMBER 7

0445-0545 **ESPN**

IndyCar: Baltimore Highlights

0845-0920 **Sky Sports F1 LIVE**

GP3: Italy Qualifying

0945-1110 **Sky Sports F1 LIVE**

F1 Italian GP: Free Practice 3

0955-1110 **BBC2 LIVE**

F1 Italian GP: Free Practice 3

1045-1145 **ITV4**

Motorsport UK

1115-1200 **Sky Sports F1**

F1 Classic GPs: Italy 1995

1200-1435 **Sky Sports F1 LIVE**

F1 Italian GP: Qualifying

1210-1430 **BBC1 LIVE**

F1 Italian GP: Qualifying

1435-1600 **Sky Sports F1 LIVE**

GP2: Feature Race

1450-1620 **Motors TV LIVE**

GT Open: Spa Race 1

1615-1705 **Sky Sports F1 LIVE**

GP3: Italy Race 1

1620-1855 **Motors TV**

NASCAR Nationwide: Richmond

2200-2245 **Eurosport 2 LIVE**

WTCC: Sonoma Qualifying

SUNDAY SEPTEMBER 8

0030-0500 **Premier Sports LIVE**

NASCAR Sprint: Richmond

0820-0910 **Sky Sports F1 LIVE**

GP3: Italy Race 2

0930-1035 **Sky Sports F1 LIVE**

GP2: Italy Sprint Race

1100-1200, 1700-1800 **ESPN**

NASCAR Sprint: Richmond H'lights

1130-1615 **Sky Sports F1 LIVE**

F1 Italian Grand Prix

1210-1515 **BBC1 LIVE**

F1 Italian Grand Prix

1600-1710 **Motors TV**

GT Open: Spa Race 2

F1 Italian Grand Prix Highlights

1930-2030 **Eurosport LIVE**

WTCC: Sonoma Race 1

2130-0030 **Motors TV LIVE**

Grand-Am: Laguna Seca

2200-2300 **Eurosport LIVE**

WTCC: Sonoma Race 2

MONDAY SEPTEMBER 9

0900-1000 **ESPN**

NASCAR Sprint Cup: Richmond Highlights

ONLINE

HOT ON THE WEB THIS WEEK

YouTube THE EMERSON FITTIPALDI STORY - IN ANIMATION



SEARCH FOR: Tooned 50: Episode 3 - The Emerson Fittipaldi Story (3:01)

As part of McLaren's 50th birthday celebrations, the team's much-loved 'Tooned' animation series profiles Brazilian legend Emerson Fittipaldi, its first F1 world champion back in 1974. Question is: was Emmo a mouse or a werewolf? You decide...

AUTOSPORT+

Exclusive content coming up in our premium website this week

Two F1 legends: McLaren and Monza

We continue marking McLaren's 50th anniversary, including an interview with key early figure Tyler Alexander. Plus, the AUTOSPORT team heads to iconic Monza for the Italian GP. Can anyone stop runaway title leader Sebastian Vettel's Red Bull?

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AUTOSPORT

Revved up over what's on the box



Frost met Hamilton at British GP this year

"HELLO, GOOD EVENING AND welcome." You know you're famous when even the most banal of statements can become your catchphrase (see also Michael Caine), and Sir David Frost, who died this week, was a giant of British TV.

A gifted natural inquisitor, satirist, and even genial host of daytime nose-parker-guessathon *Through The Keyhole*, Frost interviewed Lewis Hamilton on his Al Jazeera show only last month.

Despite the huge age gap between them, he exuded that finely honed skill of getting his subject to do the talking, at his tempo. Frost's ability in this role, while the

interviewees change from pop superstars (notably John Lennon) to comedians (Groucho Marx) to political heavyweights (Richard Nixon), certainly mellowed over the years to a much softer style. As he once said: "Pointless to get hostile, unless you have a smoking pistol."

Two years ago, Frost interviewed Bernie Ecclestone on his show, *Frost Over the World*. A notoriously obtuse individual, Ecclestone clearly warned to him.

"What would you like to achieve in your life?" Frost asks Mr E.

Bernie: "That I live a bit longer."

Frost, nine years Ecclestone's junior,

leans forward: "The problem of age, it's only a problem if you let it be a problem..."

"I want to get up in the morning with problems to solve, which is what I do."

"Retirement can be a big mistake?"

"Absolutely!"

"And people can drop off the perch..."

"People should be allowed to keep going as long as they can deliver."

"Absolutely, and you're going to do that?"

"And you!"

"And me! All right, it's a deal." Bernie grabs his hand, not the other way around.

Sadly, Sir David's deal expired on Sunday.

Revved Up

Philippe Favre

“It was classic FF1600 action – competitive and hard, but very fair”

■ Formula Ford Festival ■ Brands Hatch ■ October 26, 1986 ■ Van Diemen RF86 ■ A close second



Ratzenberger leads Favre up to Druids. They were this close all race

I LOOK BACK VERY FONDLY AT the Formula Ford Festival final in 1986, not only because it was a great race but because it also started a special friendship with my big rival that day: Roland Ratzenberger.

We were the quickest drivers all weekend and lined up on the front row with Roland just getting pole. It was very tense of course, but on the grid my mechanics and I decided to distract Roland. God knows where we got it from but one of our guys produced a bra from nowhere and just before the one-minute board went up he handed it to me and I threw it across to Roland. It landed in his cockpit but he didn't flinch and just ignored it. He just tossed it to one of his mechanics and flicked his visor down. He was obviously in the zone!

We headed off towards Paddock Hill Bend with me tucked behind his red Van Diemen. It was like this for the whole 20 laps. I was right with him and looking for a way through everywhere, but he was very clever in placing his car just in the right place at the right time. I was quicker but

there was no way through.

As the laps wore on Roland got even more defensive and we touched wheels many times. It was clear it would come down to the last lap...

And so it did because, like many previous attempts, I took the classic wide line in to Paddock and then looked for the cut back up to Druids. Again Roland had things covered even though we both braked super-late and he was sliding the car a lot.

It was classic FF1600 action and although it was very competitive and hard racing, it was also very fair.

Perhaps I was too polite, but I had a small chance at the very last corner. Roland went very defensive and I got up the inside on the exit and we ran to the flag side-by-side, almost banging wheels. It was a classic finish and he won by less than half a second. I could almost smell the champagne!

On the slowing down lap we both

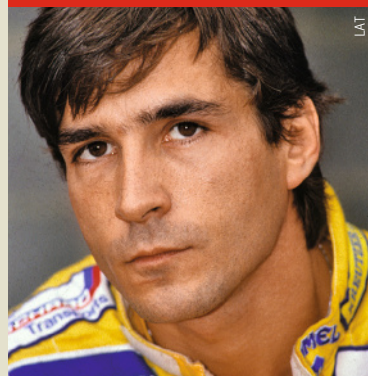
looked across at each other and gave the thumbs up. There was a nice level of respect between us and it had been a tremendous battle.

After the podium I was in the paddock with my family, friends and team celebrating. I noticed Roland sitting outside his garage all alone with the trophy and garland. It turned out he had nobody there watching 'his' big race – he'd told his family he was in the UK learning to be a mechanic because his parents didn't like him racing. Amazing!

So I said to him, 'you have to come out with us tonight and celebrate'. So he did and we had a wonderful night. We even laughed about the 'bra incident' on the grid. He took a shine to one of my cousins who was over from Switzerland. I think he may have been successful in more ways than one that day. Typical Roland!

We became very good friends and socialised a lot together right up until he died at Imola. He was such a lovely guy and Festival memories are what life is all about. I miss him, even now. ✘ Philippe Favre was talking to Sam Smith

PROFILE



SWISS PHILIPPE FAVRE WAS runner up in the 1986 RAC FF1600 Championship. He then raced in British F3 in 1987 with a single win at Donington Park. After a further season of F3 in 1988 he embarked upon a cash-strapped year of FIA F3000 in 1989 before a brief switch stateside in 1992 for a handful of Indy Lights outings. Favre, now 51, still races sporadically in GTs and also runs his own events company.

