

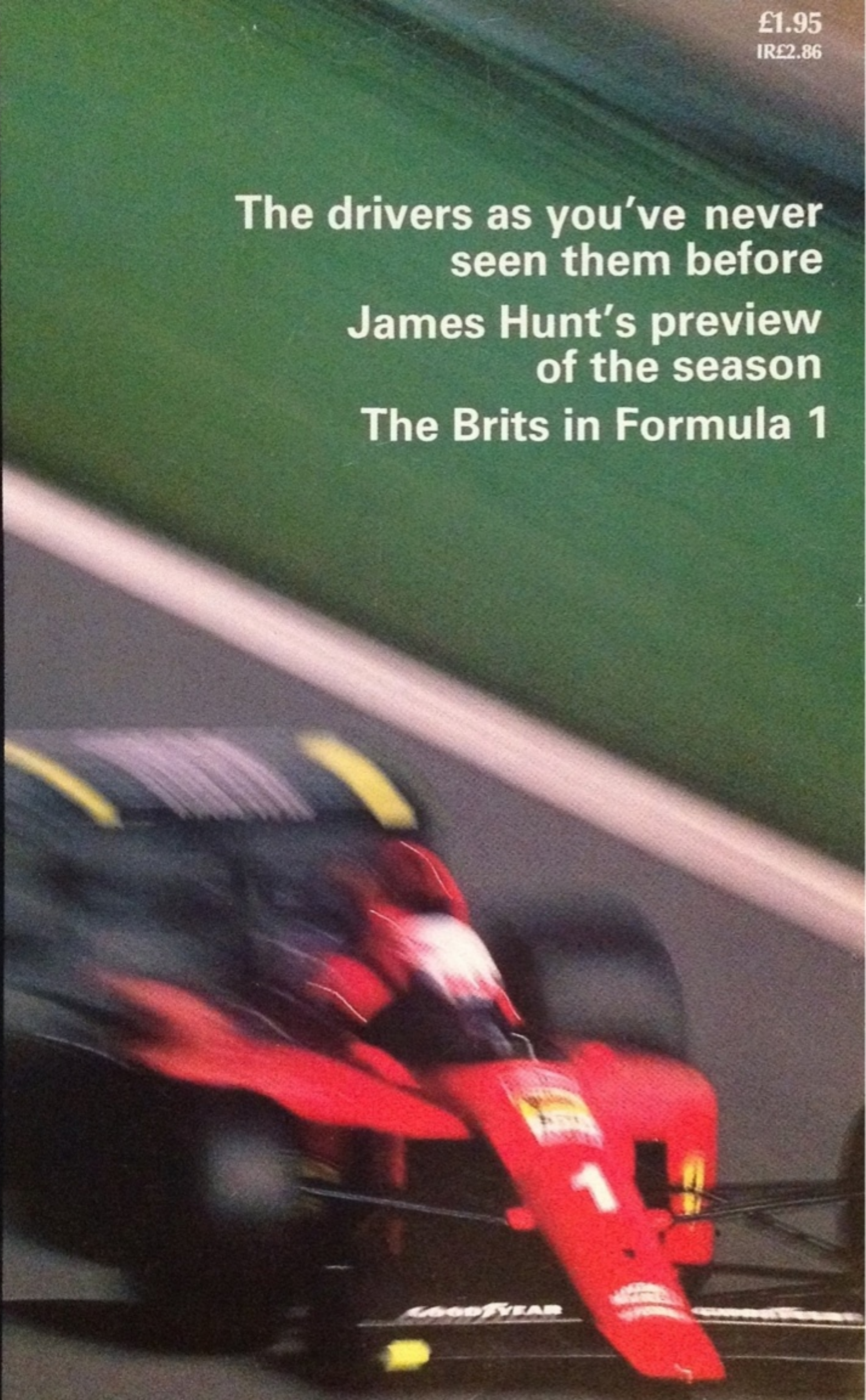
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Derek Warwick



LAT PHOTOGRAPHIC

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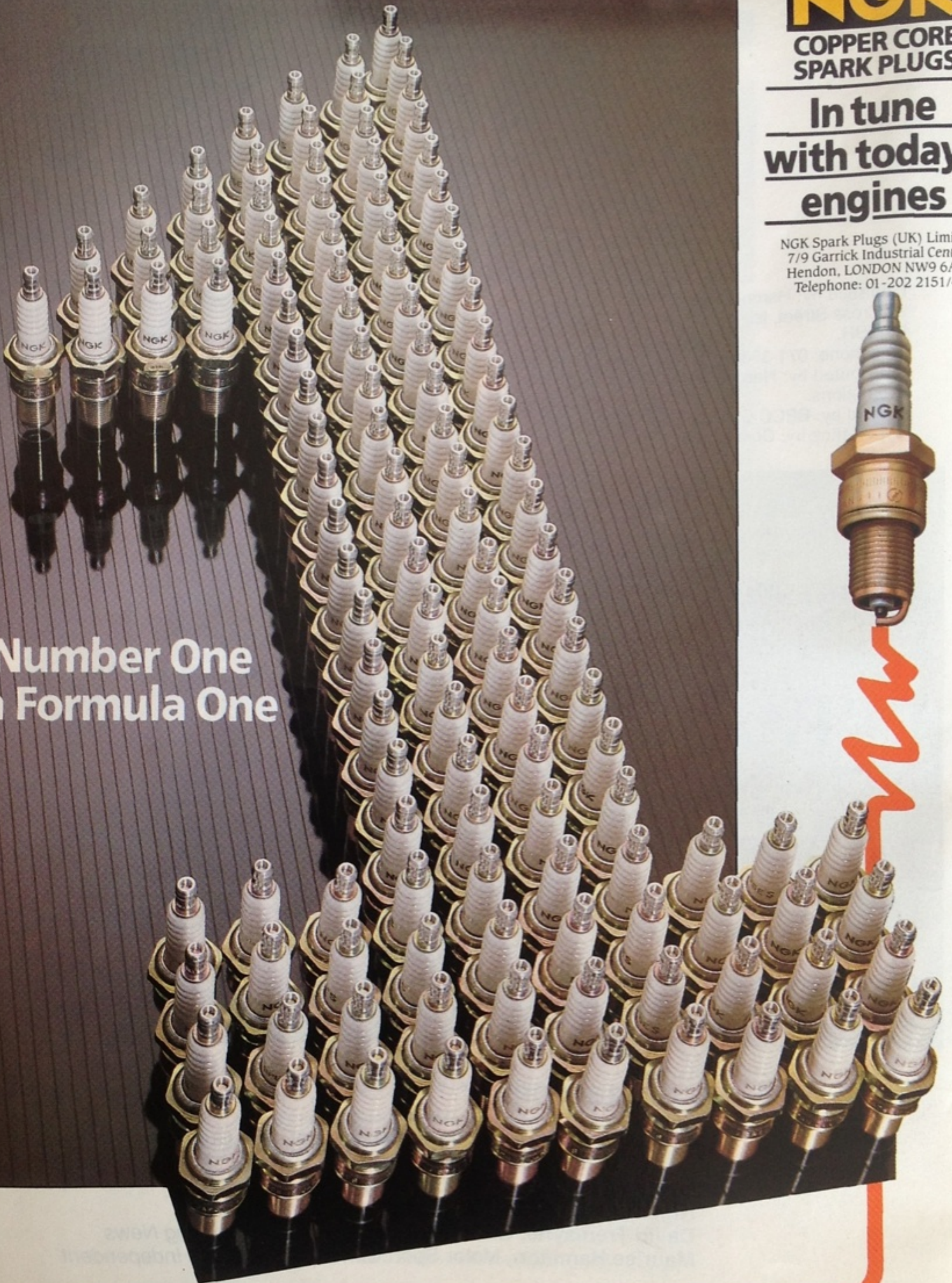
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Alain Prost, driving for Ferrari this year.
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FOREWORD

by Derek Warwick

I am looking forward to the second season of the naturally aspirated 3.5 litre Formula 1 with great enthusiasm and optimism. Although I am glad to have lived through the turbo era, I think we will enjoy closer and more competitive racing under the current regulations, as well as safer racing thanks to the continuous progress which is being made in areas of car and circuit safety.

I am aware that the sport's governing body FISA has come in for a certain amount of criticism recently, but I believe they have done a very good job in fostering these technical improvements, many of which have, of course, been initiated by engineers from the various teams. This is very important for such a spectacular sport which enjoys enormous worldwide television coverage.

As far as racing form is concerned, I would expect the Ferrari team eventually to become the one to beat, even to the point where McLaren will have to chase them. From my own personal viewpoint, I am very hopeful for the Lotus-Lamborghini partnership which I seriously hope will be strong enough to contest top positions in the top three during the course of the season.

I am always optimistic and upbeat; looking on the bright side is something I have always tried to do, and my enthusiasm for this sport remains absolutely undiminished. Every time I enter a Grand Prix paddock, I find myself excited by the sight of the cars, the atmosphere of the occasion, even the smell of the fuel. Grand Prix racing is a great sport and I love being part of it!

*Derek Warwick,
Phoenix, Arizona,
March, 1990*

James Hunt's

The most recent British World Champion was James Hunt, who won the title back in 1976 at the wheel of a McLaren. Never one to shy away from outspoken comment, James now previews the 1990 World Championship contest exclusively for Grand Prix '90

Preview



Looking ahead to the 1990 season, the first thing to hope for is that the political dramas of the winter will finally recede into the background, and allow everybody to get on with the racing. Last year the new 3½ litre formula initially promised much better racing than we experienced throughout the turbo era, and while the McLaren-Hondas rather foiled that expectation to some extent, the first signs this season are that Ferrari will make them work much harder for any success that might come their way.

Ferrari looked enormously strong throughout the winter test programmes and they seem to have

made considerable progress towards catching the McLarens. They're obviously highly motivated, both from the team's point of view and, more specifically, from Alain Prost's point of view. So the scene really seems to be set for a big battle between Ferrari and McLaren as the two spearheads of the attack, with several other teams very much in contention.

Of course, the major question that all British enthusiasts are waiting to see answered is how Nigel Mansell will perform with Prost alongside him at Ferrari. This is very much a fundamental poser for the year. Whether deliberately, or just

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through force of circumstance, they seemed to avoid running in the same conditions on the same day during those winter tests, but I think that during the main races there will be very little to choose between them in terms of speed.

I believe that Prost is more motivated now than he has been for some years after all his dramas with Ayrton Senna last season. I expect to see him displaying a new lease of life – a 110 per cent effort. He's got plenty of reason to, of course. He feels wronged by McLaren and Senna and he wants to put that situation to rights.

At the same time, Nigel Mansell is

a man whom I now consider to be at the absolute peak of his career. Last year he suddenly came of age. Before that, he was an incomplete driver; he had a lot of talent, a lot of ability, but he just didn't seem to be able to get it all together until he made his move to Ferrari. That switch of teams, combined with a little bit more experience and wisdom, made all the difference. If anything, the difference was even more noticeable out of the car than in it. He was a much more complete and rounded person out of the car, much more relaxed, and that reflected in his driving.

He's now developed the maturity

to be a serious Championship contender, and even if he struggles in the early races, and Prost beats him, it won't be the end of his challenge by any stretch of the imagination. He knows he can't expect an easy run from Prost and, at this stage, I really wouldn't care to forecast who's going to win the in-house battle at Maranello.

Of course, Alain hasn't been at his best over the past couple of seasons and I think even he would concede that. In my opinion his biggest problem came at tracks such as Monaco where Senna was overwhelmingly quicker. Alain became depressed and rather ►

Inside the cockpit of the latest Williams car, minus the removable steering wheel.





LAT PHOTOGRAPHIC

Ayrton Senna at the Phoenix Grand Prix earlier this year.

retreated into himself.

To say that he was sulking is too strong a word, but he was definitely depressed about it; it was something of a surprise, of course, not having everything his own way. Yet, paradoxically, his experiences over the past couple of years have equipped him ideally to handle Mansell's challenge this year.

It remains to be seen how Ferrari will survive without John Barnard's presence as their Technical Director. In my view, the less they interfere with the fundamental performance elements of the car — aerodynamics, suspension and so on — the better. Obviously, anybody would miss a man as talented as Barnard. There's no doubt that he produced the best chassis of 1989 and I feel that the closer Ferrari stays to the Barnard legacy, if you like, then the better they will do.

A look through the record books will reveal that Ferrari are fairly well-practised at shooting themselves in the foot just when they're poised on the verge of great things. However, Alain Prost could have quite an influential role in forestalling such trouble, rather like Niki Lauda did in the mid-1970s.

The Ferrari management seem open to such a relationship at the moment and, if they allow Prost to do that, then it should prove to be of huge benefit to the team. With Enzo Ferrari dead and John Barnard now having left, this is the first time Ferrari has been left to its own devices under a Fiat-installed management structure. If Fiat have got it right, I would have thought they really should be a better-run team than under the Old Man, with a more enlightened attitude to develop-

ment, for example.

Of course, at the end of the day, it will be a tall order for Ferrari to beat the McLaren-Hondas. The first lesson which they could learn from McLaren is that they're still, essentially, racing the car which John Barnard left them with when he moved to Ferrari in 1986!

McLaren, in traditional style, were late showing their hand with their latest car, but the one thing what we can be certain of is that there will be nothing wrong with the Honda engine. I expect it still to be state-of-the-art as far as power and reliability are concerned.

Last year's chassis was a little bit critical from the aerodynamic viewpoint and much of the winter development work has been centred around changing the aerodynamics to make the car a little more forgiving. If they've achieved this with no loss of performance, which I'm certain they have, then they will have a very fine chassis indeed and I would expect them to run along a very even keel of performance.

All of which inevitably brings us to Ayrton Senna — a very enigmatic question. Without any doubt he's a genius; his speed in a racing car is quite incredible. Watching him qualifying is awe-inspiring. And yet, with all that ability and talent, he still makes mistakes.

He threw away the 1986 title by making silly mistakes in several races with the Lotus-Renault when he was in a position to accumulate valuable Championship points. Then, surprisingly, he did the same last season. With a Championship under his belt, Prost tucked up any time he liked, and with no real opposition, he still threw away races.

John Barnard — no longer with Ferrari.



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If Senna hasn't learnt by now, then I really don't think he's going to. He has an extraordinary commitment to driving at ten-tenths which he just cannot compromise, and unfortunately it doesn't win World Championships, as he has managed to prove.

This year, of course, he will be paired with Gerhard Berger for the first time. Berger will be closer to him than Prost was, although that's more reflective of Prost's attitude over the past two seasons than his ability level.

Although Prost's performance in comparison to Mansell's at Ferrari this year will be better than Berger's performance in 1989, I feel that Berger will be able to press Senna harder this season at McLaren.

Gerhard is probably also better equipped than anybody to get along with Senna on a personal level; he has a strong personality and he won't let Senna get to him. How they get on together will be more to do with Senna's attitude than Berger's.

Beyond McLaren and Ferrari, it is important to look at the Williams-Renault partnership as the next ►


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most likely contender. They look very much where they were last year – not quite in pace with the front runners. Much of this deficit can be attributed to the drivers. With the diversity of engines available today, it's very difficult to draw accurate comparisons, but we know that Patrick Head puts together a good chassis and there's no reason to suppose that either FW13 or the Renault engine are uncompetitive.

However, I maintained throughout 1989 that Williams were hurting themselves by having two good number twos like Thierry Boutsen and Riccardo Patrese. They've both been around a long time and have both proved that they're not top liners. Boutsen did win a quite outstanding victory in the rain at Adelaide last year, but when it comes to serious charging in the dry, he's just not quick enough.

As far as Patrese is concerned, he's been around since the Old King died. Leopards don't change their spots and he's not a top liner, although he is quicker than Boutsen. To me, it seems a great shame. The Williams-Renault set-up is a very good one indeed and its drivers are not doing it justice.

Beyond Williams, the Benetton-Ford alliance comes into the frame for consideration. John Barnard has gone there from Ferrari as Technical Director, but it will probably be 1992 before the team begins to seriously benefit from his input. In the meantime, they have Nelson Piquet and Alessandro Nannini as their driver pairing.

They will essentially be relying on the equipment they've already got. The narrow-angle Ford V8 was quite good last season, although not on a par with Honda, Renault and Ferrari, but I don't expect Benetton to be a front runner. They will probably be in that buffer zone between the multi-cylinder teams and the customer V8 runners, much as they were last season.

Piquet, of course, can hardly do worse than he did at Lotus. I won't try to get inside Piquet's head because it's beyond my comprehension how anybody could get into a racing car and drive as he has done over the last two years; you would think he might have more self-respect. However, the answer is very simple; if everything looks good, and it looks as if he can do well, then Piquet will go quickly. If it's not working, then he won't put in

the effort; Nannini will be quicker under those circumstances.

Over at Lotus, they are trying hard to rebuild a new team around the Lamborghini engine and a new management set up. The passing of the Peter Warr/Nelson Piquet era was very positive for Lotus. They now have a very sound driver line-up with Derek Warwick – tremendously experienced, a tough guy and a hard worker – and Martin Donnelly, who has plenty of talent.

Their fortunes now stand on the Lamborghini engine which proved it had a fair head of power last year with the Larrousse Lola. It has certainly got the power while it is running. Larrousse will be sharing this engine with Lotus, of course, and they have a new driver line-up in Eric Bernard and Aguri Suzuki. They have both shown good form in Formula 3000; but are extremely inexperienced as far as Formula 1 is concerned with only three Grands Prix to their collective credit at the start of the year.

Among the customer V8s, there are Tyrrell, Leyton House March, Arrows, Dallara and Minardi to consider. Last year, Tyrrell recruited young Jean Alesi, who came on in leaps and bounds, displaying a good deal of ability. Satoru Nakajima is coming off his best-ever race by a long way, although that fourth place in Adelaide may have indicated a fundamental problem for him. He may not be strong enough to drive these high downforce cars

Thierry Boutsen driving for Williams at the Phoenix Grand Prix.



The talented Senna with McLaren's Managing Director Ron Dennis.

in the dry, so perhaps he is more talented than he's been given credit for. There wasn't much wrong with his performance in the rain during that race.

The big difference for the Tyrrell team's prospects is the arrival of Ron Dennis in the action which has brought about a supply of Honda engines for Tyrrell, to replace their Cosworth V8s, and a link-up with McLaren's marketing department which is already showing sponsorship benefits. There is also certain to be some two-way traffic on the technical side, whatever else is said, and this limited partnership will expand in a way which can only be of benefit to Tyrrell.

Ken's recently-announced switch to Pirelli tyres makes good racing sense, because instead of trying to compete with the top Goodyear teams, he will now be jostling for the position of number one Pirelli runner. If they produce a really good race tyre, he will be in a better position than if he had stayed with Goodyear.

A big disappointment last year was the plummeting fortunes of the Leyton House team with the new narrow angle Judd V8 engine. However, they are a well-run organisation and will hopefully pick up again. Aside from the engine problems, their chassis proved over-critical aerodynamically. At one circuit they would do reasonably well, but then be way off the pace at the next track on the calendar – something they

must surmount with this year's new car.

As far as their drivers are concerned, Mauricio Gugelmin is a good steady performer who is capable of producing a competent and workmanlike job. This, of course, was why he was hired, with Ivan Capelli intended to spearhead the team's attack.

Unfortunately, as the team has fallen into a rut of mediocrity, Capelli's driving seems to have gone the same way. That initial spark seems to have gone, because he looked very talented when he first arrived on the scene. I've seen it happen a lot over the years and, having been in that situation myself, I know how easy it is to lose motivation. A little success would possibly lift him out of it, but on the other hand, I think March should have been looking to strengthen their driver line-up and Capelli is a definite weakness at present.

By contrast, the little Minardi team has made outstanding progress using Cosworth V8s and Pirelli rubber. Towards the end of 1989, Pierluigi Martini was really running quickly, and while some of that was down to Pirelli's excellent qualifying rubber, you don't perform like that without very good chassis. The Pirelli race tyres didn't offer the same

sort of performance, but if Minardi don't deviate too far from their established technical formula this year, they must rank among the top customer V8 runners.

As far as the Onyx team is concerned, they are an extremely well-constructed racing organisation. I hold Mike Earle, a man with a deep understanding of motor racing, in very high regard, and it is a shame that the sponsorship and ownership problems have interfered with the progress of a very serious new team which seemed programmed to grow into a long-term contender. J J Lehto is obviously extremely promising, but Stefan Johansson was dropped after the first two races to be replaced by Gregor Foitek.

It had originally been mooted that Onyx might amalgamate with the Brabham team, but happily the latter is retaining its own separate identity and continuing with the very talented Stefano Modena partnered by Sir Jack Brabham's youngest son, David.

Onyx hoped to get the new Porsche V12 engine, but that has now been snapped up by Arrows for 1991. This is their big chance. They are now owned by the Japanese Footwork Corporation and, consequently, are better funded than ever before. So this is very much a re-

grouping year for them, although we can't really expect much excitement from this season while they are still working out their time with Cosworth V8s.

Alex Caffi is obviously a better long-term bet than Michele Alboreto, although he has missed the first two races of the year with a shoulder injury. He mustn't risk getting back into a car until this has completely healed, otherwise he could have annoying long-term physical problems.

Elsewhere on the Formula 1 landscape, there are not too many other potential front runners. I don't expect much from Scuderia Italia, with Andrea de Cesaris and Emanuele Pirro. Why de Cesaris has stayed in Formula 1 all these years is beyond my comprehension, unless it's to give work to fabricators and car repairers, while Pirro, although quite competent, just isn't quick enough for Formula 1.

It's the same scene at Ligier, I'm afraid, where Philippe Alliot falls into much the same category as de Cesaris. He's generally quick, but falls off the track too much. I'll defer judgement on his young team-mate Nicola Larini, however, because we really haven't seen enough of him in a decent car to form an accurate picture of his potential. ■



Senna leading the pack at this year's Brazilian Grand Prix.



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The fact that the 1989 World Championship Grand Prix season was also the first of the post-turbo era became reduced to a trifling footnote when it was set against the turmoil and controversy which rocked Formula 1 during the second half of the year.

Putting things into sharp perspective, this turbulence had its roots in a private row between McLaren-Honda team-mates Ayrton Senna and Alain Prost. Yet the long-term ripple effect of their disagreement not only ensnared the sport's controversial governing body, FISA (Federation International de Sport Automobile), but also threatened to jeopardise the outcome of the Drivers' Championship contest with threats of legal action on the part of the McLaren team.

Ironically, it was Grand Prix motor racing's irresistible urge to wash its dirty laundry in public that helped to consolidate its position as a global television spectacular. In an era when precious minutes recorded on the silver screen provide the key to unlocking an Aladdin's cave of commercial sponsorship in professional sport, the Grand Prix circus was right up there in the front line, eclipsed only by the Olympic Games and World Cup in terms of international air time.

In its annual coverage report, the Formula One Constructors Association, which acts as the competitors' commercial power base, revealed that the 16-race World Championship series attracted a total of 4,015,902,000 viewers over the year and 76 countries took a total of 1281 hours' live or deferred broadcasts.

Although the live coverage was down just over four per cent as compared to the 1988 figures, the deferred coverage showed an upsurge of almost 12 per cent. At a time when more sports than ever are competing for a share of the sponsorship pie, Formula 1 – perhaps even despite itself – enhanced its status as one of the most dazzling and successful international spectacles.

Moreover, Grand Prix racing's appeal was augmented throughout 1989 by the selective use of on-board cameras, guaranteeing that the accidents and incidents took on a dramatic immediacy calculated to rivet the Sunday afternoon viewer to his seat. To sit with Nigel Mansell as he surged into the lead at the Portuguese Grand Prix to make it three

Star

The political intrigue and vicious backbiting that characterised last year's Championship had its roots in the strongest driver partnership ever seen in contemporary Formula 1 motor racing. Alan Henry puts the situation into perspective.

abreast past the Estoril pits, or to share the tension as Ayrton Senna lunged inside Alain Prost at Suzuka in a move that ultimately lost him the World Championship, was to inject into motor-racing a whole new dimension of spectator participation unmatched in almost any international sport. Predictably enough, the sponsors loved it and judging by the way things are developing for 1990, they are coming back for more.

However, while the television coverage was lavish and unstinting, it would be foolish to argue that all was well within the Grand Prix community. In fact, 1989 produced more political intrigue and vicious backbiting than we have seen in the past decade. Ironically, it has its roots in the strongest driver partnership we have ever seen in contemporary Formula 1 motor racing.

Ayrton Senna and Alain Prost had been teamed together in the Honda Marlboro McLaren line-up throughout 1988, the final year of the turbo era. Between them, they had managed to win a record 15 out of 16 races and, with Honda seemingly well prepared for the new era of naturally aspirated 3.5 litre engines which came into effect at the start of 1989, they looked set to continue their domination. In reality, the two men were only just getting along on a personal level. The dry tinder of their relationship needed only the slightest spark to ignite a monumental forest fire.

That moment came on the first lap of the re-started San Marino Grand

Prix at Imola during the second round of the Championship. Although Nigel Mansell's Ferrari 640 had scored a rather lucky victory in the season-opener at Rio, the purposeful McLaren MP/5Bs with their high-revving Honda RA109E V10-cylinder engines had already signalled that they were the cars to beat.

With this consideration in mind, the San Marino race was obviously going to be a two-horse affair and Senna suggested to Prost that the two of them have a 'no overtaking' pact for the first lap. Whoever gets off the line first, suggested the Brazilian, should lead round the first lap without his team-mate attempting to pass. On the face of it, this seemed nothing more than a prudent piece of expedience; after all, Senna had been involved in a collision on the first corner of the Brazilian race which had wiped out all chances of a home win. He was determined that it shouldn't happen again.

Although Senna took the lead at the initial start, the San Marino race was flagged to a halt after only a handful of laps due to an enormous accident which saw Gerhard Berger escape from his blazing Ferrari with thankfully minor injuries. At the re-start, Prost got the jump on Senna away from the line and led away down the long straight. However, going into the braking area for the first uphill left-hand hairpin, Senna saw a gap and simply couldn't suppress his racer's instincts; he sliced through inside the Frenchman and

took the lead.

Senna won the race commandingly from the furious Prost, an outcome which would almost certainly have been no different had the Brazilian found it within himself to abide by an agreement which, after all, had been his idea in the first place. Prost was not to be mollified when McLaren boss Ron Dennis asked Ayrton to apologise for the sake of peace and tranquility within the team and, two weeks later, he announced to the French press that Senna was not honourable and was not a man who could be trusted to keep his word.

with this aggravation, Prost clearly could not. The ascetic Brazilian, emotionally self-contained and imbued with towering confidence in his own ability, simply switched off from Prost and concentrated on winning as many races as possible. Alain, on the other hand, was increasingly irked about the way in which this interloper had invaded what he regarded as his own personal domain and, in his view, had set about demolishing the personal relationship which he had enjoyed with the management.

Of course, none of this was helped by the stark reality that Ayr-

totally even-handed when it came to the performance of the engines which were installed in the two McLarens. Honda responded with some indignation to such suggestions, going to some length to persuade both Prost and the media that such concern was unfounded. Yet these assurances still didn't allay Prost's doubts.

Mid-season, Prost announced to McLaren boss Dennis that he'd had enough. He liked his motor racing to be fun, and being paired with Ayrton Senna definitely didn't fall into that category as far as he was concerned. Whatever else he would do, he told Dennis, there was no way he would stay with McLaren with the Brazilian driver in 1990.

Predictably, Prost's critics suggested that his reluctance to stay on was prompted more by the annoying realisation that he was no longer as quick as Senna. This was possibly true, but Prost had made up his mind that he didn't care for Ayrton way back in 1985, when the Brazilian had been driving a Lotus, and nothing he'd seen subsequently had made him change that view.

Senna, meanwhile, struggled through a frustrating summer, keeping his comments to himself in the face of an unfortunate sequence of mechanical failures. He had to be admired for this, particularly after a major engine failure at Monza had not only robbed him of a commanding Italian Grand Prix victory, but had handed that triumph to Prost at the end of a week when the Frenchman's move to the arch-rival Ferrari team had been formally announced.

From this point onwards, the Championship battle assumed a slightly surreal dimension. Prost took a calculated gamble at the Monza post-race press conference by reiterating his reservations about the parity of Honda's engines. If he was wrong, he reasoned, then he had nothing to worry about; if he was right, then he would throw the ball back into the Japanese manufacturer's court. With the Championship now crucially balanced between the two McLaren drivers, Honda had to be seen to be fair in the four remaining races.

As events proved, they were, but not before they had prevailed upon Prost to sign a document acknowledging the error of his allegations. Alain cheerfully signed. However, just as ►



Senna and Prost collide, Japan 1989.

That was the day their relationship ended for good. Amazingly, the two men went on to win a total of ten races between them without addressing another word to each other. At practice and race de-briefs they would each confer with their respective race engineers who, in turn, would later put their heads together to discuss the technical performance of the cars. It was a testimony to the McLaren team's strength in depth, and the innate professionalism of Prost and Senna in their role as racing drivers, that the whole programme did not fall apart at the seams.

However, while Senna could live

ton Senna had to be acknowledged as the quicker driver. Whether he was a better driver over the season is a matter which will absorb motor racing historians in debate for years to come but either way, the battle in 1989 was not to fall to the swift.

Senna won the San Marino, Monaco and Mexican Grands Prix to take an early lead in the points table, but this was followed by the shattering sequence of four consecutive retirements, three of which were definitely not Senna's fault. By mid-season, Prost had won the Phoenix, French and British Grands Prix, but had also privately started wondering whether or not Honda was being

Wars

Senna would later make a grudging, and entirely unconvincing, acknowledgement to the sport's governing body that he had been wrong to accuse them of manipulating the outcome of the 1989 Championship, it simply served as a reminder that a retraction extracted under duress is essentially a meaningless gesture.

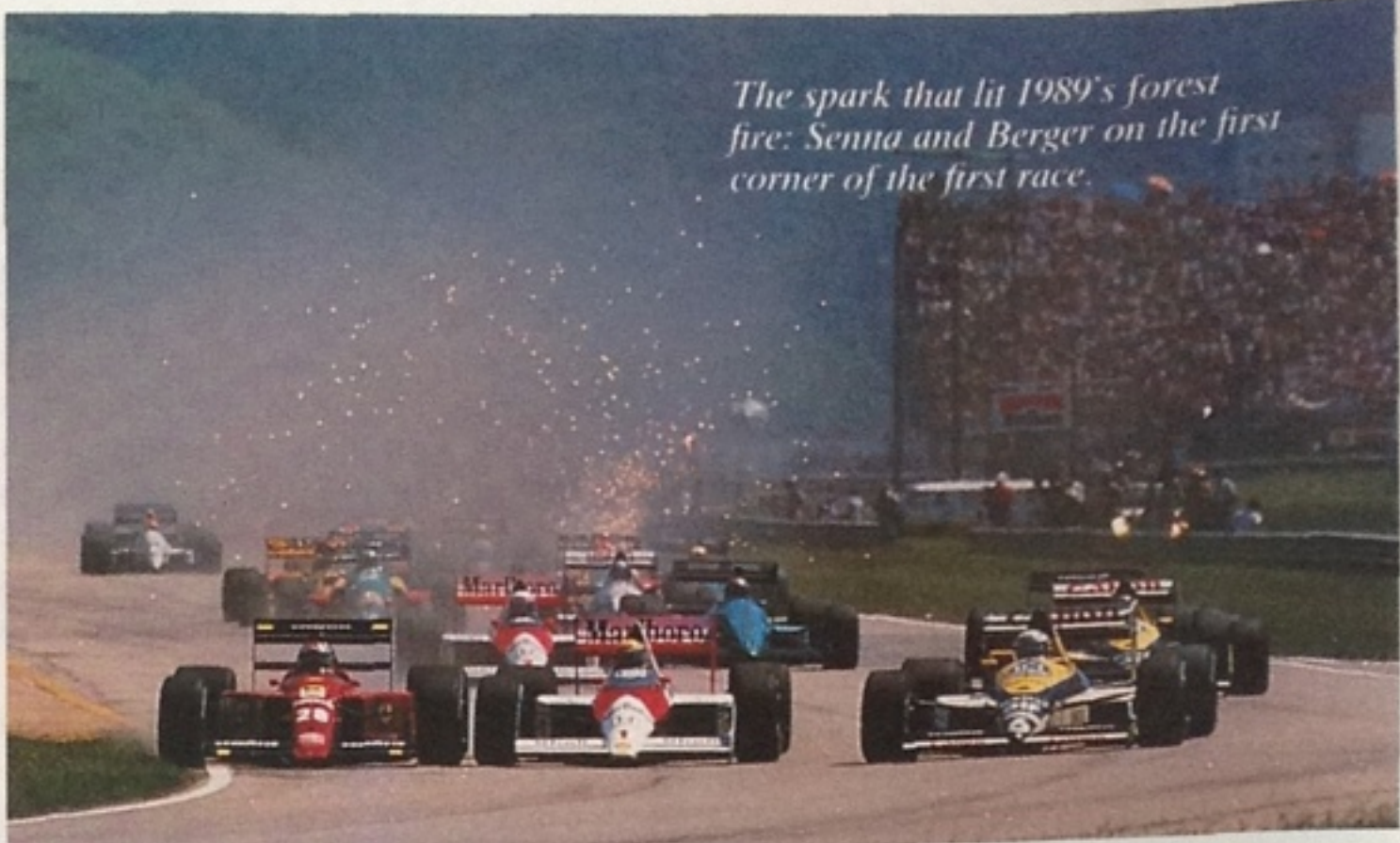
At this point in the proceedings, Nigel Mansell entered the equation to spectacular effect. The Englishman had already confounded all the sceptics by blossoming into newfound maturity as a member of the Ferrari line-up. His maiden victory in Brazil was hailed as a total vindication both of his switch from Williams to the Italian team and of Technical Director John Barnard's radical new type 640 contender, complete with its ambitious electro-hydraulic gearchange system.

