#AUT05P0RT

ESSENTIAL F1 TESTING GUIDE

GET SET FOR F12018

Our experts on the BIG questions





MACH 2018 — Be part of it...



Be part of the UK's largest engineering and manufacturing event, with dedicated zones delivering quality sales leads, direct to your stand.



Key benefits of exhibiting include:

- Access to over 25,000 quality visitors from across UK manufacturing
- Gain valuable face-to-face time with buyers and specifiers with budget authority, looking to invest
- Meet new prospects and strengthen relationships with existing customers
- Showcase your latest products and services for engineering and manufacturing at a professional, business focused event
- Raise your profile, exhibiting alongside some of the largest names in UK manufacturing



To book your space at MACH 2018, please contact

the sales team: 0800 470 4690



Organised by the industry,

for the industry



Join in the conversation @MACHexhibition #MACH2018





F1's first questions will soon be answered

WHAT DOES FERRARI NEED TO DO TO DEFEAT

Mercedes? Can Honda avoid another pre-season testing disaster? Will Robert Kubica prove Williams was wrong?

With 11 days to go until Formula 1 testing begins, these are some of the key questions ahead of the new season. Ex-F1 driver and TV reporter Karun Chandhok helps us answer them — and many others — this week, while technical expert Gary Anderson provides behind-the-scenes insights into what really goes on in testing.

One of the interesting subplots to 2018 will be the progress of reigning F2 champion Charles Leclerc at Sauber. If all goes to plan, he could be sitting in a Ferrari next year, but — as Leclerc (above) tells us in his interview on page 30 — for now he has to focus on the job in hand, rather than what it could lead to.

The NASCAR Cup season properly kicks off this weekend with the fabled Daytona 500. Quite apart from the rise of new talent, there is also a fascinating battle between the manufacturers. Toyota currently rules the roost, Chevrolet has a new car, and Ford dominated the non-championship Daytona Clash last weekend. Making predictions in American motorsport's most popular series is even harder than usual.







COVER IMAGE Mark Sutton

COVER STORY

- 18 The big questions ahead of the F1 season
- 26 Under the skin of F1 testing
- 30 Charles Leclerc: Raikkonen's replacement?

PIT+PADDOCK

- 4 Controversy over Alonso-inspired change
- 6 IndyCar aeroscreen well received
- 10 Tordoff returns to BTCC...
- 12 ...while Wehrlein heads back to DTM
- 14 Fifth Column: Nigel Roebuck
- 16 In the paddock: Jack Cozens
- 17 Feedback: your letters

DAYTONA 500 PREVIEW

- 36 NASCAR's new age
- 40 Why Danica Patrick is saying farewell
- 42 Can Chevrolet's new car stop Toyota?

CLUB AUTOSPORT

- 55 Buurman in Mercedes for British GT
- 56 Lundqvist to BRDC F3 with Double R
- 58 Title-winning Ford RS500 up for sale
- 59 Club column: Stefan Mackley
- 60 UK racer's Daytona 24 Hours adventure

FINISHING STRAIGHT

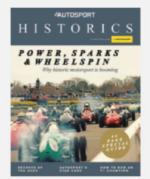
- 62 What's on this week
- 64 From the archive: 1958 British GP
- 66 Have-a-go hero: Will Power

AUTOSPORT SUBSCRIPTION OFFER

35 Six issues for £1 and a model Ferrari nosecone worth £115

FREE INSIDE

HISTORICS SUPPLEMENT



We talk to the aces of historic racing, pick out the star cars, and find out how to run a title-winning Formula 1 car in our newest supplement.

DEBATE - CONTROVERSY - OPINION



WORLDENDURANCECHAMPIONSHIP

Why Alonso Fuji date

THE CLAMOUR FROM MULTIPLE DRIVERS resulted in the date of the Fuji round of the 2018–19 World Endurance Championship being changed to avoid a clash with the Petit Le Mans IMSA SportsCar enduro. Now a push from a single manufacturer has resulted in the event being switched back to its original October 14 slot for the benefit of just one driver, who goes by the name of Fernando Alonso.

The volte-face by the WEC at the behest of Toyota — which owns the Fuji Speedway — to avoid a conflict with the US Grand Prix and allow Alonso to contest all five 2018 dates of the superseason has inevitably sparked controversy. More so because it means that the Japanese WEC race falls on the same day as the Super GT round at Autopolis, which had switched from October 21 after Fuji was moved to that date in the original reshuffle last September. However, there was speculation that the Autopolis race will be moved back a week as Autosport closed for press.

There has been no shortage of drivers with deals to race in both the WEC and the long-distance rounds of the IMSA SportsCar Championship who have gone public with their displeasure. Ganassi Ford WEC driver Olivier Pla, who was due to race for the Extreme Speed Motorsports prototype squad in the four IMSA enduros that make up the North American Endurance Cup, was among those who were critical of the about-turn by the series.

"I'm not happy, but I am not the only one," said the Frenchman. "When there was a clash on the first version of the calendar, we went to the WEC and asked them to change it. When they did, I went back to them and thanked them.

"But to change it after the IMSA season has started, after we've all signed deals, isn't nice and isn't fair. I understand that they have done it for Alonso, but they have put a lot of drivers, maybe as many as 10, in a difficult situation."

Others affected by the switch include WEC regulars Harry Tincknell, Nicolas Lapierre and Gianmaria Bruni. Toyota will also be affected if there is no change of the Autopolis Super GT date. Both Kazuki Nakajima and Kamui Kobayashi are racing in Super GT in Japan this year with the TOM'S and SARD Lexus teams respectively.

Even Jenson Button, who will be racing in Super GT this season with the Kunimitsu Honda squad, weighed into the debate. "It's a shame that a race is changed for one driver when the change hurts so many other drivers who have contracts in place, but also other categories like IMSA and Super GT where a clash will hurt their fan base," he tweeted.

The second switch of the date of the Fuji race has been staunchly defended by WEC boss Gerard Neveu. He said that his first responsibility was to "protect the interests of the championship".

"How can you imagine having someone like



change had to happen

"Fernando

for the title.

wants to fight

This is logical"

Alonso in your paddock, racing for Toyota, and saying that we are going to Japan without him?" explained Neveu. "Fernando wants to fight for the world championship; he cannot miss one race. It was logical. There was no question of [not having] Alonso in Japan.

"When you take a decision like this, you know always some people will be happy and some will be unhappy. It made sense for us to do it and I am very sorry for drivers who have a clash."

Neveu insisted that IMSA understood why the WEC had gone back on its original decision.

"They were informed several weeks ago and fully understand," he said. "Because they had Alonso at the Daytona 24 Hours [driving for United Autosports], they have a good estimation of the added value of a driver like this in your paddock."

Neveu said that he hoped that Petit could move from its October 13 slot to avoid the Fuji clash. The 10-hour Road Atlanta enduro falls a week later than last year, and there is a five-week gap after the preceding Laguna Seca IMSA round.

But IMSA ruled out any switch at this late stage. "The WEC did ask IMSA to change the date of this year's Motul Petit Le Mans and IMSA did respectfully consider this request and explored doing so," said a spokesman.

"Due to some factors such as television coverage, IMSA's year-end banquet on the same weekend, and competitor and manufacturer logistics already being in place, it was determined there were too many hurdles to overcome to move the event."

That is a matter-of-fact statement from an organisation with long-term links to WEC promoter the Automobile Club de l'Ouest. It perhaps hints at displeasure with the WEC's U-turn to accommodate the needs of Toyota

and Alonso at a time when the ACO is trying to deepen those links.

The ACO and the FIA are working on a new set of LMP1 rules to come into force for the 2020-21 WEC winter season. The WEC promoter is pushing for IMSA to adopt these rules at the end of the

lifecycle of its existing prototype class in '22.

The WEC was caught between a rock and a hard place over the Fuji date. It has effectively favoured appeasing the only manufacturer left in LMP1 over fostering its relationship with its North American partner.

It might smack of short-termism, but Alonso offers a massive PR punch for the series in a rebuilding phase. It couldn't allow him to miss his employer's home race.

LEMANS 24 HOURS

Porsche Curves get more runoff

THE PORSCHE CURVES ON THE LE MANS 24 Hours circuit are losing their unique challenge, argue the drivers. But the reply from race organiser the Automobile Club de l'Ouest is that at least this classic sequence is still there in unfettered form.

The latest round of safety changes in the famous section of the 8.47-mile Circuit de la Sarthe, which has involved moving the walls back and installing asphalt runoff on the inside of the final right-hander (below), can only fuel what is an ongoing debate.

The drivers argue that the enclosed nature of the track, with walls close by on either side, was what made the Porsche Curves a sequence in which the best could excel. Pushing back those walls and creating bigger and bigger runoff areas has removed the challenge, they say.

Three-time Le Mans winner Andre Lotterer suggests the increase in runoff on the outside of the final right, the place where Loic Duval hit the barriers in his monster 2014 accident, ahead of last year's 24 Hours made driving the Porsche Curves "a little less thrilling". He suggested that a continuation of the trend would result in it becoming like "driving through a parking lot with nothing around you".

The trend has continued with the latest wave of safety improvements, which are already in place. But the ACO argues that there is no alternative.

"In the past few years, as we have worked on safety in the Porsche Curves, the number of accidents has reduced drastically," said sporting director Vincent Beaumesnil. "We have now created a big runoff on the inside, which we believe is very sensible even if it has come at a big financial cost."

The important thing, he insisted, was not to alter the layout of the track, perhaps with the addition of a chicane. Changes would probably have been forced upon the ACO had there been another accident of the same proportions as Duval's. It's proactive stance on safety should ensure the future of one of the great series of corners in the world.

GARY WATKINS





INDVCARSERIES

No haloes here: IndyCar aeroscreen hits track

"NO GAME-STOPPERS" WAS THE PHRASE used by Scott Dixon and echoed by IndyCar director of engineering and safety Jeff Horton after the first test of IndyCar's aeroscreen, which has now become 'windscreen' in IndyCar parlance.

Following simulator tests by 2014 Indy Lights champion Gabby Chaves, the device was trialled on track for the first time at the newly renamed ISM Raceway in Phoenix last Thursday. The #9 Chip Ganassi Racing Dallara-Honda was the first car to have it fitted and Dixon lapped the 1.022-mile course in 4.30pm sunlight, then dusk and finally darkness, trying to replicate the various lighting conditions that will be encountered by drivers once — if — the screen becomes standard.