NEXT WEEK ITALIAN GRAND PRIX REPORT
Plus Enzo Ferrari retrospective

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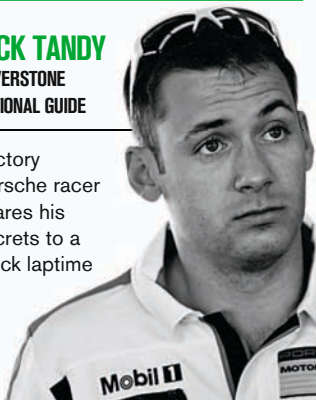
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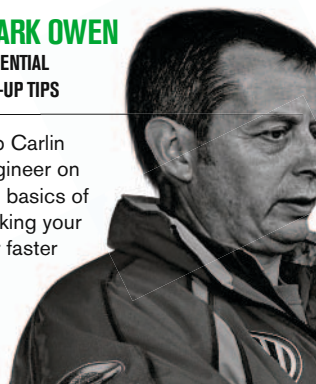
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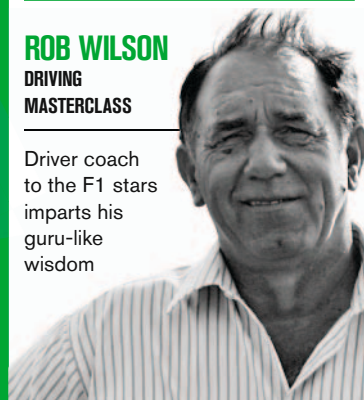
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WHATEVER TYPE OF CAR YOU'RE RACING, AT WHICHEVER level, motorsport is ultimately about trying to go faster than you've ever been before.

There are myriad ways of going about this, in what can be a very difficult sport to understand. Motorsport's complexity is part of its beauty, but that can also make it incredibly confusing and frustrating at the same time.

That's where we hope AUTOSPORT Performance can help. In the first edition of what we plan will become a regular feature of this magazine, we have asked a selection of top professionals who have honed their expertise forging careers at the higher levels to bring their experience to bear for our benefit.

So whether it's the insights of World Touring Car champion driver Rob Huff (pictured in his office, above), globally-renowned F1 driver coach Rob Wilson, Porsche factory ace Nick Tandy explaining the secrets to a quick lap of the Silverstone National Circuit, Carlin chief engineer Mark Owen's expert guide to race car set-up, or World Endurance Championship star Darren Turner's explanation of how simulators can improve driving, we hope there's something in here that will prove helpful in making you go faster next time you hit the track.

After all, that's what motorsport is all about.

BAnderson

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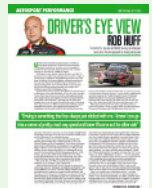
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...is to choose a series to compete in and where to do it. Here are the contact details for the key championship organisers and circuits in the UK and Ireland.



ROB WILSON'S DRIVING MASTERCLASS



As a world-renowned driver coach, **ROB WILSON** tutors professional drivers of all disciplines, including nine racers on the current F1 grid. Here he explains how the principles of driver coaching can begin to make you perform better the next time you take to the racetrack

Race driving is one of those things that's more difficult to learn on the job than people think, because a race weekend has so many different functions to it.

You might have 30 minutes of testing, where you're probably just getting used to the car and warming up; then perhaps within that, a small amount of actual testing. The next go around is an equally brief qualifying session, where drivers are simply going as fast as they can, and you're never quite sure how well you've done until the grid comes out. At that point you're usually one evening – or maybe a short lunch break – away from the race, by which point the driver will probably have some feeling for the car and might have a stab at fixing any issues with it. Then, once the race starts, the adrenaline is flowing and the driver is in 'kill mode' until the chequered flag comes down. To call that a considered learning process is a stretch!

Many racing drivers will tell you they've learned a great deal more since they retired than they did while they were actually driving, because there's a not unreasonable view that drivers should be like lightbulbs: you just plug them in and everything else is down to set-up. But we have to realise that drivers have vastly different levels of experience depending on their age and background, and thus may lack the necessary reference points the sands of time can give you. Therefore, if one can take time to be schooled in as many elements of driving as possible – and implement them in a structured way – it can leave more room in your brain to think about bringing some order to what can be a very chaotic experience. This is where coaching can help.

People often speak of other sports being way ahead of motorsport in this respect. But a tennis coach can play tennis with his player, and a



“Many racing drivers will tell you they've learned a lot more since retiring than when they drove”

football coach can get on the field and kick a ball with his team. In motorsport, you are cocooned in a solo environment.

There are few occasions where a driver will bring a car into the pits and ask his mechanic to get in it, do a similar lap time, and then discuss what to do next. There's a famous example with Innes Ireland, who entered a NASCAR race at Daytona in 1967 and had great trouble getting up to speed. His mechanic jumped in and went faster than Innes did, and as the mechanic came into the pits Innes had already packed his overalls and left the circuit!

But these occasions are rare. There are drivers who do this for other drivers (I did it for Kenny Brack when he first went to America), but the cost and rarity of testing can restrict those opportunities.

It's therefore best to have a driver who's not simply driving as fast as he can, but also using only 60-70 per cent of his brain to do so, leaving room for some clarity of thought about what he's doing, why he's doing it, and how the car is affected.

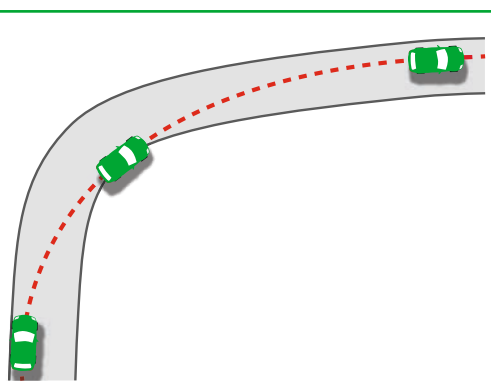
On one level, it can be helpful to teach a driver the basic geometric line around a circuit, but there are very few absolutes in motorsport. As a driver becomes more experienced, it's as much about manipulating the dynamic weight of the car as it is about obsessing with geometrically perfect lines. Nevertheless, a good line is always a good place to start! That can be done at the track; in some cases it's possible to drive around the circuit in a road car; a track map can be studied; and up to a limited point, one can walk the track. During the race event, the coach – if they can tear themselves away from pitlane telemetry – can observe from the corners. But a driver would have to be a fair way out from his lines for the coach to see anything that will make too big a difference.

Pretty much all my work is done away from the circuit. I get a number of offers to travel the world for all manner of disciplines – F1, Indycar, Aussie

RACING LINE

PERFECT GEOMETRY

Most driving schools and circuit guides will talk about geometrically perfect racing lines. For Rob Wilson, this has its uses, but only as a starting point for learning circuits. As a driver builds experience, he says they should focus more on manipulating the weight of the car as it moves through different phases of turns. A 'perfect' line is not necessarily the key to a fast lap time.



WEIGHT TRANSFER



FLAT

Driving is all about manipulating weight in the car as it moves around a circuit. Here the car is 'flat', settled in a straight line without a weight bias towards either end (neither accelerating or decelerating). There is also no discrepancy from one side to the other.

BRAKING

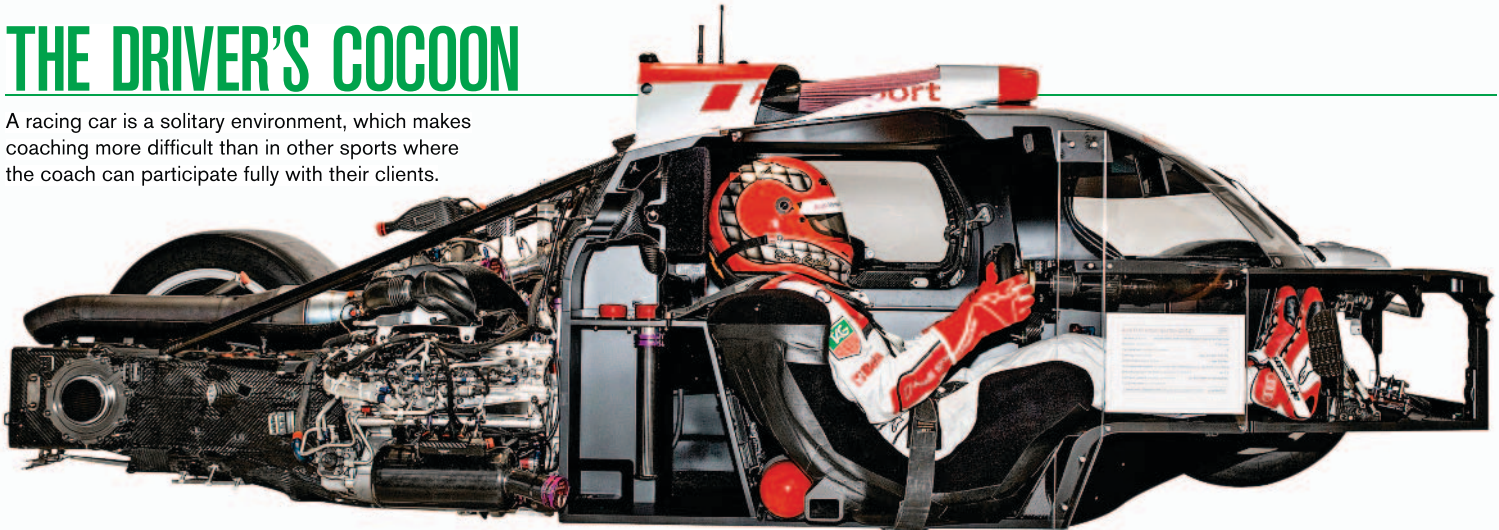
When the driver first applies the brakes, the weight bias will transfer forwards, lifting the rear of the car and lowering the front. This will simultaneously take load out of the rear tyres and increase the load going through the front wheels.