The pit-lane pundits had predicted disaster for both, but Mansell and Ferrari were to grow in stature to the point where their victory in August's Hungarian Grand Prix would mark the only occasion on which Senna's McLaren-Honda was beaten into second place in a straight fight. That afternoon, Senna was guardedly impressed, accepting defeat from a driver/car partnership which had been superior to him and his McLaren on this particular day. A few weeks later, at Estoril, he was to be less impressed by Mansell's zest and determination.

This was another race which promised a repeat of the Hungarian result. The Ferraris again got the upper hand over the McLarens and, when Mansell came in for his routine tyre stop, he was over 20 seconds in the lead. In the excitement, he overshoot his pit and then made the cardinal error of reversing to his correct position. The penalty for such a rule infringement was instant exclusion, but Nigel accelerated back onto the circuit in the heat of the moment.

Despite the fact that Mansell was duly black-flagged, he apparently ignored this official disqualification signal, and went on to collide with Senna's McLaren as he attempted a duplicate of his earlier, successful, overtaking manoeuvre. This had serious consequences.

As punishment for this breach of the regulations, Mansell was subjected to the swingeing penalty of exclusion from the following weekend's Spanish Grand Prix. Irrespective of the rules, it seemed cruel



justice to penalise a competitor thus, particularly without according him the opportunity of a hearing in front of a court of appeal convened by FISA's parent organisation, the FIA. It seemed ludicrous for Balestre to explain that there simply wasn't enough time to convene such a hearing in the few days separating the two races, and Mansell was later given a provisional date which would have precluded him from competing in the Japanese Grand Prix. From the touchlines, it all seemed ridiculous.

An ill-judged retirement threat from Mansell followed, which he promptly withdrew after Ferrari President Piero Fusaro flew by private jet to the Englishman's Majorca holiday retreat to persuade him to change his mind. It must have been difficult for a man being paid around £400,000 per race to put the interests of the sport first in such difficult circumstances, but Nigel retained a stiff upper lip and bit the bullet with praiseworthy stoicism.

Senna, finding himself increasingly boxed into a mathematical corner, now faced the necessity of winning the three remaining races on the calendar in order to retain his 1988 World Championship title. He managed a win in Spain, in Mansell's absence, beating off the other Ferrari entry driven by Gerhard Berger, but in the Japanese Grand Prix he found himself battling with a seemingly revitalised Prost who was now determined to take the title – and the prestigious race number one that goes with it – to Ferrari for 1990.

Prost led from the start, having issued a very public warning to Senna that he wouldn't have any truck with any of the Brazilian

driver's aggressive overtaking stunts. Try it on me this time, brother, and I won't be making room, was the stark message issued by the normally reticent, mild-mannered Frenchman.

What followed was an absolutely electrifying confrontation between the two McLaren-Honda drivers. It ended, predictably, with Senna trying to force through inside Prost going into the chicane, and the two cars collided. Prost retired on the spot, perhaps feeling that the title was his, while Senna resumed to beat Alessandro Nannini's Benetton-Ford to victory. As he cruised the slowing-down lap, he was content in the knowledge that all that was left now was to win in Adelaide.

At this point FISA intervened under the high-profile presidency of Jean-Marie Balestre. Their treatment of the Mansell affair had been distinctly heavy-handed, but that didn't prevent them exacerbating the situation with a similarly unyielding approach to Senna.

They penalised the outgoing World Champion very heavily; not only was he disqualified from the race for missing the chicane, a highly debatable interpretation of a vaguely-framed rule, but he was also pilloried as a fundamentally dangerous driver, fined \$100,000 and given a six-month suspended ban. While Mansell had got away with a slap on the wrist, Senna found himself on the receiving end of a sledgehammer blow.

McLaren and Senna were understandably defensive and, hinting at court action, Ron Dennis assured everyone that they would not allow the matter to be swept under the carpet.



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Thierry Boutsen winning his second Grand Prix for Williams in Australia in 1989 (above) and (below) after his splendid wet weather win in Montreal last season.

With remarkable emotion, Senna initially stated his case to the press just before the Australian Grand Prix. 'This is totally unacceptable,' he said, with some feeling. 'They are treating me like a criminal and, yes, I do feel threatened by their actions.'

In fact, Senna's Championship hopes finally ended when he slammed into the back of Martin Brundle's Brabham during the rain-soaked Australian Grand Prix, so he returned to Brazil to lick his wounds. Back in his homeland, he compromised the strength of McLaren's case by making some extremely ill-advised observations, accusing FISA President Balestre of manipulating the outcome of the 1989 Championship in Prost's favour.

This predictably brought the full, unrelenting force of FISA's wrath cascading down upon his head and, summoned to the Paris headquarters for a show-down in early December, Ayrton found himself being given a piece of Balestre's mind. Senna was, however, unrepentant and reacted in a surly and defensive manner which was not calculated to have a calming effect. Senna retired to Brazil for the winter, leaving his new team-mate Gerhard Berger, and test driver Jonathan Palmer, to sustain the intensive schedule of winter testing.

For a while it looked as though Senna might retire from the sport on

a point of principle; right up until the closing day for entries his future hung in doubt. He eventually produced a carefully-worded statement which was barely an acknowledgement, let alone an apology, for his alleged sins. FISA gave him the nod and let him back into the game, but made it clear that he was, hereafter, a marked man whose behaviour would be monitored in scrupulous detail.

The way in which Senna's dispute with FISA cut a lurid swathe through the winter of 1989-90 left many people with the intimidating feeling that FISA and Balestre had been sailing rather too close to the outer extremities of their authority. Some felt uncomfortable as they watched McLaren battling against the tide, privately doubting whether the sport's controlling body was truly capable of equitable government.

But while McLaren hinted that they would be considering legal action in the civil courts, the track record of such litigation is not promising. Nobody has ever won against FISA after pursuing such a route, although it should be emphasised that the courts have tended merely to deem such sporting disputes as outside their jurisdiction. They haven't specifically said that FISA is right or wrong - just that they are in control. For McLaren, Senna and Mansell, that reality was brought home with uncomfortable

clarity throughout the 1989 Grand Prix season.

'No force, no political authority or legal power in the world outside the FIA can change this decision,' said Balestre with what seemed untoward relish during the height of the Senna affair. 'For those who will be at war, I am sorry to say there will be a few heads, even prestigious ones, that will risk a fall.'

All the foregoing drama could leave the casual observer with the feeling that the 1989 season belonged solely to McLaren, Senna and Prost, but this was far from true. Although the well-financed, superbly prepared McLaren-Hondas were the cars to beat, they were by no means invincible or invulnerable to mechanical failures. And, even aside from Ferrari, there were others beating hard on the door of Grand Prix success.

While Mansell and Berger won only three Grands Prix between them, 1989 produced the definite feeling that Ferrari was getting its act together again in a big way. In the wake of Enzo Ferrari's death in August, 1988, the famous Italian team underwent a period of uncertainty and loss of direction. However, with the autocratic John Barnard firmly at the design helm and team management duties now entrusted to charismatic former Lancia rally team chief Cesare Fiorio, the red cars from Maranello definitely asserted themselves as



'best of the rest' behind the McLarens.

Ironically, the other potential front-runner turned out to be the Canon Williams team which Mansell had forsaken in order to join Ferrari at the start of the year. Williams had suffered a disappointing 1988 season using temperamental Judd V8 engines; the first year since 1979 that they had failed to win a Grand

Prix. This had strengthened Frank Williams's resolve to forge an engine supply partnership with a major manufacturer and this resulted in contracted drivers Thierry Boutsen and Riccardo Patrese being lined up to do battle at the start of 1989 armed with Renault engines.

The French company, absent from Formula 1 since 1986, had taken a leaf out of Honda's book by opting for a novel V10 cylinder layout, a configuration which balanced piston area – and therefore power output – with ease of compact installation in the chassis. Boutsen and Patrese did an excellent, efficient job, with the 'veteran' 35-year-old Italian frequently outclassing his team leader, and while Patrese deserved to win in Hungary, it was the canny Boutsen who returned Williams to the winner's rostrum with two splendid wet weather wins in Montreal and Adelaide.

The end of the turbo generation may have consigned an era of complex forced-induction racing engines to the museums, but their loss in no way reduced the technical momentum of Grand Prix racing. Those romantic team owners who longed for the return of the 'good old days' of 15 years ago when everybody except Ferrari used off-the-shelf Ford Cosworth V8s, were choosing to take a charming, but distinctly soft-focus view of events.

It just didn't happen. The only V8 that ran near the front were the Ford works-backed Benetton B189s and, even then, their performance was such as to confirm suspicions that any eight cylinder engine did not have the potential power output to run at the front. Alessandro Nannini, the genial, chain-smoking Siena baker, had a lucky win at Suzuka after Senna had been disqualified, but that was it. Nobody picked it up at the time, but Ford had at least embarrassed Honda in the Japanese company's backyard!

Benetton also afforded British rising star Johnny Herbert an opportunity to make his Grand Prix debut, but even a fine fourth place on his maiden outing at Rio couldn't conceal that fact that the young Essex driver was still struggling to recover from ankle injuries sustained the previous summer. His form faded and neither Benetton nor Ford could keep their nerve; he was replaced mid-season by McLaren test driver Emanuele Pirro.

By the end of the year Benetton

announced something of a coup with the recruitment of former Ferrari Technical Director John Barnard, but it will probably be 1992 before the full force of his influence is felt on the racing team's programme.

Elsewhere in the V8 ranks, the resurgent Brabham team began the year well with Martin Brundle and Stefano Modena successfully hauling the Chessington-based outfit out of the Friday morning pre-qualifying mire by the middle of the year. The Brabham BT58 was a good handling car which made good use of Pirelli's rubber, but the team's new owner, Swiss financier Joachim Luthi, was jailed by police in August and thereafter had rather more to occupy his mind than the operation of his racing team. By the end of the year the scene surrounding Brabham's future had collapsed in confusion, and the air was thick with writs and injunctions.

John Judd's Rugby-based Engine Developments company had sought to give the Leyton House March team 'factory backed' status after they had effectively commissioned him to produce a narrower angle V8 for 1989. Based on their record of achievement in 1988, Mauricio Gugelmin and Ivan Capelli had high hopes for the new season, but their plans unfortunately fell apart.

The new March CG891 was late to completion, a by-product of the unfortunate wrangling which surrounded Leyton House boss Akira Akagi's buy-out of the Formula 1 operation from its original parent

company, the March Group. But Grand Prix racing is an unyielding business and time, once lost, can never be recouped. The best result of the year for March was Gugelmin's third place at Rio – driving the older type 881 – while a dejected Capelli failed to score a single Championship point.

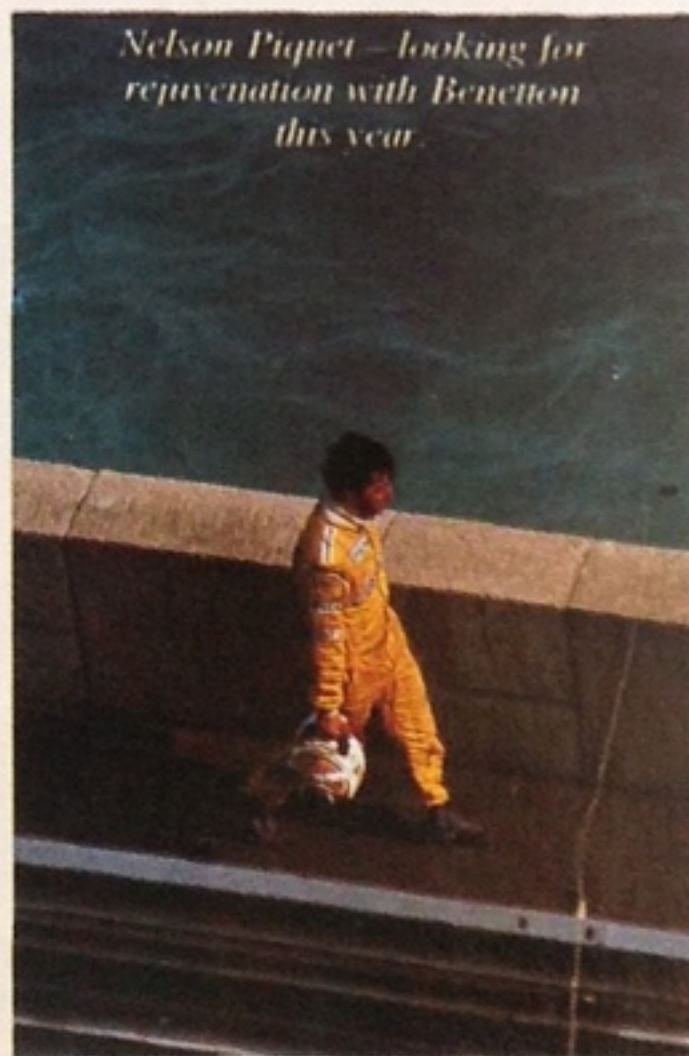
Among the other once-famous Formula 1 names, both Lotus and Tyrrell battled to sustain their reputations with varying degrees of success, using Judd CV and Ford Cosworth DFR V8 engines respectively. Lotus had been summarily relegated to 'Division Two' when Honda terminated their engine supply agreement at the end of the previous season. It proved something of a struggle to get the team up and motivated, as triple World Champion Nelson Piquet wasn't used to fighting against the technical odds, while the sponsored Satoru Nakajima wasn't really up to the job.

Mid-season, Lotus had a major management reshuffle after one skeleton began rattling around in a long-locked cupboard. Chairman Fred Bushell, one of the late Colin Chapman's closest confederates, was charged with conspiracy to defraud the now-defunct DeLorean Motor Company. Obviously he stood down, while long-time team manager Peter Warr also left, although for totally unconnected personal reasons. By the end of the season Piquet and Nakajima were also given their P45s.

Tyrrell, meanwhile, began the year pairing former Ferrari driver Michele Alboreto with Britain's talented Jonathan Palmer, who was looking forward to measuring himself against a man who had won six Grands Prix. But Alboreto and Uncle Ken fell out, went their separate ways, and suddenly Palmer found himself acting as the yardstick for the blistering talent of young Frenchman Jean Alesi who achieved a splendid fourth place on his Formula 1 debut in the French Grand Prix.

Making the grade in Grand Prix racing, whether it be drivers, teams or designers, continues to offer an elusive challenge as the sport enters the 1990s. You have to be in the right place, at the right time, with the right engine, the right tyres, the right finance, the right drivers and the right personnel.

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Racing Revolutions

Early in 1989, one of the mechanics working for a Silverstone-based race team made an improbable discovery as he drove home one night. His headlights caught an unusual shape buried in the country lane hedge, and investigation revealed it to be a damaged carbon fibre race car chassis. As one would, he took it into work with him the following day, where it was rightly diagnosed as a Formula 1 chassis. The indications (correctly) suggested it had failed its mandatory crush test, probably at the nearby Cranfield Institute facility. I'll spare the team's blushes by refraining from identifying it.

Three months later the world watched in horror as Gerhard Berger's Ferrari slammed into the wall at Imola at around 180mph, and burst into flames. Incredibly, the Austrian not only survived, but did so with minimal injury.

The two incidents highlighted the two ends of the Formula 1 scale. In the first, it was a new team's first chassis; in the second it was one designed by the carbon fibre master, John Barnard, who had been responsible for introducing it to race car chassis in the first place. 'The tub was heavily damaged,' admits Barnard, in the face of criticism that precious little of it remained after the impact. 'But the monocoque took the loading. Sure, it may have been a bit like an eggshell, but effectively the driver's compartment was okay even though the tub was marmalised.'

The point is that something had to absorb the impact, and it was designed to be the chassis rather than the driver. That the Ferrari did its job was proved by the fact that Berger didn't sustain any broken limbs. ►

Despite today's high standards in Grand Prix racing, recent accidents have proved that there is no room for complacency. David Tremayne reports on the latest technical trends in Formula 1.

Osamu Goto, Honda's Formula 1 Project Leader, watches the progress of Berger's McLaren.



ALLSPORT/PASCAL RONDEAU

the rocker arm designs of the ground effect days.

The theory behind computer-controlled 'active ride' suspension is simple enough to absorb. If the car's suspension can be so adaptable to road surface conditions that the chassis can be run at a constant ride height, several advantages can be realised. The driver gets a smoother ride, since the suspension is truly absorbing the shocks without transmitting so many of them to the

The Williams team continued experimentation with its 'active ride' system in 1988 which unfortunately experienced many unnerving malfunctions.

ated with vibration from a V8 engine, whereas on the successful FW11 system we'd had the turbocharged Honda V6 which was smoother. As a result we had some very high specification electrical connections fail. Then we began to run into a progressive problem where the hydraulic oil in the damping system began to get aerated. At that time we didn't have enough protection against failure built into the system, and our drivers had some nasty



chassis. The level of aerodynamic grip will remain more constant. The car should become more controllable.

The trouble with active ride is that turning the theory into reality has proved very difficult. Williams Technical Director Patrick Head is one of its greatest proponents.

'Active ride has so much to recommend it, although one has to say that the greater the level of technology, the greater is the potential unreliability penalty. Another problem is that a racing car is an even more hostile environment than many military applications. For example, it's very difficult to get clarity in the driver's voice link to the pits, yet the microphones we use are similar to those used in ground at-

tack helicopters! Then there is all that vibration . . .'

Williams began running an active system in 1987, and won races with it, but Lotus was the first team to introduce it and Ayrton Senna used it to win the Monaco Grand Prix that year. Despite that success, and others with an active system for Nelson Piquet and Williams, it is still far from universally accepted, and nobody ran it in 1989 after Williams caught a heavy cold with it in the first half of 1988. It experienced so many frightening failures that it hastily converted its FW12s to standard suspension at the British Grand Prix. Drivers Nigel Mansell and Riccardo Patrese loathed and feared it.

Head again: 'With the original FW12 we ran into problems associ-

frights which sapped their confidence.'

Despite the problems, Williams continued its development, running an active FW12 as a research and development project in 1989. It went well, and it seemed as if the system had overcome the majority of its problems, even if it didn't yet confer any speed advantage. Then earlier this year, Thierry Boutsen had a failure testing in Estoril, and hit the guardrails hard as a result.

'It was an electrical fault, and it has caused us to have another rethink,' admitted Head. 'The rear strut was suddenly instructed to be fully extended when a servo potentiometer in it malfunctioned. If you look at it that most teams have one conventional mechanical sus- ▶

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This year's Ferrari with the auto gear shift behind the wheel.



LAT PHOTOGRAPHIC

pension failure problem a year, it was our equivalent of a wishbone failure. But you have to ask whether that is an acceptable level, and the answer at present has to be no. So we then have to ask ourselves what we build in. How quickly can a computer sense when a sensor is malfunctioning? How much do you double up? In a plane the pilot has some 20 seconds to kick it out of autopilot and start flying it himself. In a race car on the limit there is no time at all when something electronic goes wrong.

'Thierry was happy enough with the car, but didn't like parking it untidily,' he says drily, adding: 'We are re-evaluating it all.'

If that presents a bleak immediate future for active ride in Didcot, Leyton House Racing is close to racing its own system, and Benetton has also undertaken considerable development mileage. Its time will surely come, but nobody is prepared to put a timescale on complete acceptance.

Transmissions will also change in the not too distant future. Already, Barnard's innovative electro-hydraulic gearshift is working well for Ferrari, after some early glitches mainly associated with the electronics. By operating levers behind the steering wheel, the drivers can change gear without taking their hands off the wheel or using a clutch

pedal. It is rather more than just a 1990s version of the 'Standrive' roadcar transmissions of the 1950s, but it is still a long way from fully automatic control. 'When that happens, I'm off,' says Mansell, a firm believer in the manual systems.

Nevertheless, a continuously variable transmission (CVT) is a logical aim for the race car designer. 'A CVT would be highly desirable at certain types of circuit,' avers Head, 'particularly those where speeds vary. At the moment we have engines which develop 650bhp and they drop to 450 whenever the driver changes gear, then he has to build back up again. With a CVT you could have your 650 all the time, which is naturally what you want. But I don't think we'll have them for five to ten years.'

Williams is currently experimenting with an electronically-controlled differential. 'It's a little like a trials car, where if one wheel spins you get your wife to lean over it to add weight and thus traction,' says Head cheerfully. 'That's the principle.' It's a racing application of BMW's ASC roadcar concept where sensors detect imminent wheelspin and take steps to limit it, but though it is working reasonably well, Head again does not see a short-term application.

Cornering speeds will continue to rise, partly through better tyres and

certainly through aerodynamic refinement, and in the short-term the Formula 1 car will continue its current state of gradual evolution rather than making any dramatic breakthrough. Ways will be explored of slowing them down, as they always will be, but there are strong arguments in favour of maintaining wide tyres and wings. Reduce either, for example, and the cars will go further when they spin out of control. Braking efficiency will also suffer. As one leading designer says, 'you can't disinvest progress.'

Perhaps the greatest step that might be taken quickly is not currently within the framework of the regulations, but four-wheel drive could enjoy a second coming were FISA so to choose. It failed first time around, but has since proved capable of handling up to 700bhp in the late lamented GpB rally supercars, and is now a desirable safety and performance factor on road cars.

'The principle of four-wheel drive is better, and if it were allowed we probably would be using it,' says Head. 'I know it failed in Formula 1 in 1969, but the cars it was used on were not very good. They were heavier, and that's why their lap times were worse. Take that extra weight into consideration and they weren't really any slower.' And 4WD has been improved dramatically since then . . . ■

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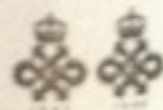
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1990

World Championship

Entry List

No	Driver	Team
1	Alain Prost	Ferrari SpA
2	Nigel Mansell	Ferrari SpA
3	Satoru Nakajima	Tyrrell Racing Organisation
4	Jean Alesi	Tyrrell Racing Organisation
5	Thierry Boutsen	Williams GP Engineering
6	Riccardo Patrese	Williams GP Engineering
7	David Brabham	MRD Promotions
8	Stefano Modena	MRD Promotions
9	Michele Alboreto	Footwork Arrows
10	Alex Caffi	Footwork Arrows
11	Derek Warwick	Camel Team Lotus
12	Martin Donnelly	Camel Team Lotus
14	Olivier Grouillard	Osella F1 SpA
15	Mauricio Gugelmin	Leyton House Racing Ltd
16	Ivan Capelli	Leyton House Racing Ltd
17	Gabriele Tarquini	AGS
18	Yannick Dalmas	AGS
19	Alessandro Nannini	Benetton Formula Ltd
20	Nelson Piquet	Benetton Formula Ltd
21	Emanuele Pirro	Scuderia Italia
22	Andrea de Cesaris	Scuderia Italia
23	Pierluigi Martini	SCM Minardi SpA
24	Paolo Barilla	SCM Minardi SpA
25	Nicola Larini	Ligier Gitanes
26	Philippe Alliot	Ligier Gitanes
27	Ayrton Senna	Honda Marlboro McLaren
28	Gerhard Berger	Honda Marlboro McLaren
29	Eric Bernard	Espo Larrousse F1
30	Aguri Suzuki	Espo Larrousse F1
31	Bertrand Gachot	Subaru Coloni Racing Sr1
33	Roberto Moreno	Euro Brun Racing AG
34	Claudio Langes	Euro Brun Racing AG
35	Gregor Foitek	Monteverdi Onyx Ltd
36	JJ Lehto	Monteverdi Onyx Ltd
39	To be nominated	Life Racing Engines Sr1

SCUDERIA FERRARI

BACKGROUND: Possibly the most charismatic racing team in motor racing history. This famous Italian Scuderia was established by the late Enzo Ferrari in 1929 as a private organisation fielding Alfa Romeo cars. Throughout the decade up to the war, the Modena-based outfit expanded to represent Alfa Romeo as a works-blessed factory team, but when Enzo Ferrari quarreled with the senior Alfa management in 1939, he started out on an independent route which would produce spectacular success and international acclaim as a manufacturer of world-class road and racing cars.

Carrying the distinctive Prancing Horse emblem of the World War One Italian fighter pilot Francesco Barracca, Ferrari became consistent and enduring competitors on the international racing scene, their factory in the village of Maranello, near Modena, producing cars which competed in every corner of the world.

Enzo Ferrari was a dynamic autocrat whose word was absolutely unchallenged within his own personal domain, but his commitment to motor racing led the company into financial problems by the late 1960s. At this point, Fiat stepped in to take control of the road car production facility.

The racing department was to remain Ferrari's personal fiefdom virtually until his death on August 14, 1988. His name is perpetuated by a team which effectively represents a vehicle to demonstrate Italian prestige and engineering capability on the international sporting stage.

HEADQUARTERS: Scuderia Ferrari SpA, 41053 Maranello, Italy.

President: Piero Fusaro
Team Manager: Cesare Fiorio
Chief Engineer: Enrique Scalabrone

RECORD TO START OF 1990: 456 Grands Prix contested – 97 wins. 107 pole positions. First GP: Turin, 1948. Constructors' Championship: 1961, '64, '75 '76, '77, '79, '82 and '83. Drivers' World Championship: 1952 and '53 (Alberto Ascari), 1956 (Juan Manuel Fangio), 1958 (Mike Hawthorn), 1961 (Phil Hill), 1964 (John Surtees), 1975 and '77 (Niki Lauda) and 1979 (Jody Scheckter).

1990 DRIVER LINE-UP

ALAIN PROST: carrying race number 1. Aged 35. French. Born St Chamond (Loire) February 24, 1955. Married to Anne-Marie. One child (Nicolas). Lives in Yens, Switzerland. First GP: Argentina, 1980 (McLaren). Championship placings: 1980 (McLaren), 15th; 1981 (Renault), 5th; 1982 (Renault), 4th; 1983 (Renault), 2nd; 1984 (McLaren), 2nd; 1985 (McLaren), 1st; 1986 (McLaren), 1st; 1987 (McLaren), 4th; 1988 (McLaren), 2nd; 1989 (McLaren), 1st. 39 Grand Prix wins.



ALLSPORT/PASCAL RONDEAU

Alain Prost (above and below); already a win for Maranello in only his second outing for the team.



LAT PHOTOGRAPHIC

1990 PROGRAMME: Intends to consolidate substantial progress made throughout 1989, using a re-vamped version of the John Barnard-designed Ferrari 640, fitted with an uprated electro-hydraulic gearchange mechanism. Prospects are enhanced by the arrival of the



ALLSPORT/PASCAL RONDEAU

Nigel Mansell (above and below); into his second year with Ferrari and measuring himself against Prost in equal cars.



ALLSPORT/PASCAL RONDEAU

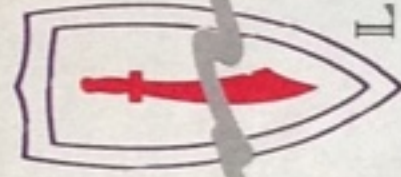
NIGEL MANSELL: carrying race number 2. Aged 35. British. Born Upton-on-Severn, August 8, 1954. Lives in Port Erin, Isle of Man. Married to Rosanne. Three children (Chloe, Leo and Greg). First GP: Austria, 1980 (Lotus). Championship placings: 1980 (Lotus), no points; 1981 (Lotus), 14th; 1982 (Lotus), 14th; 1983 (Lotus), 12th; 1984 (Lotus), 9th; 1985 (Williams), 6th; 1986 (Williams), 2nd; 1987 (Williams), 2nd; 1988 (Williams), 10th; 1989 (Ferrari), 4th. 15 Grand Prix wins.

highly regarded Alain Prost to partner Nigel Mansell. Hoping to challenge McLaren fiercely and consistently for World Championship honours.

ENGINES: Ferrari V12
TYRES: Goodyear



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TYRRELL

BACKGROUND: Established by Surrey timber merchant Ken Tyrrell following his own retirement from the cockpit in the early 1960s. Established initially to contest junior single seater categories, it sprang to prominence running French Matras with Ford V8 engines for Jackie Stewart in 1968-69, before briefly running a March early in 1970 – a precursor to building its own car. Stewart won the Championships in 1969, '71 and '73, but only intermittent success has been achieved since. Although using Ford/Cosworth engines this season, with Honda power on the horizon for 1991 Tyrrell could be on the verge of an upswing in fortunes.

HEADQUARTERS: Tyrrell Racing Organisation Ltd, Long Reach, Ockham, Woking, Surrey GU23 6PE. Tel: (04865) 4955
Chairman: Ken Tyrrell
Managing Director: Bob Tyrrell
Technical Director: Harvey Postlethwaite
Team Manager: Joan Villadelprat

RECORD TO START OF 1990: 272 Grands Prix contested – 23 wins, 14 pole positions. First GP: South Africa, 1968 (with Matra-Ford), Canada, 1970 (as constructor of own car). Constructors' World Championship, 1971. Drivers' World Championship: (with Matra) 1969, (with own car) 1971 and '73 (Jackie Stewart).

1990 PROGRAMME: Holding the year with the outdated Ford/Cosworth DFR engines prior to receiving Honda V10 engines discarded by McLaren on arrival of the new V12. Much to be expected from the talented Alesi, rather less from journeyman Nakajima whose presence was the key to Japanese engines and sponsorship.

ENGINES: Ford/Cosworth DFR V8
TYRES: Pirelli



ALLSPORT/PASCAL RONDEAU

The experienced Satoru Nakajima, who switched to the Tyrrell team after 3 years with Lotus.



LAT PHOTOGRAPHIC

JEAN ALESI: carrying race number 4. Aged 25. French, born Avignon, June 11, 1964. Unmarried. Lives Nyon (Switzerland). First GP: French, 1989 (Tyrrell) Championship placings: 1989 (Tyrrell), 9th. Best placings to date: 4th, France and Spain, 1989.

1990 DRIVER LINE-UP

SATORU NAKAJIMA: carrying race number 3. Aged 37. Japanese, born Okazaki City, Aichi Prefecture, Japan, February 23, 1953. Married to Akimi, two sons (Kazuki and Daisuke). Lives in Okazaki City. First GP: Brazil, 1987 (Lotus). Championship placings: 1987 (Lotus), 12th; 1988 (Lotus) 16th; 1989 (Lotus), 21st. Best placings to date: 4th, Britain, 1987, and Australia, 1989.