Dixon said the PPG-built device — made of a proprietary Opticor advanced-transparency material as used in its production of fighter-jet canopies — felt "different" and there was a very slight magnification but no distortion. In fact the four-time champion was generally positive, but noted the two major side-effects that couldn't have been confirmed in a sim.

"The weirdest thing is how quiet it is," he said. "You have no buffeting, the car feels very smooth, it feels like you're in a luxury car. But... we need some cooling, just because you get no airflow through the car. Kudos to [IndyCar and PPG], but there's definitely things that we can improve on and make better."

Horton agreed, telling Autosport: "The screen prevents the airflow hitting the helmet, so it was really quiet, but it could get very hot in the cockpit. We understood that from the CFD studies we'd done — and we also understand there will be helmet buffeting at some of the faster tracks like Indy because there's no air on the face of the helmet. So we may have to pump some air into the cockpit to fix that. This is a prototype screen so PPG hasn't created a final mould for it yet. Scott picked out a little area of focus change, really minor, and we are sure that will go away when PPG make the final piece for us.

Horton told Autosport he hopes to run a screen-equipped car in a one-off session on a street track this year. He also said that tear-offs will be applied to the screen to deal with debris-induced abrasions, and that rain-repellent

TOP TEST SPEEDS			
	DRIVER	TIME	
1	Takuma Sato (RLLR)	189.855mph	
2	Will Power (Penske)	189.769mph	
3	Tony Kanaan (Foyt)	189.632mph	
4	Josef Newgarden (Penske)	189.399mph	
5	Graham Rahal (RLLR)	189.090mph	
6	Marco Andretti (Andretti)	189.008mph	
7	Alexander Rossi (Andretti)	188.940mph	
8	Scott Dixon (Ganassi)	188.530mph	
9	Simon Pagenaud (Penske)	188.430mph	
10	Ryan Hunter-Reay (Andretti)	188.331mph	

coatings and speed will disperse rain water.

The other major talking point at the two-day Open Test was how the cars behaved with Dallara's new spec aerokit. Manufacturer testing had been carried out at ISM last autumn, by Team Penske and Ed Carpenter Racing for Chevrolet, and by Schmidt Peterson Motorsports and Ganassi for Honda, but for the majority this was the first time with the new kit on a short oval.

Despite this, the only incidents of note were a spin and wall-nudge for Dixon and four(!) wall-brushes by AJ Foyt Racing rookie Matheus Leist. Thanks to the vast reduction in downforce, drivers are having to lift the throttle and change down a gear at Turn 1, even when running alone, and on older tyres were lifting for Turn 3.

Marco Andretti, who was fastest of the Andretti Autosport quartet, said: "I really struggled [before]. You were either slammed with downforce or it snapped. With this thing, it's on the edge the entire time but there's some predictability you get from it, you feel it more. If I had to pick one, I would prefer this."

But the most eloquent demonstration of how different these cars are to drive came in bald figures. Chris Simmons, Dixon's race engineer, revealed that in qualifying at Phoenix in 2017, his driver hit 197.2mph on the straights, with a minimum apex speed of 185.5. Last Friday, on a qualifying simulation (low fuel, new tyres, no draft), Dixon was reaching 196 on the straights but had to accelerate from a turn speed of 175.5.

DAVID MALSHER

WORLDENDURANCE CHAMPIONSHIP

Rowland joins Manor Ginetta

Yorkshire LMP1 'superteam' gets added strength and two-car line-up as closer tie-up is forged

he Manor team, which has recruited one of Britain's top single-seater talents in the form of Formula 2 star Oliver Rowland, was able to expand its LMP1 assault on the 2018-19 World Endurance Championship superseason after forging closer links with Ginetta. The move happened after the plans of a second, undisclosed privateer squad that had been in the frame to run the British constructor's G60-LT-P1 (below) fell by the wayside.

The revised deal means that Ginetta test driver Charlie Robertson will race one of the Mecachrome-engined contenders for Manor, which is entered for the superseason under the CEFC TRSM Racing banner. He was confirmed along with Rowland last Friday, the day of the unveiling of the entry lists for the WEC and the Le Mans 24 Hours.

Manor sporting director Graeme Lowdon said: "Because we will be the only customer, we will now be able to work with Ginetta in a different way. It allowed us to formulate a much closer relationship. We were always aiming to go with two cars, but this allowed everything to fall into place. We're in a position to run Charlie and have Ginetta's test driver embedded in the programme. That will obviously help in terms of feedback, which will help us and help them. It's a win-win situation for everybody."

Lowdon revealed that he started out with a 'long list' of 37 drivers, which is understood to have included the likes of Robin Frijns, for its graduation to the P1 ranks in the WEC after two seasons in LMP2. Rowland, the 2011 McLaren Autosport BRDC Award winner, was near the top, he said.

"We've been watching Oliver for a while," explained Lowdon. "Charles Leclerc won the F2 championship and quite rightly deserves to be in Formula 1, but Oliver was one of the drivers who took the racing to him. He doesn't have endurance experience, but he clearly knows how to race."

Frijns added that his talks with "a privateer LMP1 team" were "very serious. I was looking at LMP1 seats. And suddenly everything changes when Audi calls [for the DTM]. I'm very glad I'm driving DTM but I would love to drive LMP1 as well — it's F1 with a cover on."

Further drivers for the two Manor Ginettas will be announced "in the next few weeks", said Lowdon, as the line-ups in the eight-strong privateer P1 field begin to firm up.

Rebellion has formulated its squads. Andre Lotterer and Neel Jani will continue their partnership from Porsche and will be joined in the #1 Rebellion-Gibson R-13 by Bruno Senna. Mathias Beche, Thomas Laurent and Gustavo Menezes will be teamed in the sister car.

Russian entrant SMP Racing has confirmed that Vitaly Petrov and Mikhail Aleshin, who it had already been announced would spearhead winter testing with its new Dallara-built BRE Engineering BRE-AER BR1, will lead the line in its two entries to be run by ART Grand Prix.

Briton Oliver Webb will continue for a third season with ByKolles.

GARY WATKINS AND SCOTT MITCHELL





SUPERFORMULA/SUPERGT

ROSSITER HOPS INTO LOTTERER'S SHOES IN JAPAN

ANDRE LOTTERER'S decision to call time on his Japanese career has at last given James Rossiter the belated chance he undoubtedly deserves in high-level single-seater racing.

Rossiter's Super
Formula seat with
TOM'S was confirmed
at last week's annual
announcement of
Toyota's global
motorsport programme.
It means that the
34-year-old will partner
Kazuki Nakajima, a
driver he knows well
from sharing a car
with him in Super GT.

Rossiter (above) spent 2014-16 racing in SF with Toyota's second-string Kondo Racing team, but dropped out of the series last year. That was the latest single-seater blow for a driver who rivalled Lewis Hamilton in Formula Renault UK, acted as Formula 1 test driver for BAR, Honda and Super Aguri, and then saw his IndyCar hopes fall through.

The Toyota reshuffle does mean that Rossiter is out of the Super GT ranks, with top talent Yuhi Sekiguchi shuffled over from the Bandoh Lexus LC500 into the #36 TOM'S car with Nakajima, and reigning champion team-mates Nick Cassidy and Ryo Hirakawa running as #1.

Hirakawa's reward for his Super GT title is a return to the SF ranks. He joins the Team Impul squad of Japanese racing legend Kazuyoshi Hoshino alongside Sekiguchi, while Jann Mardenborough is dropped, but keeps his seat in Impul's Super GT Nissan attack.

Kobayashi and Rosenqvist in GT

There are two highprofile recruits to the Toyota/Lexus Super GT assault in the forms of Felix 'Mr Versatile' Rosenqvist and ex-F1 racer Kamui Kobayashi. Rosenqvist has given up on his Team Le Mans SF seat after just one season - in which he finished third in the points - but makes his Super GT debut in the same team's Lexus, replacing Andrea Caldarelli, who has cut his links with Toyota, which backed him since his earliest days in car racing.

Kobayashi, who has never done a full season in Super GT, replaces ex-GP2 racer Kohei Hirate alongside 2016 champ Heikki Kovalainen in the SARD Lexus. Kobayashi also keeps his KCMG drive in SF.

Nissan also launched its Super GT programme (the manufacturer does not compete in SF). Daiki Sasaki replaces Hironobu Yasuda at Impul alongside Mardenborough, while Sasaki's old seat at Kondo Racing alongside Joao Paulo de Oliveira is taken by reigning Japanese F3 champion Mitsunori Takaboshi.

MARCUS SIMMONS





BARR'S EUROPEA

REECE BARR IS SET TO MAKE A BIG

impact on the European motorsport stage this year, having sealed a deal to join the TCR Europe Series with leading team Target Competition.

The 17-year-old Irishman is the first driver confirmed for Target's new era running

Hyundai machinery in Europe this season, following many successful seasons with Honda Civics — a spell that landed the team back-to-back TCR Germany championships.

Barr had originally agreed to join the Target team to contest the German-based ADAC TCR category, before switching his attentions to Europe at the wheel of the new Hyundai.

"This year will be massive for me, but I feel so ready for it," says Barr. "I was all set to do the ADAC TCR class, but when Target were approached by Hyundai and given the chance to join the European Series it was something I just couldn't turn down.

Reece's rise to the TCR Europe stage

Reece Barr has achieved a lot in his relatively short career so far, having progressed through Irish karting to join a fully-fledged European racing category.

A multiple karting champion in his native Ireland, with successes at both Cadet and Mini Max level, Barr moved into tin-top racing after deciding it was a better option than pursuing a single-seater career.

Having tested both Formula 4 and BRDC British F3 machinery, Barr settled on the Mini Challenge JCW Championship for 2017. He made a single appearance at the end of 2016 to cap a testing programme, and proved a revelation in his maiden season in 2017. He led the championship after taking just four races to secure his maiden victory. Several podium appearances followed and Barr eventually finished as runner-up overall and the runaway Rookie Cup champion.

His performances brought him to the attention of triple FIA World Touring Car champion Andy Priaulx, who signed Barr to his APSM Driver Development Programme. Barr is also a member of the British Racing Drivers' Club Rising Stars programme.



"I've been building the relationship with Target over the winter, going to Italy to see the workshops a few times. They're an amazing team. Usually you get professional teams who are either all about the winning and pressure, and ones that are sometimes too relaxed. Target is the perfect blend of both — winning is the ultimate goal, but it's always achieved with a family atmosphere."