ACCELERATION

When the driver accelerates out of a corner, the weight bias will transfer rearwards, lowering the rear of the car and raising the front. This will simultaneously take load out of the front tyres and increase the load going through the rear wheels.

THE DRIVER'S COCOON

A racing car is a solitary environment, which makes coaching more difficult than in other sports where the coach can participate fully with their clients.



V8s – to be present at the track. But I find my most productive work is done sitting in a road car with the driver and instilling a structure they can take away with them to the circuit. This is the closest you can get to being inside their 'cocoon'.

It's important the structures of driving become ingrained in the driver's mind. Simply telling them has its limits. Certainly they'll listen, but that's about all they can do. You can show them, and they can perhaps copy it. But it's not until they give themselves – 100 times over – their own examples to follow that it builds a channel in their brain.

That will cover how they go on the brakes, how they come off the brakes, how they turn the steering wheel, the rate at which they get on the throttle, and how within those disciplines they begin to transfer and manipulate the weight and direction of the car, and how the car is affected by what they do and how they do it.

This is all measurable by the stopwatch. We're not talking matters of principle at 100 paces here – the lie detector is always running!

Once a discipline has infiltrated the mind, it's got to 'feel' right. Sometimes this is natural, other times it has to be built in. But once you get close to a good lap time that 'feels right', then copy yourself, imitate yourself. Because, separate from all of the digital details, the way you move your body – the rate you tell anything what's coming next (but let's call it a racing car) – has a massive effect on how well that item functions.

Too abrupt and there will be a resonance that creates a ripple effect – something you don't want; too lazy and you're pushing all the levers with a liquorice strip and it will never get the message!

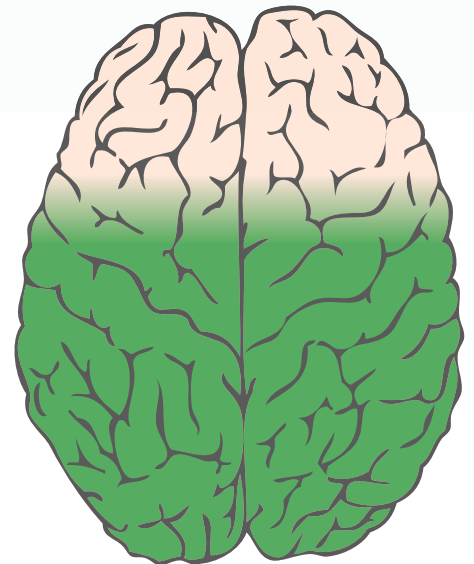
There's a preferred rate of acceleration for every input you give the car, and once you've found that threshold you will find harmony with the track surface. At that point, you become 'one' with car, the car becomes 'one' with the surface, you become 'one' with the surface, and you can almost transcend the car.

When you get into that zone, you will become very hard to beat. But being able to do this under extreme pressure, when you're staring death in the face, or the end of your career because your team-mate is going faster than you, it's very important to be able to separate the fear from the feeling. So no matter what you're looking at through your visor, you still pull all the levers in the right order and at the right speed. But that takes days and days of repetition. That's why you'll get people at the top of their leagues – people you've heard of – with whom I'll spend days and days.

After all, there's no point being the fastest gun in the West if you pull the trigger before the gun is out of the holster! This applies to all aspects of driving. It's an art and a craft that's about understanding and feeling the constant dynamic of the car's behaviour, rather than a linear process of choosing 'braking points' or 'turn-in points' or 'acceleration points'.

People often say you need brilliant reactions to drive a racing car, but I don't think you do. If you manipulate the car in the right way you won't have anything to react to! If you spend your life living on your reflexes, you'll wear your brain out. We're not digital, we're analogue. And so is the car. Understanding that, and starting a process of self-analysis, is where the learning process begins. ❧

BRAIN POWER



SPARE CAPACITY

The best drivers in the world all have the ability to do other things while driving a car as fast as they possibly can. Coaching can help make the driving process more automatic, so you can use the spare brain power for other functions.



Aiming to become a professional racing driver?

Think you have what it takes to succeed in this sport?

If you are serious about a career in motorsport, you should look closely at the MSA Academy, the governing body's competitor development pathway.

The MSA Academy gives you access to top qualified coaches and support personnel and provides free impartial advice about the sport and your career. It will develop you as an athlete and as an individual to help keep your racing career on the right track.

STOP PRESS: Applications are now open for the next intake on the Advanced Apprenticeship in Sporting Excellence (AASE) in motor sport.

AASE is a government-funded sports performance programme for 16-18 year old potentially elite drivers. It's run as part of the MSA Academy by sports specialists Loughborough College. You will:

- become a better driver
- have access to top trainers, coaches and mentors
- learn about sports science and human performance
- gain proper qualifications at the same time

Deadline for applications: Friday 13th September.

For more information visit www.msauk.org/aase or email msaacademy@msauk.org



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DRIVER'S EYE VIEW

ROB HUFF

The British tin-top ace and World Touring Car champion talks about his own approach to driving racing cars

My dad never raced and our family didn't come from a motorsport background. When we started endurance karting it was just for fun, there were no thoughts of a career. We were just fans of the sport who went to watch touring car races and the Willhire 24 Hours.

Motorsport is very serious, and we all want to win. But it's important to not take it too seriously and remember to enjoy it. You're going to experience disappointment 90 per cent of the time, but the day it all comes together will keep you going for the next year. One of the hardest things in motorsport is to pick yourself up when you're having a bad run, but the guys who do well all have strong characters and a playful side, which you need when it's all going wrong.

My step from karts to cars was through the Jim Russell School at Silverstone. Mum and dad bought me the one-week intensive course. There were about 20 or 30 of us, driving Formula Ford 1600 single-seaters and Peugeot 306 GTis. It covered the basic techniques in the classroom – braking, turn-in points, gear changes, how to use the throttle pedal in the correct way, racing lines, heel-and-toe, etc. Then we spent time building up speed alongside instructors in the Peugeots, and practicing our techniques in the Formula Fords. On the last day we raced the



car. I learned that it doesn't matter what car you're in, as long as its grip/power/braking efficiency is fairly similar, braking points and turn-in points don't really change that much. Working at Bedford Autodrome was the most helpful because there was nothing to hit if you went off. The worst you could do was spin four or five times into a field! You really could learn quite a lot.

Driving is something that has always just clicked with me. I know I can go into a corner at pretty much any speed and know I'll come out the other side. I do think about it, but not in a

“Driving is something that has always just clicked with me. I know I can go into a corner at pretty much any speed and know I'll come out the other side”

cars, and I won twice! I also went on to win the Jim Russell World Scholarship, which put me on the road to Formula Vauxhall Junior and the beginning of my professional career.