LAT PHOTOGRAPHIC

Jean Alesi; his performance in the first race of the season at Phoenix enhanced his credentials as the brightest of rising stars.



LAT PHOTOGRAPHIC

CANON WILLIAMS

BACKGROUND: The manner in which Frank Williams built up his team from under-financed also-ran to world beater is one of the most remarkable Formula 1 success stories of the post-war era. Unfortunately now confined to a wheelchair after suffering serious spinal injuries in a road accident four years ago, Williams continues to preside over his company with tremendous zest and enthusiasm, assisted by a strong management team.

Williams started out with racing aspirations of his own at the wheel of an Austin A40 in 1962, but circumstances led him to develop the role of team owner and entrant, graduating into Formula 1 in 1969 with a private Brabham driven by debonair brewery heir Piers Courage. The company ran Italian de Tomaso cars in 1970 but Courage was killed in the Dutch Grand Prix; the Anglo-Italian partnership collapsed, so the team switched to March machinery in 1971 before building its own car the following year.

For the next five years Williams struggled gamely to establish his team as a front-line competitor, eventually winning the 1979 British Grand Prix at Silverstone to trigger a run of success which has been sustained ever since. Throughout the last 11 seasons, only 1988 failed to yield Williams at least one Grand Prix win.

HEADQUARTERS: Williams Grand Prix Engineering Ltd, Basil Hill Road, Didcot, Oxon. Tel: (0235) 815161
Managing Director: Frank Williams
Technical Director: Patrick Head
Commercial Director: Sheridan Thynne
Team Manager: Michael Cane

RECORD TO START OF 1990: 249 Grands Prix contested - 44 wins. 30 pole positions. First GP: (with Brabham) Spain, 1969 (with cars titled Williams), Argentina, 1975. Constructors' World Championship: 1980, '81, '86 and '87. Drivers' World Championship: 1980 (Alan Jones), 1982 (Keke Rosberg) and 1987 (Nelson Piquet).

1990 DRIVER LINE-UP

THIERRY BOUTSEN: carrying race number 5. Aged 32. Belgian, born Brussels, July 13, 1957. Married to Patricia. Lives in Brussels and Monaco. First GP: Belgian, 1983 (Arrows). Championship placings: 1983 (Arrows), no points; 1984 (Arrows), 14th; 1985 (Arrows), 11th; 1986 (Arrows), no points; 1987 (Benetton), 8th; 1988 (Benetton), 4th; 1989 (Williams), 5th. 2 Grand Prix wins.



Thierry Boutsen, looking forward to his second season with Williams after two splendid wet-weather wins last season.



Riccardo Patrese, Grand Prix racing's most experienced campaigner, is driving better than ever.

RICCARDO PATRESE: carrying race number 6. Aged 35. Italian, born Padua, April 17, 1954. Married to Susy, one son (Simone) and twin daughters (Beatrice and Maddalena). Lives in Padua and Monaco. First GP: Monaco, 1977 (Shadow). World Championship placings: 1977 (Shadow), 19th; 1978 (Arrows), 11th; 1979 (Arrows), 19th; 1980 (Arrows), 9th; 1981 (Arrows), 11th; 1982 (Brabham), 10th; 1983 (Brabham), 9th; 1984 (Alfa Romeo), 13th; 1985 (Alfa Romeo), no points; 1986 (Brabham), 15th; 1987 (Brabham), 13th; 1988 (Williams), 11th; 1989 (Williams), 3rd. 2 Grand Prix wins.

1990 PROGRAMME: The second season in partnership with Renault; hoping to consolidate World Championship challenge after scoring two wins in 1988. Brand new RS2 Renault V10 engine should have more power for a strong and proven, if

unspectacular, driving partnership. Possible contenders for the World Championship.

ENGINES: Renault RS2 V10
TYRES: Goodyear

BRABHAM

BACKGROUND: This famous Formula 1 team has had a turbulent season and its continued existence was only assured in late March, 1990. Established in 1962 by Jack Brabham, it quickly became a front-running force and in 1966 its owner became the first – and so far the only – driver in history to win a Championship in a car bearing his own name.

Brabham sold out the company to his long-time partner Ron Taurance on his retirement from racing in 1970. Taurance, in turn, sold out to top entrepreneur Bernie Ecclestone at the end of 1971. Thereafter the team rose spectacularly in stature, Ecclestone using it as a power base to establish his influential role as President of the Formule One Constructors' Association.

Brabham withdrew from Formula 1 at the end of 1987, and was sold to Alfa Romeo for the development of a 164 prototype for the stillborn 'silhouette' series. It was subsequently re-sold to Swiss financier Joachim Luthi who was jailed in connection with fraud charges in August 1989, thereafter to Japanese Middlebridge Group almost on the eve of the first race in Phoenix.

HEADQUARTERS: Motor Racing Developments, Roebuck House, Cox Lane, Chessington, Surrey KT9 1DG.

Tel: 01-391 0121

Managing Director: Dennis Nursey
Chief Designer: Sergio Rinland
Team Manager: Herbie Blash

RECORD TO START OF 1990: 359 Grands Prix contested – 35 wins. 39 pole positions. First GP: Germany, 1962. Constructors' World Championship, 1966. Drivers' World Championship: 1966 (Jack Brabham), 1981 and '83 (Nelson Piquet).

1990 PROGRAMME: Continuing with a new Brabham BT59 using the latest Judd EV V8. David Brabham's inclusion in the team arranged after Gregor Foitek drove first two races of the season. Have a contract to use Yamaha engines in 1991.

1990 DRIVER LINE-UP

DAVID BRABHAM: carrying race number 7. Aged 24. Australian, born September 27, 1965. New to Formula 1 at San Marino Grand Prix. Unmarried. Lives in Aylesbury.



David Brabham, who joined the Brabham team as a newcomer to Formula 1 at San Marino.

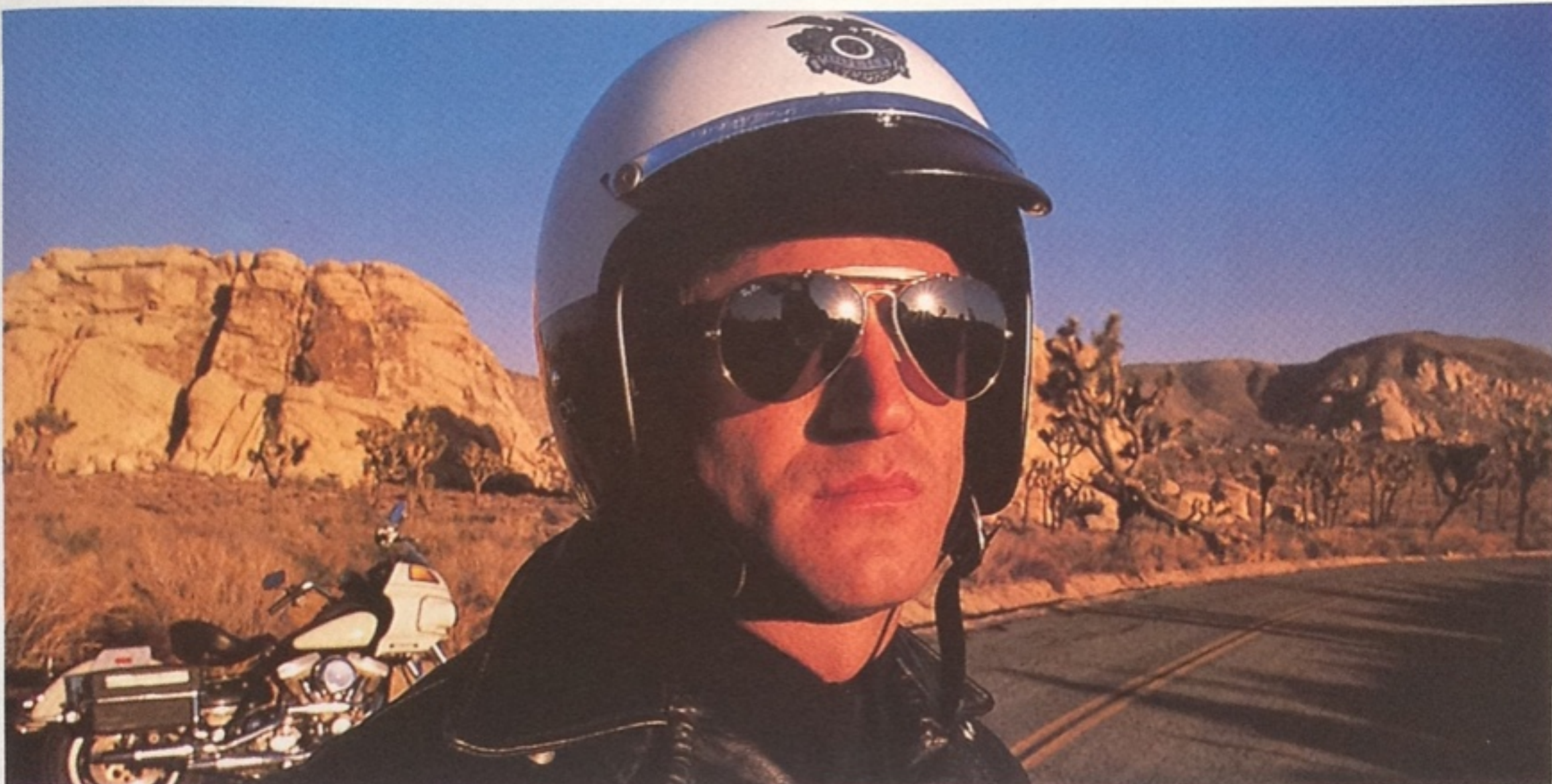


Stefano Modena (above and below), now in his second season with Brabham.

STEFANO MODENA: carrying race number 8. Aged 26. Italian, born Modena, May 12, 1963. Lives Modena. First GP: Australia, 1987 (Brabham). Championship placings: 1987 (one race for Brabham), no points. 1988 (EuroBrun), no points; 1989 (Brabham), 16th.



ENGINES: Judd EV V8
TYRES: Pirelli



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FOOTWORK ARROWS

BACKGROUND: This middle-ranking Formula 1 squad was established by a group of personnel who broke away from the Shadow team at the end of 1977. Despite displaying flashes of promise over the years, Arrows has never quite managed to fulfil the early promise it displayed during 1978-81. However, this could change in the future as the company was bought out by the Japanese Footwork Corporation at the end of 1989 and has since commissioned Porsche to manufacture a state-of-the-art V12 engine for the team's exclusive use from 1991-93.

HEADQUARTERS: Footwork Arrows International, 39 Barton Road, Water Eaton Industrial Estate, Bletchley, Milton Keynes, Bucks ML2 3HW. Tel: (0908) 270047.

Managing Director: Jack Oliver
Team Manager: Alan Rees
Chief Designer: James Robinson

RECORD TO START OF 1990: 183 Grands Prix – 0 wins. 1 pole position. First GP: Brazil, 1978. Best placing in Constructors' Championship: 4th, 1988.

1990 PROGRAMME: Like Tyrrell, the Footwork Arrows team will be marking time throughout 1990, using an updated version of the neat A11 design which was raced throughout 1989. It will be a busy time with the first prototype Porsche V12 engine ready for testing hopefully by mid-season to ensure that Footwork Arrows is in a strong position by the start of 1991.

ENGINES: Ford/Cosworth DFR V8
TYRES: Goodyear



LAT PHOTOGRAPHIC

Michele Alboreto (above and below), who is awaiting the arrival of the Porsche V12 engine with optimism.



ALLSPORT/PASCAL RONDEAU

Alex Caffi, a bright young star who was plagued by a shoulder injury for the first race this year.



LAT PHOTOGRAPHIC

1990 DRIVER LINE-UP

MICHELE ALBORETO: carrying race number 9. Aged 33. Italian, born Milan, December 23, 1956. Married to Nadia. One daughter (Alice). Lives in Monaco. First GP: San Marino, 1981 (Tyrrell). Championship placings: 1981 (Tyrrell), no points; 1982 (Tyrrell), 7th; 1983 (Tyrrell), 12th; 1984 (Ferrari), 4th; 1985 (Ferrari), 2nd; 1986 (Ferrari), 8th; 1987 (Ferrari), 7th; 1988 (Ferrari), 5th; 1989 (Tyrrell and LC Lola), 11th. 5 Grand Prix wins.

ALEX CAFFI: carrying race number 10. Aged 26. Italian, born Rovato, March 18, 1964. Unmarried. Lives in Rovato. First GP: Italy, 1986 (Osella). Championship placings: 1986 (Osella), no points; 1987 (Osella), no points; 1988 (Dallara), no points; 1989 (Dallara), 16th. Best placing to date: 4th, Monaco, 1989. ▶

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CAMEL TEAM LOTUS

BACKGROUND: Established by Colin Chapman in 1954, initially to race sports cars, Team Lotus's reputation as Formula 1's dynamic technical innovators evaporated during the years following the death of their inspirational founder in 1982. However, the 1990 season sees a reinvigorated Lotus intending to fight back with an all-new driver line-up, reshuffled management and an engine supply deal with Lamborghini.

During the 1960s, Chapman forged a memorable partnership with the great Jim Clark to dominate the Grand Prix scene from 1962 until Clark was killed at the beginning of 1968. The early 1970s saw the sensational Lotus 72 dominating the scene, while Chapman later harnessed the airflow beneath the car to produce prodigious aerodynamic downforce in 1977. He died of a heart attack on December 16, 1982, just before his team began using Renault turbo engines.

The 1960s also saw Lotus storm the bastions of the US racing establishment when Clark won the prestigious Indianapolis 500 in 1965, on his third attempt. The company also achieved wide-ranging success in sports car racing, as well as in the junior single seater categories where Lotus ranked among the most prolific manufacturers of proprietary racing cars for sale to private customers.

HEADQUARTERS: Team Lotus International, Ketteringham Hall, Wymondham, Norfolk NR18 9RS. Tel: (0603) 811190

Chief Executive: Tony Rudd
Team Manager: Rupert Manwaring
Technical Director: Frank Dernie

RECORD TO START OF 1990: 410 Grands Prix contested – 79 wins. 107 pole positions. First GP: Monaco, 1958. Constructors' World Championship: 1963, '65, '68, '70, '72, '73 and '78. Drivers' World Championship: 1963 and '65 (Jim Clark), 1968 (Graham Hill), 1970 (Jochen Rindt), 1972 (Emerson Fittipaldi) and 1978 (Mario Andretti).

1990 DRIVER LINE-UP

DEREK WARWICK: carrying race number 11. Aged 35. British, born Alresford, Hampshire, August 27, 1954. Married to Rhonda. Two daughters (Marie and Kerry). Lives in Jersey, Channel Islands. First GP: Las Vegas, 1981 (Toleman). Championship placings: 1981 (Toleman), no points; 1982 (Toleman), no points; 1983 (Toleman), 14th; 1984 (Renault), 7th; 1985 (Renault), 13th; 1986 (Brabham), no points; 1987 (Arrows), 16th; 1988 (Arrows), 9th; 1989 (Arrows), 10th. Best result to date: 2nd, 1984, Belgium and Britain.



Derek Warwick, entering his tenth season as a Formula 1 driver and as competitive and determined as ever.



ALL PICTURES: ALLSPORT/PASCAL RONDEAU

MARTIN DONNELLY: carrying race number 12. Aged 25. British, born Belfast, March 26, 1964. Unmarried. Lives Attleborough, Norfolk. First GP: France, 1989 (Arrows). Championship placings: 1989 (one drive for Arrows), no points. Best result to date: 12th, France, 1989.

1990 PROGRAMME: A lot of work is needed to get the promising Lamborghini engine massaged into a state where it can run as near to the front of the pack as the two ambitious drivers aspire to. This is a real make or break year for the proud British team.

ENGINES: Lamborghini 3512 V12
TYRES: Goodyear

Martin Donnelly (below), hoping to extend his impressive record with lesser formulae to Formula 1.



OSELLA

BACKGROUND: Against all financial odds, Enzo Osella's tiny equipe continues to battle for survival in hostile and competitive Grand Prix waters, a veritable minnow in an ocean of well-heeled sharks.

Osella began building two-litre sports racing cars in the early 1970s, contesting the Italian and European Championships before making the move into Formula 2. Finally he graduated into Formula 1 and has hung on by his finger nails ever since, proving that one really can go Grand Prix racing on a financial shoestring – relatively speaking – as the sport heads into the 1990s.

HEADQUARTERS: Osella
Squadra Corse, Via Brandizzo
245, 10088 Volpiano, Torino, Italy.
Tel 11.998.1694
Managing Director: Gabriele Rumi
Chief Designer: Antonio Tomaini
Team Manager: Enzo Osella

RECORD TO START OF 1990: 123
Grands Prix contested – 0 wins. No
pole positions. First GP: South Af-
rica, 1980. Best placing in Con-
structors' Championship: 10th,
1984 (only second and most recent
occasion team has scored points).

1990 DRIVER LINE-UP

OLIVIER GROUILLARD: carrying
race number 14. Aged 31. French,
born Toulouse, September 2, 1958.
Lives in Toulouse. Unmarried. First
GP: Brazil, 1989 (Ligier). Cham-
pionship placings: 1989 (Ligier),
26th. Best placing to date; France,
1989 (Ligier), 6th.

1990 PROGRAMME: The team has
been reduced to fielding a single car
entry this season, retaining an up-
rated version of last year's DFR-
engined machine for Ligier refugee
Olivier Grouillard. They will be en-
meshed in the pre-qualifying
maelstrom at every Grand Prix yet
qualified well at both Phoenix and
Interlagos.

ENGINES: Ford/Cosworth DFR
V8s

TYRES: Pirelli



LAT PHOTOGRAPHIC



ALLSPORT/PASCAL BONDEAU

Olivier Grouillard; Ligier refugee hoping to revive his fortunes by his switch to Osella.

LEYTON HOUSE RACING

BACKGROUND: Born out of the March Engineering organisation, Leyton House Racing has the rights to use the March name exclusively in both Formula 1 and F3000 for a period of ten years (although they have since decided to drop this identification) following a complex and acrimonious separation from the original parent company at the beginning of 1989.

March exploded onto the Grand Prix scene two decades ago, building cars for every class from Formula 1 to Formula Ford. Jackie Stewart, Chris Amon and Ronnie Peterson were among the great names who lent their credibility to the company's early Grand Prix efforts, but March gradually faded out of Formula 1 towards the end of the 1970s. Revived with major sponsorship from the Japanese Leyton House company in 1987, the team did well in 1988 only for mechanical unreliability to blight its efforts last year.

HEADQUARTERS: Leyton House Racing, Unit C5, Telford Road, Bicester, Oxon OX6 0TZ. Tel: (0869) 244747
 Managing Director: Ian Phillips
 Team Manager: Harry Mendel
 Technical Director: Adrian Newey

RECORD TO START OF 1990: 184 Grands Prix contested (as March and Leyton House March) – 3 wins. 5 pole positions. First GP: (as March), South Africa, 1970; (as Leyton House March), San Marino, 1987. Best placing in Constructors' Championship: 3rd, 1970 and '73 (as March).

1990 PROGRAMME: The Leyton House team began 1989 with high hopes, planning to capitalise on the considerable momentum they had developed in the second half of the previous season. Sadly, the business wrangling surrounding the buy-out from March caused serious cash-flow problems for three crucial months, putting development of the new CG891 well behind. This was compounded by poor reliability from the tailor-made, narrow angle Judd V8 engine exclusively powering Capelli and Gugelmin. Previously soaring team morale fell apart. 1990 will be a rebuilding year with the

1990 DRIVER LINE-UP

MAURICIO GUGELMIN: carrying race number **15**. Aged 26. Brazilian, born Curitiba, April 20, 1963. Married to Stella. Lives in Esher, Surrey. First GP: Brazil, 1988 (March). Championship placings: 1988 (March), 13th; 1989 (March), 16th. Best placing to date: Brazil, 1989, 3rd.

Mauricio Gugelmin (right and below); a keen lad, swamped by poor machinery in 1989.



ALL PHOTOGRAPHS: ALLSPORT/PASCAL RONDEAU

IVAN CAPELLI: carrying race number **16**. Aged 26. Italian, born Milan, May 24, 1963. Unmarried. Lives in Milan. First GP: European, 1985 (Tyrrell). Championship placings: 1985 (Tyrrell), 17th; 1986 (AGS), no points; 1987 (March), 19th; 1988 (March), 7th; 1989 (March), no points. Best placing to date: Portugal, 1988, 2nd.

Ivan Capelli; also hoping for a fresh start in his fourth season with Leyton House.



CG901A, an evolutionary version of last year's car. Recently signed a contract with Ilmor Engineering, makers of the currently most successful Indy car engine, for the development of a brand new V10-cylinder engine.

ENGINES: Judd EV V8 with Ilmor V10 planned for future.
TYRES: Goodyear

BENETTON FORMULA

BACKGROUND: Born out of a team originally formed by the Essex-based Toleman car transporter business which won the 1970 European Formula 2 Championship with Brian Henton driving. Toleman Group Motorsport was sold to the Italian knitwear dynasty at the end of the 1985 season, immediately securing BMW turbo engines to replace the Brian Hart units which had been used by the likes of Derek Warwick and Ayrton Senna during the Toleman era. At the start of 1987, Benetton Formula took over as the Ford works-backed Formula 1 team, a position strengthened by the recruitment of the highly-regarded former McLaren and Ferrari Technical Director John Barnard late in 1989.

HEADQUARTERS: Benetton Formula Ltd, Unit 9, Witney Trading Estate, Station Lane, Witney, Oxon OX8 6XZ. Tel: (0993) 774221.

Managing Director: Flavio Briatori
Technical Director: John Barnard
Team Manager: Gordon Message

RECORD TO START OF 1990: 121 Grands Prix contested – 1 win. 3 pole positions. First GP: San Marino, 1981. Best placing in Constructors' Championship: 1988, 3rd.

1990 PROGRAMME: Ford has given the green light for increased resources, both financial and technical, to be applied to the development of the new Cosworth-built Ford HB V8 which made its debut last season. John Barnard's design genius is not in question, but it is unlikely that his influence on the technical side of events will make their full impact until 1992. Meanwhile, the biggest question mark hangs over whether the presence of triple World Champion Piquet can revive his flagging reputation to the team's short-term benefit.

ENGINES: Ford/Cosworth HB V8s
TYRES: Goodyear

1990 DRIVER LINE-UP

ALESSANDRO NANNINI: carrying race number 19. Aged 30. Italian, born Siena, July 9, 1959. Married to Paola. Lives in Siena and Monaco. First GP: Brazil, 1986 (Minardi). Championship placings: 1986 (Minardi), no points; 1987 (Minardi), no points; 1988 (Benetton), 8th; 1989 (Benetton), 6th. 1 Grand Prix win.



Alessandro Nannini; increasing in experience but overdue for some spectacular results.



Nelson Piquet (above and left); into his third season without a win. Can he salvage his reputation?



NELSON PIQUET: carrying race number 20. Aged 37. Brazilian, born Rio de Janeiro, August 17, 1952. Unmarried. Lives on yacht in Mediterranean. First GP: Germany, 1978 (Ensign, McLaren and Brabham), no points; 1979 (Brabham), 15th; 1980 (Brabham), 2nd; 1981 (Brabham), 1st; 1982 (Brabham), 11th; 1983 (Brabham), 1st; 1984 (Brabham), 5th; 1985 (Brabham), 8th; 1986 (Williams), 3rd; 1987 (Williams), 1st; 1988 (Lotus), 6th; 1989 (Lotus), 8th. 20 Grand Prix wins.

SCUDERIA ITALIA

BACKGROUND: This small, but determined, Italian team came into Grand Prix racing at the start of the 1988 season using an uncomplicated Ford/Cosworth-engined machine designed by Gianpaolo Dallara. This engineer had been involved in motor racing design consultancy work for more than 20 years, numbering the 1970 Frank Williams team Formula 1 de Tomaso among his achievements.

The team is owned by wealthy historic car collector Beppe Lucchini, a great enthusiast who has invested a great deal of his own personal money in the project.

HEADQUARTERS: BMS Dallara Scuderia Italia, Via Oberdan 7, 25127 Brescia, Italy. Tel: 3038 1426.

Managing Director: Gianpaolo Dallara
Chief Designer: Mario Tolentino
Team Manager: Pierpaolo Gardella

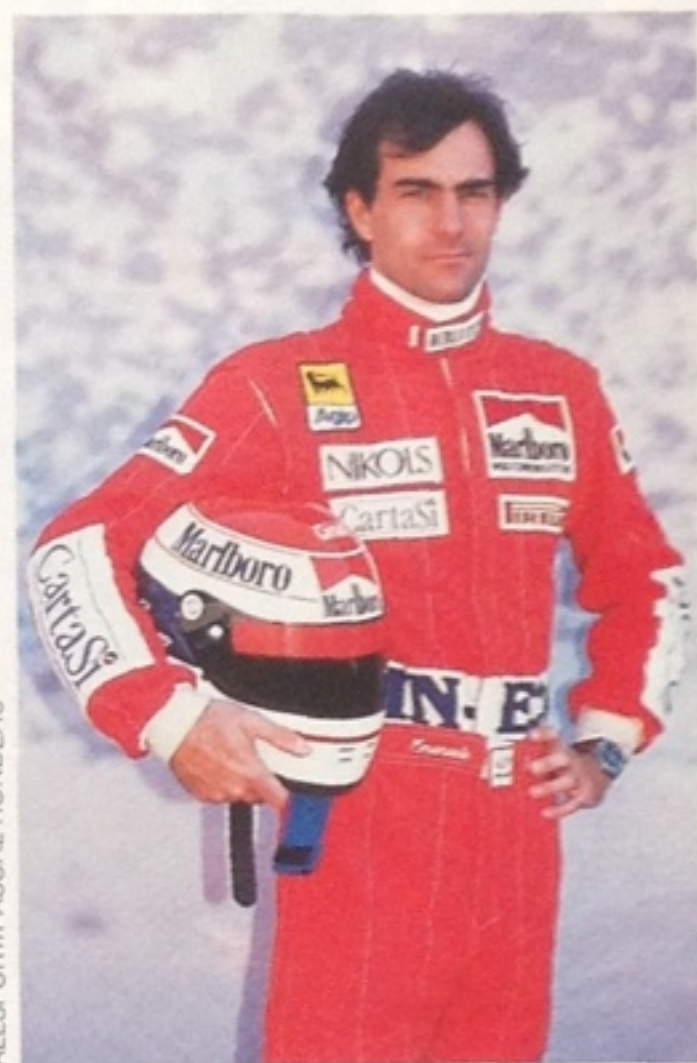
RECORD TO START OF 1990: 30 Grands Prix contested – 0 wins. No pole positions. First GP: San Marino, 1988. Best placing in Constructors' Championship: 1989, 8th.

1990 PROGRAMME: Having scored its first Championship points during the 1989 season, Scuderia Italia will be battling to keep its end up in Formula 1's second division, again using the widely-available Ford/Cosworth engine package. De Cesaris is now one of the most experienced drivers in Formula 1, and can be expected to continue his often quick, but erratic, driving style in his second season with the team. Emanuele Pirro has many miles of Formula 1 testing beneath his belt, but only eight actual races, so he will be looking to gain more experience in traffic. A potentially volatile pairing which can only rarely be expected to score points.

ENGINES: Ford/Cosworth DFR V8
TYRES: Pirelli

1990 DRIVER LINE-UP

EMANUELE PIRRO: carrying race number 21. Aged 28. Italian, born Rome, January 12, 1962. Unmarried. Lives Rome and London. First GP: France, 1989 (Benetton). Championship placings: 1989 (Benetton), 23rd. Best result to date: 5th, Australia, 1989.



ALLSPORT/PASCAL RONDEAU

Emanuele Pirro; still physically weak after missing the first two races with hepatitis.



LAT PHOTOGRAPHIC

Andrea de Cesaris (above and right); the usual blend of speed and unpredictability.

ANDREA DE CESARIS: carrying race number 22. Aged 30. Italian, born Rome, May 31, 1959. Unmarried. Lives in Rome and Monaco. First GP: Canada, 1980 (Alfa Romeo). Championship placings: 1981 (McLaren), 18th; 1982 (Alfa Romeo), 17th; 1983 (Alfa Romeo), 8th; 1984 (Ligier), 16th; 1985 (Ligier), 17th; 1986 (Minardi), 14th; 1987 (Brabham), 14th; 1988 (Rial), 15th; 1989 (Dallara), 16th. Best result to date: 2nd, Germany and South Africa, 1983. ▶



ALLSPORT/PASCAL RONDEAU

SCM MINARDI

BACKGROUND: Giancarlo Minardi originally set up a private Formula 2 team back in 1974, fielding off-the-shelf production cars from Chevron and Ralt before constructing his own Formula 2 chassis in the early 1980s. Graduated to Formula 1 in 1985, using locally made Motori Moderni V6 engines for three troublesome seasons, then showed more promise after a switch to Ford/Cosworth V8 power in 1988. Only scored first Championship point at Detroit in 1988, but came on well last year as one of the most promising Pirelli-equipped teams.

HEADQUARTERS: Minardi Team SpA, Via Spallazani 21, ZI. 48018 Faenza (RA), Italy. Tel: 546 620480.

Managing Director: Giancarlo Minardi

Team Manager: Jaime Manca-Graziadei

Chief Designer: Aldo Costa

RECORD TO START OF 1990: 76 Grands Prix contested – no wins. No pole positions. First GP: Brazil, 1985. Best placing in Constructors' Championship: 10th, 1988 and '89.

1990 PROGRAMME: Seeking to build on late-season achievements last year when Martini began showing impressive form with the Ford/Cosworth-engined M189, notably at Estoril where he actually led the Portuguese Grand Prix for one glorious lap. Winter testing suggests that the team will remain among the Pirelli pacemakers and a contract for the use of Ferrari engines in 1991 suggests that Fiat share that view.

ENGINES: Ford/Cosworth DFR V8
TYRES: Pirelli

1990 DRIVER LINE-UP

PIER-LUIGI MARTINI: carrying race number 23. Aged 28. Italian, born Ravenna, April 23, 1961. Unmarried. Lives in Conselice, near Faenza, Italy. First GP: Brazil, 1985 (Minardi). Championship placings: 1985 (Minardi), no points; 1986, did not compete; 1987, did not compete; 1988 (Minardi), 16th; 1989 (Minardi), 14th.

Pier-Luigi Martini (right and below); rising Italian star improving with every mile.



ALLSPORT/PASCAL RONDEAU



LAT PHOTOGRAPHIC

Paolo Barilla; the pasta magnate has yet to prove himself.

PAOLO BARILLA: carrying race number 24. Aged 28. Italian. Born Milan, April 20, 1961. Lives in Milan. Unmarried. First and only Grand Prix: Japan, 1989 (Minardi).



ALLSPORT/PASCAL RONDEAU

LIGIER GITANES

BACKGROUND: Team boss Guy Ligier, a cantankerous, amiable former rugby international and amateur racing driver, is extremely well connected in French business and political circles, as witnessed by the fact that President Mitterand was a guest at his daughter's wedding. Those connections have enabled his team to retain considerable sponsorship support despite a steady decline in racing form over the last few years.

Ligier originally established his team in 1969 to build sports racing cars, switching to Formula 1 with Matra V12 engines in 1976. It enjoyed intermittent success through to the mid-1980s, since when it has bumped along uncomfortably as a somewhat erratic also-ran, running in the middle of the field at best.

HEADQUARTERS: Ligier Sport, Technopole de la Nievre, 58470 Magny-Cours, France. Tel: 86 212011.

Managing Director: Guy Ligier
Chief Engineer: Michel Beaujon
Team Manager: Jean-Pierre Paoli

RECORD TO START OF 1990: 213 Grands Prix contested – 8 wins, 9 pole positions. First GP: Brazil, 1976. Best placing in Constructors' Championship: 2nd, 1980.