The deal means that Barr will move to a full European series for just his second full season of racing cars, after he finished as runner-up in the Mini Challenge's JCW Championship last year.

"It's a big move, but it doesn't change my preparation," adds Barr. "I was having to learn a lot of new tracks for the German class anyway, but the calendar for the European Series is full of real dream circuits like Barcelona, Monza, Hungaroring and Spa-Francorchamps.

"The new relationship with Hyundai is hugely exciting too. I've not tested the car yet but from all the data the team has seen — including feedback from the Hyundai factory drivers, who have tested and helped to develop the i30 N TCR — it's going to be one of the



strongest platforms out there this year."

Target Competition team owner Andreas Gummerer added: "We are really thankful for two successful years in the ADAC TCR Germany. The decision to switch to TCR Europe was taken upon driver requests and we are really happy to have Reece Barr on board for our new challenge.

"We began talking to Hyundai last year and we were impressed by the performance of the new i30 N TCR race car, and are confident that we will have a very competitive package this year."

What is TCR Europe?

There has been much change in the TCR landscape across the past 12 months, leading to a shuffle in the pecking order of the various championships.

With the FIA World Touring Car Championship – previously for TC1-spec machinery – ceasing at the end of 2017, the new FIA World Touring Car Cup will adopt TCR regulations to become the top tier of global touring car racing.

What was the TCR Internationa Series will now revert to running in Europe only, being renamed the TCR European Series. This sits as the second-tier category underneath the World Touring Car Cup. TCR Europe consists of seven

TCR Europe consists of seven rounds at world-class venues such as Spa, Hungaroring, Monza and Barcelona, with each round featuring a single qualifying session and two 25-minute races. The top 10 finishers for race one will be reversed on the grid for race two.

Various national-level TCR categories – such as the German, Benelux, Italian, Spanish, Portuguese, Russian and new UK variant – are designed to feed drivers into the European scene

2018 CALENDAR

W.	
DATE	EVENT
May 6	Paul Ricard F
May 21	Zandvoort NL
Jun 10	Spa-Francorchamps B
Jul 8	Hungaroring H
Aug 19	Assen NL
Sept 23	Monza I
Oct 21	Barcelona E





WORLD TOURING CAR CUP

MULLER OUT OF RETIREMENT TO JOIN BJORK IN '18

YVAN MULLER WILL make a sensational return to racing in 2018 after signing his team up for an assault on the new World Touring Car Cup.

The four-time world champion called time on his career at the end of 2016, at the same time as Citroen exited the WTCC, but made a one-off return in the final round of '17 to assist Thed Bjork's and Volvo's successful title bids.

Now Muller will race a Hyundai i30 N TCR alongside fellow WTCC champion Bjork in the world cup this year for Yvan Muller Racing.

"I had announced my sporting retirement at the end of 2016 and coming back as a full-time driver was not part of my initial plans, but it was necessary for me to see through this exciting project in the brand-new WTCR championship," said Muller.

Elsewhere, Honda works driver Tiago Monteiro has been announced as the first recruit for the Boutsen Ginion squad, which will run a pair of Civic FK8 Type R TCRs. Monteiro led the WTCC going into its three-month mid-season break last year, but was forced to miss the final four rounds of the season after a testing crash. The Portuguese recently returned to driving his road car, and will make his race comeback after a seven-month layoff.

The man who replaced Monteiro for three of those final four rounds, Esteban Guerrieri, has also sealed a WTCR drive. The Argentinian, an ex-Formula Renault 3.5 and Indy Lights frontrunner, was one of the stars of the 2017 WTCC season. He won two races in Campos Racing's venerable Chevrolet Cruze, before jumping into the factory Honda set-up to support Norbert Michelisz's title challenge.

Guerrieri will also drive a new-generation Civic, after agreeing to race for the Munnich Motorsport team that ran Rob Huff in a privateer Citroen in the WTCC last year.

Both Boutsen Ginion and Munnich will receive technical support from Honda partner JAS Motorsport, which operated the Japanese make's factory WTCC effort and built and developed both iterations of the TCR-spec Civic.

Leading TCR
International Series
squad Craft-Bamboo
Racing has announced
it will not join the WTCR
grid. Craft-Bamboo,
which won the teams'
TCR title in 2016 and ran
James Nash to second
overall that year, has not
ruled out re-evaluating
the world cup but will
compete in TCR Europe.

JACK COZENS

P16 OPINION

BRITISHTOURING CAR CHAMPIONSHIP

Tordoff makes BTCC return

The 2016 runner-up has been getting itchy feet for tin-tops. Now he's going to race a Motorbase Ford

ormer British Touring Car Championship runner-up Sam
Tordoff will return to the series this year at the wheel of
a Motorbase Performance Ford Focus.
The six-time BTCC winner, who missed out on the

The six-time BTCC winner, who missed out on the overall crown to Gordon Shedden by two points in 2016 while driving a BMW for WSR, switched to the British GT Championship last season to drive a Lamborghini Huracan, and took fourth in the final points.

Now the 28-year-old has returned to his old stomping ground, where he will drive a Gard-X backed car alongside Motorbase's two Shredded Wheat-liveried Focuses. "I needed a break from the BTCC to recharge myself after 2016," said Tordoff. "I enjoyed GT racing but found it hard to fit in with my schedule as a financial analyst at the JCT600 car-dealership group.

"I didn't even look at the BTCC, but then I started watching races later in the year. I got the itch to compete in it again. I tested a couple of cars [AmD Tuning Audi S3 and Power Maxed Racing Vauxhall Astra] over the winter and that relit the fire. I knew I wanted to come back because there is some unfinished business. To come that close to the title means there is only one goal for me in 2018: to win it outright. When I found out Motorbase's plan with the new RS, that was the final seal of approval I needed."

Team boss David Bartrum said that he was pleased that Tordoff will complete his three-strong line-up. "Sam stepped away from the BTCC at the peak of his career to go off and do something else, he's got that out of his system now and he's ready to come back and fight for the title," said Bartrum. "I'm very proud of the fact he's chosen Motorbase as the team to come back and carry on where he left off in 2016."

Meanwhile, former Independents Trophy winner James Nash returns to the BTCC after securing a deal to race for BTC Norlin in a Honda Civic Type R. Nash last competed in the BTCC in 2011, before concentrating on British GT, the World Touring Car Championship and TCR International. "Over the winter I've been looking at opportunities for 2018 and Norlin made me an offer I couldn't refuse," said the 32-year-old. "Their new Honda also attracted me as they have proved that they are one of the cars to beat."

Eurotech Racing has confirmed that Mini Challenge champion Brett Smith will stay on for his first full BTCC season. The 25-year-old took over the Civic midway through the 2017 campaign when his father, team owner Jeff, was badly injured in an accident during qualifying at Croft.





NASCAR Having spent much of the off-season unsure whether Ford could live with Toyota and the new Chevrolet in 2018, Brad Keselowski went from the back of the grid to win the NASCAR Cup Series' Daytona Clash in his Fusion. The Team Penske man moved from 17th to fourth in the opening laps, and jumped his rivals for the win during the early pitstops. Hendrick Motorsports' Alex Bowman, who has replaced the retired Dale Earnhardt Jr, later made it four Daytona 500 poles in a row for the Chevrolet team. The Joe Gibbs Racing Toyota of Denny Hamlin starts second, with the rest of the field set in Thursday's 'Duel' races. **Photograph by Thacker/LAT**

GLOBAL RALLYCROSS

Lydden gets final event of US-based rallycross

LYDDEN HILL HAS SECURED THE season finale for the US-based Global Rallycross Championship in October.

The popular Kent venue, the birthplace of rallycross in 1967, lost its World Rallycross Championship date to Silverstone for 2018, but will now stage the double-header climax for the GRC on October 27-28, and will be adapted to include a 70-foot table-top jump.

Circuit boss Pat Doran said: "I'm delighted to finally confirm Lydden Hill as the venue for the final round of the GRC. Lydden has been at the forefront of rallycross for more than 50 years and we've invested in the sport throughout that time. It's fitting therefore that the GRC's return to Europe is here, where rallycross fans will get the opportunity to see the best GRC has to offer, including the series' signature 70-foot table-top jump, on our purpose-built rallycross track."

The event, which does not clash with any WRX rounds, will be the GRC's first

visit to Europe since 2013, when it joined X Games events at Barcelona and Munich.

Former GRC Champion and World RX event winner Tanner Foust has twice won at the British circuit, in the European Rallycross Championship in 2012 and '13, and is expected to return for the new event alongside reigning GRC champion Scott Speed in the Volkswagen Andretti team.

Series boss Colin Dyne said: "Bringing GRC to Lydden Hill's historic venue makes perfect sense for the series' long-awaited return to Europe. Our teams and drivers are looking forward to battling it out for the championship on the circuit where the sport first began."

Lydden hosted the British round of the World Rallycross Championship from 2014 to last year. The venue will also continue to host its traditional two rounds of the British Rallycross Championship on Easter and August Bank Holiday Mondays this season.



FORMULA2

RUSSIAN TIME BACK AS FORTEC POSTPONES

FORMULA 2 HAS FINALISED A 20-car grid for 2018 following a pre-season entry shuffle.

Fortec Motorsports, which revealed last November that it would join F2 from the defunct Formula V8 3.5 series, will now postpone its entry for one year after reaching an agreement with championship boss Bruno Michel.

"We're not prepared to do it half-heartedly, we'd rather go out there and be strong," said Fortec team boss Richard Dutton. "We've been working with Bruno on it and between us we decided it would be better, rather than go out there and not look good, [to postpone the entry]. We've got all the right people to do it properly, we just didn't perhaps have the drivers with the budgets to do it properly, so we've shelved it for a year."

Fortec's decision to step back for a year has opened the door for reigning F2 champion squad Russian Time to carry on for a sixth successive season in GP2/F2, despite being absent from the original team-entry announcement. It will run 2017 runner-up Artem Markelov (below) for his fifth campaign, along with Honda protege Tadasuke Makino, who steps up from European Formula 3.

Joining Fortec on the F2 sidelines – albeit without a stated return date – is Racing Engineering. A second-tier stalwart since the inaugural GP2 season in 2005, the Spanish team switches to the European Le Mans series for this year, with Norman Nato listed as its first driver on the championship's entry list.