John Pratt took the course, along with Steve Deeks, Rob Garofall, Jamie Hunter (who I ended up racing an MGF for), Michael Vergers and Neil Cunningham. To an extent, the things I learned then still hold true. Neil and Jamie were probably the biggest influence on me. Spending an hour on a skid pan with Neil was the best thing I ever did for my confidence in my car control. I had no problem with the thing going sideways a little bit like a go-kart, but I didn't know what to do if the thing started going backwards on me. Neil told me that with a front-wheel-drive car, if the rear starts to go just nail the throttle – ‘if in doubt, flat-out!’ Those were the best words I'd ever heard! For me, at the time, it was so beneficial.

After doing the Jim Russell School I became an instructor at Silverstone, and later Donington, Rockingham and Bedford. I was driving different cars all day every day, sitting alongside people and teaching them; talking motorsport, living motorsport and learning as I went along. Even sitting next to someone, I was still picking things up. Occasionally you get very natural drivers you can push to the limits, and from that you can piece together what you would do differently if the same situation occurred while you were driving. Effectively, you're testing in the passenger side of

structured way. I subconsciously piece together bits of the track in my mind – how the car was last year, how it might behave this time, how I might be able to go quicker at a certain point. I lie in bed at night and I might do three corners, then I might do a bit more when I go running the next day. I prepare myself without thinking about it. My subconscious is ticking over all the time, and when I'm in a car that's how it works for me. I don't think, ‘I'm going to brake there, I'm going to turn there, I'm going to go down two gears.’ I get there and it just kind of happens. I almost don't fully understand why I'm capable of doing what I do. To me, racing a car is like walking down the street – I do it on autopilot.

You can teach anyone to drive fast, but you can't teach racecraft. That's something that comes from reactions and experience. I could make you drive within half a second of me from the passenger seat of a car; the problem comes when I get out and leave you on your own! Some drivers will get in any car and make it work by what they do with the steering wheel and pedals; others are more reliant on set-up and need the car to be just right.

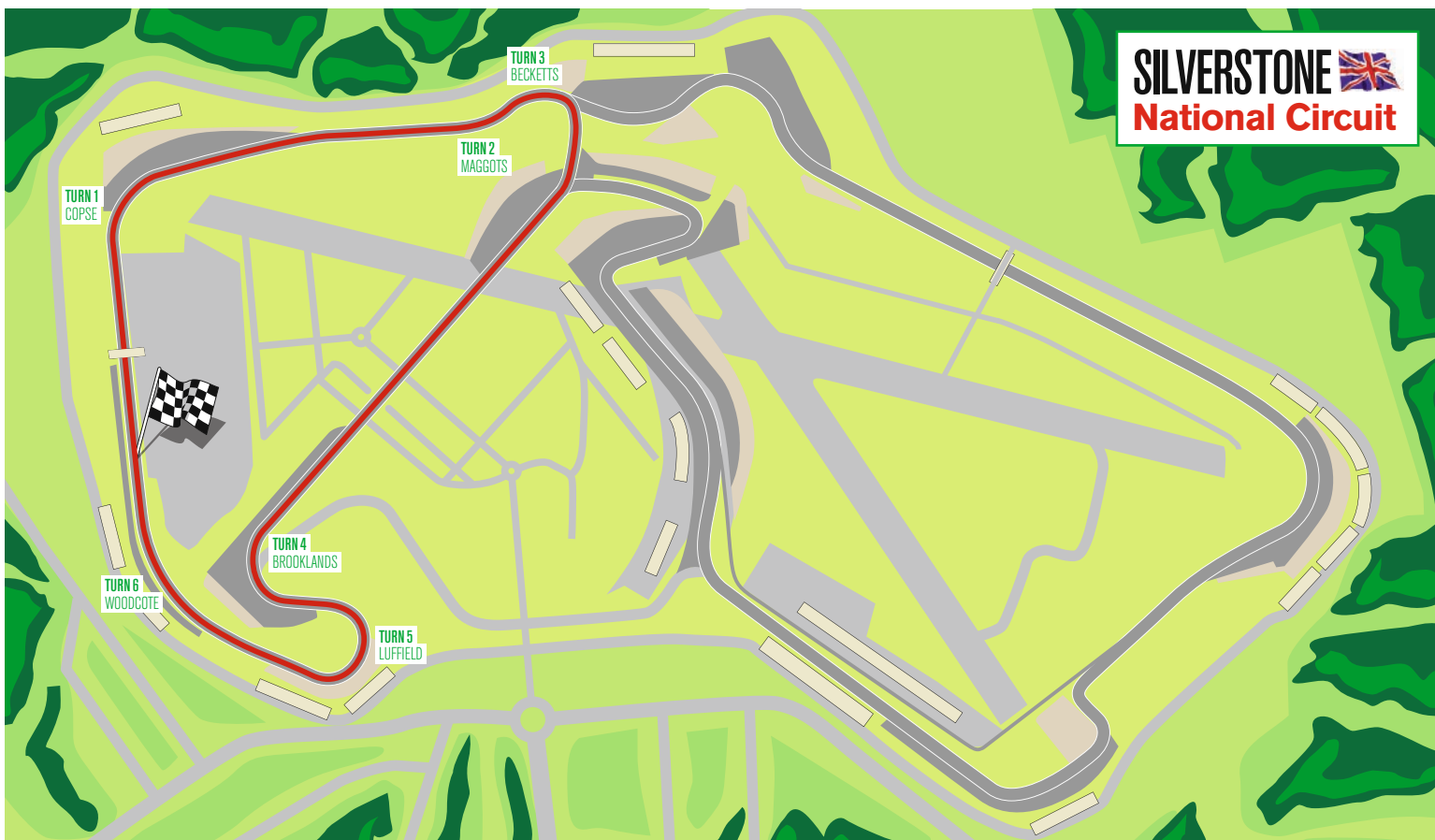
I don't see myself as one of the fastest drivers – 2011 was probably the only time I've been fastest on paper throughout a season – but I'm one of the cleverest. And what I mean by that is having a sixth sense to read what's about to happen in a situation unfolding in front of me, and take advantage. That comes from experience. You're not born with it and you can't teach it. ❧

TRACK GUIDE

SILVERSTONE NATIONAL

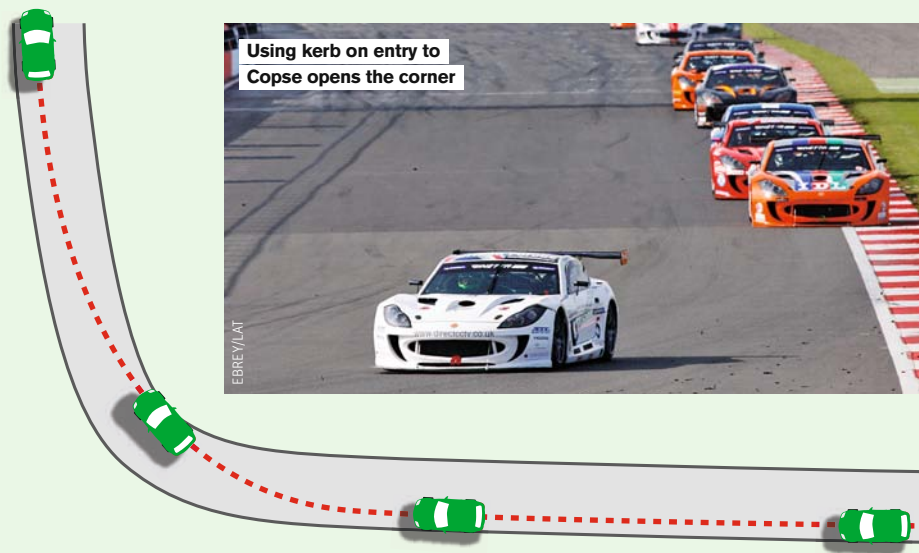


Porsche factory driver **NICK TANDY** has done plenty of laps around Silverstone's National layout, having won races there in single-seaters and the Porsche Carrera Cup, so he's an obvious choice when it comes to revealing the secrets of a quick lap around the 1.64-mile circuit



TURN 1 **COPSE**

There aren't many reference points for this corner, so I tend to look out for dark marks on the track surface or the kerb to pick a braking point. The track is fairly smooth on the approach, so you can brake fairly late and deep into the corner. You can also put two wheels on the kerb on the outside to widen the angle of entry. Because it's a fast corner, you can't really afford a mistake or a snap of oversteer in the middle – you have to be smooth and very precise. You generally need to turn in quite early to make sure you hit the apex kerb; it's very easy to slide past the apex and then your corner is finished. The exit is fairly straightforward once you've made the apex. Unless you're in a high-power, low-grip car, it's quite simple to get progressively back on the throttle. Use the full width of the track on the exit – running two wheels over the kerb – but watch out for the track limits! The Astroturf strip beyond the kerb is quite grippy normally, but stay away if it's wet.