1990 PROGRAMME: Struggling onwards with an uprated version of last year's distinctly average Ford/Cosworth engined JS33, although such refinements as a transverse gearbox are in the pipeline to be added during the course of the season. New broom has swept through the driver line-up, with Rene Arnoux and Olivier Grouillard being replaced by new blood. Alliot, fast and improving, Larini a promising lad to watch. Tough times ahead, though.

ENGINES: Ford/Cosworth DFR V8s

TYRES: Goodyear

1990 DRIVER LINE-UP

NICOLA LARINI: carrying race number 25. Aged 26. Italian, born Camaiore, March 19, 1964. Married to Gabriella. First GP: Spain, 1987 (Coloni). Championship placings: 1987 (Coloni), no points; 1988 (Osella), no points; 1989 (Osella), no points. Best result to date: 9th, Monaco, 1988.

ALLSPORT/PASCAL RONDEAU



Nicola Larini; a young Italian with plenty of flair.

LAT PHOTOGRAPHIC



ALLSPORT/PASCAL RONDEAU



Philippe Alliot (above and left); always quick, often erratic.

PHILIPPE ALLIOT: carrying race number 26. Aged 35. French, born Voves, July 27, 1954. Married to Dominique (one child). Lives in Paris. First GP: Brazil, 1984 (RAM). Championship placings: 1984 (RAM), no points; 1985 (RAM), no points; 1986 (Ligier), 18th; 1987 (LC Lola), 17th; 1988 (LC Lola), no points; 1989 (LC Lola), 26th. Best result to date: 6th, Mexico, 1986; Germany, Spain and Mexico, 1987; Spain, 1989. ▶

HONDA MARLBORO McLAREN

BACKGROUND: Grand Prix racing's super team has just emerged, battered but unbowed, from a troubled winter locked in conflict with FISA, the sport's governing body, over allegations made by its star driver Ayrton Senna. The current team sprang from an amalgamation in 1980 between McLaren Racing and Project 4, a company run by current McLaren directors Ron Dennis and Creighton Brown, although the company's roots go back to its original foundation in 1966.

Established by the late Bruce McLaren to race Can-Am sports cars, and later Formula 1 machines, the company continued operating under the direction of fellow founding director Teddy Mayer after Bruce was killed in a testing accident at Goodwood in June, 1970. A consistently competitive force to the mid-1970s, it faded dramatically thereafter, but was revitalized after the amalgamation. First with TAG/Porsche and currently with Honda power, it has been one of the most spectacularly successful teams of the last decade.

HEADQUARTERS: McLaren International Ltd, Woking Business Park, Albert Drive, Woking, Surrey GU21 5JY. Tel: (0483) 728211
Managing Director: Ron Dennis
Chief Designer: Neil Oatley
Team Coordinator: Jo Ramirez

RECORD TO START OF 1990: 330 Grands Prix contested - 80 wins, 55 pole positions. First GP: Monaco, 1966. Constructors' World Championship: 1974, '84 '85, '88 and '89. Drivers' World Championship: 1974 (Emerson Fittipaldi), 1976 (James Hunt), 1984 (Niki Lauda), 1985 and '86 (Alain Prost), 1988 (Ayrton Senna) and 1989 (Alain Prost).

1990 PROGRAMME: More of the same can be expected from the McLaren-Honda MP4/5B, an up-rated version of last year's machine which won ten of the 16 World Championship Grand Prix races. With Berger coming in to partner Senna, which keeps the driving

1990 DRIVER LINE-UP

AYRTON SENNA: carrying race number 27. Aged 30. Brazilian, born Sao Paulo, March 21, 1960. Unmarried. Lives in Sao Paulo and Monaco. First GP: Brazil, 1984 (Toleman). Championship placings: 1984 (Toleman), 9th; 1985 (Lotus), 4th; 1986 (Lotus), 4th; 1987 (Lotus), 3rd; 1988 (McLaren), 1st; 1989 (McLaren), 2nd. 20 Grand Prix wins.



ALLSPORT/VANDYSTADT

Ayrton Senna (above and below), Grand Prix pacemaker chasing his second World Championship.



ALLSPORT/PASCAL RONDEAU



ALLSPORT/PASCAL RONDEAU

Gerhard Berger; he faces the ultimate test ranged alongside Senna in equal machinery.

GERHARD BERGER: carrying race number 28. Aged 30. Austrian, born Vienna, August 27, 1959. Unmarried. Lives in Austria and Monaco. First GP: Austria, 1984 (ATS). Championship placings: 1984 (ATS), no points; 1985 (Arrows), 17th; 1986 (Benetton), 7th; 1987 (Ferrari), 5th; 1988 (Ferrari), 3rd; 1989 (Ferrari), 7th. 5 Grand Prix wins.

team extremely strong after Prost's switch to Ferrari, they will continue using the latest version of Honda's 3.5 litre V10 cylinder engine until it is replaced by a brand new V12, possibly before the end of the season. Well financed, well supported, de-

spite its recent political problems, McLaren remains the team against which others judge their efforts.

ENGINES: Honda RA100E V10
TYRES: Goodyear

ESPO LARROUSSE

BACKGROUND: Only established at the start of 1987, this fledgling team experienced a bitter blow early in 1989 when its co-founder Didier Calmels was arrested following a shooting incident in which his wife died. The racing programme continued under the direction of former Renault and Ligier team director Gerard Larrousse, linking with Lamborghini for the supply of new V12 engines for its Lola-produced chassis after two seasons of using proprietary Ford/Cosworth V8s. The Japanese Espo Corporation acquired a controlling interest in the team at the end of the 1989 season, guaranteeing the resources for a sustained competitive effort over the next few seasons.

HEADQUARTERS: Espo Larrousse, Avenus Francois Sommer 12, 92160 Antony, France. Tel: 40 960080.
Directors: Kazuo Ito and Gerard Larrousse
Technical Director: Gerard Ducarouge
Team Manager: Gerard Larrousse

RECORD TO START OF 1990: 47 Grands Prix contested – no wins. No pole positions. First GP: San Marino, 1987. Best placing in Constructors' Championship: 1989, 15th.

1990 PROGRAMME: With Lotus now sharing supplies of the type 3512 Lamborghini V12 engine, Espo Larrousse will have a benchmark to judge their own efforts against. They displayed considerable promise towards the end of 1989 and will be seeking to sustain this momentum into the new season with talented rising star Bernard paired alongside Espo nominee Suzuki. This could be a team to watch.

ENGINES: Lamborghini type 3512 V12
TYRES: Goodyear

1990 DRIVER LINE-UP

ERIC BERNARD: carrying race number 29. Aged 25. Born August 24, 1964, in Istres. First GP: France, 1989 (Larrousse Lola). No points scored.



ALLSPORT/PASCAL RONDEAU

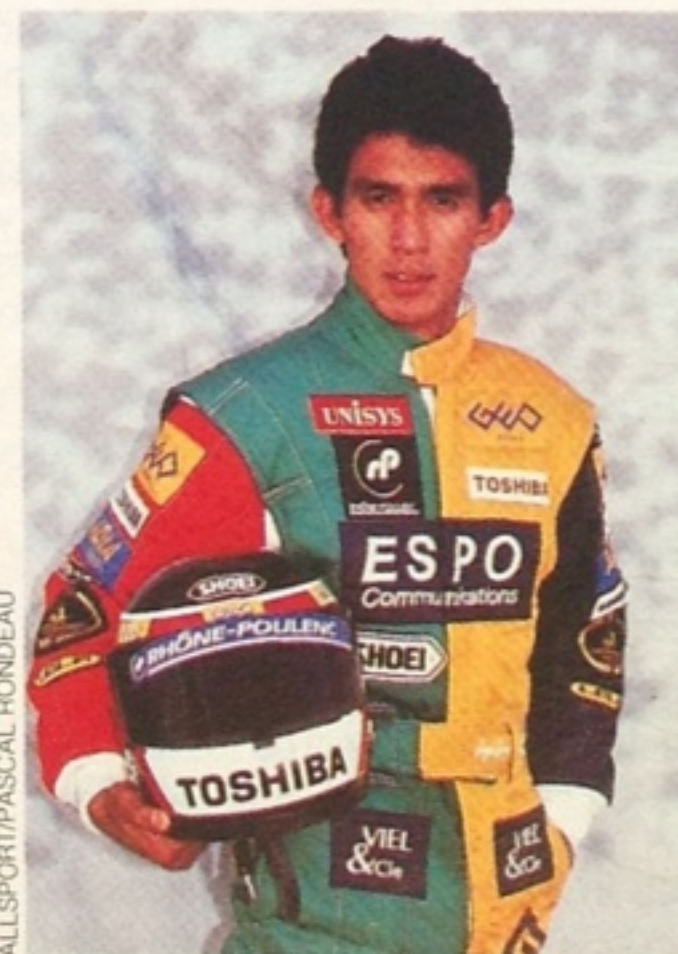
Eric Bernard (right and below); this F3000 rising star is a man to watch.



LAT PHOTOGRAPHIC

Aguri Suzuki; better than he looked last year with Zakspeed.

AGURI SUZUKI: carrying race number 30. Aged 29. Japanese, born Tokyo, September 8, 1960. Married to Akiko. Lives in Tokyo. First GP: Japan, 1988 (Larrousse Lola). No points scored. Did not qualify at all during 1989 with Zakspeed team. ▶



ALLSPORT/PASCAL RONDEAU

SUBARU COLONI RACING

BACKGROUND: After just over two seasons of struggling desperately against the Formula 1 tide, Enzo Coloni has also capitulated to the Japanese invasion of Grand Prix racing, selling control of his tiny Formula 1 team to Subaru. Coloni arrived in Formula 1 after establishing a private racing team in 1983, working his way up through Formulae 3 and 3000. Always underfinanced and struggling, the team has been hard-pressed to make any sort of impression and has seldom made the grid.

HEADQUARTERS: Subaru Coloni Racing, Via dell' Industria 5, 06065 Passignano Sol Trasimento, Italy. Tel: 75 827 684.

Managing Director: Ioshio Takaoka
Chief Designer: Damon Chandler
Team Manager: Enzo Coloni

RECORD TO START OF 1990: 13 Grands Prix contested – 0 wins. No pole positions. First GP: Spain, 1987. No Constructors' Championship points yet scored.

1990 PROGRAMME: The initial strategy for this tiny team is to test and evaluate the Subaru flat-12 cylinder engine which has been developed by the Motori-Moderni concern prior to replacing it with a new V12 from the same source later in the season. An uphill struggle, but at least Bertrand Gachot is one man unmarked by much in the way of self-doubt.

ENGINES: Subaru/Moderni flat-12 and V12

TYRES: Goodyear



Bertrand Gachot; brashly self-confident, but saddled with an as-yet uncompetitive car.

1990 DRIVER LINE-UP

BETRAND GACHOT: carrying race number 31. Aged 27. Belgian, born Brussels, December 22, 1962. Unmarried. Lives in Brussels. First GP: France, 1989. Championship placings: 1989, no points.

EURO BRUN RACING

BACKGROUND: Founded early in 1988 from a partnership between Swiss Porsche sports car racer Walter Brun and Italian Gianpaolo Pavanello, formerly an entrant of the Formula 1 Alfa Romeo. Last season the team's lone entry failed even to pre-qualify for a single Grand Prix, but the team has nonetheless expanded its entry to embrace a second car for 1990.

HEADQUARTERS: Euro Brun Racing AG, Via Piemonte 29, 20030 Senago, Milan, Italy. Tel: 2 998 6721.

Managing Director: Walter Brun
Team Manager: Pierluigi Corbari

RECORD TO START OF 1990: 12 Grands Prix contested – 0 wins. No pole positions. First GP: Brazil, 1988. No Constructors' Championship points scored.

1990 PROGRAMME: The first step for this small team will be to clear the pre-qualifying hurdle, and recruiting the underrated Moreno is a good step in the right direction as far as this is concerned. Langes has been

1990 DRIVER LINE-UP

ROBERTO MORENO: carrying race number 33. Aged 31. Brazilian, born Brasilia, February 11, 1959. Married to Celia. Lives in Monaco. First GP: Japan, 1987 (AGS). Championship placings: 1987 (AGS), 19th; 1988 (did not compete); 1989 (Coloni), no points. Best result to date: 6th, Australia, 1987.

CLAUDIO LANGES: carrying race number 34. Aged 29. Italian, born Brescia, July 20, 1960. New to Formula 1 this season.

signed only for the sponsorship he can produce, so the Italian new boy will feel under a lot of pressure from the start. They are yet another team facing an uphill struggle in this era of big budgets and manufacturer support.

ENGINES: Judd CV V8
TYRES: Pirelli



Roberto Moreno; more talented than his record suggests.

Claudio Langes; a Formula 1 novice facing an uphill struggle.





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MONTEVERDI ONYX

BACKGROUND: Originally established to run Formula 2 cars in 1979 by Derek Bell's highly experienced former manager Mick Earle. Onyx graduated into Formula 1 at the start of 1989 with sponsorship from the Belgian Moneytron organisation whose flamboyant boss Jean-Pierre van Rossem eventually bought out the company. Onyx had gained an excellent reputation in Formula 300, fielding the March in which Stefano Modena won the 1987 European Championship, but the move into Formula 1 has been fraught with problems. By the end of the year, Earle and co-director Joe Chamberlain had left and van Rossem had put the team up for sale. It was brought by former high performance specialist car manufacturer Peter Monteverdi and Earle briefly returned to the management team before leaving again.

HEADQUARTERS: Monteverdi Onyx, Watergate House, Denmans Lane, Fontwell, West Sussex. Tel: 0243 545454.

RECORD TO START OF 1990: 12 Grands Prix contested – 0 wins. No pole positions. Best placing in Constructors' Championship: 1989, 10th.

1990 PROGRAMME: Grandiose plans for Onyx to use the forthcoming Porsche V12 engines evaporated in acrimonious disagreement in January when the Footwork Arrows team concluded a deal for the German engine. That meant falling back among the Cosworth-engined brigade and, soon afterwards, Belgian owner Jean-Pierre van Rossem sold out to Swiss Peter Monteverdi who promptly replaced Stefan Johnsson with Gregor Foitek as partner to Lehto.

ENGINES: Ford-Cosworth DFR V8
TYRES: Goodyear

1990 DRIVER LINE-UP

J J LEHTO: Carrying race number 35. Aged 24. Finish, born Helsinki, January 31, 1966. Unmarried. Lives Finland. First GP: Spain, 1989 (Onyx). No points.



J J Lehto (above and below); Finnish future star, a protégé of former Champion Keke Rosberg.



GREGOR FOITEK: carrying race number 36. Aged 25. Swiss. Born Zurich, March 27, 1965. Unmarried. Lives in Zurich. Drove for Euro Brun team in 1989 but consistently failed to pre-qualify.

Gregor Foitek; wild and woolly, he still has to hone his talent.

AGS

BACKGROUND: This small French team began building Formula 3 cars as long ago as 1951, graduating through Formula 2 and 3000 before moving into Formula 1 on a low-key note at the end of 1986. Throughout 1987, with a car built round an old Renault Formula 1 chassis, the AGS proved embarrassingly slow, but enjoyed something of an upsurge when Frenchman Philippe Streiff was signed up for 1978. Sadly, Streiff was paralysed in a pre-season testing accident at Rio last year and, despite some promising early showings from his replacement Gabriele Tarquini, the team gradually slipped down into the ranks of non-qualifiers by mid-season.

HEADQUARTERS: Automobiles Gonfaronaise Sportive, Zone

d'Activity de Circuit di Var, 83590 Gonfaron, France. Tel: 94 609700. Managing Director: Henri Cochin Team Manager: Hughes de Chaunac Technical Director: Michel Costa

RECORD TO START OF 1990: 37 Grands Prix contested – 0 wins. No pole positions. First GP: Italy, 1986. Best placing in Constructors' Championship: 11th, 1987.

1990 PROGRAMME: Struggling to keep their head above the competitive waves, this tiny team again faces the challenge of pre-qualifying at every race. How do they keep going?

ENGINES: Ford-Cosworth DFR V8
TYRES: Goodyear



Gabriele Tarquini; has the moment passed for this likeable Italian?

1990 DRIVER LINE-UP

GABRIELE TARQUINI: carrying race number 17 (originally nominated 37). Aged 29. Italian, born Guilianova Lido, March 2, 1962. Unmarried. Lives Guilanova Lido. First GP: 1987 San Marino (Osella). Championship placings: 1987 (Osella), no points, one race only; 1988 (Coloni), no points; 1989 (AGS), 26th.



Yannick Dalmas (above and left); struggling hard to make up lost ground.

YANNICK DALMAS: carrying race number 18 (originally nominated 38). Aged 28. French, born Le Beausset, July 28, 1961. Unmarried. Lives in Toulon. First GP: Mexico, 1987 (Larrousse Lola). Championship placings: 1987 (Larrousse Lola), no points; 1988 (Larrousse Lola), no points; 1989 (Larrousse Lola and AGS), no points.



ALL PHOTOGRAPHS: LAT PHOTOGRAPHIC

LIFE RACING ENGINES

BACKGROUND: Brand new team established to run novel W12-cylinder engine developed by former Ferrari engineers. Highly ambitious and over-optimistic project based initially around driving efforts of Gary Brabham, second son of triple World Champion Sir Jack. He left after the first two races of the season and no replacement had been confirmed on going to press.

HEADQUARTERS: Life Racing Engines, Via Aldo Moro 16/28. 41043 Formigione, Modena. Tel: 59 570937
Managing Director: Ernesto Vita
Chief Engineers: Franco Rocchi and Gianni Marelli

RESULTS TO START OF 1990: Brand new team to Formula 1 this year.

1990 DRIVER LINE-UP

TO BE NOMINATED.

1990 PROGRAMME: Starting from scratch, this team will have a long, uphill slog to make the grade.

ENGINES: Life Racing W12 cylinder
TYRES: Pirelli

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Grand Prix '90

CIRCUITS

UNITED STATES

ROUND 1: March 11, Phoenix Grand Prix, Arizona.

CIRCUIT COMMENT: *from Alain Prost.*

'In the past, I've frequently been critical of American street circuits because I've never been able to understand why a country which has so many splendid purpose-built tracks should have to resort to this sort of event for its Grands Prix. Having said that, Phoenix is far and away the best of its type, in my experience, and I was obviously delighted to win the first race held there.'

VENUE: Phoenix, Arizona. Race distance: 75 laps of 2.36 miles, total 177.00 miles.

LOCATION: Street circuit laid out through centre of city.

HISTORY: A brand new event for the 1989 calendar, following in the recently-developed tradition of street races as pioneered by Long Beach in 1976 and later followed by

Detroit (1982-'88) and Dallas (1984). Replaced the Detroit fixture which is now an Indy car event.

LAP RECORD: Gerhard Berger (McLaren MP4/5B - Honda), 1m 31.050s (93.311mph). Established during 1990 race.

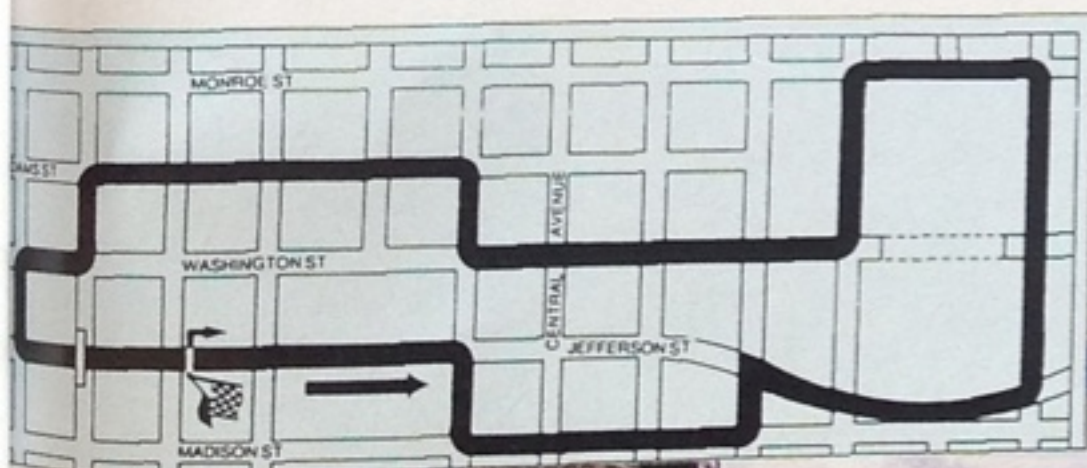
PAST WINNERS: 1989, Alain Prost (McLaren); 1990, Ayrton Senna (McLaren).

VIEWING FACILITIES: Not yet known, but ample grandstand seating is anticipated.

HOTELS: A wide range of typically efficient top-line US hotels are available within this city as well as smaller motel and guest houses. Attractive resort hotels also available further out towards neighbouring city of Scottsdale.

ACCESS: Phoenix is situated some 400 miles inland from Los Angeles, about eight hours' motoring distance. It is served by regular scheduled airlines from LA, flight duration about one hour. It can also be reached from most other major cities in the US by direct flights. Access within the city remarkably easy on foot.

ASSESSMENT: The Phoenix civic authorities went out of their way to make their inaugural event an attractive affair, even though they did not attract the crowds they were hoping for. A good street circuit, but not one to show Formula 1 cars to their best effect. Stands poor in comparison with US Indy car oval racing for sheer spectacle. ▶



Phoenix; a brave try, but not the best of US street circuits.



BRAZIL

ROUND 2: March 25, Brazilian Grand Prix, Interlagos
CIRCUIT COMMENT:

from Riccardo Patrese.

'I remember that the old five-mile Interlagos circuit was absolutely fantastic and I had a great battle with Alain Prost, who was then taking part in only his second ever Formula 1 race, in a McLaren. I'm really looking forward to this new, shortened track which looks very demanding indeed. It makes me realise just how long I've been around when Alain and I are the only drivers still racing who were at that race ten years ago!'

VENUE: Interlagos, Sao Paulo, Brazil. Race distance: 71 laps of 2.70, total 191.92 miles.

LOCATION: Situated in sprawling western suburbs of Brazil's industrial second city.

HISTORY: Interlagos has hosted international racing since the immediate post-war years, but first Formula 1 race a non-championship affair in 1972. Championship Brazilian Grand Prix at Interlagos from 1973-'77 and '79-'80. Race first at Autodromo Riocentro, Rio de Janeiro, in 1978, then from 1981-'89. Returning to newly revamped and dramatically shortened Interlagos circuit which uses a reduced portion of the magnificent original track.

LAP RECORD: Gerhard Berger (McLaren MP4/5B-Honda), 1m 19.899s (121.087 mph). Established during 1990 race.

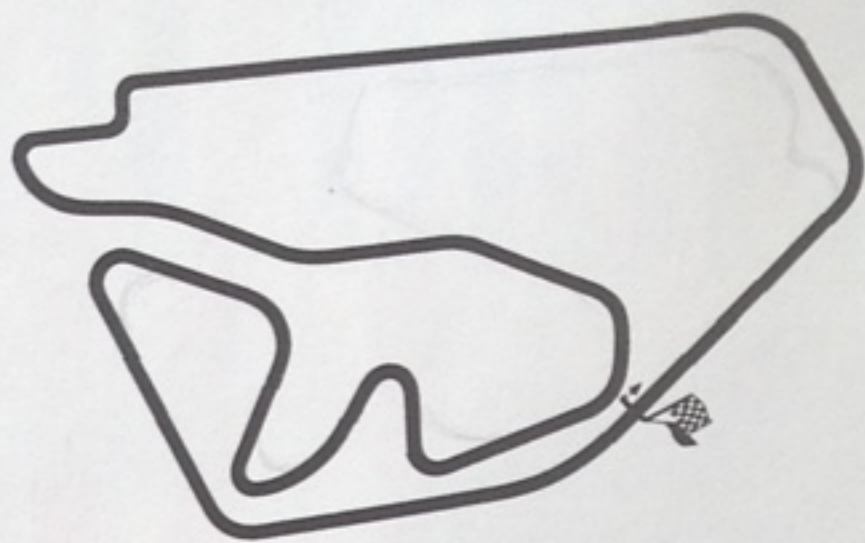
PAST WINNERS: 1980, Rene Arnoux (Renault); 1981, Carlos Reutemann (Williams); 1982, Alain Prost (Renault); 1983, Nelson Piquet (Brabham); 1984, Alain Prost (McLaren); 1985, Alain Prost (McLaren); 1986, Nelson Piquet (Williams); 1987, Alain Prost (McLaren); 1988, Alain Prost (McLaren); 1989, Nigel Mansell (Ferrari); 1990, Alain Prost (Ferrari).

VIEWING FACILITIES: Spectacular views across natural amphitheatre in which circuit is positioned. Details of spectator areas yet to be established.

HOTELS: Wide variety of international hotels available in Sao Paulo, but none close to the circuit. No accommodation shortages although should book well in advance.

ACCESS: Chaotic and unpredict-

Interlagos; barely finished for the '90 race, but a much better bet than Rio.



able, although the traffic is somehow kept flowing. The road out from the centre of Sao Paulo to the circuit is one of the most nerve-wracking you could ever experience, with budding Sennas and Piquets in the Volkswagen Beetles adding to the fun. Local taxis are just as insanely competitive.

ASSESSMENT: Brazil is something

of an acquired taste. If you allow its inefficiencies to drive you round the bend, you'll be a sanatorium case on your return home. If you can keep a sense of humour in the sweltering temperatures and humidity, and adapt to the cuisine, you may find it charming. Madly enthusiastic supporters all baying with a passion from the many grandstands.

SAN MARINO

ROUND 3: May 13, San Marino Grand Prix, Imola.

CIRCUIT COMMENT: *from Gerhard Berger.*

'You can be sure that Imola is one circuit I won't forget in a hurry after my accident there with the Ferrari last year. It's a very challenging and rewarding circuit to drive and I got a lot of satisfaction from finishing third there in 1986 with the Benetton-BMW. It was obviously very exciting to be a Ferrari team member racing in front of an Italian crowd, but last year something broke at the front of the car. When I realised I was going off the track, I took my hands off the wheel, tucked my legs up as much as possible . . . and thanked God for how well the chassis stood up to the impact. Oh yes, I'll always remember Imola!'

VENUE: Autodromo Dino Ferrari, Imola, Italy. Race distance: 61 laps of 3.132 miles, total 191.05 miles.

LOCATION: Just off main Milan to Rimini autostrada, about 30km south-east of Bologna, on fringes of Imola.

HISTORY: Originally started using public roads which have now been blended into a permanent circuit offering every facility. Hosted motorcycle races since 1950s and Formula 1 car events intermittently

since early 1960s.

LAP RECORD: Alain Prost (McLaren MP4/5-Honda), 1m 26.795s (126.786mph) established in 1989 race.

PAST WINNERS: 1980 (Italian GP), Nelson Piquet (Brabham); 1981, Nelson Piquet (Brabham); 1982, Didier Pironi (Ferrari); 1983, Patrick Tambay (Ferrari); 1984, Alain Prost (McLaren); 1985, Elio de Angelis (Lotus); 1986, Alain Prost (McLaren); 1987, Nigel Mansell (Williams); 1988, Ayrton Senna (McLaren); 1989 Ayrton Senna (McLaren).

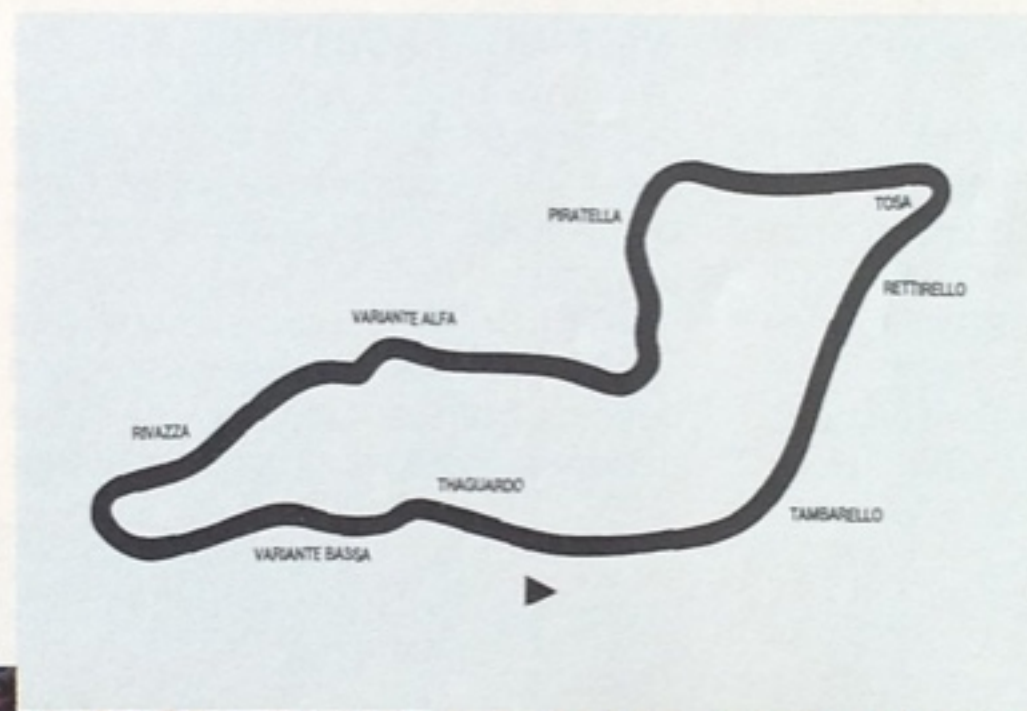
VIEWING FACILITIES: Undulating nature of location makes for generally excellent and extremely varied facilities. Wide range of grandstands around the circuit supplemented by sloping areas in public enclosures. Grandstand at Tosa –

where Senna passed Prost on the first lap of last year's race, thereby demolishing their personal relationship – particularly exciting.

HOTELS: Again, a wide range to suit all pockets, from international to hospitable country taverns in the pleasant surrounding countryside.

ACCESS: Chaotic if approached from Bologna via autostrada, less so on smaller roads from other directions. Last mile or so to circuit impossible, so best to park and walk. Don't even think about trying to get away quickly after the race unless you've access to a helicopter.

ASSESSMENT: If you want to soak up the feeling of a passionate Italian motor racing environment, Imola is highly recommended. A charismatic and friendly track for the enthusiastic spectator. ▶



Imola; spiritual home of the car-crazed Ferrari fans.



MONTE CARLO

ROUND 4: May 27, Monaco Grand Prix, Monte Carlo.

CIRCUIT COMMENT: from Ayrton Senna.

'An incredibly satisfying race to win on a circuit which doesn't allow you to relax for a split second throughout a Grand Prix distance. You have to sustain such intensity of concentration to such a degree that, if you ease it even slightly, it's possible to make an error, just as I did when I hit the wall while leading in 1988.'

VENUE: Circuit de Monaco, Monte Carlo. Race distance: 79 laps of 2.068 miles, total 161.30 miles.

LOCATION: Through the streets of the Mediterranean Principality, approximately 25 miles east of Nice.

HISTORY: One of the longest-established classic events on the calendar, first run in 1929. Despite various modifications, race staged on essentially the same circuit to this day.

LAP RECORD: Alain Prost (McLaren MP4/5-Honda), 1m 25.501s (87.125 mph). Established in 1989 race.

PAST WINNERS: 1980, Carlos Reutemann (Williams); 1981, Gilles Villeneuve (Ferrari); 1982, Riccardo Patrese (Brabham); 1983, Keke

Rosberg (Williams); 1984, Alain Prost (McLaren); 1985, Alain Prost (McLaren); 1986, Alain Prost (McLaren); 1987, Ayrton Senna (Lotus); 1988, Alain Prost (McLaren); 1989, Ayrton Senna (McLaren).

VIEWING FACILITIES: For the wealthy, a yacht in the harbour. For lesser mortals, a grandstand seat is essential, if hardly less costly. Casino Square or Le Tabac are top of my list.