ALEX KALINAUCKAS





DTM

Wehrlein returns to DTM with Merc for one year

PASCAL WEHRLEIN WILL RETURN TO THE DTM with Mercedes for 2018, as he waits in a holding pattern for a potential single-seater comeback next year.

Wehrlein won the 2015 DTM title before moving into Formula 1 with Manor the following season, and switching to Sauber last year. The Mercedes junior could not be found a race seat in F1, but a return to the sport's pinnacle cannot be ruled out - and if that doesn't happen, he must be considered a favourite for the Stuttgart manufacturer's entry to Formula E in the 2019–20 season.

By then, of course, there will be no Mercedes DTM team for him to bide his time in, since the Three-Pointed Star is pulling out of the series at the end of this year.

With Robert Wickens jumping ship to IndyCar for this season and Maro Engel recently standing down to focus

on his FE programme with Venturi, that left two vacant DTM seats alongside Lucas Auer, Gary Paffett, Paul di Resta and Edoardo Mortara. Hard on the heels of the Wehrlein confirmation came the news that Daniel Juncadella, dropped from the DTM team for 2017, will join Wehrlein in making his return to the series.

Beyond 2018, it appears that the DTM is eyeing the GTE class in case the proposed tie-up with Japan's Super GT series falls through. "People are already talking about 'GTM' for fun," said Porsche GT boss Frank-Steffen Walliser. "A German championship with GT cars is something we can of course imagine. Everything is prepared, everything is possible immediately. Do the manufacturers want that? I don't know."

MARCUS SIMMONS, ROMAN WITTEMEIER & JAMIE KLEIN

TOYOTARACING SERIES

Shwartzman grabs shock title

A SENSATIONAL FINISH TO THE New Zealand Grand Prix at Manfeild resulted in the Toyota Racing Series title changing hands simultaneously between three drivers.

Richard Verschoor (right) had taken the lead from Marcus Armstrong with a daring move on the Kiwi at the start of the 31st lap of 35, but second place was still good enough for Armstrong to claim the crown. That was until Taylor Cockerton parked by the track with an engine problem, and that led to a safety car and a one-lap sprint to the chequered flag.

At the restart, Armstrong's car dropped into safe mode, and he limped to the chequered flag in seventh position. That would have been enough for ex-Red Bull Junior Verschoor — who won the race — to clinch the title. But Armstrong's fellow Ferrari protege Robert

Shwartzman had slipped past Charles Milesi to take second place at the restart, and the extra points sent honours in the Russian's direction.

Verschoor — playing catch-up in the points after a non-finish in the opening round — had won the weekend's opening race from Shwartzman and Clement Novalak, with Armstrong fifth.

Brendon Leitch won the reversedgrid race from Novalak, Verschoor, Shwartzman and Armstrong.

JURGEN STIFTSCHRAUBE





OBITUARY

Rudi Eggenberger 1939-2018

RUDI EGGENBERGER, WHO HAS DIED AGED 79, achieved unprecedented success in the 1980s glory days of the European Touring Car Championship with three different manufacturers. No team owner scored more overall victories in a series that was then known as the ETC.

Eggenberger Motorsport BMWs, Volvos and Fords notched up more than 30 victories, and there were five more in the single edition of the World Touring Car Championship spawned by the ETC for 1987. The Swiss team won drivers' titles with BMW (1980, '81 and '82) and Volvo ('85), and took the WTCC teams' crown with Ford.

The successes were born of an attention to detail from a boss who was always referred to as "chef" by his mechanics. Eggenberger was a hands-on team boss who had an involvement in every aspect of car development.

"Rudi was an all-rounder," recalls Steve Soper, who drove Eggenberger Fords from 1986-88. "He machined the parts, bolted the engines together and then ran them on the dyno. He could do everything; he understood how to make a racing car work."

Charly Lamm, team manager at the BMW Schnitzer squad, says that his perpetual memory of Eggenberger is of an overall-clad engineer working deep inside one of his cars. "He always knew his machinery inside out," recalls the German. "He was very precise and always on the top of his game."

Eggenberger was a driver of not immodest ability, but he decided that his talents lay in car preparation. His organisation developed a Group 2-spec BMW 320 for the ETC in the late 1970s and claimed the overall ETC title in '80 with Helmut Kelleners and Sigi Muller Jr. Further titles followed with Kelleners and Umberto Grano when the team switched to the 635CSi in '81, and then with the same drivers again in 1982 with the 528i.

Eggenberger was poached by Volvo to run its 240 Turbo in 1985. The team turned an unlikely contender into a winner, with Gianfranco Brancatelli and Thomas Lindstrom taking the title. That success attracted the attention of Ford of Germany, who recruited the Swiss team for '86 in advance of the arrival of the Sierra RS and RS500 Cosworth for the following season.

The team won the 1989 Spa 24 Hours and was runner-up in the DTM with Klaus Niedzwiedz the same year. Eggenberger subsequently dabbled in single-seaters, ran a short-lived DTM programme for Opel and then returned to the Ford ranks in the STW Super Touring series in Germany in 1994-95.

GARY WATKINS

IN THE HEADLINES

RED BULL LAUNCH DATE CONFIRMED

Red Bull has confirmed its launch date for its 2018 Formula 1 challenger. The RB14 will be unveiled on Monday, February 19. Williams is the first to take the wraps off its weapon for this season, with the FW41 set to take its public bow today (Thursday).

DIRT ESPORTS OFFERS WRX PRIZE

Motorsport Network has partnered with gaming titan Codemasters to launch the inaugural DiRT World Championships, beginning on February 19. The contest will give gamers the chance to win a test drive in an RX2 rallycross car, while a showpiece finale streamed live on Motorsport.tv will take place at the Speedmachine festival, incorporating Britain's World Rallycross Championship round, at Silverstone on May 26. Visit dirt4game.com/esports for more details.

SCHUMACHER REMAINS IN F3

Mick Schumacher, the son of seven-time world champion Michael Schumacher, will remain in the Formula 3 European Championship for another season. He will stay with Prema Powerteam as the squad expands to five cars in 2018. Van Amersfoort Racing has confirmed its first driver for the forthcoming F3 campaign, with Keyvan Andres moving over from Motopark.

ALESI GETS THIRD SEASON IN GP3

GP3 race winner Giuliano Alesi, the son of Ferrari folk hero Jean Alesi, will stay with Trident for his third season in the GP3 Series this year. Alesi's fellow Frenchman Julien Falchero is also staying in the series, in his case switching to Arden International for his second campaign.

FITTIPALDI TO SHARE INDYCAR SEAT

Pietro Fittipaldi, the grandson of two-time world champion and Indycar title winner Emerson Fittipaldi, will contest seven rounds of the IndyCar Series this season with Dale Coyne Racing. Fittipaldi will share the seat with Canadian Indy Lights graduate Zachary Claman DeMelo, who will be on board at the St Petersburg opener.

PERONI SWITCHES TO MP IN RENAULT

Formula Renault Eurocup race winner Alex Peroni, who as far as we know isn't descended from any famous racing drivers (unlike the three stories above), will stay in the series this year. The Australian, who won at Pau last year with Fortec, switches to MP Motorsport. Other latest Eurocup signings include Russian Formula 4 star Alexander Smolyar at Tech 1 Racing, and his compatriots Alexander Vartanyan and Vladimir Tziortzis at Arden and Fortec respectively. Spaniard Xavier Lloveras kicks off his first full season in the series with AVE

MOTOGP LAUNCHES ELECTRIC SERIES

MotoGP promoter Dorna Sports launched its new all-electric support series, due to kick off in 2019, last week in Rome. The MotoE World Cup will have a field of 18 bikes run by 11 teams, contesting eight-lap races.



NIGEL ROEBUCK

F1's imbalance of power

The top two teams have far too much clout, too often exerted for self interest instead of the long-term health of the sport as a whole



MAX VERSTAPPEN SUGGESTED LAST WEEK THAT IF

Red Bull had the Mercedes engine, its rivals "would never see us again", and maybe he's right. In the opinion of most, Adrian Newey remains unsurpassed, so yes, Max and Daniel Ricciardo might well be in the pound seats for 2018 — if they had Mercedes power.

They don't, though. When the team's relationship

with Renault was at its lowest, a couple of years ago, attempts were indeed made to do a deal with Mercedes — and Ferrari — but, unlike Renault, these two companies are famously reluctant to sell engines to any team that might threaten them.

"Mercedes and Ferrari have indulged in a financial arms race"

When Zak Brown was casting about for an engine to replace Honda at McLaren, unsurprisingly, given their mutual history, there was never a conversation with Ferrari, but there was much discussion with Mercedes, and Brown told me it got far down the line. What, then, ultimately killed it?

"Well – this'll surprise you – politics! Some at Mercedes wanted us to have the engine, and some didn't; then fuel

became an issue — and also you needed permission to supply more than three teams from the FIA, who were insistent on keeping Honda in Formula 1: it became *very* political.

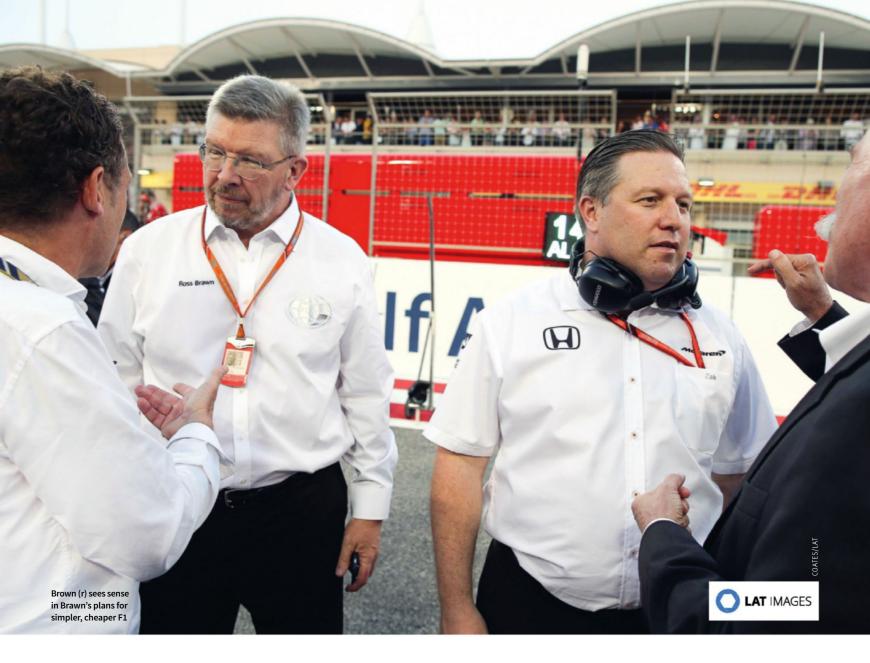
"Like I say, there were different opinions at Mercedes about supplying McLaren, but in fairness to them they were prepared to help Honda develop their engine, so I must give Toto [Wolff] credit for that."