TURN 2/3

MAGGOTS/BECKETTS

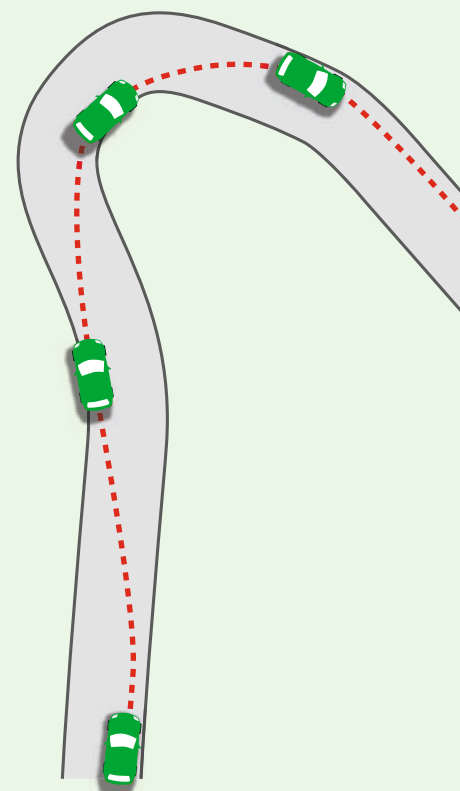
This section is trickier than it looks; there's a lot of time to be made or lost here. There's a long straight that follows, so logic dictates that you've got to get a good exit, but people who are fast here generally make time on the entry. You've got to make sure you're right on the white line on the right hand side of the track on the approaching straight. Many people drive down the middle of the track, but if you're over to the right it opens out the braking zone for Becketts.

Maggots is essentially your braking zone for Becketts and the key is to make it as straight as possible. You brake across the kerb, but it gets progressively more aggressive and serrated, so how much kerb you take depends on the car you're driving.

You're better off turning in a bit tight for Becketts

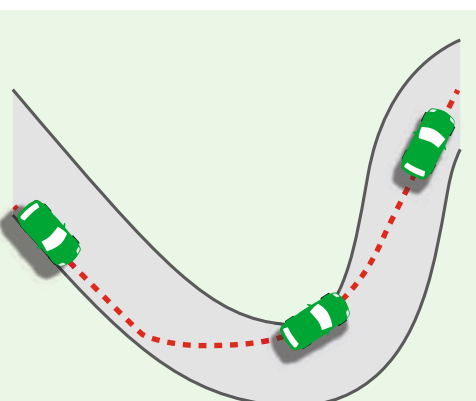
than staying too wide and turning later. The common mistake is trying to stay too far left for too long to open out the corner and get a good run out onto the straight. Staying left wastes time and compromises your braking performance. This is a typical 'fast in, fast out' corner – stop, turn, and go. What you lose by turning the car on a tighter line, is outweighed by what you gain on the entry and by having a straighter car for the exit.

You can also use the kerb on the inside to help pull the front of the car in and rotate it through the turn. There doesn't seem to be a particular apex point, but it's determined by where you end up on the exit. You want to run right up to the raised kerb on the outside, but for sure not over it. If you have to lift off then you need to re-evaluate your apex point.



JAKOB EBREY

Always run out to kerb at the exit of Becketts



TURN 4

BROOKLANDS

This is a great passing opportunity, inside or outside, because the track is very wide. The classic approach is right out on the right-hand-side and you need to line the car up with the white line and use the kerb and corner marker board to pick your reference points for braking and turning.

Depending on the car you're in, you can actually turn into the corner before you brake – braking into the corner rather than braking in a straight line and then turning. The corner is open at the entry and then tightens up and you need to shorten the distance between the late apex and your braking point. If you pick up the inside kerb with your front wheels it will pull the front of the car into the corner so effectively that you gain another 10 per cent of grip, so the quicker you can get to that kerb, the faster you'll be through the apex. If you find yourself on the throttle before that kerb, you're either going too slowly or turning too late.

This is where time can be made. Copse and Luffield are quite car-dependent, but Brooklands is probably the point on the circuit where you can make the biggest difference from a driving perspective. There's no real exit, so it doesn't matter what your speed is through there, it's all about the entry.

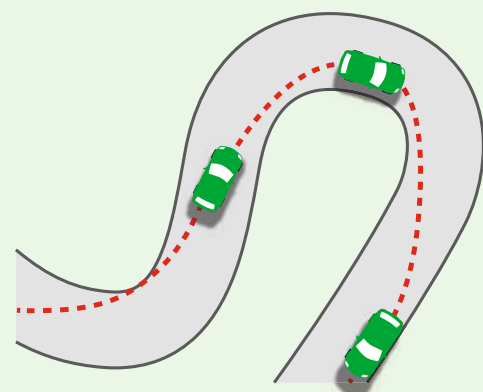
TURN 5

LUFFIELD

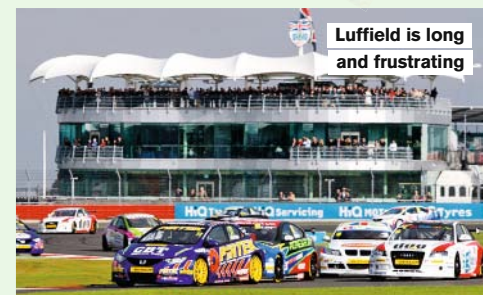
You need to keep it a bit tight out of Brooklands and give yourself at least half a car's width from the exit kerb to line up the entry for Luffield. Then you need to be all over the kerb for the first apex because it helps hook the nose of the car in to the turn.

You need to run a car's width or a car-and-a-half's width wide in the middle of the corner and that's the basis for how fast you go in. If you keep tight to the kerb all the way around, you're going in too slow. If you're running too wide in the middle, you're going in too fast. Forget your minimum speed. This is another 'fast in, fast out' corner. You might feel the car is crawling along, but that is where it's turning.

After that you need to pick up an exit point out towards the grandstand on the outside of the circuit and focus on that as you take a second apex fully across the second kerb. The key to a good exit here is one smooth application of the throttle – you don't want to be jabbing at it. Getting out of the throttle is the last thing you want to be doing with the long straight that follows. You can use the Astroturf on the outside of the circuit if it's gripped up, but generally it's best avoided.



Luffield is long and frustrating

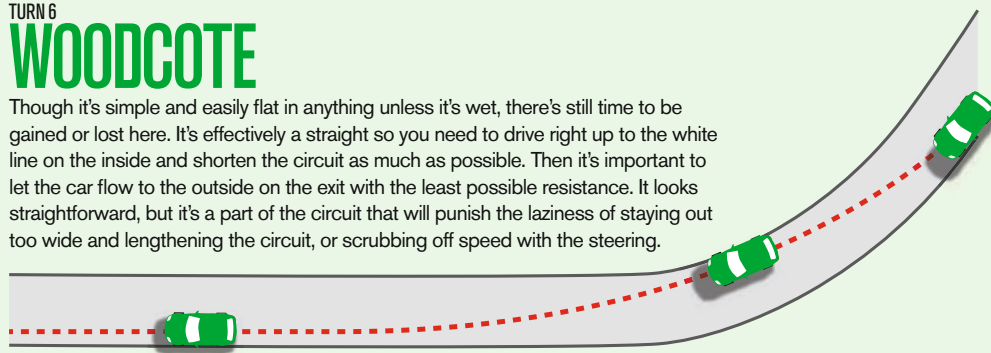


EBREY/LAT

TURN 6

WOODCOTE

Though it's simple and easily flat in anything unless it's wet, there's still time to be gained or lost here. It's effectively a straight so you need to drive right up to the white line on the inside and shorten the circuit as much as possible. Then it's important to let the car flow to the outside on the exit with the least possible resistance. It looks straightforward, but it's a part of the circuit that will punish the laziness of staying out too wide and lengthening the circuit, or scrubbing off speed with the steering.