HOTELS: Tremendous range and variety, but they are heavily booked – some from year to year – so make reservations through specialist tour

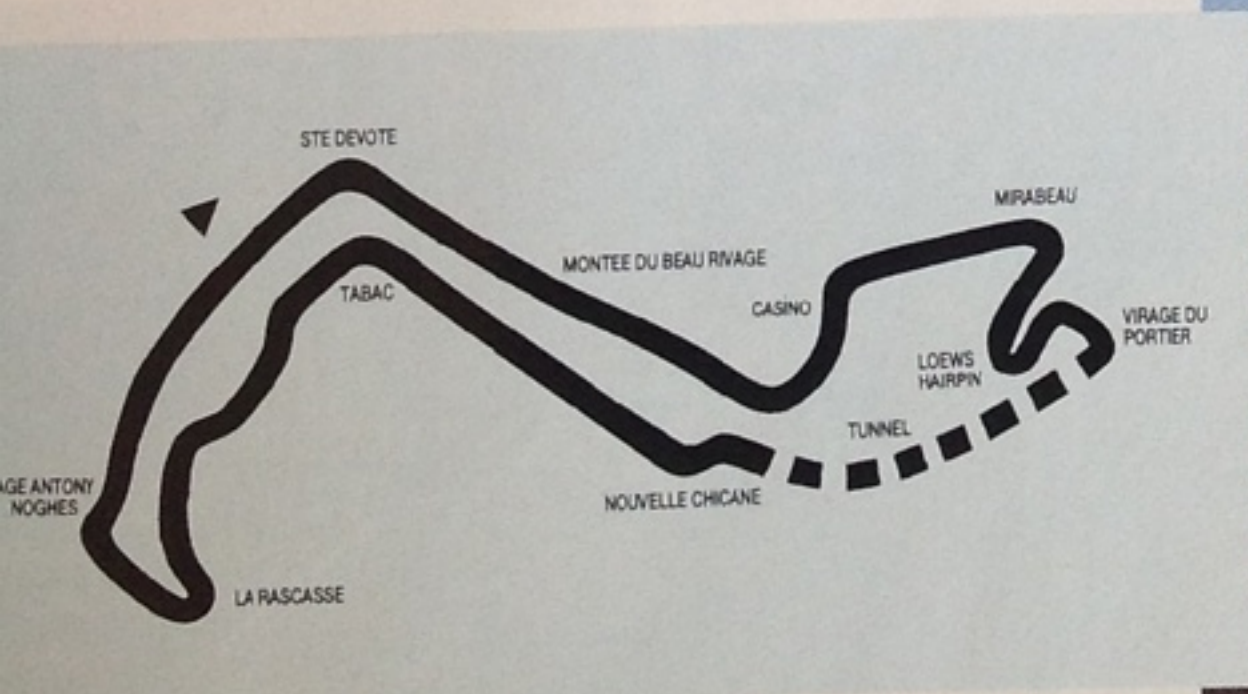
companies as early as possible. Surprisingly, some moderately-priced hotels available in very central locations. Restaurants of high standard, but pricey.

ACCESS: Everywhere is within walking distance in Monaco. There is nowhere to park, anyway, and access to Nice airport can be by coach and train/taxi with minimal delays.

ASSESSMENT: A unique anachronism which can both delight and infuriate, but well worth at least one visit. Spectacular, fairy-tale setting, but very crowded and not always endowed with fairy-tale weather.



ALLSPORT



Monaco; a unique anachronism in a fairy-tale setting.



ALLSPORT/PASCAL RONDEAU

CANADA

ROUND 5: June 10, Canadian Grand Prix, Montreal.

CIRCUIT COMMENT: *from Nigel Mansell.*

'Absolutely one of my favourite tracks, although last year's race wasn't terribly satisfying for me when I was black flagged out of it. But it is very challenging and tricky, with a wide variety of corners. With two hairpins per lap, it is hard on brakes and tyres, but extremely rewarding when everything comes together well.'

VENUE: Circuit Gilles Villeneuve, Ile Notre Dame, Montreal, Quebec. Race distance: 70 laps of 2.728 miles, total 190.96 miles.

LOCATION: on small island in St Lawrence River, a couple of miles from the Montreal city centre.

HISTORY: Introduced onto the Championship schedule in 1978, the Montreal race has gained a reputation as a popular and well-organised event. Cancelled in 1987 due to sponsorship and sanctioning problems, it returned to the calendar in 1988 after installation of new pits and garage area.

LAP RECORD: Ayrton Senna (McLaren MP4/4-Honda), 1m 24.973s (115.567 mph). Established in 1988 race.

PAST WINNERS: 1980, Alan Jones (Williams); 1981, Jacques Laffite (Ligier); 1982, Nelson Piquet (Brabham); 1983, Rene Arnoux (Ferrari); 1984, Nelson Piquet (Brabham); 1985, Michele Alboreto (Ferrari); 1986, Nigel Mansell (Williams); 1987, not held; 1988, Ayrton Senna (McLaren); 1989, Thierry Boutsen (Williams).

VIEWING FACILITIES: A good balance between grandstands and open public spectator enclosures.

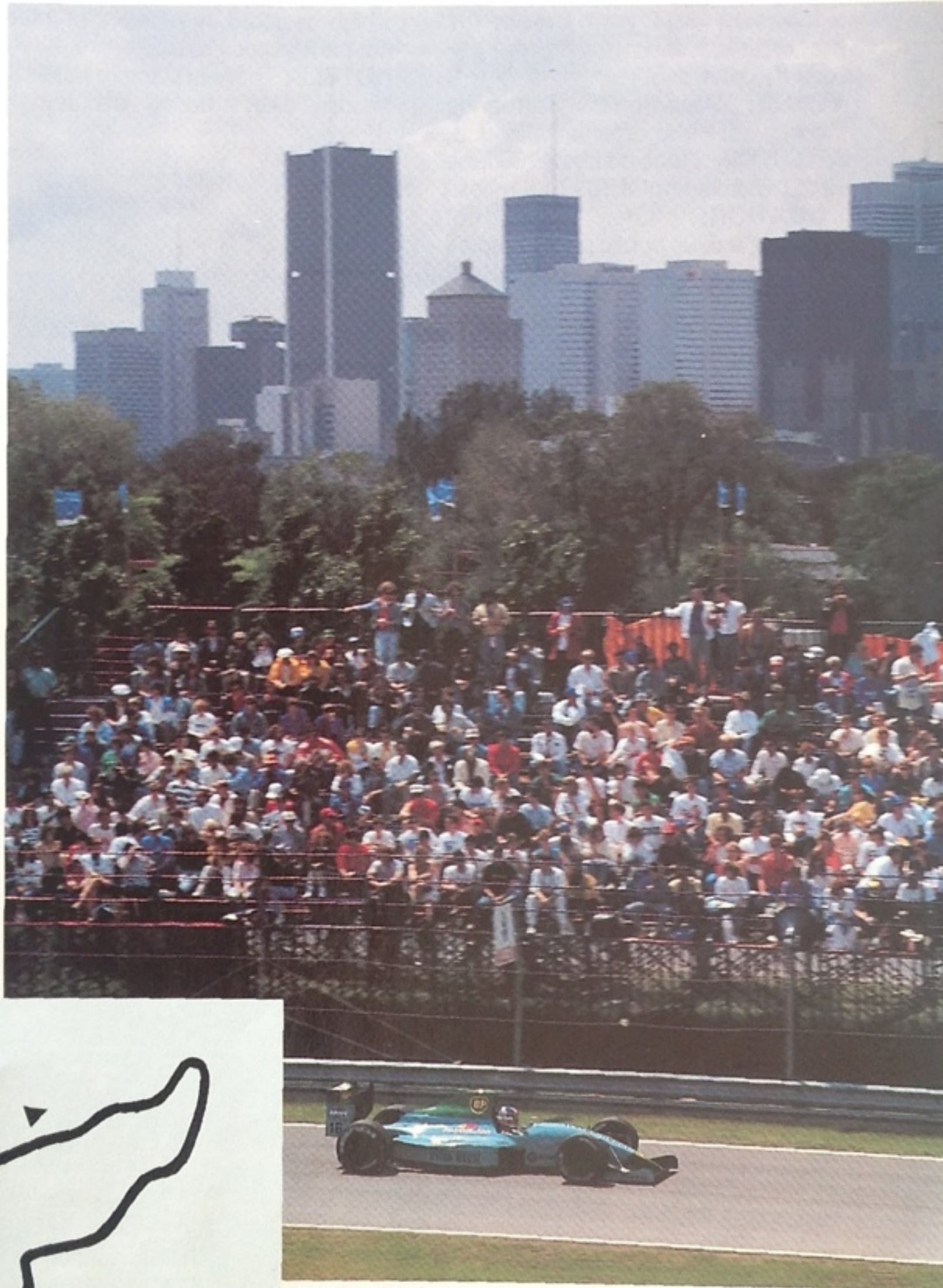
Stands at two hairpins and fast S-bend just at the start of the pit complex afford particularly exciting views.

HOTELS: Plenty of good hotels in Montreal city centre, but book early as the city always attracts a lot of tourists unconnected with the race itself. Wide range of international status accommodation.

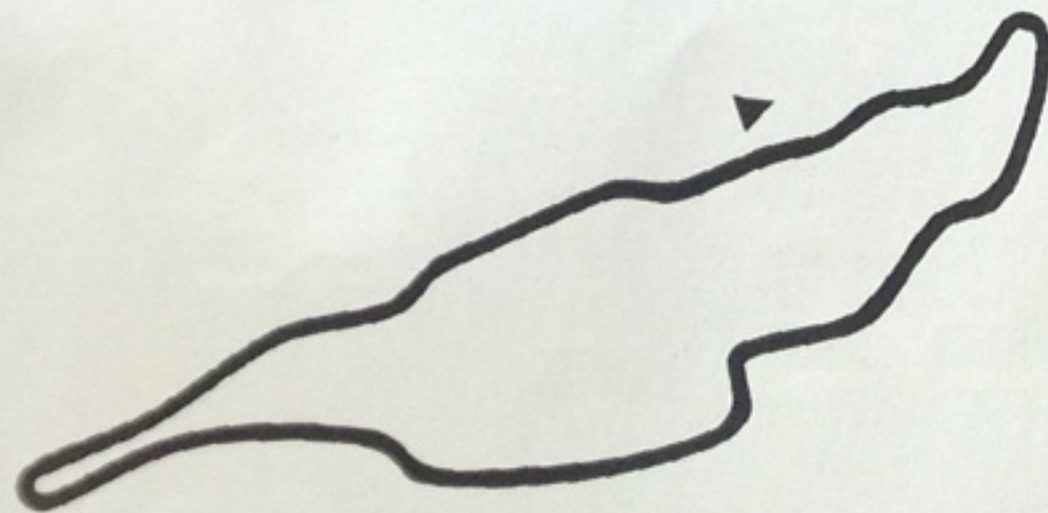
ACCESS: Uncomplicated and with-

out stress. Limited car parking facilities some way from paddock area, but immaculate Montreal subway system is utterly dependable and the only way to move around this crowded city. Alight at Ile St Helene and walk over bridge to track.

ASSESSMENT: One of the best races on the Grand Prix calendar, well worth the trans-Atlantic trip even for a long weekend. ▶



LAT PHOTOGRAPHIC



Montreal; a fine circuit with a friendly ambience.

MEXICO

ROUND 6: June 24, Mexican Grand Prix, Mexico City.

CIRCUIT COMMENT: *from Michele Alboreto.*

'It's a track which takes a great deal out of a driver from a physical point of view; it's tiring enough to drive when you are running on your own, as I was for much of the 1989 race, let alone when you are in heavy traffic and racing wheel-to-wheel. And, once a lap, you hold your breath for that long banked right-hander before the pits . . .'

VENUE: Autodromo Hermanos Rodriguez, Magdalena Mixhuca, Mexico City. Race distance: 69 laps of 2.747 miles, total 189.548 miles.

LOCATION: Tastefully laid out within spacious public park complex a few miles from the international airport.

HISTORY: First staged Formula 1 non-title race in 1962, after which regular Championship fixture until 1970 when dropped from calendar following major crowd control problems. Restored to Championship in 1986.

LAP RECORD: Alain Prost (McLaren MP4/4-Honda), 1m 18.608s (125.807mph). Established in 1988 race.

PAST WINNERS: 1986, Gerhard Berger (Benetton); 1987, Nigel Mansell (Williams); 1988, Alain Prost (McLaren); 1989, Ayrton Senna (McLaren).

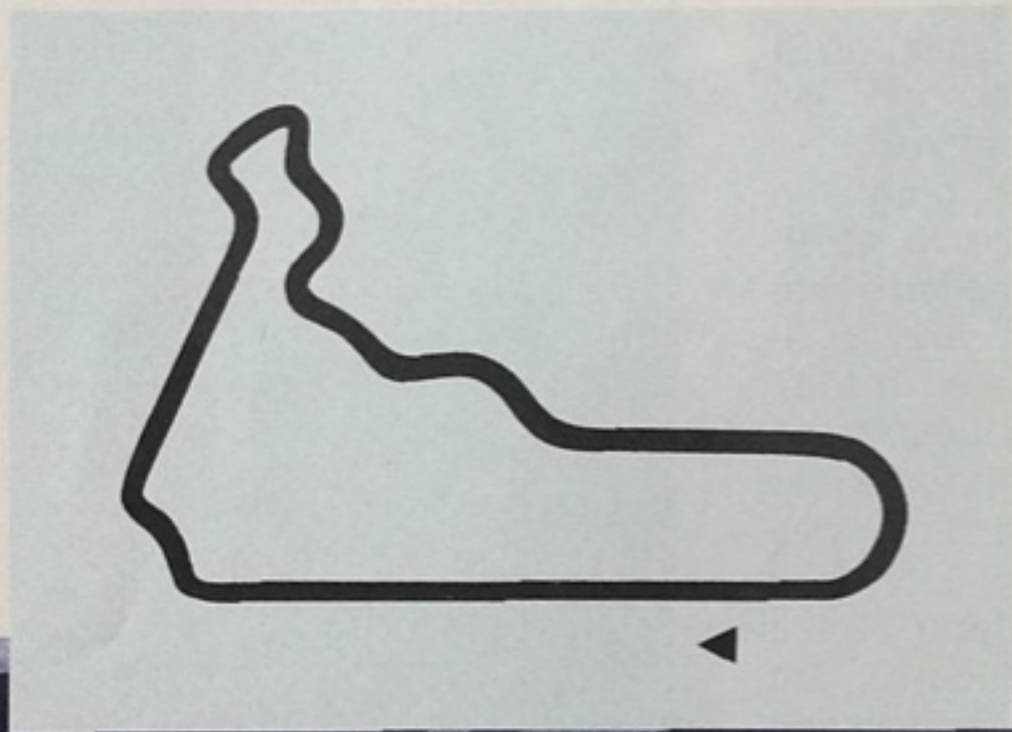
VIEWING FACILITIES: Ample grandstand seating around start/finish area which affords superb view of final corner, a spectacular 180-degree, slightly banked right-hander. Also adequate views from spectator enclosures, access to which assisted by network of internal park access roads.

HOTELS: There are ample hotels in Mexico City, offering disturbingly

varying standards of accommodation and cuisine. You will find that many of them ask for full payment of rooms in advance, often in dollars, payable to an account outside Mexico itself.

ACCESS: Best to make use of relatively inexpensive taxis as traffic in Mexico City is too luridly competitive for most Europeans to tackle in a hired car. Even the Formula 1 drivers are scared!

ASSESSMENT: A frenzied hubbub of activity, Mexico City is generally parched beneath a relentless sun or capped by a depressing pall of smog. But the circuit is truly magnificent. To say that the food is spicy is like saying that the Titanic is damp. . .



Mexico; the challenging high-altitude track is hard work for the drivers.

GOOD YEAR



FRANCE

ROUND 7: July 8, French Grand Prix, Paul Ricard.

CIRCUIT COMMENT:

from Gerhard Berger.

'An extremely difficult track which not only requires you to attack from the driving point of view, but also demands a careful balance between aerodynamic downforce and lack of drag. And a strong engine is required for that back straight, otherwise you are lost!'

VENUE: ASA Paul Ricard, near Marseilles. Race distance: 80 laps of 2.369 miles, total 189.543 miles.

LOCATION: At Le Camp on RN8, about 25 miles from Marseilles and 15 miles from Bandol.

HISTORY: Built by millionaire businessman Paul Ricard whose com-

pany makes the aniseed-flavoured aperitif so beloved of his compatriots. Opened in 1970. First staged French Grand Prix the following year, thereafter in 1973, '76 '78, '80, '83 and '85 onwards. Circuit length reduced for 1986 race, cutting out ultra-fast S-bend section after fatal testing accident to Elio de Angelis.

LAP RECORD: Nelson Piquet (Williams FW11-B-Honda), 1m 11.737s (118.898mph) Established in 1987 race.

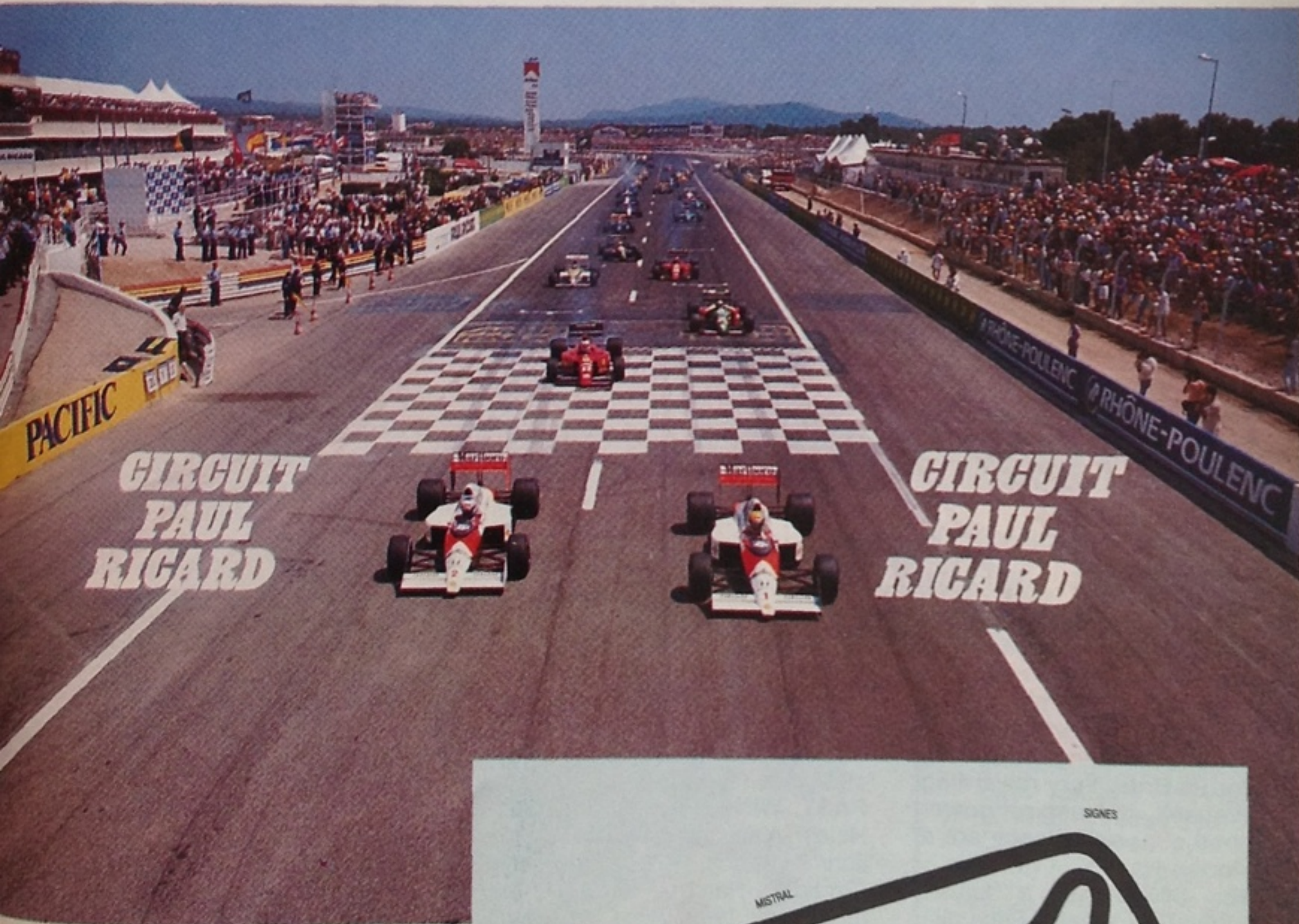
PAST WINNERS: 1980, Alain Jones (Williams); 1981 (at Dijon) Alain Prost (Renault); 1982, Rene Arnoux (Renault); 1983, Alain Prost (Renault); 1984 (at Dijon), Niki Lauda (McLaren); 1985, Nelson Piquet (Brabham); 1986, Nigel Mansell (Williams); 1987, Nigel Mansell (Williams); 1988, Alain Prost (McLaren); 1989, Alain Prost (McLaren).

VIEWING FACILITIES: Very dusty spectator enclosures flank this unspectacular circuit, so an expensive grandstand seat is really a must.

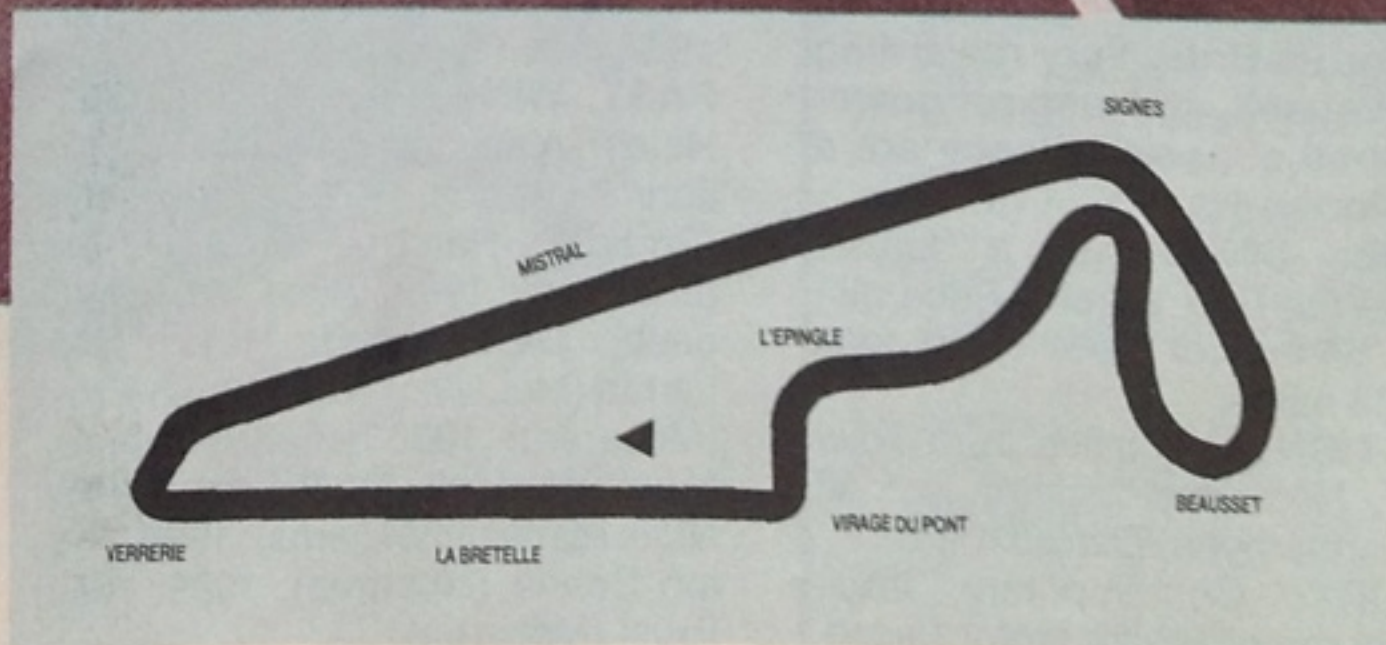
HOTELS: There is a shortage of hotel accommodation in this area as the summer holiday season is already under way when the race takes place. Bandol is good, but crowded, as are the other small seaside resorts strung out between there and Marseilles. Usual exorbitant Riviera high season prices.

ACCESS: Nightmarish traffic jams if you approach from the direction of Marseilles or the coast, not so bad from Brignoles (northerly) direction. Sweat it out and try to look cheerful!

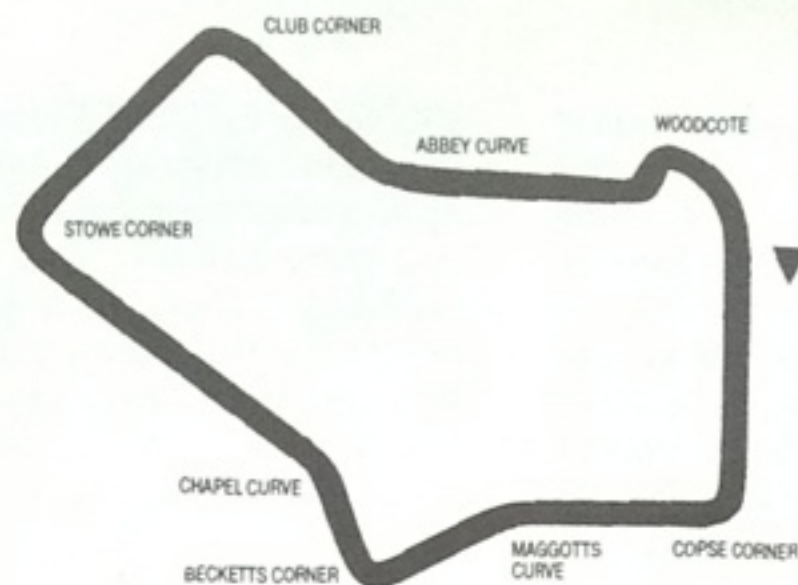
ASSESSMENT: If you combine it with a holiday in the South of France, then Paul Ricard is well worth a visit. Not the best French circuit, however, and not really worth a weekend trip. ▶



Paul Ricard; the sun-baked, parched home of the French Grand Prix.



ALL PHOTOGRAPHS: LAT PHOTOGRAPHIC



Silverstone; even more improvements in the pipeline for 1991.



BRITAIN

ROUND 8: July 15, British Grand Prix, Silverstone.

CIRCUIT COMMENT: *from Derek Warwick.*

'A really challenging high speed circuit on which balance and precision exact a premium. Obviously a big premium on power and quite an exciting, emotional time for us Brits. Very rewarding to drive well, but engine power and good chassis balance are a big priority.'

VENUE: Silverstone, a former World War Two airfield. Race distance: 64 laps of 2.969 miles, total 190.080 miles.

LOCATION: Five miles from Towcester, Northamptonshire, just off A43 Northampton/Oxford road.

HISTORY: Contemporary traditional home of British motor racing,

this track has evolved continuously from its original status as a former RAF base. Track layout takes in what were originally perimeter roads of old airfield. Now the fastest track on the calendar, it will be extensively re-modelled immediately after this year's race now that it has concluded a long-term contract to stage Britain's round of the World Championship through until 1996.

LAP RECORD: Nigel Mansell (Williams FW11-Honda), 1m 23.308s (128.3mph). Established in 1987 race.

PAST WINNERS: 1980 (Brands Hatch), Alan Jones (Williams); 1981, John Watson (McLaren); 1982 (Brands Hatch), Niki Lauda (McLaren); 1983, Alain Prost (Renault); 1984 (Brands Hatch), Niki Lauda (McLaren); 1985, Alain Prost (McLaren); 1986 (Brands Hatch), Nigel Mansell (Williams); 1987, Nigel Mansell (Williams); 1988, Ayrton Senna (McLaren); 1989, Alain Prost (McLaren).

VIEWING FACILITIES: Woodcote, Copse and Stowe corner grandstands come out top of list. Spectator banking plentiful, but overcrowded. Should be much improved for 1991.

HOTELS: Stretched to maximum at Grand Prix time, with teams having to stay up to 50 miles away in order to obtain a reservation. The handful of local pubs are booked up for years in advance.

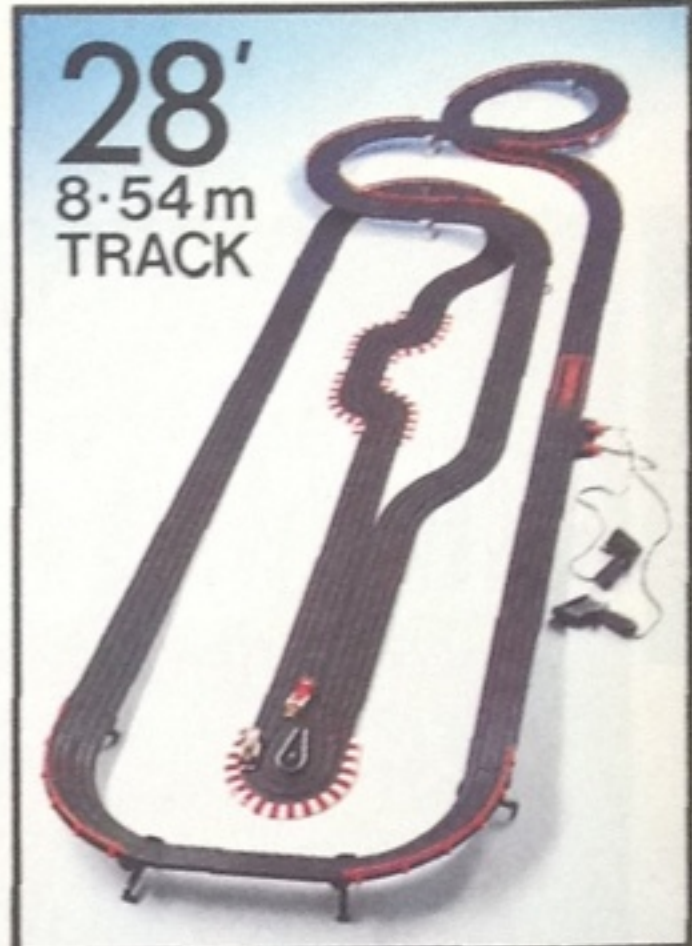
ACCESS: An absolute nightmare down country lanes, but that's simply a fact of life. Scarcely less congested if you opt for a helicopter or light aircraft – Silverstone rivalled Heathrow for aircraft movements on race day last year. Take a motorhome or camp!