I am hardly alone in believing that in the Formula 1 of today Mercedes and Ferrari have way too much power, and not in the sense of engine output. Throughout the hybrid era the two companies have indulged in a financial

arms race, approached only by Red Bull, and are intent on maintaining the status quo: look at the responses from Wolff and Sergio Marchionne when Ross Brawn dared to suggest a simpler, cheaper, engine for 2021.

"You think they have too much power in the sport," said Brown, "and I couldn't agree with you more — 100%. Ross comes up with an idea for change, and they're instantly on





the attack, which I guess shouldn't be a surprise.

"Formula 1's got its problems, and I think as an industry we need to take a step back, and do what's right for the sport, because in the end that's going to be right for all of us. Some of the comments that have been made about Ross's ideas — that it's going to be a 'spec' formula, or like NASCAR — are a gross exaggeration of what's being suggested, which is some standardisation of parts that you and I never see, and cutting back on some of the technological sophistication that costs a fortune, and does nothing for the fan."

Recently, I said, Martin Brundle and I were talking about the absurdity of today's front wing...

"Yeah — you should sit in some of the strategy meetings! The whole car's 'front wing' now — countless millions are spent on getting tiny gains from it, and all it does is make the racing worse!

"Whatever the rules are, the big teams are going to be the most likely to win, because they've got more experience, knowledge — and money. Mercedes and Ferrari have *such* an economic — and engine — advantage that there's a two-class system in the sport, and that's not good.

"I think, for example, it would be fantastic to see Force India win a race. Could they ever win a championship? No, but I do think they should be able to win a race: as it was, last year they finished fourth in the championship — and didn't make the podium once.

"If you look at the NFL, and who's going to win the Superbowl... there are 30 teams, and most years you could probably consider 10 of them. If you did the same with F1, probably 75% of people would say Mercedes, 20% would say Ferrari, and 5% one of the other teams,

and that's not very compelling for the fanbase.

"Of course Mercedes and Ferrari want the rules to stay unchanged, and I get that: my view, though, is that they may be in First Class, with the rest of us in Business or Economy — but we're all on the Titanic, and if it sinks, it doesn't matter which class you're in...

"First and foremost this sport is about the fans, and what they want to see is great drivers running hard in very fast cars, and overtaking each other. F1 has become a technology arms race, as well as a financial one, and that's to its detriment as a sport."

Brown, it will be remembered, was in something of a cleft stick a year or so ago, needing to choose between McLaren and Liberty Media, where the job on offer was that ultimately taken by Sean Bratches, who recently sparked controversy by announcing that grid girls would henceforth be replaced by grid kids.

"All I can say," Zak laughed, "is that I'm glad I made the decision I did! You can do whatever you want around it — grid girls, grid kids, rock concerts, London Live, digital this, that and the other — but if you know, five races into the championship, that Lewis is going to win it, that's all that matters."

No arguing with that, and I concluded our chat with a question about the livery of the 2018 McLaren-Renault. When it was revealed a year ago that orange would figure in it, there was dismay at the launch when this proved not to be 'McLaren orange' — which did, though, make a hugely popular return on Fernando Alonso's car at the Indy 500.

Brown grinned. "Yes, it looked great, and we had so many comments from people — 'Use that colour for the F1 car!' The paint scheme's not finalised yet, but I'll just say we're proud of our past, and we're listening to our fans..."



WTCR stars align

The TCR changes to the top level of international touring cars have attracted some of the biggest names in tin-tops, which is no bad thing

By Jack Cozens, International Editor



YVAN MULLER, GABRIELE TARQUINI AND ROB HUFF.

You'd be forgiven for looking at the headline entries for the World Touring Car Cup this year and thinking you'd stepped back in time a decade (or two).

But don't be fooled — this is no nostalgia trip, nor a 'hurrah' for the old guard still kicking about. TCR is the most ground-shaking development in the tin-top world in the past 20 years.

It was a harder job to defend the World Touring Car Championship during its much-maligned TC1 era than expose its many flaws, but it often felt like there was an obligation to highlight some of the good happening. As rivals gradually caught up to Citroen, then got on level terms with the C-Elysees after the French manufacturer exited as a works team, the competition at the front and, by extension, the racing *did* improve.

But while the championship plodded on until the end of 2017, the writing was already on the wall. People had seen enough (or too little) to invest more time watching aero-dependent cars following each other in a procession.

It was something of a miracle that the WTCC managed to club together a sufficient entry for the 2017 season, but '18 always looked like a step too far. A deathly silence about the series' next step hung over it

"WTCR could do far worse than following Formula E's example"

for much of the season but, eventually, the adoption of TCR rules from this year was ratified.

There's no question that the change in the world touring car plan is for the better — regardless of any derogatory comments about TCR machinery compared to other top-line touring car series. What better endorsement could there be than four-time WTCC champion Muller — the godfather of 21st century touring car racing — suggesting it was "necessary" for him to reverse his decision to retire and try out the new world cup?

The DTM and Australian Supercars might have complete fields for 2018, and British Touring Cars may be within striking distance of having all its spaces tied up, while WTCR still has only 10 drivers announced. But in a relatively short space of time — the revamp was only formally announced on December 6 last year — the world cup could declare it had secured its 26-car limit on sign-ups. Granted, it shouldn't have had any trouble getting 13 two-car entries from the 18 serious outfits that contested either the WTCC or TCR International last year, but the calibre of driver that has been attracted is not to be sniffed at.

Of the 10 drivers signed up for WTCR at the time of writing, four have WTCC titles and another two could consider themselves unfortunate not to have been crowned last year. It's still early days, but this is exactly the start WTCR needed before any wheels have turned in anger. Some may argue WTCR is, to an extent, dependent on these names — some of whom were considered established figures 20 years ago, towards the end of the Super Touring era's pomp — to help populate the grid, and say that's a hindrance. I'd suggest it's more of a boost.

You'd struggle to find many people who didn't squeak an 'ooh' when Muller's return was announced, and the evergreen Tarquini — who'll be 56 by the time the season starts in April — is a genuine one to watch, having served as development driver for the Hyundai i30 N TCR he'll race this year.

Those two in particular — though you can chuck in ex-Formula 1 driver Tiago Monteiro, Huff and Norbert Michelisz too — are the star names WTCR needs to build its profile. As well as 2018 is shaping up, the loss of world-

> championship status and switch to cars that on regular tracks can be upwards of five seconds a lap slower than their predecessors are notable deficiencies. Tarquini admits he won't be racing forever, and goes about his

business on a year-to-year basis but, with headline players in place from the start of this new era, the series has the anchors it needs while providing the platform for the next generation of tin-top aces to prove their worth.

WTCR could do far worse than following the example set by Formula E, which had a grid populated by ex-F1 drivers in its inaugural season but has been reducing those as drivers such as Felix Rosenqvist begin to make a name for themselves.

Who's to say Attila Tassi — last year's TCR International Series runner-up — can't become the next Michelisz? How about Swiss Stefano Comini, who won two of the three TCR International titles, forging a reputation like the one compatriot Alain Menu enjoys? Pepe Oriola impressed as a 16-year-old in the WTCC, but found it difficult to remain in the series. He's still only 23, and on a more level playing field should again have the chance to prove the pace that made him a WTCC race winner.

Give those up-and-comers the chance to shine, and WTCR — or whatever it morphs into in two years' time — will reap the benefits further down the road. **

Step up in downforce is a step backwards

Deep, deep joy: the F1 teams are expecting big gains in the level of downforce in the 2018 generation of cars. According to McLaren's Tim Goss, "you would expect there to be a step, and given the cars are relatively immature, you would expect a bigger step than in previous seasons".

I guess this is a good illustration of the work of the 'non'-working committees who are supposedly looking at ways of cutting costs and making F1 more competitive and, more to the point, attractive to the spectators. 'Spectators' is a technical term mostly unknown to the teams; they are the people who actually pay the teams either directly by buying tickets/TV subscriptions, team clothing, etc, or indirectly by buying goods/services from the various sponsors.

We are also seemingly faced with the prospect of losing free-to-air transmission of races, but then Liberty Media has to bolster its budget if it is to recover the costs of buying F1 in the first place. However, if the levels of downforce continue to increase leading to more dire 'racing', Liberty's chances of actually recovering its investment will be even longer term.

It would be nice to think common sense will prevail and the views of fans (plus Nigel Roebuck et al) will be taken into account. Next, pigs will fly...

Neil Davey Newport, South wales

Too much tech

'Behind the scenes of Red Bull's mission control' (Autosport Plus) sums up all that is wrong with Formula 1 at the moment.

It should be a flat-out race from beginning to end, with one set of tyres and one tank of fuel. No banks of analysts hunched over readouts in a NASA-style command centre, just man and machine versus man and machine. Make the driver the real winner of the *drivers'* championship.

Gary Sullivan By email

Punching above his weight

Re From the Archive, January 18. Never mind the superb style of Jim Clark, who's the hero in the Ford Anglia right up the chuff of a Mustang? Stunning bit of giant-killing!

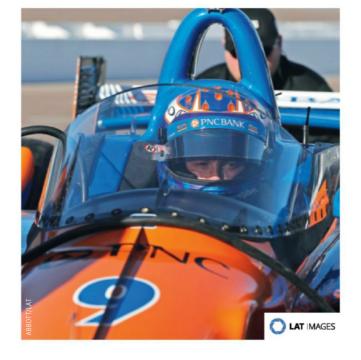
Jonathan Moorhouse

We reckon it's Chris Craft, although we're happy to be corrected - ed

Real issues ignored

How sad to see the issue of grid girls tackled so quickly while the real issues that are so damaging to our sport are brushed under the carpet.

I suppose this unnecessary move by the powers that be will leave them



IndyCar has just tested a windscreen - should Formula 1 have persisted with the concept?

with shiny halos for all the politically correct to admire while the rest of us put up with the ugly ones fitted to the wonderful technological masterpieces that we actually do want to drool over and admire.