KITTED OUT

Whether you're competing at the highest level or just starting out, everyone needs the right kit to go racing. We went to Silverstone to see **GRAND PRIX RACEWEAR** and get some recommendations

SUITS



SPARCO PRIMA M-3

£295.83+VAT

"We recommend this as a cost-effective entry-level racesuit. All manufacturers have basic suits that come in around the £300 mark. This one has two layers of fireproof Nomex material and weighs in at 400g/m². It's a simple suit, but it's just as safe to wear as any other."



OMP DYNAMO R

£432.50+VAT

"This suit weighs the same and has the same number of Nomex layers as the Prima, but has been refined further for comfort. It's important to consider what type of racing you'll be doing. Comfort will be more of a factor in endurance racing than in 20-minute sprint events."



ALPINESTARS GP TECH

£833.29+VAT

"This is a top-of-the-range suit, engineered for comfort and performance. It's got three layers of Nomex instead of two (giving you an extra 30 seconds of fire protection) and it's around two-thirds the weight (285g/m²) of the others. But it's also twice the price!"

BOOTS



OMP FIRST S

£95.83+VAT

"This is a solid option for the entry-level. It is quite a heavy suede design and has a thick sole, but club drivers will tend to walk around in their kit all day, so it makes sense that their boots should be quite rigid and hardwearing so they don't wear out quickly."



SPARCO FORMULA+ SL8

£162.50+VAT

"This is a lighter leather boot, with a thinner sole for added feel, and a more refined design on the sole for extra grip. Boots tend to feature lower ankle supports nowadays, because there is less risk of breaking your ankles in cars built with the pedals behind the front axle line."



ALPINESTARS TECH 1 Z

£191.62+VAT

"This is a top-of-the-range lightweight boot. Like football boots, it's made from kangaroo leather rather than cowhide. They have ultra-thin soles and a quick-pull tie system, rather than laces. This is a youth brand and features more adventurous styling than others."



MAIN PIC: EBREY/LAT

HELMETS



BELL SPORT 5

£341.50+VAT

"This is a very cheap entry-level option and will cost less than £400+VAT even if you upgrade it to fit the necessary posts for a HANS device. The Bell Sport 5 made to 2010 SNELL safety standards and is just such good value for someone racing on a small budget. Entry-level Arai helmets are nearly twice as expensive."



UVEX FP-5

£560.00+VAT

"We're the sole UK importers for uvex, which is a ski helmet manufacturer that's recently expanded into motorsport. This is the next step up from the Bell – it's made from a composite of carbon, Kevlar and GFK, is over 100g lighter, and comes with anti-fog visor and HANS posts as standard. It also conforms to the latest FIA safety standard."



ARAI GP6 - RC CARBON

£2499.99+VAT

"This is the absolute top end of the range, a helmet that's manufactured to the latest FIA 8860 safety standard that is mandatory in F1 and many other higher-level disciplines. Over half the current F1 grid use the GP6, which is made of carbonfibre and designed for lightness and strength. There is also a lower standard 'Ped' version that is two-thirds of the price."

GLOVES



OMP FIRST S

£39.16+VAT

"The quality/price ratio is the biggest strength of this glove. They're of simple design with basic seaming and no wrist straps. To put the value of these in perspective, Alpinestars do a range of karting gloves that are more expensive than these!"



SPARCO ARROW H-7

£83.33+VAT

"These gloves are twice the price of the OMP FIRST S, but they are lighter, have a more refined grip, external seams, and have been pre-curved to the shape of the hand in the driving position. The idea is to help reduce fatigue in the hands."



ALPINESTARS TECH 1 ZX

£99.95+VAT

"These are designed for maximum comfort, again with external seams and pre-curling, plus a wrist strap. The grip features textured Pittards leather palms and silicone printing laced onto the finger patches. There is also re-enforced stitching around the fingers."

HANS



£307.50-£1041.67+VAT (depending on spec)

"HANS devices come in four specifications: Sport, Sport 2, Pro and F1, which vary according to their construction. Sport versions are cheaper but heavier than the Pro/F1 devices. You need to select a size based on your neck circumference and then a degree of inclination depending on whether you sit upright or reclined in your car."

UNDERWEAR

OMP

Top: £45.00+VAT; Bottom: £38.33+VAT
Balaclava: £18.33+VAT; Socks: £12.50+VAT

"OMP definitely do our cheapest range of flame-retardant race underwear. It has the 'inside-out' look of the others but the material is coarser and heavier so it will be less comfortable and hotter to wear than some others."



ALPINESTARS

Top: £66.62+VAT; Bottom: £62.45+VAT
Balaclava: £31.62+VAT; Socks: £19.12+VAT

"The Alpinestars range is made from Lenzing rather than Nomex. This makes the underwear better at regulating the driver's body temperature so they are less prone to heat stress."



SPARCO X COOL

Top: £100+VAT, Bottom: £83.33+VAT
Balaclava: £33.33+VAT, Socks: £24.17+VAT

"Sparco's top-of-the-range underwear is lightweight and impregnated with millions of micro-capsules. Their membranes break when the body moves, releasing the agent that gives off a fresh minty smell. The clothing can be 'recharged' in the wash using special sachets."



STALEY/GP3



Carlin team busies itself working on Nick Yelloly's GP3 car

ENGINEER TO WIN

Carlin chief engineer and ex-Benetton and McLaren F1 employee **MARK OWEN** has almost 30 years of competitive experience in motorsport. Here is his guide to car set-up

Taking a car from scratch, you will need some sort of datum, which can usually be sourced from the manufacturer. From there, if you have the ability to take the car to a four-post rig then you can ascertain a good idea of your car's balance on springs and dampers. But it will probably cost you a couple of grand per day to use! On the rig you can simulate track movement on all four wheels with actuators that move the car as it would on track.

That will help you decide your best spring and damper arrangement to give your car the best possible contact patch loads through its tyres, which is a key part of setting up any car.

TYRES

Your tyres are obviously extremely important because that's the part of the car in contact with the track. Consult the tyre manufacturer to find out exactly how they think their tyres should be run in terms of temperatures, pressures, cambers and toe settings. Again it's about finding a useful baseline to work from. You can learn a great deal from measuring temperatures across the surface of the tyre. Normally you will try to achieve similar temperatures front to rear, and a fairly even split across an individual tyre. If a tyre is hotter on one side your camber settings are probably out, if it's hot in the middle the pressure is probably too high. If your tyre temperatures are uneven front to rear that can indicate a handling imbalance, or a suboptimal weight distribution. Pressure, rollbars, dampers and cambers can all be used to affect tyre



Owen has a huge level of experience in car set-up

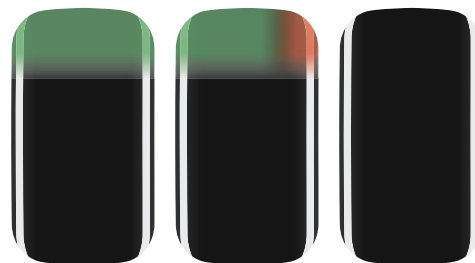
STALEY/LAT

temperatures (stiffer settings, higher pressures and more camber will increase the temperature on a part of the tyre). The most important thing is to get all the tyres working together.

ROLLBARS

Rollbars are something you have to get right. Generally a stiffer car is better on high-speed tracks and a softer car is better on low-speed tracks. This is because stiffer cars are better at resisting the loads generated by cornering at high speeds, while softer cars are better for aiding mechanical grip at low-speed. A softer car will also be an advantage on bumpy circuits or tracks where you need to use a lot of kerb. A stiffer front bar will generally give you a sharper initial turn-in but make the car slide into understeer in the middle of a corner. It will also give you better rear stability and traction. A softer rear bar will give you better traction but may also induce understeer. ▶

TYRE TEMPERATURES



EVEN SPLIT

A fairly even spread of temperature across the surface of the tyre suggests the settings are working well.

CAMBERED

This tyre has overheated on the inside shoulder, which suggests the set-up has too much negative camber in it.

HIGH PRESSURES

High pressures will 'crown' out the tyre and mean it runs much hotter in the middle than on the edges.