ASSESSMENT: Great fun if you're involved in the business, but something of a sweat for the paying public who, nonetheless, return in their droves year after year. Circuit owners continue to invest large amounts in facilities. ▶

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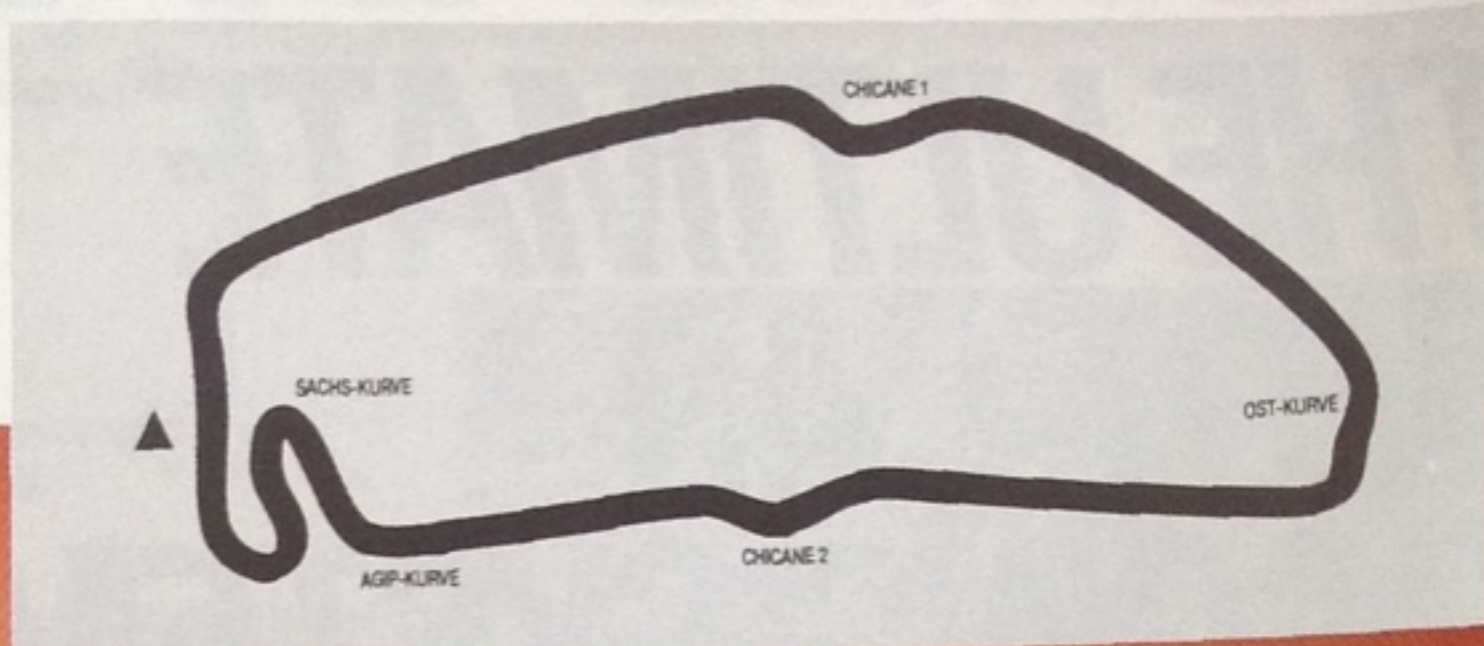
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GERMANY



ROUND 9: July 29, German Grand Prix, Hockenheim.

CIRCUIT COMMENT: *from Thierry Boutsen.*

'You need judgement and self-discipline to produce the best of your car at Hockenheim. Apart from needing a strong engine for those long straights, you must be as tidy as possible through the three chicanes. Even brushing a kerb can lose you time all the way down the following straight.'

VENUE: Hockenheim, near Heidelberg. Race distance: 45 laps of 4.2234 miles, total 194.736 miles.

LOCATION: About 60 miles south of Frankfurt on Munich autobahn.

HISTORY: First used as a Grand Prix venue in 1970, the circuit hosted car and motor cycle race meetings after the early post-war years. Notorious as the circuit at which the great Jim Clark was killed on April 7, 1968. When safety considerations caused the abandonment of the old Nurburgring in 1976, Hockenheim took over as regular venue for German Grand Prix, punctuated only by return to 'new' Nurburgring in 1985.

LAP RECORD: Nigel Mansell (Williams FW11B-Honda), 1m 45.716s (143.823mph). Established in 1987 race.

PAST WINNERS: 1980, Jacques Laffite (Ligier); 1981, Nelson Piquet (Brabham); 1982, Patrick Tambay (Ferrari); 1983, Rene Arnoux (Ferrari); 1984, Alain Prost (McLaren); 1985 (new Nurburgring), Michele Alboreto (Ferrari); 1986, Nelson Piquet (Williams); 1987, Nelson Piquet (Williams); 1988, Ayrton Senna (McLaren); 1989, Ayrton Senna (McLaren).

VIEWING FACILITIES: Superb in-field stadium-type section contain-

Hockenheim; clinically Germanic, can never shrug aside the spectre of Jim Clark's death.

ing pits, paddock and start/finish line includes gigantic permanent grandstands accommodating vast majority of spectators.

HOTELS: A few pleasant, family-owned hostelries in the surrounding smaller towns, but Mannheim and Heidelberg contain most of the bigger hotels, of which there is a plentiful supply.

ACCESS: Through the town centre of Hockenheim, but generally remarkably good and well organised with traffic feeding from/onto comprehensive local autobahn network.

ASSESSMENT: Imparts a great sense of occasion, but a little on the clinical and uninspiring side for the motor racing purist. Boasts first class facilities, clean and well run.



HUNGARY

ROUND 10: August 12, Hungarian Grand Prix, Hungaroring.

CIRCUIT COMMENT: *from Riccardo Patrese.*

'The race I'm certain I could have won last year! I was leading comfortably until a stone went through my William's water radiator – and I felt confident I could stay ahead of Senna because it's very difficult to overtake at this track. The corners follow closely one after the other and there is really only one racing line.'

VENUE: Hungaroring, Mogyorod, Budapest. Race distance: 77 laps of 2.465 miles, total 189.850 miles.

LOCATION: About 12 miles from the centre of Budapest.

HISTORY: Spectacular new tailor-made facility, built with Government assistance, and opened for first Grand Prix in 1986. Slightly remodelled in 1989 with tight downhill corner on outward leg behind paddock now straightened out.

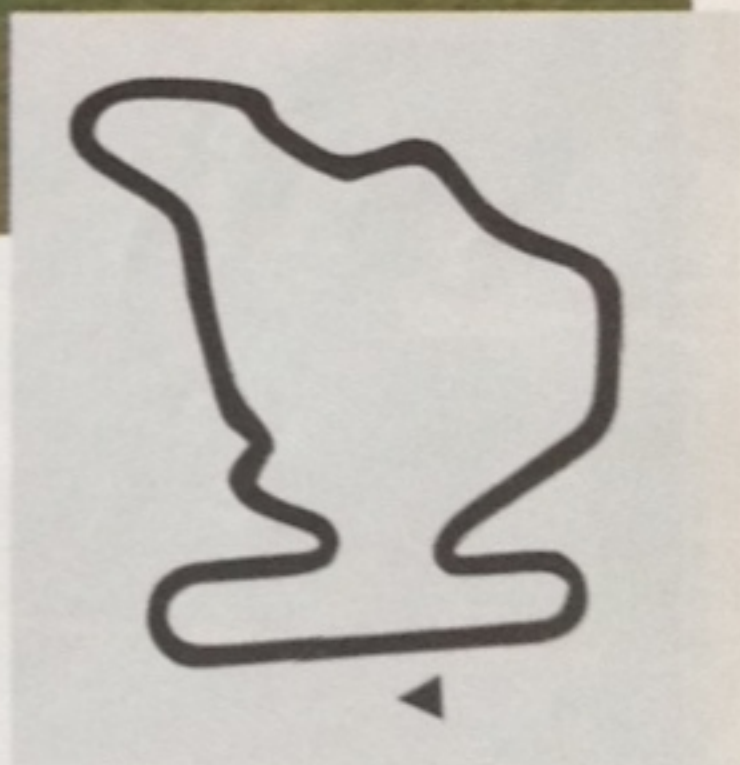
LAP RECORD: Nelson Piquet (Williams FW11B-Honda), 1m 30.149s (99.602mph). Established in 1987 race.

PAST WINNERS: 1986, Nelson Piquet (Williams); 1987, Nelson Piquet (Williams); 1988, Ayrton Senna (McLaren); 1989, Nigel Mansell (Ferrari).

VIEWING FACILITIES: Huge permanent grandstand lines the long start/finish straight with many spectator banks surrounding this imaginatively laid out, undulating facility. Very professionally organised, drawing on best examples from circuits all over the world.

HOTELS: Budapest is one of the most elegant cities in Europe and Hungary has been at the spearhead of Westernisation over the past five years, allowing several major international hotel chains to establish themselves. The most crucial addition for 1989 was the appearance of MacDonalds in Budapest – the final cachet that Western civilisation has arrived!

ACCESS: The circuit is about half an hour's drive from the centre of



Hungaroring; this 1986 arrival on the international calendar sets high standards for track facilities.

Budapest along a well-signposted dual carriageway. Getting to Budapest involves a direct flight from London by either British Airways or Malev. Alternatively, Vienna is a nerve-wracking four-hour drive along single carriageway motorway dotted with slow-moving heavy trucks. Customs delays potentially lengthy at border on this route.

ASSESSMENT: Used to afford a rare opportunity to doge behind the Iron Curtain, but now Hungary is part of the new progressive Eastern Europe. A fascinating country which is well worth the trip. ▶

BELGIUM

ROUND 11: August 26, Belgian Grand Prix, Spa Francorchamps.

CIRCUIT COMMENT: *from Alessandro Nannini.*

'Quite a superb track, but one which keeps the heart pumping madly, particularly in the wet. Finishing fifth there in absolutely appalling conditions of rain and mist last year was one of the most satisfying results I have ever managed to achieve.'

VENUE: Circuit de Spa-Francorchamps, Francorchamps. Race distance: 44 laps of 4.3123 miles, total 189.741 miles.

LOCATION: Adjacent to the town of Spa, a spectacular setting among the pine forests of the Haut Fagnes region of south east Belgium.

HISTORY: Refined and improved variation of classic high speed road circuit which first hosted Belgian Grand Prix in 1925. Major focal point in row over circuit safety caused original track to be dropped from Formula 1 schedule after 1970 race, only restored in 1983 and was imaginatively shortened. Still retains plenty of its old flavour and character, and is extremely demanding.

LAP RECORD: Alain Prost (McLaren MP4/3-TAG), 1m 57.153s (132.513mph). Established in 1987 race.

PAST WINNERS: 1980 (at Zolder),

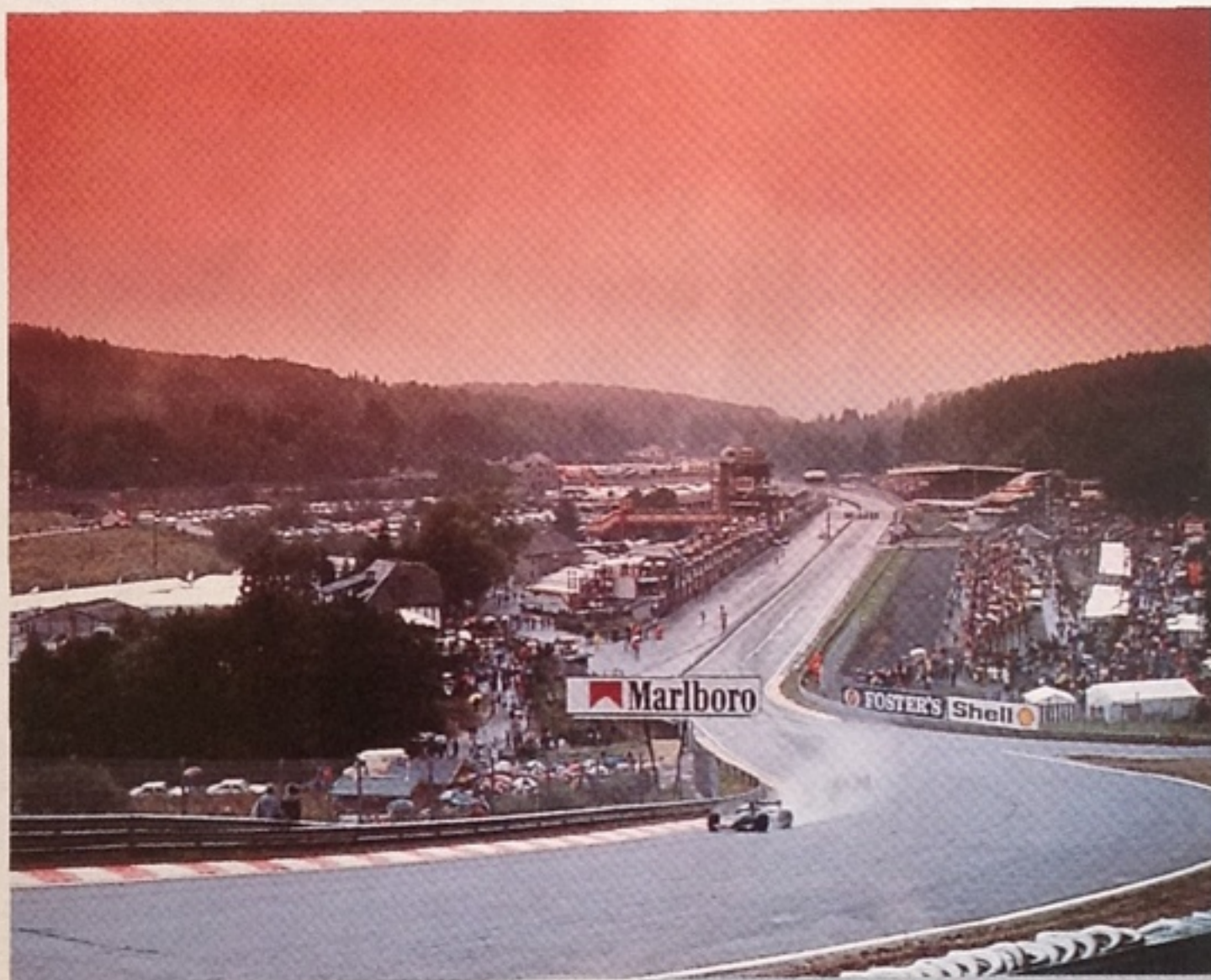
Didier Pironi (Ligier); 1981 (at Zolder), Carlos Reutemann (Williams); 1982 (at Zolder), John Watson (McLaren); 1983, Alain Prost (Renault); 1984 (at Zolder), Michele Alboreto (Ferrari); 1985, Ayrton Senna (Lotus); 1986, Nigel Mansell (Williams); 1987, Alain Prost (McLaren); 1988, Ayrton Senna (McLaren); 1989, Ayrton Senna (McLaren).

VIEWING FACILITIES: Main concentration of grandstands around start/finish line offer spectacular views down over Eau Rouge section of circuit, but also well worth a walk through the woods to the more distant corners.

HOTELS: Although this is a popular holiday area, the demand for accommodation inevitably exceeds supply during race weekend. It is therefore necessary to book early, otherwise you may be obliged to go as far afield as Liege or Aachen to find any rooms.

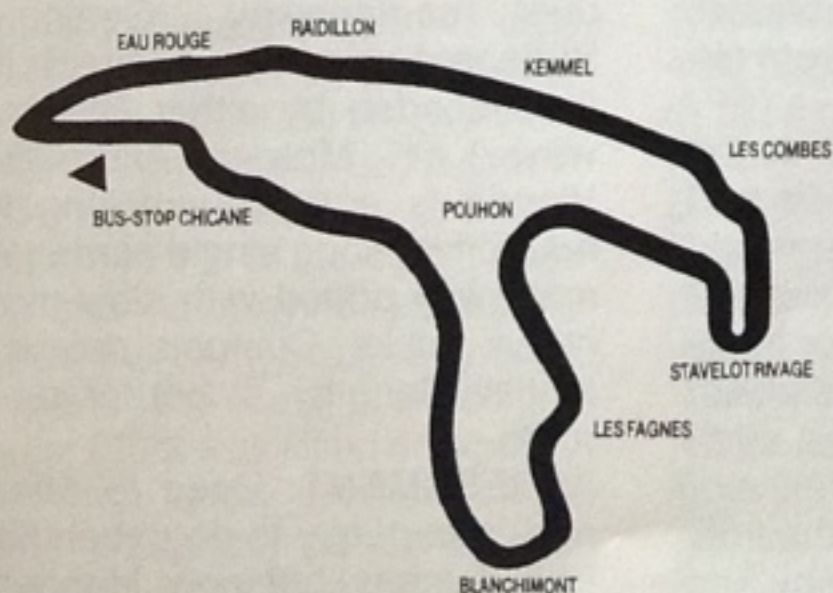
ACCESS: Restricted and confined, down network of country lanes. Traffic flow quite well organised with several routings taking spectator traffic away from vicinity after race.

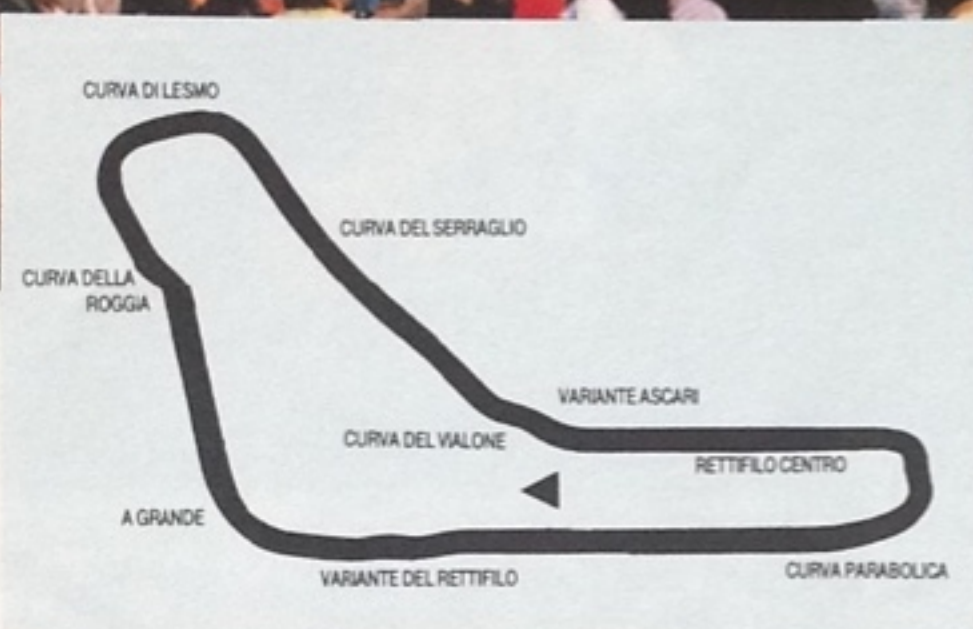
ASSESSMENT: One of the truly great Grand Prix circuits situated a short hop away across the channel. Accessible and inexpensive for an enjoyable weekend away – the ideal introduction to European Grand Prix racing for the British enthusiast.



Spa; classic road racing in the pine forests of southern Belgium.

ALL PICTURES: ALLSPORT/PASCAL RONDEAU





Monza; history and tradition literally seeping from the track surface.

ITALY

ROUND 12: September 9, Italian Grand Prix, Monza.

CIRCUIT COMMENT: *from Nelson Piquet.*

'It's quite a difficult track because the three chicanes are rather awkward and difficult to negotiate. There is also some very high speed stuff for which you need a perfectly balanced chassis, but it is quite difficult to get into a rhythm.'



VENUE: Autodromo Nazionale di Monza, near Milan. Race distance: 53 laps of 3.6039 miles, total 191.009 miles.

LOCATION: Within spacious former royal park at Monza on north-east outskirts of Milan.

HISTORY: Steeped in tradition and motor racing folklore, Monza is the spiritual home of Italian motor racing. It retained its early 1950s pit buildings until 1989 when they were demolished and replaced in what was regarded by many as an example of architectural vandalism. Track first staged an Italian Grand Prix as long ago as 1922 and has incorporated a variety of circuit layouts over the years.

LAP RECORD: Alain Prost (McLaren MP4/5-Honda), 1m 28.107s (147.255mph). Established in 1989 race.

PAST WINNERS: 1980 (Imola), Nelson Piquet (Brabham); 1981, Alain Prost (Renault); 1982, Rene Arnoux (Renault); 1983, Nelson Piquet (Brabham); 1984, Niki Lauda

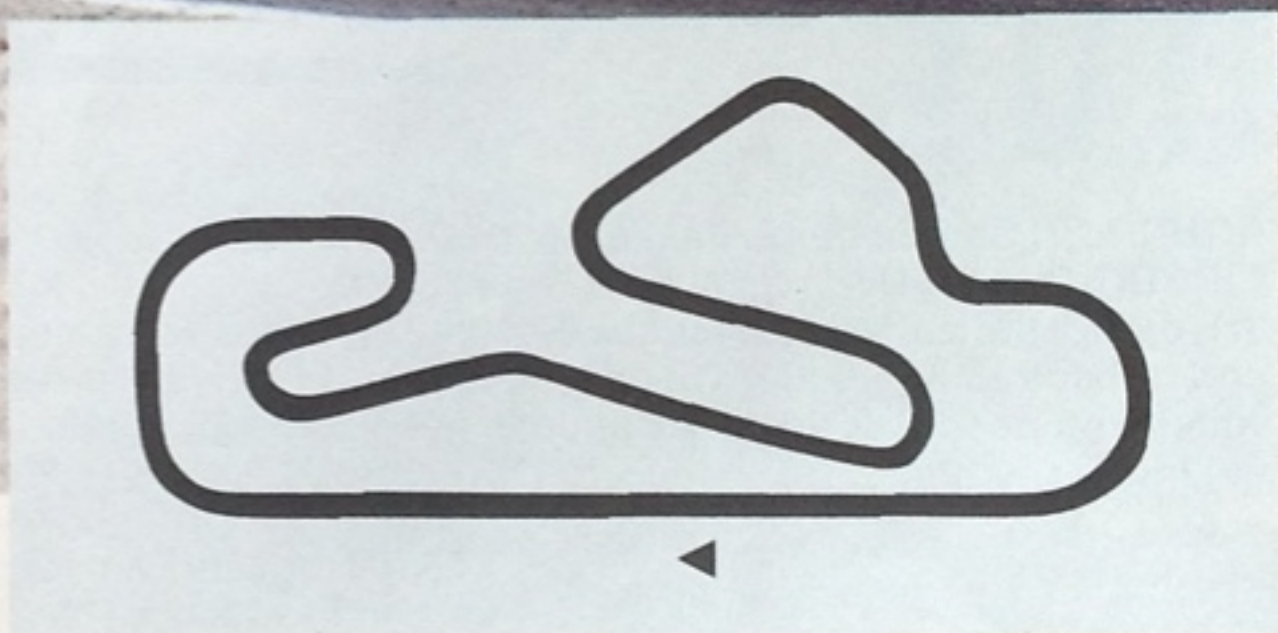
(McLaren); 1985, Alain Prost (McLaren); 1986, Nelson Piquet (Williams); 1987, Nelson Piquet (Williams); 1988, Gerhard Berger (Ferrari); 1989, Alain Prost (Ferrari).

VIEWING FACILITIES: The main grandstands opposite the pits provide a spine-tingling vista across the huge start/finish apron, but there are others at Parabolica, Curva Grande and the Lesmo corners which should be considered. Good spectator terraces on the back straight between Variante Ascari and Parabolica.

HOTELS: Several in Monza, bigger international hotels in Milan and variety of country hostleries to the north. Wealthy big guns follow Edward and Mrs Simpson's example, staying at the Villa D'Este on Lake Como.

ACCESS: Impossibly congested on race day – and at many other times, come to that. . . . Best to park some distance away, outside the park, and walk in.

ASSESSMENT: If an enthusiast had to choose one Grand Prix to visit in a year, Monza should definitely be the choice. Oozing with atmosphere and soul. The accessory, model and book stands at the track are almost worth the cost of a visit! ▶



Estoril; bumpy and sinuous, a lot more difficult than it looks.

PORTUGAL

ROUND 13: September 23, Portuguese Grand Prix, Estoril.

CIRCUIT COMMENT: *from Ivan Capelli.*

'I have wonderful memories of Estoril, of course, after the glorious day I finished second to Alain Prost in 1988, although I can't say much has gone right ever since. Estoril combines fast and medium-speed corners and puts a premium on handling and grip. Our March was very good there two years ago.'

VENUE: Autodromo do Estoril. Race distance: 71 laps of 2.703 miles, total 191.91 miles.

LOCATION: Some 25 miles north of Lisbon just inland from coastal resort of Cascais.

HISTORY: Originally built amidst

scrub-land in late 1970s, Estoril hosted a series of Formula 2 events before restoring Portuguese Grand Prix to the calendar in 1984 an after absence of over 20 years. Bumpy, challenging track, usually producing a good race and plenty of frenzied overtaking.

LAP RECORD: Gerhard Berger (Ferrari F187), 1m 19.282s (122.737mph). Established in 1987 race.

PAST WINNERS: 1984, Alain Prost (McLaren); 1985, Ayrton Senna (Lotus); 1986, Nigel Mansell (Williams); 1987, Alain Prost (McLaren); 1988, Alain Prost (McLaren); 1989, Gerhard Berger (Ferrari).

VIEWING FACILITIES: Main grandstand opposite pits gives pan-

oramic view across much of circuit, but plenty of rocky spectator slopes for those who don't want to invest the money. Appallingly muddy in heavy rain.

HOTELS: Good variety in nearby Estoril and Cascais, but demand is high and you might find yourself having to commute in from Lisbon if you don't book early.

ACCESS: Very difficult and extremely crowded on race day. From Lisbon either via coast road or motorway. Whichever you choose, be prepared for very slow progress. Traffic control could be better.

ASSESSMENT: Quite a good circuit but, like Paul Ricard, probably only worth the trip if you are in Portugal in the first place. Regular venue for off-season testing.

SPAIN

ROUND 14: September 30, Spanish Grand Prix, Jerez de la Frontera.

CIRCUIT COMMENT: from Stefan Johansson.

'A hard, tight circuit which takes a great deal out of both driver and car. Tiring and acrobatic with no straights worth the name, so never a chance to rest for a second.'

VENUE: Circuito de Jerez, Jerez de la Frontera. Race distance: 73 laps of 2.6209 miles, total 191.328 miles.

LOCATION: A few miles outside Jerez in the heart of Spain's sherry producing country.

HISTORY: Purpose-built autodrome completed 1985/86 for Spanish Grand Prix. So thinly patronised, it has given rise to motor racing's adaptation of the old joke, 'What time does the race start?' – answer, 'When can you get here?' Drivers are virtually on first name terms with the spectators. At least it can claim the closest ever finish when Senna beat Mansell by one-hundredth of a second back in 1986.

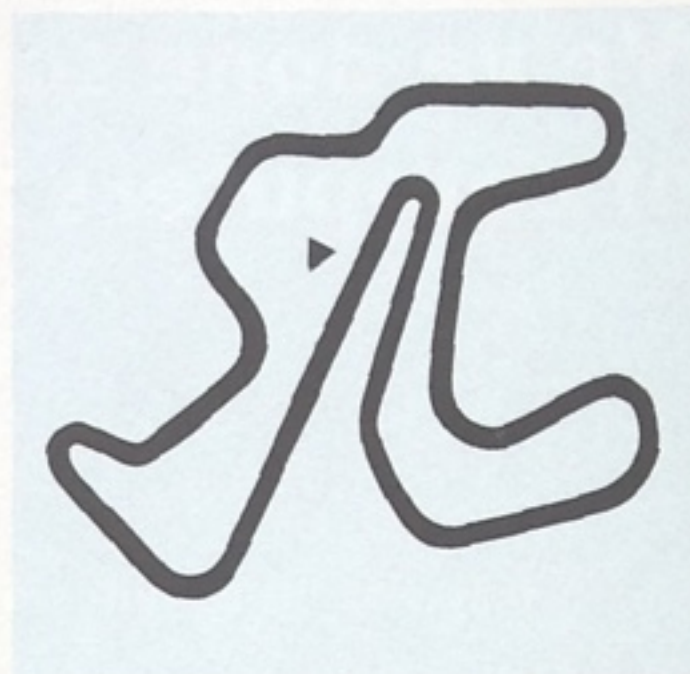
LAP RECORD: Gerhard Berger (Ferrari F187), 1m 26.986s (108.470mph). Established in 1987 race.

PAST WINNERS: 1986, Ayrton Senna (Lotus); 1987, Nigel Mansell (Williams); 1988, Alain Prost (McLaren); 1989, Ayrton Senna (McLaren).

VIEWING FACILITIES: Splendid grandstand opposite the pits offers fine view of the start, plus all the pit action. Open seating on the hill-sides surrounding the circuit, although hardly shoulder-to-shoulder crowding.

HOTELS: Relatively few and far between in immediate Jerez area, so it is necessary to go as far afield as Cadiz (a good 45 minutes away by road) and even Seville to find vacancies if you leave your bookings too late.

ACCESS: Only one main road feeds into the circuit, so even a smallish crowd produces a fair deal of congestion. From England, fly to Gibraltar or Seville and take a hired car, or take an internal flight from



Jerez; the dusty Spanish autodrome inevitably attracts only a tiny crowd.

Madrid to small Jerez airport which is almost within sight of the circuit.

ASSESSMENT: Tight tortuous little track in dust bowl surroundings which, perhaps surprisingly, produces quite reasonable motor racing. Not one of the great classic circuits of the world, nor likely to develop into one. Something of a Formula 1 sideshow compared with the faster tracks. ▶



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JAPAN

ROUND 15: October 21, Japanese Grand Prix, Suzuka.

CIRCUIT COMMENT: *from Satoru Nakajima.*

'It's always very important for me to show well on my home track where I've accumulated much testing experience over the years. From the standpoint of chassis set-up, it is a little like Spa. There are only a couple of places to pass and the high grip surface is hard on the tyres.'

VENUE: International Racing Course, Suzuka, Shiroko, Japan. Race distance: 53 laps of 3.641 miles, total 192.952 miles.

LOCATION: About 40 miles from Nagoya, along Pacific coast.

HISTORY: Built in 1962 and used as test track by Honda for many years. After staging a succession of sports car and national Formula 300 events, Suzuka was extensively updated in time to stage the Japanese Grand Prix in 1987. The race had been absent from the calendar for

Suzuka; Japan's splendid showpiece track always has a well-disciplined capacity crowd.

ten years, having taken place at Mount Fuji in 1976 and '77.

LAP RECORD: Alain Prost (McLaren MP4/5-Honda), 1m 43.506s (126.622 mph). Established in 1989 race.

PAST WINNERS: 1987, Gerhard Berger (Ferrari); 1988, Ayrton Senna (McLaren); 1989, Alessandro Nannini (Benetton).

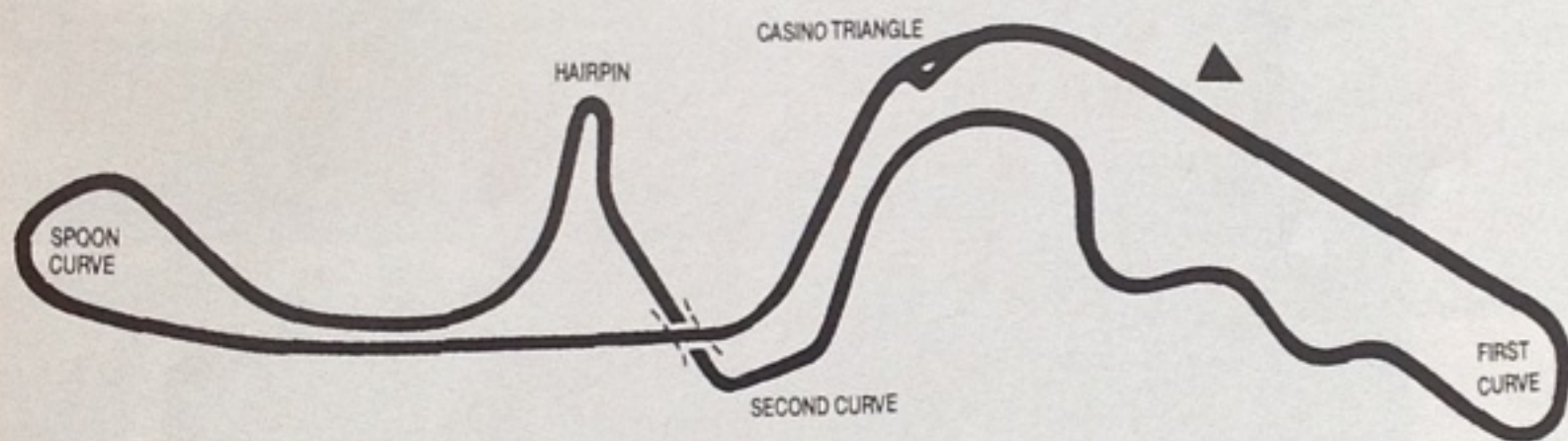
VIEWING FACILITIES: Superb choice of grandstands and viewing terraces surround this challenging and demanding circuit. But European visitors should be warned; Japanese fans are very serious about their motor racing, queueing

patiently at the turnstiles all night prior to the Grand Prix. Come on race morning and all the seats may already be taken!