Paul Caldwell Widnes, Cheshire

Halo is the wrong solution

Half-baked halo! Nice to see the elegant windscreen being tested by IndyCar. It is a shame it was rejected by F1 without a considered trial.

However, the real problem with the halo is that it is the wrong solution. It is a knee-jerk reaction to Jules Bianchi's horrific crash, but I doubt the result would be any different if you fired a halo car into the rear of a 10-ton recovery tractor. No work has gone into improving the tractors that are still on our tracks, unprotected.

David Fidgeon By email

Paraplegic champion

Further to your articles on disabled racing drivers (Club Autosport, February 1), the 1989 Australian Formula 500 Championship was won by paraplegic driver Clive Baxter.

Olly and June Olsson **By email**

HAVE YOUR SAY, GET IN TOUCH

Autosport editorial

Autosport Media UK Ltd 1 Eton Street Richmond TW9 1AG



autosport@ autosport.com







THE BIG QUESTIONS

The latest Formula 1 machines will hit the track in the coming weeks. TV pundit and ex-F1 racer **Karun Chandhok** tackles the key issues ahead of the new season



CAN RED BULL MAKE A BETTER START?

Towards the end of 2017, Red Bull made it a three-way fight at the front. Max Verstappen took two wins on merit and the team left us with a feeling of 'what might have been'. The first half of its season was compromised by an aerodynamic correlation issue, which meant that it really took until the summer break for the team to hit its stride and unlock the potential of the RB13. Those issues seemed to have been caused by the change in regulations, with the bigger tyres and cars giving some false information in the wind-tunnel, but Red Bull should be over that now.

Personally, I don't doubt that the Milton Keynes side of the team can hit the ground running in 2018. It still has the combined brain power of brilliant people like Adrian Newey, Rob Marshall and Paul Monaghan. Operationally it does a very good job at the track and is never afraid to make bold strategic calls, which often works out well for the team as a collective,

even if it's sometimes detrimental to one of the drivers on the day.

The most important thing for the team is that Renault is able to deliver a powerplant that's a bit of a step forward in terms of performance, but crucially also a huge leap forward in terms of reliability. Last year there were too many weekends where Daniel Ricciardo and Verstappen were in contention for a good haul of points or a podium and the car broke down. When you combine that with the reliability woes that the Enstone squad and Toro Rosso had, it really showed that the engine people at Viry-Chatillon needed to sort it out.

The power in the races wasn't too bad, but to challenge for the title Renault needs to unlock more power in qualifying to allow Ricciardo and Verstappen to get track position and control the race from the front. If they can do that and sort out the reliability, then I'm confident that Red Bull will be up there.



WHAT DOES FERRARI NEED TO DO TO BUILD ON ITS 2017 MOMENTUM?

I still look back at the Australian Grand Prix as my highlight of last season. That Sunday, when Sebastian Vettel's Ferrari stalked Lewis Hamilton's Mercedes for lap after lap and then used the overcut to get into the lead and drive away to the win, gave us all hope that Ferrari genuinely had produced a world championship contender and it was game on.

The last time Ferrari produced two back-to-back title contenders was probably 2007-08, which was a very different time at Maranello, so it'll be interesting to see what it comes up with this year.

up with this year.
I've repeatedly said that I thought
2017 was Hamilton's best season. Apart
from a couple of sub-par weekends in
Sochi and Monaco, and that qualifying
error in Brazil, he was utterly brilliant,
especially in qualifying. But ultimately I
do believe that Vettel and Ferrari lost the
title as much as Lewis and Mercedes won
it. If you just add up the points lost from
Seb's moment of road rage in Baku, his
overly defensive move at the start in
Singapore and the reliability issues in
Malaysia and Japan, that would have
been enough to give him the title.

Ferrari needs to have a car that can deliver the team performance on a bigger range of circuits. It's clear that the car was very competitive on slower tracks that demanded dirty downforce in 2017, but it also was perhaps more draggy than the Mercedes.

The 2017 Mercedes proved to be a tricky car to set up, which aided Ferrari's championship challenge, but the Brackley squad will be in better shape this year. For the red cars to fight for the title, they need to be able to unlock more speed in qualifying on a wider range of circuits to help them get track position and then sort out the reliability issues that hurt in the second half of last year.





CAN MCLAREN GET BACK TO THE FRONT?

Fernando Alonso will be praying that the switch to Renault power will coincide with a resurgence from the French-built engine and propel him to the front. Mind you, knowing his luck, Honda will probably produce a beast that pushes Toro Rosso forwards!

McLaren showed on a number of occasions last year that it had a good chassis, and both drivers in the second half of 2017 were able to unlock some good speed. When you hear the stats that the team was quoting in terms of lap-time loss on the straights, it did seem slightly exaggerated when you compared it to what other squads up and down the pitlane believed from the GPS data comparisons that they all use. It's a hard one to judge because the car also appeared to be quite draggy, which perhaps didn't help the perception of the Honda power unit and, in some ways, I think 2017 turned into a season of political manoeuvring for the team to try to get out of the contract with Honda.

Either way, for the past three seasons McLaren has been able to point a lot of fingers at its Japanese partner and play the blame game for the lack of performance. Yes, the Honda was the weakest engine out there, but in 2018 there will be nowhere to hide as McLaren will have two very good references in Red Bull and the works Renault team to draw comparisons with. Never shy to ramp up the pressure, Alonso is acutely aware of this and he's already driven the point home to everyone at Woking.

Personally, it's been sad to see McLaren struggling. Formula 1 needs to have the great historical teams, such as McLaren and Williams, at the front, and I do hope McLaren can start racking up those wins again.



CAN HONDA AVOID A TESTING DISASTER?

I was fortunate to see an advance copy of the behind-the-scenes documentary that McLaren made during its build-up to the 2017 season. It covers the final stages of car build and the pre-season testing, and really gives you an in-depth look into how bad things were! I was at Barcelona for the test and remember speaking to a pretty disconsolate Fernando Alonso at the time, and so really, the answer to the question I suppose is it can't get any worse than'17!

I honestly still can't understand why Honda hasn't got it sorted. It has huge resources and infrastructure, and surely by now the embarrassment of poor performance must outweigh the supposed cultural issue of seeking outside help. I don't understand why it doesn't have a Super Formula car with an F1 power unit pounding round and round Suzuka every week. Allan McNish and Emanuele Pirro will tell you stories of going to Japan and literally testing from the minute they arrived at the track until when they left for the airport again back in the 1980s and early '90s.

Despite the Franz Tost-versus-Cyril Abiteboul war of words and all the 'PR speak' from Toro Rosso, I'm not sure it would have voluntarily gone down the Honda route. This is clearly a good way for Red Bull to keep tabs on the progress being made by the Japanese car giant and gives it a foot in the door if Honda does get it right and unlock its potential. The next few weeks will tell us if the Faenza team has lucked in or is going to be resigned to a tough period ahead.



WILL HULKENBERG OR SAINZ LEAD THE RENAULT REVIVAL?

This will be a fascinating battle to watch this season. Carlos Sainz arrived at Renault and straight away proved to be competitive. He had a nightmare in the race in Mexico but, apart from that, the engineers were full of praise for the job he did and just how quickly he settled in to the team.

I really rate Carlos in terms of speed, and I think that he's got a good work ethic — undoubtedly a trait passed down by his legendary father, who at the age of 55 won the Dakar Rally this year! He proved during his time alongside Max Verstappen that he could be just as fast, and really the move out of Toro Rosso is the best thing that could have happened to him, as he needed some new motivation.

People need to remember that back in 2015 it was Sainz who overall had the faster pace in qualifying over his team-mate and F1 golden



boy Verstappen. If you discount a 1.259-second discrepancy in Singapore (when Sainz hit the wall), in comparable qualifying sessions he was 0.1958 quicker than Max.

Having said that, in all my years of junior racing there were only two drivers that I shared a track with who I believed to be a cut above the rest. One was Lewis Hamilton, who I followed in a qualifying session at the Brands Hatch Grand Prix circuit in F3 and thought, 'Jeez, he's got some car control.' The other was Nico Hulkenberg.

If you had told me eight years ago when we finished GP2 that Nico would be in F1 but without a podium to his name at the end of 2017, I would have said you were crazy. But for whatever reason, it hasn't happened for him. To be honest, the move from Sauber back to Force India, where he was paired up alongside tyre-management king Sergio Perez, damaged his reputation a bit. Nico was no longer 'the next big thing' in line for a Ferrari drive, but instead a 'solid midfielder', who was being matched by a driver booted out by McLaren.

The move to Renault has revitalised his career and given him a fresh mojo I think. He drove very well last year, with some exceptional qualifying performances. Enstone lifer Alan Permane said to me last year that he rates Nico higher than anyone they've had at the team for a long time, and he's seen a lot of good drivers come through the door.

There's no doubt that outside of the A-listers (Hamilton, Vettel, Ricciardo, Verstappen, Alonso), Renault has one of the best driver line-ups on the grid and, more importantly, a pair who are young, motivated and will work hard to bring the team forward.



CAN ALFA ROMEO AND LECLERC TURN SAUBER AROUND?

It's going to take a lot more than a historic brand name and a future superstar to move Sauber up the grid, but they will help. Under Frederic Vasseur, who I rate very highly, the team has been doing a lot of restructuring and has got some good people on board, including Luca Furbatto, Eric Gandelin, Nicolas Hennel and Jorg Zander, a Sauber man through and through.

The team obviously had a tough three years with all the financial and ownership issues, but these appear to have been settled. With the closer alliance with Maranello, Sauber will greatly benefit and, in fact, just switching to

a current-spec power unit will probably give them half a second of lap time.

Charles Leclerc is a name I expect to hear for a long time in F1. He's very fast, has an extremely calm and mature head on his shoulders and works very hard, with no real ego. This is a winning combination and although he's unlikely to do any winning in a Sauber, his main target has got to be to comprehensively beat Marcus Ericsson and get himself in line for the Ferrari seat for when they finally stop giving Kimi Raikkonen his seemingly endless run of one-year contract extensions!

WILL KUBICA SHOW WILLIAMS WAS WRONG?

The Robert Kubica story was all geared up to be the feelgood tale of the year. A guy going from death's door back to the top of the sport, despite being hampered by restricted movement in one limb, is the stuff of Hollywood box-office hits.