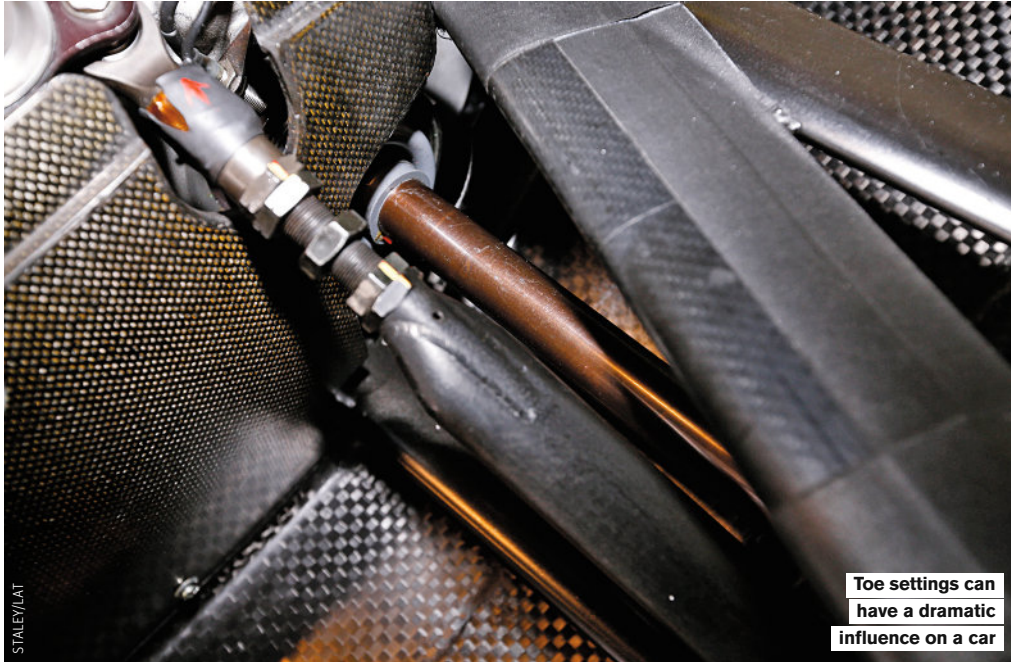


UNEVEN FRONT TO REAR

Our diagram shows a car with rear tyres that are hotter than the front tyres. This would suggest the car is sliding too much at the rear and thus overheating the rear tyres relative to the fronts.

"The most important thing is to get all the tyres working together"





Toe settings can have a dramatic influence on a car

DAMPERS

◀ Dampers are useful for fine adjustment of pitch. You can increase front rebound to hold the front of the car down and thus reduce understeer as you accelerate out of corners. The downside is that this can result in oversteer on a bumpy circuit. At the rear, less damping normally provides better traction. You can also use damping to control the pitch of the car under braking.

RIDEHEIGHTS

Rideheights are very important. Generally, a lower car will have a lower centre of gravity and therefore will be able to produce higher cornering forces. You can control your rideheights with pushrods and springs. On a smooth circuit it may be beneficial to fit stiffer springs and lower the rideheight.

TOE

You can influence the car's handling quite effectively by changing the toe settings. Toeing-in the rear wheels reduces oversteer, toeing-out the front wheels will normally reduce mid-corner understeer, because the inside wheel will point further into the corner once you've turned and drag the car into the apex. There's usually a trade-off with set-up changes; if you

make something better it will often make something else worse and in this case you will increase straightline resistance by increasing toe.

AERODYNAMICS

As far as aerodynamics are concerned, generally mechanical set-up is what influences the car at low-speed, and aero, if you're running a winged car, affects the car more at high-speed. If the car understeers at high speed then move the centre of pressure forward, and if the car oversteers move it rearward. This can be achieved with either wing or rideheight adjustment.



Wing adjustments will affect the car's centre of pressure



Make sure to liaise with your engine's manufacturer

ENGINE

It is always important to get the best from your engine. You can normally obtain power and torque curves from the manufacturer, and with that information you can select your gear ratios so that you keep the engine operating around peak power accelerating through the gears. If possible, you want to avoid gear ratios that require the driver to change gear mid-corner.

DIFFERENTIAL

The differential is another part of the car that can change the handling enormously. It's best to stick with the manufacturer's advice because a diff change is a lengthy change and therefore not something you can go back on during a session. The ramp angles are the main parts that affect the car's behaviour in a Salisbury diff. A shallower ramp angle will give you more locking than a steeper one, so if you have instability into a hairpin on the brakes you might want to put shallower ramps in so the rear wheels will help keep the car straight. But that will make the car understeer more on turn-in. Normally, it's better to have a fairly neutral diff and set up the car another way, because (as with many set-up changes) there is a trade-off: a tighter diff will give you a stable car on the entry and the exit of a corner, but also problems in the middle!



Huff made it big with SEAT in '04 BTCC

WHY HONESTY REALLY IS THE BEST POLICY...

How WTCC champ **ROB HUFF** got to grips with car set-up – by admitting it was beyond him at first

My first real understanding of how a car works came when I was with SEAT in the British Touring Car Championship.

My engineer was David Benbow, who at the same time was Martin Tomczyk's engineer in the DTM. He's a very good guy, who quickly understood me as a driver. We went testing at Albacete for four days and David sat me down and said 'What do you know about cars?' And it was a bit of a *Days of Thunder* Tom Cruise moment, where I told him, 'I don't really know anything, I just drive by the seat of the pants and it all just sort of happens!'

He said, 'No problem at all, thanks for being honest.' That really helped, because off the back of me confessing to being a bit lost, he decided we would go testing blind. I would drive the car and just tell him what the car was

doing on each corner. Dave would change things, but wouldn't tell me what he'd done, and I would go back out, drive, and then tell him what the difference was in the car's behaviour. I was then able to associate the changes he made with my feeling in the car. It's one of the most beneficial things I've ever done. It's scary – because you don't know whether you're going to sound like a complete fool, but I was completely honest and it worked really well because we went on to have a successful season.

I think my honesty is one of the key things that helped me get to where I have. We all want to impress, and it's very easy when you're surrounded by experienced people to do that by just agreeing with them.

But honesty is the best policy.



Generating even temperatures across all four brakes is essential

STALEY/LAT

BRAKES

Monitoring temperatures is the best way to set up the brakes, using a temperature gauge to record temperatures both front and rear and side to side. If you can afford brake temperature sensors on the car then that will make the task a lot easier, otherwise thermal indicator paint will be sufficient. Try to get all four corners even and reaching the temperature recommended by the brake supplier. There will be many different pad types available. Pads with a high friction coefficient will be most efficient for stopping the car in heavy braking areas, but may slow the car down too aggressively in high-speed corners.

TESTING

Whatever changes you make it's important to test them thoroughly and remember that the handling of the car will also be influenced by changes in ambient temperature, wind direction and circuit grip levels. Also tyre degradation may have a measurable impact on the car's handling throughout the day, so it's very important to manage your tyres well. If you have a rear-wheel-drive car, chances are the rear tyres will go off during a run. You could go softer and softer on the rear rollbar to counter oversteer then fit a new set of tyres and struggle with understeer!



The driver needs to know when they need to make a change

GRIFFITHS/GP3

DRIVER

There are many ways of solving every problem and sometimes the driver needs to know when the solution needs to come from them, as anyone can induce understeer or oversteer by changing their driving style. Different corners will provide different challenges and sometimes it's the driver who will need to adjust. Drivers often report exit oversteer and lack of traction, which actually comes from mid-corner understeer, where the front is sliding and then eventually grips, inducing oversteer. The driver feels the oversteer, but in reality the problem to fix is understeer. Sometimes an onboard camera is the best set-up tool you can have! 🏎️



'Blind' testing helped Huff learn intricacies of how a car works

GRIFFITHS/LAT



COMMUNICATION IS THE KEY ASPECT

Five top tips for working better with your engineer

- 1** Drive consistently. If you drive each lap differently you're going to have random problems along the way and become confused. It's important to recognise when it's your driving that's giving you problems, rather than the car.
- 2** Stay calm, level-headed and give clear and concise feedback. Agree a common vocabulary and don't be shy to mention small issues. Too much information can be a bad thing, though. You can't fix everything at once, so it's best to work through problems one at a time in order of severity.
- 3** You need to have some basic mechanical understanding of the car, which will help you spot problems as they occur while you're driving. If you can come up with possible reasons for problems, rather than just problems, it will help the engineer find solutions efficiently.
- 4** You need to be aware of cars around you. If you notice the guy ahead of you is better on the brakes, or at the exits of corners, that can help you identify where you can improve. Then work out with the engineer how you can achieve it.
- 5** You need to look after your tyres, especially if they are limited. If you flat spot tyres under braking, or destroy them by applying the throttle too early, the car will not be consistent. If you use them well, you will have fewer problems.