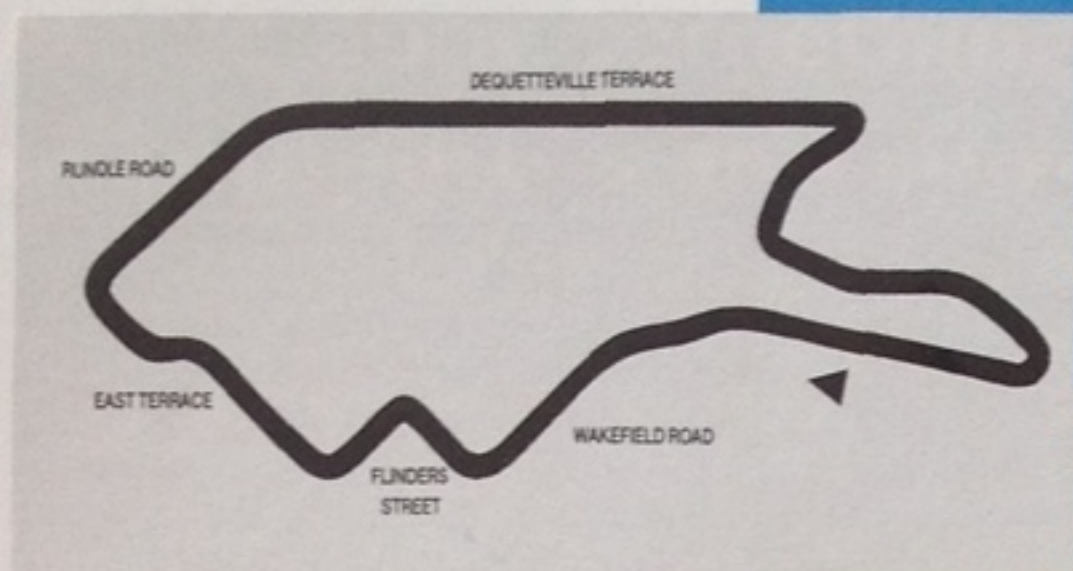
HOTELS: Circuit hotel most convenient, but tends to be monopolised by the teams. Others in local towns, a short train journey away. Outside the major international chains, which cater specifically for visitors, they generally have tiny rooms and are dramatically short of creature comforts compared with their European counterparts.

ACCESS: Traffic congestion in Japan is at a level the overseas visitor finds difficult to comprehend and the Suzuka area is no exception. Fortunately trains run frequently and reliably to local stations. But expect a long day!

ASSESSMENT: A terrific circuit which most of the drivers love. Lots of high speed corners. Japanese very keen to ensure their foreign guests have a good time. The whole place is scrupulously clean, the staff are courteous and the enthusiasts incredibly well disciplined. ▶



Adelaide; the popular and well-organised finale to the season.



AUSTRALIA

ROUND 15: November 4, Australian Grand Prix, Adelaide.

CIRCUIT COMMENT: from David Brabham.

'It looks as though I could be the first Australian since Alan Jones to contest a Championship Grand Prix on his home soil this year, if everything goes to plan. The track looks tremendous, and all the drivers tell me they love driving it. I'll be hoping to join them this year.'

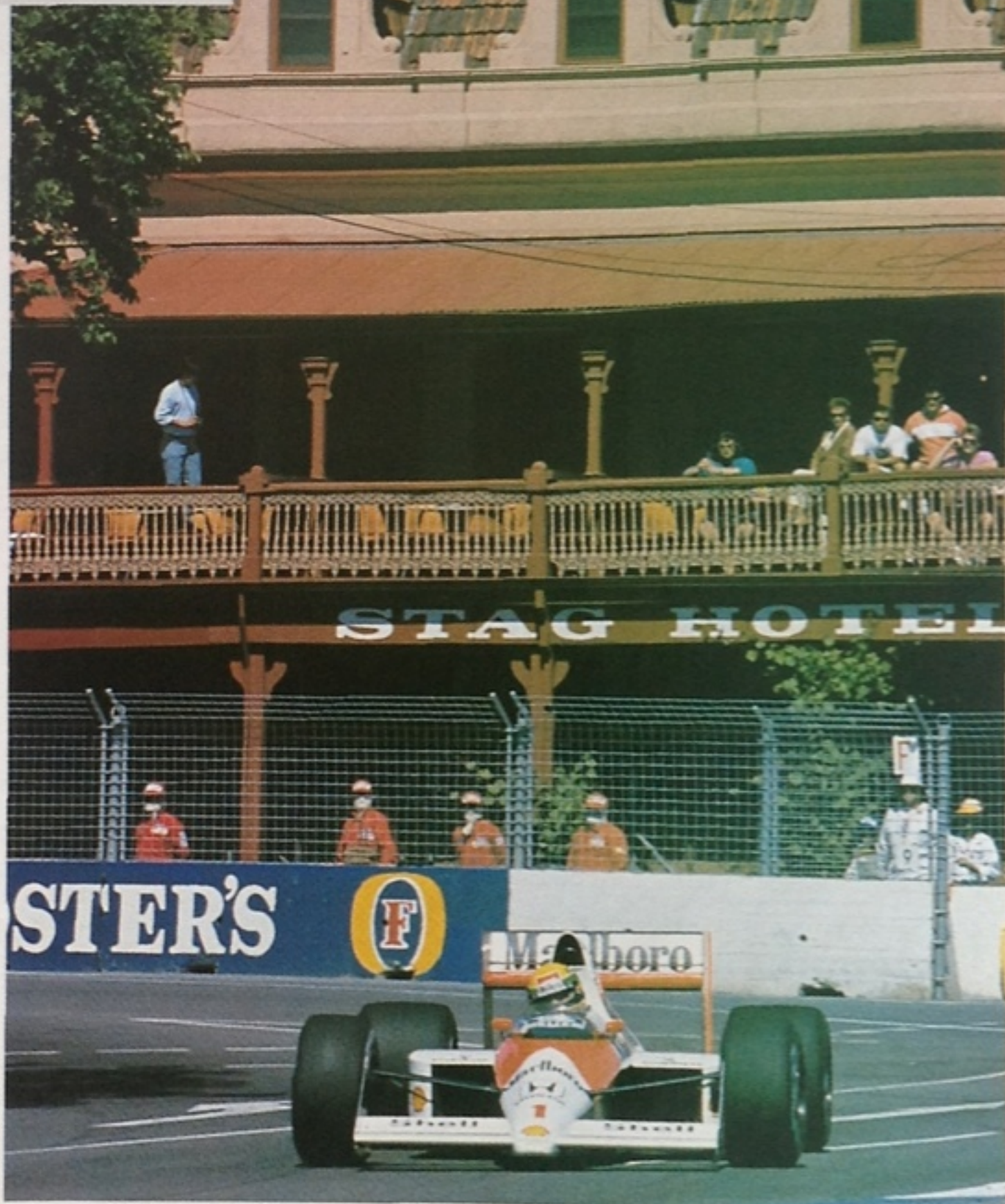
VENUE: Adelaide Grand Prix Circuit, Adelaide, South Australia. Race distance: 81 laps of 2.347 miles, total 190.10 miles.

LOCATION: Combination of artificial circuit and street track centred around Victoria Park horse racing circuit not far from centre of city.

HISTORY: The most recent brand new circuit to be added to the Championship trial, Adelaide hosted its first race in 1985. By common consensus, an imaginatively conceived and well laid-out facility which has become an instant classic which engenders a splendid 'end of term' feeling among the Formula 1 fraternity.

LAP RECORD: Gerhard Berger (Ferrari F187), 1m 21.216s (105.123mph). Established in 1987 race.

PAST WINNERS: 1985, Keke Rosberg (Williams); 1986, Alain Prost (McLaren); 1987, Gerhard Berger (Ferrari); 1988, Alain Prost (McLaren); 1989, Thierry Boutsen (Williams).



ALLSPORT/PASCAL RONDEAU

VIEWING FACILITIES: A grandstand seat is really necessary to get the best out of this race, preferably opposite the pits/start line area.

HOTELS: No problems on this front. A varied selection of well-appointed hotels are to be found in this elegant city, many of them little more than walking distance from the circuit entrance.

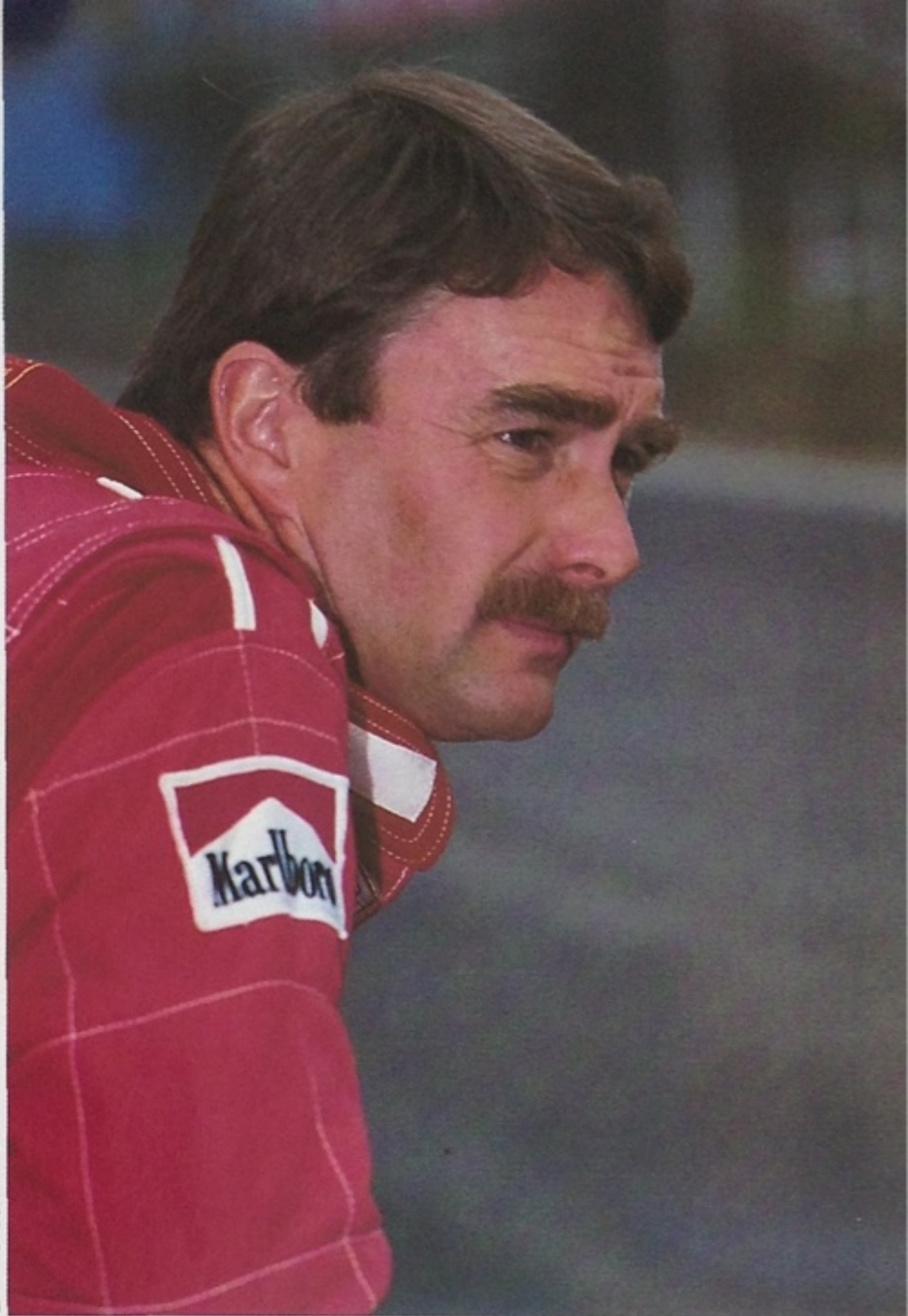
ACCESS: No problems! Plenty of obliging taxi drivers who can steer

the visitor round Adelaide for a modest fare. Adelaide is a relatively compact city which rarely seems seriously snarled up with traffic.

ASSESSMENT: If all World Championship Grands Prix were as efficiently and consistently run as this, motor racing would probably play host to fewer silly disputes and pseudo-political arguments. A fine note on which to finish a tiring season. ■

THE BRITISH FORMULA 1

LAT PHOTOGRAPHIC



Nigel Mansell pausing for thought at this year's Brazilian Grand Prix.

Three drivers with differing aspirations are representing Britain in this year's Championship. Nigel Roebuck reports on the fortunes of Nigel Mansell, Derek Warwick and Martin Donnelly.

There are fewer Brits in Formula 1 this year. Twelve months ago we had five representatives in the sport's top level: Nigel Mansell, Derek Warwick, Jonathan Palmer, Martin Brundle and Johnny Herbert. In 1990 the first two on the list remain and they are joined by Martin Donnelly. Palmer and Herbert, however, who lost their drives with Tyrrell and Benetton respectively, and Brundle, who left the shaky Brabham team, are for the moment consigned to sports car racing.

The best hopes for the year must again lie with Mansell who is going into his second season with Ferrari, this time alongside Alain Prost. Nigel is not intimidated by the World Champion's presence, nor should he be: on the evidence of recent years, he is as quick as anyone in the business, and in 1989 he often drove with a circumspection perhaps absent in his Williams days. ▶



Derek Warwick, this year's Lotus team leader.

Good relationships between drivers at the very top are not easily achieved: Mansell's relationship with Nelson Piquet at Williams was thoroughly acrimonious most of the time, and Prost's falling out with McLaren team mate Ayrton Senna is too well documented to bear repetition here. However, Nigel and Alain have always got along well, sharing, among other things, a passion for golf; and the Englishman declares that at Ferrari all is harmony.

'For a long time now, I've felt that Prost was the only driver in pit lane who could teach me anything,' he says, 'and I still feel that. It's true that in the middle of last year I resigned with Ferrari as firm number one, and at first I wasn't that thrilled about giving it up. However, I came to see that Alain's presence here, while obviously making my job harder, could also work to my bene-

fit. I've no doubts that we'll get equal equipment – Ferrari are very good that way – and, as everyone knows, Prost is a wonderful test driver, which can only help me.'

The Frenchman is not the only McLaren employee to defect to Ferrari this season; Steve Nichols, the laconic American who quietly established himself with Ron Dennis's team as a designer and race engineer of first quality, has also moved. 'Steve and Alain obviously know everything about the McLaren work practices,' Nigel points out, 'and they have worked pretty well for them in the past, let's face it, and they've also had a good deal of experience with Honda engines. In 1989 I think our major problem, compared with McLaren-Honda, was a lack of straightline speed.'

This year Mansell says he will be taking a slightly more *sotto voce* approach to the races themselves.

Martin Donnelly, Warwick's partner at Lotus.





The amiable Warwick – more hungry than ever for that first victory.

ALL PHOTOGRAPHS: LAT PHOTOGRAPHIC



'By that I don't mean that I'll be less competitive than before – I'll still go into every race trying to win it. But maybe, having several times been so close to the World Championship without winning it, I'll be a little more . . . realistic, let's say. In other words, if I'm running second towards the end of a race, and too far behind the leader to have a realistic chance of winning, ok, I'll settle for six points.'

It is a policy which has served Prost well over the years, as Mansell has come to appreciate. 'At Monaco last year Alain had all kinds of problems in the race, getting held up by other people's accidents, and so on. Towards the end of the race he was about 40 seconds behind Senna, and he settled for that. Afterwards some drivers criticised him, saying that he wasn't a real racer any more, that he'd just given in. Well, perhaps they'd explain how he was supposed to take two seconds a lap from Senna – for 20 laps – and then calmly pass him. At *Monaco!* I thought those comments were ridiculous; and I noticed they only came from people who'd never got near to winning a Grand Prix . . .

'So, all I'm saying is that trying to win all the races, come what may,

isn't perhaps the way you win the World Championship. It may be the most *satisfactory* way, but remember that I lost a title to my then team mate Nelson Piquet, despite winning twice as many Grands Prix as he did!'

Mansell feels that Ferrari prospects are excellent this year. When he joined the team, he said from the outset that he was looking on 1989 as an exploratory season; the car, engine and gearbox were new, and it would take him time, he added, to become fully conversant with the Maranello way of doing things.

'I stick by that,' he says now. 'It would have been silly to have hoped for too much in that first year, but now I feel that everything is in place. Basically, the chassis was always good, and we've improved it. Similarly, the semi-automatic gearbox was great once you'd got used to it, but we had a lot of reliability problems there, especially in the first half of the year. *That* is much better now.

'And the engine, while pretty reliable most of the time, was never a match for Honda's V10 at any stage of the season. I don't say it will be now – who knows how much power the Japanese may have found over the winter – but I know it's much,

much better than it was. And there are a lot more modifications to be incorporated as the year goes on, so I expect us to be pretty competitive on horsepower. The engineers have told me we should have over 700bhp by mid-season.'

The team is intensely motivated. Both Mansell and Prost have had their personal feuds with Ayrton Senna over time, and it is no secret that there is a good deal of animosity, anyway, between Ferrari and McLaren.

'Alain *really* wants to go racing this year,' Nigel says. 'I don't think I've ever known him so motivated. And that's good for the team, obviously. Since he's been here, you find that things are done with just that bit more urgency. Everyone at Ferrari is very up at the moment, really committed. One thing we're going to do, for example, is to try to have a thorough debrief at Maranello the week after each race.'

Mansell, contrary to all motor racing logic, actually lightened up a good deal when he went to Ferrari. There was a new relaxed confidence about him in 1989, and the process seems to be a continuing one. 'It's nice to have a guy like Prost as your team mate,' he ►

says. 'He's got a great sense of humour, for one thing, which is very important. As well as that, however, I've made a conscious effort to make my life less complicated. When I came here, one of the things I really appreciated was that, all of a sudden, there weren't a hundred different sponsors to keep happy. I know that's unavoidable with most teams, but it's nice to be able to concentrate on the job in hand.

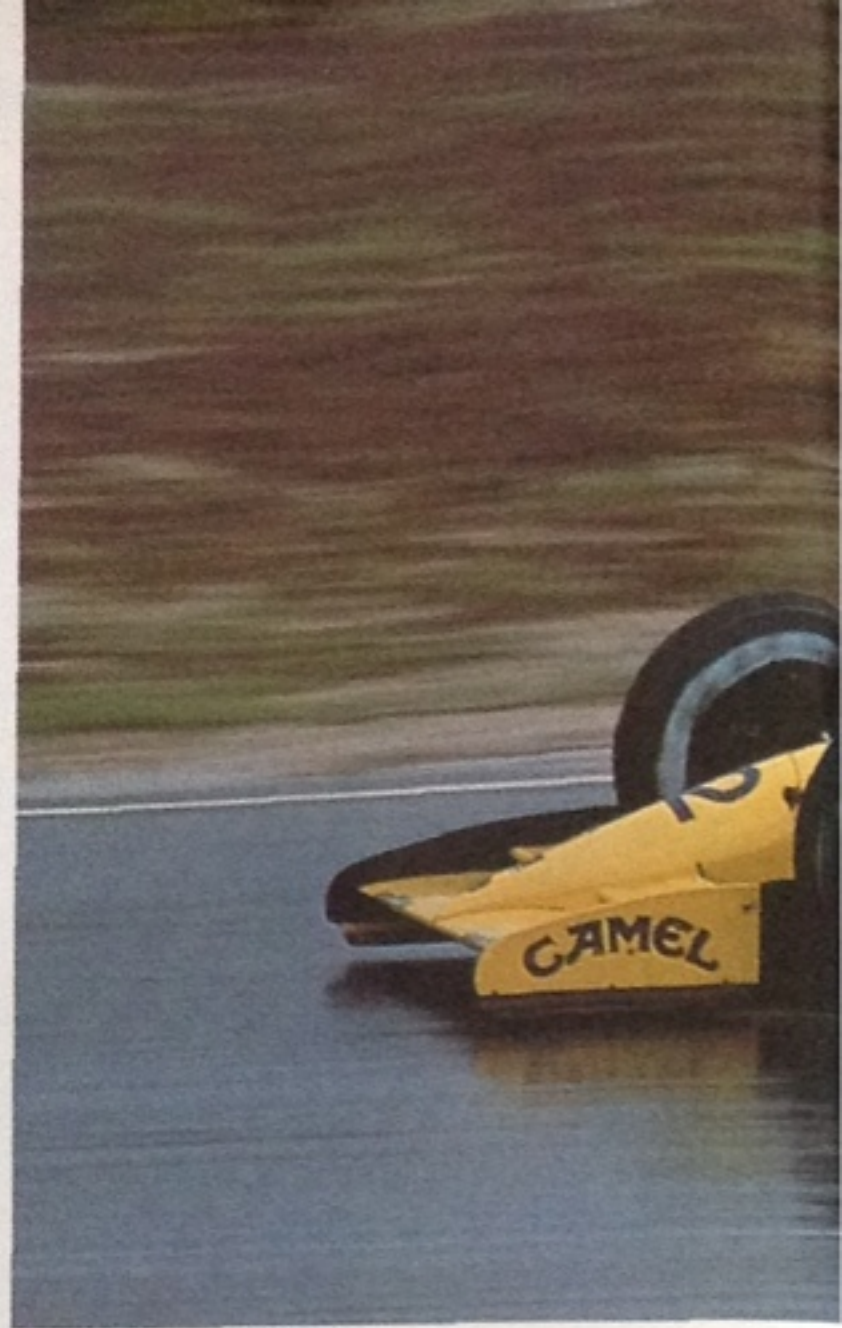
'This year I don't think I'll have any hangers-on at all! No helmet carriers, no personal medical man, nothing like that. I'm confident that everything I need is here, within the team. Formula 1 will never be an easy life, of course, but I am trying to simplify it as much as possible. And I really want that Championship . . .'

Mansell's two compatriots in Formula 1 this year are both with Lotus, who went to work with the new broom after two seasons with Nelson Piquet, three with Satoru Nakajima. Derek Warwick is the team leader, with Martin Donnelly as his number two. Judd engines are gone, replaced by the marvellously sonorous Lamborghini V12s.

Although this is Warwick's first season with Lotus, he and the team go back a long way. For the 1984 season, in fact, he was invited to partner Elio de Angelis (thereby displacing Nigel Mansell!), but opted

instead to go to Renault, where he stayed until the French company disbanded its team at the end of 1985 – whereupon Lotus wooed him once more.

It was the logical move for all concerned, it seemed. Lotus used Renault engines, and yet was a British team with British sponsorship, who wanted a British driver. Derek himself was keen. But the plan came to nought when Senna, then team leader, said no; in his opinion Lotus hadn't the capability to operate two cars at the highest level – and Warwick was too good to be considered a number two journeyman. So that was that. By 1988 Lotus were on Derek's trail once more – and this time the decision not to go was his; the contract would have required him not to pass team leader Piquet, and, as Warwick sardonically pointed out at the time, the way Nelson was driving that would have been frustrating.



ALL PHOTOGRAPHS: LAT PHOTOGRAPHIC

Mansell, now in his second season for Ferrari, presents the best hope for Britain.

Now, however, he is there on his own terms, relieved to be free of Arrows after three largely desultory years. 'There's a great feeling at Lotus now,' he enthuses. 'The team hasn't won a race since 1987, when Senna was there, and I think a lot of impetus was lost in the last couple of years. It seems to be back now.'

In Warwick himself it was never lost. This will be his tenth season as a Formula 1 driver, and it is a matter of wonder that he has yet to win his first Grand Prix. 'It very nearly happened in my first race with Renault, at Rio back in 1984,' he recalls. 'I led a long way, then got clouted by Niki Lauda, which damaged the suspension of my car, putting me out. I had





very high hopes of Renault. All through that year we were pretty competitive – I was second at Brands Hatch, and on the rostrum elsewhere – and I was so sure everything would come right that I resigned for 1985, instead of going to Williams. We all make mistakes, don't we?

Half a season with Brabham, and then the spell with Arrows, confirmed everyone's belief that Derek had never had a car worthy of him. But there have always been flashes of inspiration, however restricting the machinery. Last year's Arrows-Cosworth was no great car, but whenever there was rain – the great equaliser – Warwick shone. In Montreal he actually got the car into the lead for a while, and, while he had no answer to Senna's McLaren-Honda, he was running comfortably ahead of the Williams pair when he retired. Boutsen and Patrese went on to finish first and second.

Because the successes warranted by his talent have never come along, Derek's competitiveness and determination have never been blunted. He says – and you believe him – that he is more hungry than ever for that first victory.

'The new car felt sensational to me in the test at Estoril,' he reports. 'I mean, night and day compared with the 1989 car I tried earlier. My first impressions of the Lamborghini engine were that it was gorgeous to use, incredibly smooth, and with a

Martin Donnelly – quick in the wet in Brazil 1990.

good spread of power over the rev range – but that it never really *happened* anywhere, if you know what I mean. It felt like a sort of ultimate road car engine; it was *too* nice, not vicious, which is what you expect of a Formula 1 engine.

'In Portugal, though, the latest version felt much stronger. I think Mauro Forghieri has found quite a lot of power over the winter.'

During the tests, however, there were serious lubrication problems with the Lamborghini, and much of Warwick's time was spent hanging around the pits, watching as the Lotus mechanics worked on yet another engine change.

'Realistically, our problem this year is going to be reliability, I think,' Derek suggests. 'On speed, I think we might surprise a lot of people. I'm working well with Frank Dernie (Chief Designer at Lotus), and his car felt 'right' to me from the first lap I drove it. I haven't felt so optimistic about a new season for years.'

For Donnelly, the Lotus contract is a dream. Yes, his record in the lesser formulae, notably F3000, has been remarkably impressive, but still it is unusual for a driver to come into Formula 1 with an established team. The young Ulsterman had a test contract with Lotus in 1989, and impressed everyone in the team with the work he put in: 'We made



Donnelly, delighted with his Lotus contract.

much more progress with Martin, learned much more about the car, than we ever did with Piquet,' says one of the engineers. 'In fact, some of us would have liked to see him *racing* the car last year. Everyone is glad he's got his chance now.'

Three drivers, then, with three different levels of aspiration for 1990. Mansell has genuinely got his sights on the World Championship again; Warwick can hope for a bundle of points, and maybe a first victory; Donnelly has much to learn, but is where he always wanted to be, in Formula 1. Messrs Palmer, Brundle and Herbert, who are sports car racing this year, will not rest until they are back. ■

BERNIE ECCLESTONE ▶

Nobody turns a wheel in Formula 1 without Bernie Ecclestone knowing about it and, more importantly, giving his approval. He only sits still to do a deal, then he's off, bustling with energy and efficiency, to tackle something else, the negotiation having invariably gone his way with the other party delighted to have done business with such a fair-minded man. The fair-minded man, meanwhile, is quietly satisfied with a deal which would make your average city-stoker go weak at the knees. Ecclestone thinks only in dollars and percentages. Anything with less than six noughts is a waste of valuable time in a business which is worth millions – thanks, almost entirely, to the efforts of this sharp and dapper whirlwind.



▼ JEAN-MARIE BALESTRE

The head of international motor sport. A cross between President Gorbachev and the Reverend Ian Paisley. Not afraid to tackle important issues; not afraid to steamroller anyone, no matter how important, who stands in his way. He usually chooses to prove his point with fire and brimstone oratory which undeniably holds your attention even though you may not agree with most of what he is saying. A tireless worker in the mould of any successful politician who sees the lifeblood of publicity in the same gregarious manner. Revels in authority and firmly believes he is the best man for the job. He says no one else would spend 15 hours a day administering the sport. And he's right. Anyway, who would dare to argue with him.



AYRTON SENNA ▶

Believes in himself, motor racing and God. Nothing else, apart from his family, matters. If Ayrton left the paddock after failing to take pole position, and the surrounding countryside had been devastated by the sudden outbreak of World War Three, he wouldn't even notice. Or, if he did, his main concern would be that it could stop him from claiming pole the next day. Has redefined the meaning of obsession, such is his burning desire to win. Almost, it sometimes seems, at any cost. Motivates the entire team and usually rewards them by finishing first. Then he thanks everyone personally and leaves by private jet. Sometimes he returns to an apartment in Monte Carlo. Usually he hurries home to Brazil. Always, he is thinking about the next race.



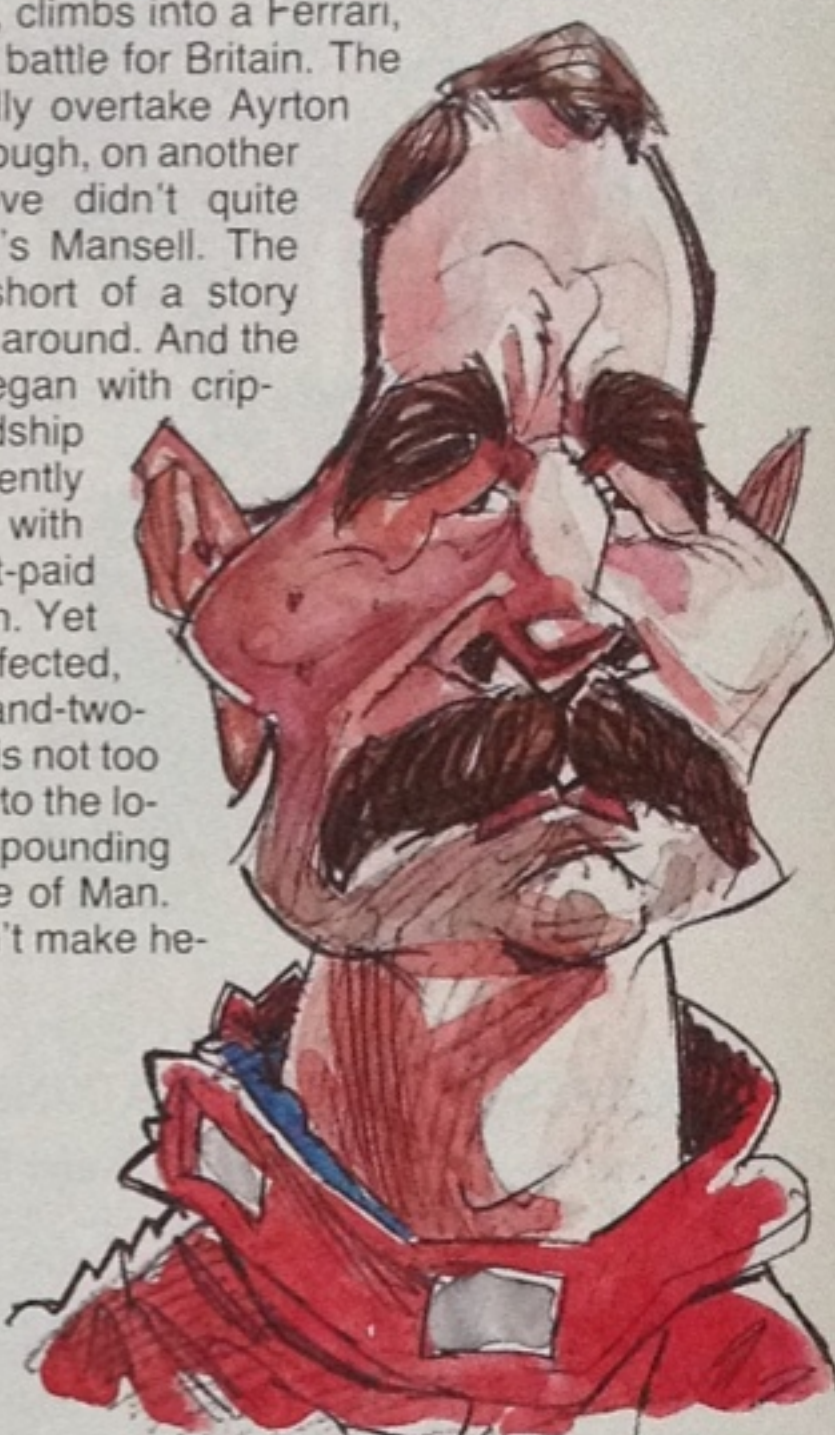
◀ DEREK WARWICK

One of the few Grand Prix drivers whom journalists would have home to dinner. And he would come too! Any hint of pretentiousness is quickly and cheerfully knocked out of him by a cutting word from his wife Rhonda, a member of a colourful family which has its feet firmly on the ground. Served his competition apprenticeship in stock cars, a tough sporting arena where boys were men and, in Derek's case, wore bover boots when racing to prove it. Helped to run the family's trailer manufacturing business before emigrating out of Hampshire to his present home on Jersey. Has all the trappings of success but, happily, that is not enough. Wants desperately to win a Grand Prix and that's what makes him one of the most competitive racers on the grid. And a nice guy too.