But, alas, come the Abu Dhabi test, he wasn't able to unlock the speed he needed over the one-lap qualifying simulations for Williams to justify taking a punt on him for the race seat. The engineers were very complimentary about his feedback and professionalism, and the fact that he has been kept on as a test-and-reserve

driver will, I think, be a great asset to the team. Kubica will also get some decent mileage in the 2018 car and this will give him the chance to get up to speed a bit more.

Coming back to F1 after time away is never easy. Sure, Niki Lauda and Alain Prost managed to win championships after their sabbaticals, but Michael Schumacher was a shadow of his former self in his comeback years with Mercedes, and Kimi Raikkonnen is more 'solid' than the devastatingly fast Finn of 2003-06

devastatingly fast Finn of 2003-06.
I strongly believe that the Pirelli era we're in is an added difficulty for Kubica's comeback. The last time he drove in F1 in 2010, we were at the end of the Bridgestone era, where you could really lean

on the front tyre, braking and turning all the way into the apex with huge entry speed and a lot of load going through the front tyre.

I know from personal experience that the Pirelli required a total reset in terms of style, as you just can't load the front tyre as much. If you look back at the comments from drivers in 2011 and '12, that was what they all talked about. Seven years into the Pirelli era, they've all had time to get used to it and indeed in that time, drivers like Daniel Ricciardo and Max Verstappen have arrived and known nothing but a Pirelli.

Perhaps with more mileage Kubica will be able to get his head around how to unlock that final half-second in qualifying. I for one will certainly be hoping that he does – F1 needs a few feelgood stories!





WILL TESTING SHOW PIRELLI HAS GONE AGGRESSIVE ENOUGH?

For the sake of Formula 1 and 'the show', I certainly hope so! It was a shame that we ended up with tyres that were so conservative last year, although from Pirelli's standpoint I do understand why it made the choice. It doesn't have the opportunity to test as often as it would like — or as often as Bridgestone and Michelin did previously — and Pirelli was slightly misled by the downforce predictions from some of the teams last year.

With the new regulations for 2017, some teams had very high expectations in terms of the aero numbers and therefore what the g-loads going into the tyres would be. This somewhat skewed the picture for Pirelli and it was always going to take a safer route than not.

However, I do wonder that after winter testing, when we could already see that the ultrasoft was running for ages, whether Pirelli could have worked with the teams and the FIA to produce a softer range for the second half of the season. I recognise that there are lengthy production lead times to be considered, but I do wish that collectively everyone had been more proactive to make some changes.

The new hypersoft for 2018 will hopefully



bring back some two-stop races, because the one-stoppers are pretty dull for everyone. Personally, I think it would have been much simpler to just have tyres called soft, medium and hard every weekend, with only Pirelli and the teams knowing what the tyre is via a separate numerical code system. We're now going to have weekends where the supersoft is the hardest tyre in the range and that seems a bit odd, but hey-ho — as long as the racing is better, I don't care so much.

One big issue that could crop up is that the Circuit de Catalunya in Barcelona, where all the eight days of pre-season testing are scheduled to take place, has just been completely resurfaced.

Mario Isola from Pirelli has already said that this could make judging the track evolution hard for the first couple of days. In my experience, every time a track is resurfaced it takes a good few months for the surface to settle down and for us to really get a handle on what the grip level is. I remember when they did Donington Park between the 2003 and '04 seasons, all of a sudden we all had to run the wet set-up to get any form of grip! More recently, surface changes at Sepang and Jerez have completely changed the grip levels and the teams will really have to think hard about this when they evaluate their new cars and the relative competitive levels across the field.

WILL ANYONE COME UP WITH A SURPRISE DESIGN CONCEPT?

The perception of a radical design in Formula 1 is very different today from what it used to be. Much to Adrian Newey's annoyance, the rules are more restrictive than 20 years ago concepts like sliding skirts or active suspension coming out to catch the opposition off guard. The fact that journalists and technical experts now get excited about how much rake a car is running tells you just how little scope there is to see truly revolutionary things on a car these days!

Having said that, we still see innovative concepts coming out, with teams constantly pushing the boundaries. The halo will be the biggest visual difference, of course, and this will

aero and the centre of gravity.

There are some minor tweaks to the regulations, but otherwise the cars will all be evolutions of the 2017 challengers, although all eyes at the Barcelona test will be on Red Bull, which of course started last year with a relatively simple car compared to the Mercedes or Ferrari. The two title contenders had very different concepts in terms of wheelbase, and it will be interesting to see if there's some convergence on where they end up

go shorter and Ferrari longer?).

Some of the key innovations may well be hidden under the engine cover, though, as both Renault and Honda will be hoping to take some big strides Ferrari will be sitting still, of course.



WILL WE GET USED TO THE HALO IN TESTING?

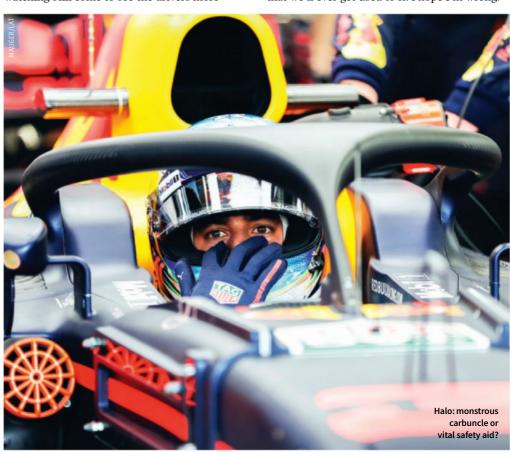
I'm really not sure about this one! Yes, I know we got used to the skinny rear and big front wings in 2009, and we got used to the narrow cars and grooved tyres in 1998, but fundamentally the halo is a much bigger aesthetic change than any of those because it restricts our view of the drivers. The people watching still come to see the drivers more

than the teams and anything that further hides the drivers won't be popular.

Plus, more than anything, the halo looks like an afterthought. We've got these multi-millionpound works of art, and then this framework that looks like it's been made in someone's garage stuck on the top. I'm really not convinced that we'll ever get used to it. I hope I'm wrong.

TESTING DATES

March 25



F1 2018 PRE-SEASON CALENDAR

LAUNCH DATES

WILLIAMS February 15 **FERRARI** February 22 TEST 1 February 26-March 1 **RED BULL** February 19 **McLAREN** TEST 2 February 23 March 6-9 **RENAULT** February 20 **TORO ROSSO** February 25 **SAUBER** February 20 **HAAS** TBA FIRST RACE **MERCEDES FORCE INDIA AUSTRALIAN GP** February 22 TBA



UNDER THE SKIN OF F1 TESTING

Pre-season testing is fraught with tension for the Formula 1 teams. Here **Gary Anderson** explains how they prepare for and carry out the initial running of their new cars — fingers crossed, of course

re-season testing for the latest batch of Formula 1 cars is just around the corner. Since this is the second year of the current technical regulations, we can expect the car concepts to converge.

The aerodynamic and tyre changes

for 2017 were fairly dramatic and they brought roughly what was predicted in terms of lap-time improvement. This

year, optimising that package will be the order of the day.

During the season, there is always development and most teams will try for around one tenth of a second of improvement each race. That should add up to a 2s gain over the season. That, combined with the introduction of new chassis for 2018, with all the developments it wasn't possible to add last year, means that at pre-season testing the cars *should* be 3s faster than they were last year. It'll be very interesting to see which teams achieve that.

Most of the big teams have the infrastructure to manufacture components much more quickly than was possible a few years ago. This is what some have concentrated on, because once a drawing is printed or a machine is fired up to make a part, that component is already out of date. The later that everything comes together in the build schedule, the more time it allows for pre-build development.

Since testing now gets under way later in the year, teams have extra time for designing, optimising and manufacturing components. But the start of February will have been D-Day for final assembly of the 2018 test package. Before this, hopefully the chassis will have passed all the FIA crash tests.

These are high-pressure moments and you want to build everything to be as light and efficient as possible, while still meeting strength and stiffness requirements. One failure can set a team back dramatically.

Recovery from a failure will either mean a redesign and remanufacture of the chassis itself, which will take time, or the remanufacture of components by adding weight. Neither solution is easy or optimum, and it will mean that everything moves closer to when the cars must be shipped to Australia for the first race. Every component on the suspension side of things will also go through strength and durability tests. Setbacks here can also mean delays that will interfere with the build schedule.

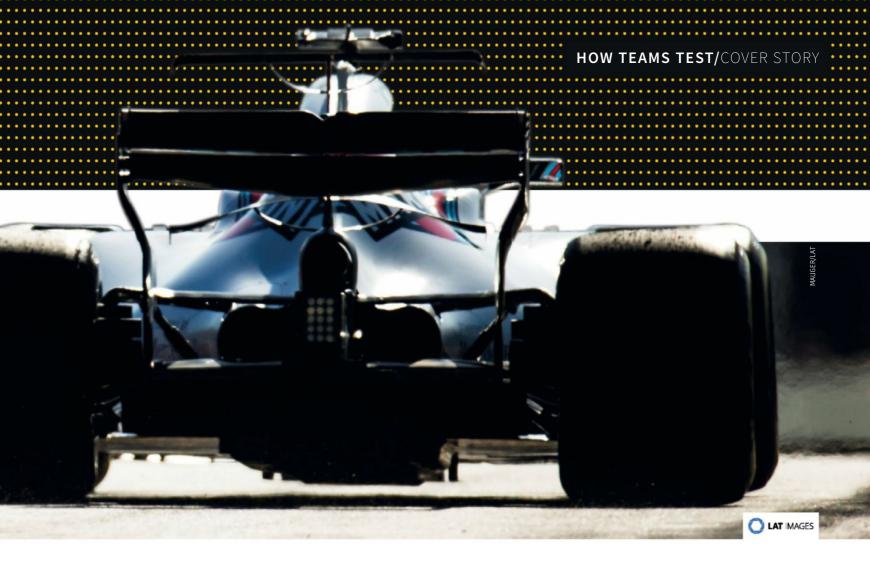
The front and rear wings will also be tested by loading them up with hydraulic actuators. This is to simulate the FIA deflection tests to ensure these components are stiff enough to comply, and they will then be loaded up to potentially their maximum load to see if they will withstand that force. There will also be a safety factor of something like 20%. When you consider that a front wing at high speed will produce something in the region of 600-700kg of load, this is not easy. Combined with some aerodynamic stall characteristics, which will potentially introduce fatigue load, the problem is doubled.