Driver and engineer need to speak the same language

STALEY/GP2

iZONE

WITH ANDY PRIAULX

DRIVER PERFORMANCE

- » Are you getting the results you want?
- » Do you have all the skills you need to reach your goals?
- » Do you know the areas you need to improve?
- » Do you know your 'peak performance state'?
- » Are you the best prepared you can be for each event?

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- » PSYCHOMETRICS
- » DRIVER DEVELOPMENT PROGRAMMES
- » RACE AND TEST PREPARATION



ANDY PRIAULX

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HONING SKILLS IN A VIRTUAL WORLD



Factory Aston Martin driver **DARREN TURNER** runs his own racing car simulator firm. He explains how sims can help you become a better driver

Simulators came to the fore in F1 in the late 1990s. But F1 teams always viewed them as engineering tools rather than for driver development. I'm guessing by the time a driver gets to F1 he should be pretty much the finished article!

Everything trickles down from F1 in motorsport, and the reason companies like us have set up is that there is a marketplace for people wanting to gain extra circuit time.

These simulators aren't engineering tools, they are purely for driver development and circuit familiarisation. If 10 years ago we were trying to do this, it would have cost a fortune; that cost would have been passed on to the customer and it wouldn't have been cheaper than driving on a circuit for real. Now, simulators are cost-effective. You can get plenty of hours in a sim for a relatively small amount of money compared with the cost of driving a real car at a real track.

Because simulators started out with F1 teams, they have usually been single-seater based. Now, we have two separate sims, one focusing purely on single-seaters and one based on a GT chassis. GT racing and the gentleman-driver market is growing, but a lot of these guys have never sat in a single-seater, so it was apparent we needed something that felt more natural for them.

If you have an engineering-led sim that is focused on one car, then you will end up with something that is very close to exactly what you would drive at the circuit. What we have is close, but it's not 100 per cent accurate, so it can only give you an idea of what a particular car can do.

The main reason people use sims is circuit familiarisation and improving technique. It's surprising how even the fundamentals of driving are overlooked sometimes. Having the simulator removes all the distractions you would have on a normal test day and enables you to experiment



“Simulators remove the distractions you would have on a test day and enable you to focus on the driving”

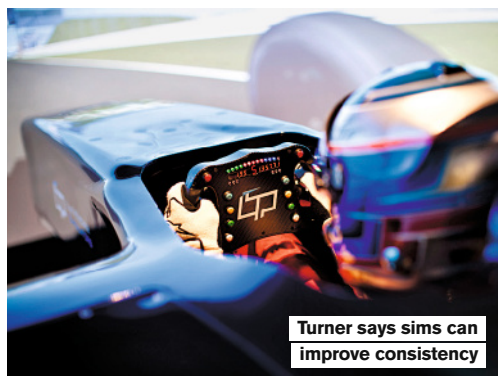
and focus on getting the right approach.

Simulators can really aid consistency. There are lots of variables at the track – weather conditions, circuit evolution, traffic – all of which can skew the figures. When you put a less-experienced driver in a simulator their lap times vary a lot and that's something we try to focus on – getting them to drive at peak performance repeatedly rather than just for one lap. The driving should become metronomic, and you should be able to produce the same times to within a couple of tenths. The only thing that's changing in sims is your driving. Younger drivers tend to chase absolute lap time when they come here. We try to make them step back from that. If they do 30 laps the way they want to drive – chasing the lap time – they might do one really fast lap. If they are consistent, they see their average time for a race distance improve without mistakes, and quite often they even end up doing a slightly quicker fastest lap because it becomes easier for them. If you push too hard, make a mistake and then try to make up for that mistake later in the lap, you just go slower.

The main thing we try to work on is a driver's technique: Where are they looking? How are they braking? What inputs are they giving the car?

That's something you can work on in detail. If you are coaching at a circuit, you head out to a corner for a 40-minute session and you stand 100 metres away from the track at a funny angle. Then you come back, go through the data, and more often than not the driver can't remember which lap you are talking to him about. But in a simulator, you can do a couple of corners, stop the driver straight away, tell him to try something different and build everything up more progressively. You are right there with them through every corner and can see everything they are doing: where they've turned in, where they are aiming, what they are focusing on. The telemetry is exactly the same as that used on real cars too, so the simulator can also help build the relationship between the driver, engineer and coach. It's also a more relaxed environment, without the pressure of a race weekend.

In most sports, you can have a go any time. Motorsport isn't like that, so the focus ends up being on fitness and lots of other stuff. The bit that we all want to do – the driving – is done so infrequently that simulators open up a lot of possibilities. It's not to replace testing or doing it for real. It's just an addition that can help your progress. ❧



Turner says sims can improve consistency

GETTING STARTED

If you're thinking of taking up motor racing then the following car club, series organiser and circuit website addresses are a useful place to start



Get in touch with a club and this could be you

JAKOB EBREY

GOVERNING BODIES

MOTOR SPORTS ASSOCIATION
msauk.org

MOTORSPORT IRELAND
motorsportireland.com

UK RACE ORGANISERS

(Including car clubs and championship organisers)

ASTON MARTIN OWNERS CLUB RACING
amocracing.org

BRITISH AUTOMOBILE RACING CLUB
barc.net

BRITISH RACING & SPORTS CAR CLUB
brscc.co.uk

CASTLE COMBE RACING CLUB
castlecombecircuit.co.uk

CLASSIC SPORTS CAR CLUB
classicsportscarclub.co.uk

DARLINGTON AND DISTRICT MOTOR CLUB
darlington-motor-club.org.uk

HISTORIC SPORTS CAR CLUB
hsc.org.uk

MASTERS HISTORIC RACING
themastersseries.com

MG CAR CLUB
mgcc.co.uk

MOTORSPORT VISION RACING
msvracing.co.uk

SOUTH EAST MOTOR SPORT ENTHUSIASTS CLUB
semsec.org.uk

SCOTTISH MOTOR RACING CLUB
scottishmotorracingclub.co.uk

750 MOTOR CLUB
750mc.co.uk

500 MOTOR RACING CLUB OF IRELAND
kirkistown.com

VINTAGE SPORTS-CAR CLUB
vscc.co.uk

CIRCUITS

(All 18 tracks, most of which have race schools and driving experiences)

ANGLESEY
angleseycircuit.com

BRANDS HATCH
brandshatch.co.uk

CADWELL PARK
cadwellpark.co.uk

CASTLE COMBE
castlecombecircuit.co.uk

CROFT
croftcircuit.co.uk

DONINGTON PARK
donington-park.co.uk

GOODWOOD
goodwood.co.uk

KIRKISTOWN
kirkistown.com

KNOCKHILL
knockhill.com

LYDDEN
lyddenhill.co.uk

MALLORY PARK
mallorypark.co.uk

MONDELLO PARK
mondello.ie

OULTON PARK
oultonpark.co.uk

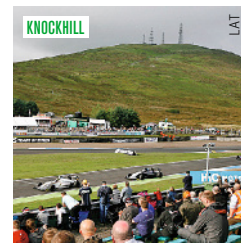
PEMBREY
barc.net/pembrey

ROCKINGHAM
rockingham.co.uk

SILVERSTONE
silverstone.co.uk

SNETTERTON
snetterton.co.uk

THRUXTON
thruxtonracing.co.uk



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Take a look at our recommended path to starting your track driving career:

TRACKDAYS

- No need for a race car at this point, just get on track in whatever you can and see if you enjoy it
- We run over 250 trackdays per year across 5 of the best circuits in the UK so there's plenty of choice
- Drive a handful of trackdays before you even consider booking your race licence test

The cheapest way to get the biggest gain ▪
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Book our Track And Race Academy for the ultimate advantage ▪

DRIVER TRAINING

MSA GO RACING PACK

- You'll need one of these to get your race licence
- It includes your application form and all the details you need to learn to help pass the test
- Order your pack from MSVT for £70 and start learning as early as you can

Taking the ARDS Race licence test is required before you can go racing ▪
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