NIGEL MANSELL ▼

Pure *Boys' Own* material. Steps out of his Special Constable's uniform, dons a Union Jack helmet, climbs into a Ferrari, and roars off to do battle for Britain. The only man to actually overtake Ayrton Senna in 1989 although, on another occasion, the move didn't quite come off. But that's Mansell. The press are never short of a story when 'Our Nige' is around. And the remarkable tale began with crippling personal hardship and is currently reaching a climax with Mansell as the best-paid sportsman in Britain. Yet he remains unaffected, very much a meat-and-two-veg superstar who is not too proud to contribute to the local community by pounding the beat on the Isle of Man. Who says they don't make heroes any more?



ALAIN PROST ▲

The 'little boy lost' of Formula 1. The soft, syrupy voice is just as disarming but opponents have learnt not to fall for the easy-going ways of one of the greatest drivers of the '80s. He has won a record 40 Grands Prix; no one else comes close. Tends to win by stealth, the unobtrusive style at the wheel belying impressive speed and the effectiveness of a great tactical brain. Equally adept at dealing with politics in the paddock. Rivals, who make the mistake of thinking he is a soft touch, usually find their feet have been quietly cut from under them by one of the sport's few gentlemen. Spends his spare time in the paddock with a small circle of friends playing cards. He excels at that, too.



◀ MURRAY WALKER

Speaks in italics with an exclamation mark at the end of every high-pitched sentence. Simply oozes with enthusiasm for motor racing. He is old enough to have a bus pass and yet the Beeb are sending him around the world to commentate on Grands Prix. He can hardly believe his luck. And that almost schoolboyish sense of excitement has never left him. It moulds his every word, prompts him to kick back his chair and leap about, jabbing his finger at the monitor. And that's just the warm-up before going on air. He could make the Speaking Clock sound exciting. The trouble is, he would be so busy telling you, accurately and in great detail, how the clock worked that he would get the time wrong. ▶

Profiles of some of the more famous faces in Grand Prix racing by Maurice Hamilton with illustrations by David Stoten of Spitting Image.

Key People in Formula 1

◀ RRC 'ROB' WALKER

An elegant, languid icon of a motor racing age which, sadly, is no more. The last of the private entrants to survive before being swamped in the early '70s by the spread of money-orientated professionalism. Stirling Moss drove Walker's cars to victory at Monaco and the Nürburgring. Rob himself raced a Delage at Le Mans in 1939, an altogether civilised affair where Walker thought nothing of stopping to change out of evening wear to a more sober suit as morning approached during the 24-hour race. Writes reports for an American magazine, takes today's racing at face value and refuses to harp back to when he was a highly respected stalwart of the scene; one just doesn't do that sort of thing.



PROFESSOR SYDNEY WATKINS ▶

The top medical man at every Grand Prix. Has more than enough to do in his capacity as chief of neuro surgery at The London Hospital and founding member of The Independent Hospital, yet devotes time to ensuring that the high medical track-side standards – largely instigated by 'The Prof' ten years ago – are maintained. He will deal with anything from a cut finger to brain surgery and is not afraid to wade into the middle of a major accident and administer his considerable skills. Superb laconic style to accompany the ever-present cigar. If he had his way, he would happily perform an ego by-pass operation on one or two of his racing driver clients.

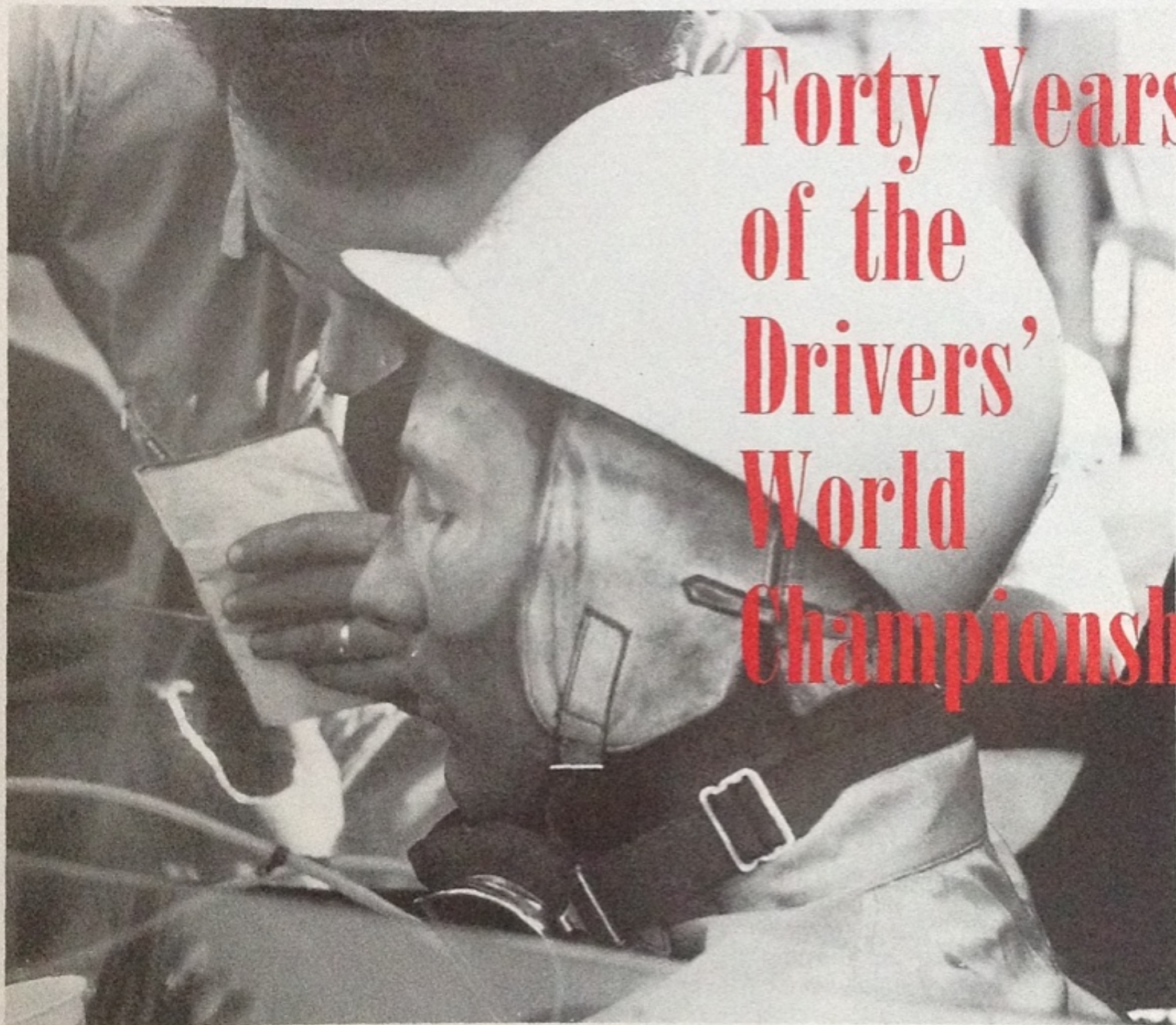


◀ TOM WHEATCROFT

A twinkly-eyed builder from Leicester who believes in calling a spade a ruddy shovel. Amassed a small fortune in the '50s and '60s, and ploughed most of it into his passion for motor racing. Bought the defunct track at Donington and built a museum to house his splendid collection of single-seater racing cars. Opened a revised circuit in 1977 and, ten years later, won the right to hold the British round of the World Motorcycle Championship. But his ambition is to see a return of Grand Prix motor racing to Donington Park for the first time since 1938. Despite the abrupt cancellation of the non-championship race scheduled for Easter Monday, the likeable Wheatcroft is still determined to translate that cherished dream into a reality. ■

Celebration:

Stirling Moss, one of the world's greatest drivers, who was never crowned World Champion.



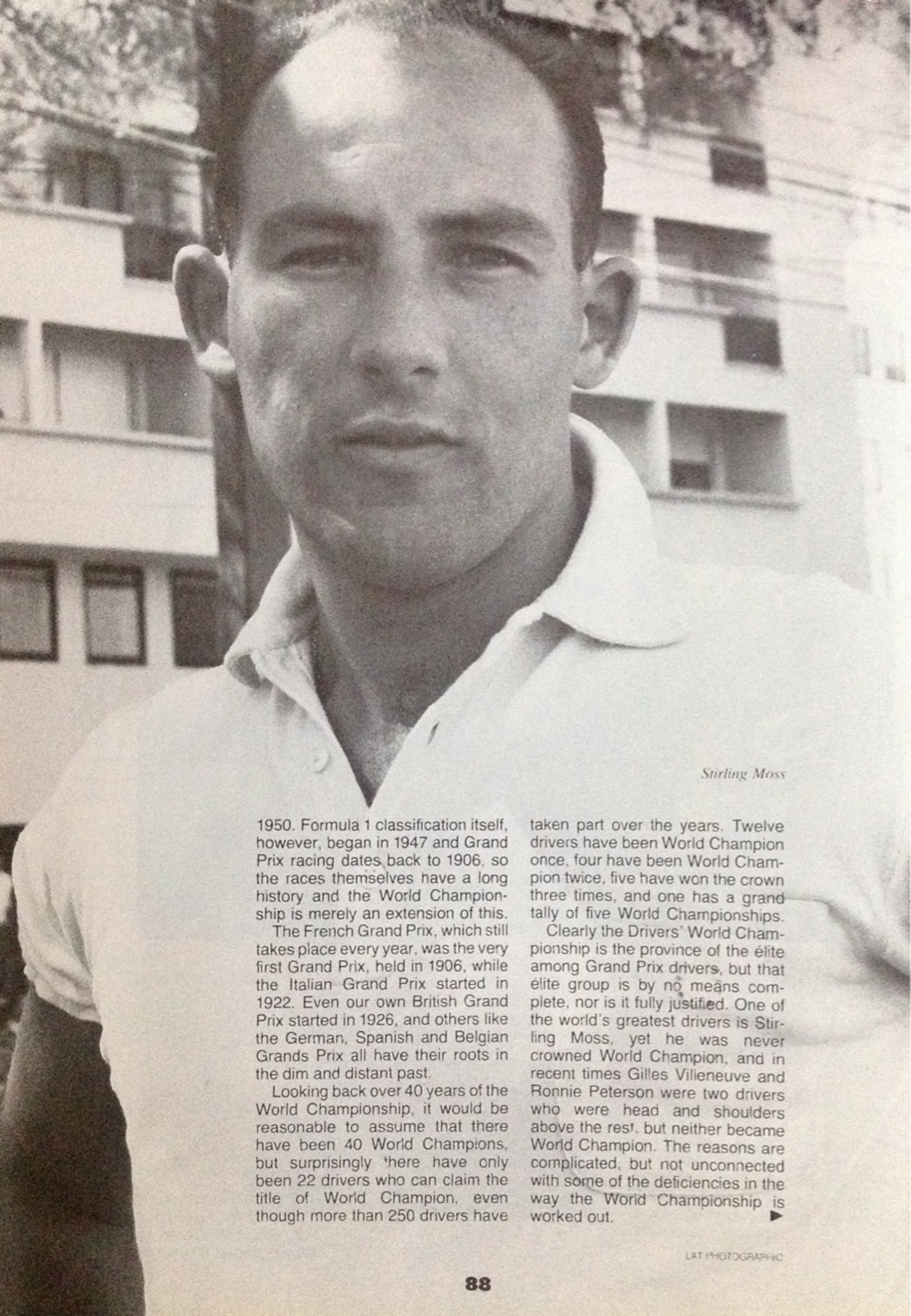
Forty Years of the Drivers' World Championship



Stirling Moss at the French Grand Prix in 1956.

Denis Jenkinson takes a nostalgic look back over 40 years of the Drivers' World Championship.

The Drivers' World Championship for Formula 1 races, or Grand Prix races as they were known, began 40 years ago in ►



Stirling Moss

1950. Formula 1 classification itself, however, began in 1947 and Grand Prix racing dates back to 1906, so the races themselves have a long history and the World Championship is merely an extension of this.

The French Grand Prix, which still takes place every year, was the very first Grand Prix, held in 1906, while the Italian Grand Prix started in 1922. Even our own British Grand Prix started in 1926, and others like the German, Spanish and Belgian Grands Prix all have their roots in the dim and distant past.

Looking back over 40 years of the World Championship, it would be reasonable to assume that there have been 40 World Champions, but surprisingly there have only been 22 drivers who can claim the title of World Champion, even though more than 250 drivers have

taken part over the years. Twelve drivers have been World Champion once, four have been World Champion twice, five have won the crown three times, and one has a grand tally of five World Championships.

Clearly the Drivers' World Championship is the province of the élite among Grand Prix drivers, but that élite group is by no means complete, nor is it fully justified. One of the world's greatest drivers is Stirling Moss, yet he was never crowned World Champion, and in recent times Gilles Villeneuve and Ronnie Peterson were two drivers who were head and shoulders above the rest, but neither became World Champion. The reasons are complicated, but not unconnected with some of the deficiencies in the way the World Championship is worked out. ►



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Farina, the acknowledged master of the art of high-speed driving, after winning the 1950 British Grand Prix (above) and in his winning Alfa Romeo (below).

It is not just a case of winning, although in the very unlikely event of a driver winning all the races in one season, nothing could prevent him from being World Champion. However, rather than simply winning, the Championship is decided on points scored from first to sixth finishing position, so it is possible — and indeed it has happened — that a consistent driver can win the title by amassing points rather than by winning races. It is a most unsatisfactory situation for those who believe that 'winning is the name of the game', and in the list of those who have only once been World Champion there are some who achieved their crown by this method.

Such drivers do not make for good racing as they tend to drive carefully, calculating that a third or fourth place will be good enough. Drivers for whom a victory is only just good enough provide better entertainment. To see a driver who has won four races in one season being beaten to the Championship by a driver who had only scored one victory, but has amassed points with second, third or even fourth places,

really is most unsatisfactory.

In 1950, the first year of the Championship, most of the drivers had been in Grand Prix racing for many years and it was fitting that the first World Champion was Dr Giuseppe Farina. He had driven in Grand Prix races since 1935 and by the time of the introduction of the World Championship he was the widely acknowledged master of the art of high-speed driving.

The man from the Argentine, Juan Manuel Fangio was the next Champion after many hard-fought

races, and was an undisputed aspirant for Championship honours. The 1952 and 1953 champion, Alberto Ascari, was also beyond dispute, winning six races in the first year and five in the second. There were then four consecutive years when Fangio was World Champion, in spite of increasing opposition from younger drivers. He won with Mercedes-Benz, Ferrari and Maserati, clearly being capable of winning races almost regardless of what make of car he was driving.

So dominant was Fangio's ►





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The hard-driving Mike Hawthorn, Britain's first World Champion, in 1958 (above) and in 1957 at Aintree (below).

ability in those four years between 1954 and 1957, that nobody was too concerned about who was second, third, or fourth in the Championship. When he retired he left the way open for all those young men who had been chasing him in vain, of which Stirling Moss appeared to be the natural successor. This, however, was not to be.

The 1958 Championship was decided at the very last race and Stirling's close challenger was the hard-driving Mike Hawthorn. It was all a matter of points, even though Stirling had won three races and Mike had only won one. If Stirling won the last race, then Mike had only to finish second to win the Championship on points; if he was third then Stirling would be Champion. The race was in Casablanca at the very end of the season and Moss was perfect, leading from start to finish with nobody able to get near him. Mike spent most of the race in third place, with his team-mate in second place, but towards the end, obeying pits signals, Phil Hill let Mike go by into second place and become World Champion. No one begrudged Mike his Championship, but it was a most unsatisfactory res-

ult, with the second place driver in the Championship winning four races, and the Champion only winning one.

Up until this point, the Championship had seemed reasonable enough, with the winners being natural race winners, but 1958 put the validity of the Championship into some doubt. Since then it has fluctuated between worthy seasons and seasons in which there should not have been a World Champion title awarded at all.

When Jimmy Clark was Champion in 1963 he had won a total of seven races, Jackie Stewart won two of his Championship years with six races each year and in 1978 Mario Andretti was Champion with six wins, but the previous year he was beaten to the Championship even though he won more races than anyone else. In 1984 Alain Prost lost the Championship to Niki Lauda, even though he won seven races to Lauda's five; all a matter of 'points gathering' rather than winning. In 1987 Nigel Mansell won six races but was beaten by Nelson Piquet who only won three races, and so it goes on, with the 40th year seeing Alain Prost World Champion



with four race victories, and Ayrton Senna 'runner-up' with six. It does tend to question why anyone bothers to actually win races, although 1988 was a good season, resulting in Ayrton Senna as World Champion with eight victories, hard pressed by the 'runner-up' Alain Prost with seven victories.

Throughout these 40 years there have been some memorable World Champions and some easily forgettable ones. The Championship seems to have stood the test of time, but it has done so in spite of its deficiencies. There have been many minor alterations to the scoring system but none of them have

conclusively solved all the problems and for most of the drivers, being sixth in the World Championship is very important for their ego. As there have only been 22 World Cham-



pions of Formula 1 in 40 years, there are an enormous number of egos that need to be satisfied!

Looking through the list of World Champions, some interesting aspects appear, in particular those drivers with the ability to stay at the top, even when they are not World Champion. Very few drivers have scored consecutive Championships, Fangio being outstanding with his four in a row, but Ascari scored in 1952/53, Jack Brabham in 1959/60 and Alain Prost in 1985/86.

A further interesting trait of Champions is the pattern of wins. Fangio won his first Championship, then missed for two years before winning it again. Brabham won his consecutive pair, then missed for five years before winning the Championship again. Graham Hill won it in 1962 and then again in 1968 while Nelson Piquet had a gap of three years between his second and third Championships and Niki Lauda had a gap of six years between his second and third. All this indicates that these drivers were natural winners throughout their racing life.

Of the 12 drivers who only won the Championship once, most of them come under the heading of 'flash-in-the-pan' or plain lucky, although Jochen Rindt, the 1970 World Champion, was unfortunately killed before the end of his Championship season, therefore claiming the

rather unhappy distinction of being the only posthumous World Champion; he would undoubtedly have gone on to win another Championship crown.

On a purely national score it is ironic that France, who started the whole scene of Grand Prix racing in 1906, have only had one World Champion, while New Zealand, Finland and South Africa who are all relatively new to the sport, have also had one World Champion apiece. Strangely, Argentina, who produced the most successful World Champion of them all, had only that one, and Italy, which is the acknowledged hot-bed of motor racing enthusiasm, only had two World Champions, and both in the first few years of the Championship.

Top of the list is England, with four World Champions, yet England's acknowledged finest all-round racing driver was never World Champion. By contrast, Scotland has produced two very worthy World Champions, in Jimmy Clark and Jackie Stewart, but we have yet to see a World Champion from Ireland or Wales. Australia, New Zealand and South Africa have all been in the scene, Australia's Jack Brabham having the added distinction of being the only man to win the Championship in a car of his own manufacturer and carrying his own name.

The United States of America, for all its size, has only produced two World Champions, but it is not surprising when you consider that 90 per cent of the racing in the United States is of a national nature on oval speedways. In contrast, Austria, a

relatively tiny country, has produced two World Champions, one of whom is Niki Lauda, with three titles to his name.

Possibly the most interesting fact concerning the question of nationalities and the World Championship is Brazil, from where three World Champions have appeared. Emerson Fittipaldi was the youngest World Champion to date, Nelson Piquet was the 'man of the 1980s' with three Championships, and Ayrton Senna won his single Championship with eight wins. In Formula 1 racing, Brazil can certainly be called 'an emergent nation'.

We are now embarking on another series of 16 races with the aim of crowning another World Champion; and hopefully it will be won by the driver who wins the most races. But it is important always to bear in mind that the rules allow anyone to be World Champion, providing he starts in the Grand Prix races. If the majority of the field of the permitted 26 drivers for each race had accidents or mechanical retirement, then an unknown driver from the back of the grid could find himself World Champion for 1990! This is highly unlikely, but rest assured that whoever does become 1990 Champion will be someone who is regularly at, or near, the front of the action.

The only drivers who will never be World Champion are those who never get through qualifying, so never find themselves on the starting grid. You don't have to be on the front of the starting grid to become World Champion, but it helps. ■



Niki Lauda, the 1984 World Champion (above and top).

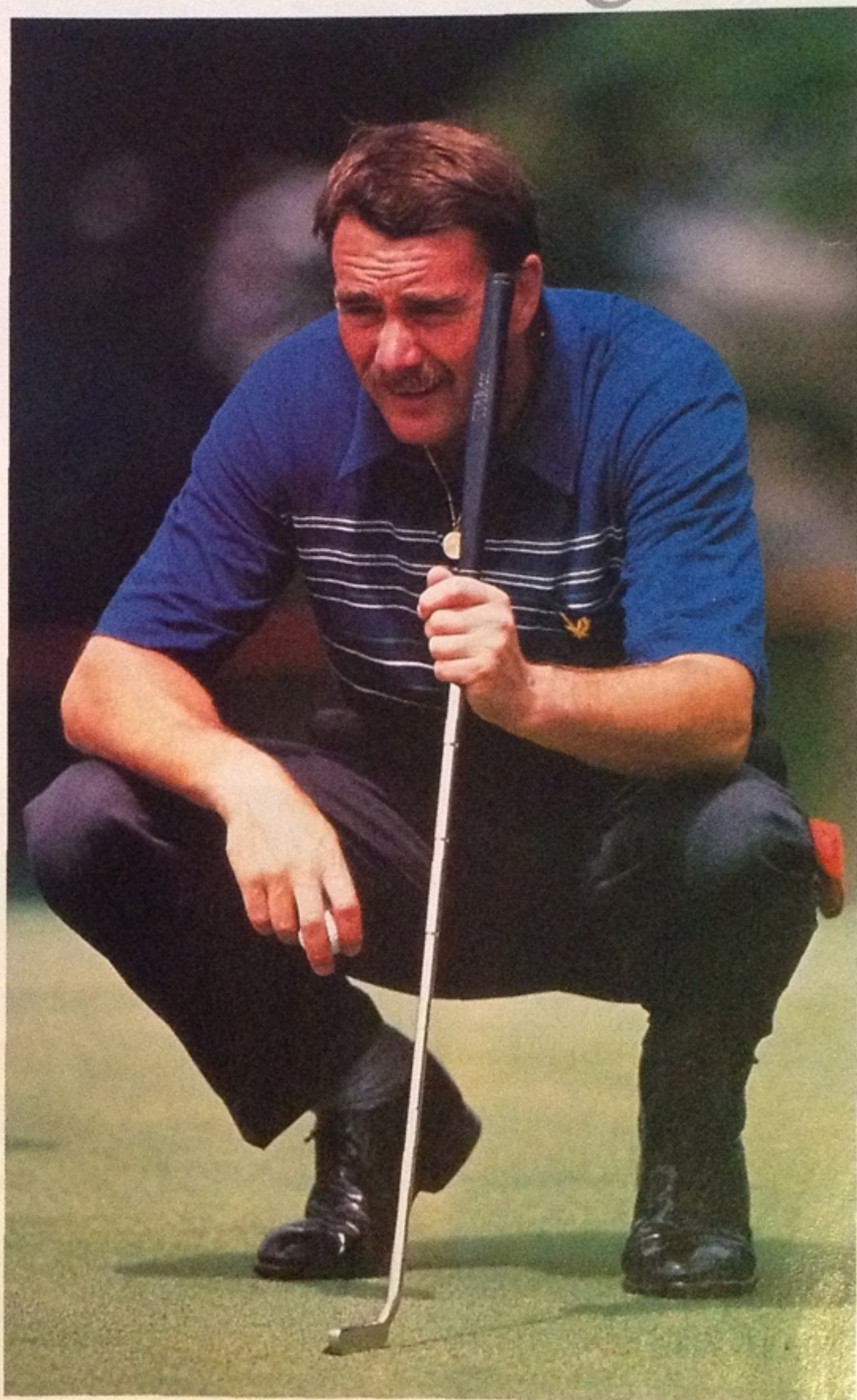
Drivers Off-duty

Formula 1 motor racing is both physically punishing and extremely competitive. Alan Henry takes a look at how some of the world's top drivers choose to unwind.

The casual observer might be forgiven for thinking that Grand Prix drivers have a pretty privileged and relaxing lifestyle; I mean, 16 weekends' work a year doesn't look particularly taxing. Lots of luxury hotels in sun-drenched corners of the world. Money and popular acclaim. And, after all, they're not doing anything very stressful are they? Just sitting behind a steering wheel, pressing a few pedals . . .

Look a little closer, however, and you will see that their life is not quite like that. Although most of them are thoroughly addicted to their work, once the season gets underway,

Nigel Mansell competing in the 1988 Australian Open.





Jonathan Palmer enjoys commuting by helicopter.



LAT PHOTOGRAPHIC

Riccardo Patrese, an accomplished tennis player.

spare time is pretty much at a premium.

Away from the intense concentration at the races, extensive test programmes for their teams and promotional obligations to sponsors tend to chip away at their time to the point where there is precious little left for extra-curricular activities. Moreover, theirs is a physically punishing, exhausting and overwhelmingly competitive sport, so many of them choose off-track pastimes which enable them to balance the necessity of keeping fit with the need psychologically to unwind.

There are a few lucky souls among them who manage to keep tolerably fit without doing much in the way of training or preparation. Triple World Champion Nelson Piquet, for example, once listed his favourite hobby as 'sleeping'. Keke Rosberg, World Champion in 1982, breezed through his Formula 1 career on a diet of cigarettes and black coffee, maintaining that the only real training for driving a Grand Prix car was driving a Grand Prix car. Even when he went jogging, he would slip a pack of Marlboro into his track suit, and take several 'breathers' en route!

All drivers, of course, are overwhelmingly competitive, with the result that most tend to choose sports in which they can beat ►



ALLSPORT/PASCAL RONDEAU

Nicola Larini and his 'one-armed bandit'.

ally got onto the scoreboard, beating, I think, 34 professionals on the first day. I came down to reality on the second day, of course, but it was very satisfying.

'I can tell anybody who plays amateur golf that an Open Championship course is a tough track, about a thousand yards longer – in total. All the par 4s are around 440 yards.'

Mansell now plays off a handicap



ALLSPORT/VANDYSTADT

Ayrton Senna with one of his radio-controlled planes.

their opposition in a clear-cut manner. Ferrari ace Nigel Mansell, for example, was first steered towards taking up golf after he broke his neck in a Formula Ford accident in 1977 and could do little more than walk when he was released from hospital. Since then, he admits he has become almost as obsessive about chasing that little white ball as he has over his race driving.

'I think I now belong to ten or more clubs around the world, as well as being President of the Pine Cliffs Golf and Country Club in the Algarve,' he admits. 'I'm presently life member of two or three clubs on the Isle of Man and have also joined one near Maranello, the Ferrari team's home.'

Nigel's enthusiasm for the game led to his being invited to contest the 1988 Australian Open, an event also contested by his close friend Greg Norman who has attended several Grands Prix throughout the world since the two men got to know each other.

'That was a real eye-opener, a



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Riccardo Patrese's collection of German Marklin scale models.

completely new dimension,' Mansell confesses. 'Fortunately I played reasonably well. I shot five over par on the first day, a 77. For the first five holes I was one under par and actu-

of four, having played off two in recent years, which has been a hard challenge. He admits that he would like to get down to five or six. 'If I could, I reckon I would be incredibly



ALLSPORT/WANDYSTADT

Michele Alboreto and friend on the snowy slopes.

dangerous,' he says with some satisfaction. It wouldn't surprise any of his fans if, when he finally retires from the cockpit, he spends a couple of years doing little else but playing Pro-Am golf tournaments throughout the world.

Alain Prost's obsession with golf extends to part-ownership of a course within a country club complex near Dijon, while a more recent convert to golf is Lotus team leader Derek Warwick. 'If you are talking

about relaxing,' says Derek, 'then my favourite pastime away from motor racing has become golf. After a Grand Prix, I think a driver tends to hit an all-time psychological low, whether or not they have had a good weekend. The Monday or Tuesday after a race had become a difficult time for me – or, more precisely, for my wife Rhonda – because I would be very down. Now, when I get home after a race, I will always go and play golf.

'It enables me to lose myself for six hours, allows me to unwind and brings me back to sanity much quicker. That's good. Golf generally is my hobby, but I would say that running has become my sport. I run four or five times a week for ten kilometres. I love it, and it helps with my training. But I also do gym training which is a giant pain. I hate it!'

Jonathan Palmer, who spent three years with Tyrrell and is now test driver for the front-running Honda Marlboro McLaren team, qualified as a doctor before he even started out on a professional motor racing career and is all too aware of the strains and stresses to which a racing driver's body is subjected.

His favourite pastime, from the physical fitness viewpoint, is swimming. 'It is an excellent way of stretching the cardio-vascular system,' he explains, 'as well as exercising every muscle and joint in the body, without the sheer wear and tear that running, for example, involves.'

The balance, acuity and high levels of proprioception required to function as a top line racing driver are the same as those needed to shine in any other top-line sport where co-ordination and finesse are at a premium. Small wonder, then, that Alain Prost, Riccardo Patrese, Gerhard Berger and Nelson Piquet are all accomplished tennis players and skiers.

Jackie Stewart was precluded by his racing contracts from skiing because he suffered with brittle bones, but long before he rose to Formula 1 prominence he was a crack clay pigeon shot, only just losing out on a place in the 1962 British Olympic team. Even now at the age of 50, long after his retirement from the cockpit, he remains a dauntingly effective exponent of this challenging discipline.

Away from the rigours of physical exercise, however, some drivers have more specialised hobbies. Riccardo Patrese, for example, collects model trains. Not run-of-the-mill material, mind you, but precision scale models manufactured by the German Marklin company. The oldest item in his collection dates back to about 1910 and is regarded as an extremely valuable antique.

Ayrton Senna, McLaren team leader and World Champion in 1988, has a brand new British Aerospace 125 executive jet on order for delivery during the early summer ►



Thierry Boutsen and his wife, Patricia.



Thierry Boutsen, an accomplished skier.

ALL PHOTOGRAPHS ALLSPORT/VANDYSTADT

of 1990. Like many of his front-line colleagues, he has the financial wherewithal to free himself not only from the sardine-like conditions involved in fare-paying air travel, but

also from the vagaries of the airline timetables. He also flies himself – but only radio-controlled scale model aeroplanes!

'I got involved through a friend at

around the time of the 1985 British Grand Prix,' he explains, 'and I've become increasingly enthusiastic about them ever since. They have 10 or 20cc engines, running on special fuel, and although there are competitions in which you can enter them, I fly them purely for pleasure.'

Several drivers actually fly their own private jets, a path pioneered by triple World Champion Niki Lauda in the mid-1970s. Piquet is an accomplished pilot, as is Thierry Boutsen, while Martin Brundle and Jonathan Palmer delight in commuting round Britain in their Jet Ranger helicopters.

Of course, many of the drivers are passionate car enthusiasts, away from the controls of their Grand Prix machines, and relish the opportunity to own the world's most mouthwatering high performance machines. Both Michele Alboreto and Eddie Cheever have owned Ferrari GTOs, while the latest F40 has also, briefly, been in the possession of Nigel Mansell.

However, of all current Formula 1 drivers, perhaps the most unusual of off-track enthusiasms belongs to the promising young Italian Nicola Larini, this year driving for Ligier. He just loves gaming machines and ranks his own personal 'one-armed bandit' as the best wedding present he could have received!



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