Many teams, including Mercedes and Haas, have had problems in the past few years with front wings falling off. There is nothing that gets the driver's attention quicker than bouncing over their own front wing, so you want to err on the side of safety with the first batch of components!

Many of these tests can be completed back in the workshop before testing begins, but there's no substitute for circuit













mileage. There the car will get real use bouncing across kerbs, being subject to instantaneous changes of forces on all the suspension and steering components, and real-time engine and gearbox transient-load fluctuations.

The first running is what is normally called a 'shakedown'. This is just to make sure that all the systems work and that the sensors are supplying the correct data. Normally, a new car will be built with a few extra sensors to help understand the water, oil, fuel and hydraulic systems better.

Sometimes shakedowns happen in parallel with the car launch. The presentation and the time that the marketing side of the company requires will eat into on-track running time and this can can be frustrating. But worse still is when a team has an independent launch somewhere with a bit more glitz and glamour. This can really impact on the car-build programme and normally the car ends up at the launch in a less-than-finished state. Neither solution is very productive, but it's important for marketing and the sponsors, so it's something that the engineers have to live with.

Once a team is happy with the shakedown results, it does a fuel-pick-up test again to make sure it can run very low fuel levels. It will also do this again with the oil level to make sure there are no oil-pick-up problems that could cost the team an engine.

Getting the best performance and durability from a new car package is a lot easier than it was. Now the simulators are so refined, teams can test many different combinations of set-up before they hit the track. The test rigs mean that some of the reliability issues will be addressed before the car runs on the track, but there is no substitute for real-world mileage.

The first thing you want to get under control is simply being able to start the car and for it to leave the garage at the pre-set time. It's amazing how often that doesn't happen. Everyone needs to be ready at the same time, from the tyre man to the control-system engineer to the driver.

After that, it comes down to piling on the miles and making sure that you don't stop testing until the end of the day. It's >>

normally the little things that bite you — something getting too hot, or wires or pipes chafing on something, or bodywork fastenings coming undone.

The other thing a team will want to test is what happens if certain sensors fail. There will be plenty of default parameters within the control-system strategy that will hopefully identify a failed sensor. This could be clutch, gear or throttle position, oil pressure, or any number of temperature sensors.

Normally, the strategy is to use two or three inputs from other sensors to check if it's an actual failure or a sensor problem. This all has to be done in milliseconds, otherwise there could be engine or gearbox failures. The systems also need to be proven as potential back-ups that can get a driver to the chequered flag if necessary.

Instead of heading into the first test with your fingers crossed that everything works as planned, you now have a fair idea of how the car functions with different set-up changes and what its performance profile looks like. But running on the track will always throw up questions.

As we often say, the driver feels the car through the seat of their pants, so the first thing is to make sure they are comfortable and can get those feelings without distortion. If so, they will quickly know if the car is doing what the team has been telling them it should.

Lap time is always confirmation, but within a couple of reasonably quick laps they will know if the braking stability is there, if the car continues to load up progressively as steering lock is applied, and if traction is consistent off the corner. If not, they will also have a feeling of whether any negative characteristics are within set-up parameters, or there is something fundamentally wrong.

The experienced drivers have all been here before, and they're as keen to get the feeling of those first few laps as anyone. They will know very quickly if it's going to be a long, hard season.

No matter what the first feelings are, the teams will have a test schedule to try to get more from the package, understand it more, or see how the car responds to set-up changes. This will consist of a suspension-stiffness sweep around the set-up that their simulations have predicted as best. This will be something like +/-5% vertical-stiffness change, then a +/-5% roll-stiffness change. If either direction improves the performance, then they will pursue that with another step around the same magnitude.

Around the suspension-stiffness test, teams will also experiment with ride height. Red Bull ran quite a different ride height relative to most other teams last year, and I expect this to converge in 2018, but teams will still want to confirm that their development direction is correct.

When it comes to the aerodynamic package, teams are basically looking for confirmation of the loads predicted by the wind-tunnel and CFD. This is vitally important to allow a team to continue with its development direction.

To understand this, the teams will do a lot of aero runs. These consist of running at a fixed speed in two directions to weed out variances caused by wind. Barcelona is pretty good for this since there are two almost parallel straights running in different directions.

Most teams will do this at the end of each timed run, and from that they can compare timed-lap aero data and driver feedback with the straightline aero data. Downforce is not vitally important on the straight but it is around the corners, so this is used to identify any transient or mid-corner losses of downforce induced with steering angle, yaw or roll.

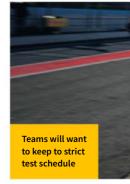
They will also carry out a front-and-rear-wing sweep to confirm the changes that are predicted are there in reality. When the front wings run close to the ground, they are prone to aerodynamic stall.

Confirmation of the characteristics of this stall is important to allow the teams to understand how to go about balancing









NEW CAR TIMELINE

JULY 1 2017

- Finalise initial concept for 2018 car.
- Start dedicated 2018 windtunnel R&D.
- Begin dedicated component layout design.
- Start dedicated design of gearbox, uprights, fuel tank – all long-term manufacturing items.

NOVEMBER 1 2017

• Start to machine chassis pattern.

MID-NOVEMBER 2017

• Start lay-up of chassis mould.

DECEMBER 1 2017

- Start lay-up of first chassis.
- Other components like nose, rollover bar, side-impact components to be manufactured at the same time.

JANUARY 1 2018

- FIA chassis crash and impact tests using the above components.
- All components to start to filter

into the factory, with large components first.

FEBRUARY 1 2018

- Start test-car assembly.
- Sort out final wiring and piping-system design.
- Commitment to final testcar specification.

FEBRUARY 20 2018

 Load the cars and head to Barcelona for pre-season testing, fingers crossed.











the car aerodynamically. Also vitally important is that the rear wing recovers instantly after using the DRS and the airflow reattaches to give the downforce back. If not, then the initial braking area can become a bit of a nightmare and they will be forced to close the DRS early, losing end-of-straight top speed.

A team will normally carry out these back-to-back chassis tests on what they would classify as the middle tyre compound. But, with Pirelli introducing a new range for 2018, some initial running will be needed to define which that tyre may be. This will be complicated by the fact that the Barcelona circuit has been resurfaced. The aim is for it to be similar to the old one, but a new surface takes time to bed in, and it will evolve a lot for the first few days in particular.

Gathering all this data on a soft or hard-compound tyre could very easily take you down the wrong set-up path, but you still need confirmation that the car can be balanced on these extremes of tyre compound, so the teams will normally run softer compounds in line with lower fuel some time during each day of the test.

When you get to the point of having what you believe is a reasonable set-up, you will have to start race runs to understand where the tyre degradation starts.

Normally, a team will try to simulate a race weekend with practice and set-up changes in the morning. Then they'll do three qualifying runs before a two-stop race distance in the afternoon using two tyre compounds.

When you consider that all this running is being done in temperatures that are much cooler than the average will be at most of the races, car performance needs to be viewed with some scepticism. Hotter ambient and track temperatures usually lose downforce, but they also bring extra cooling requirements, which again cost downforce, so with a 20°C increase in temperatures you could have a downforce loss of around 5%. That doesn't come back by fiddling with the set-up, but luckily it's similar for everyone.

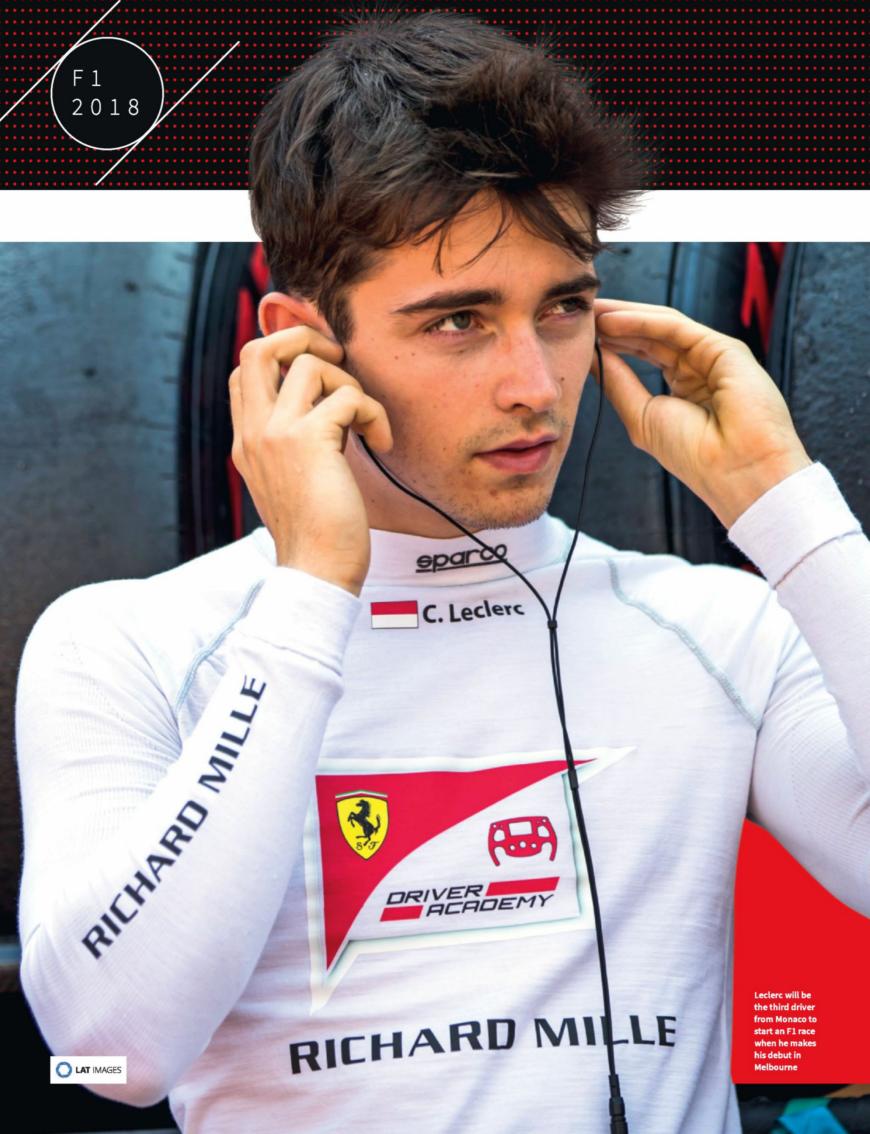
The other thing that happens with increased ambient, but mainly increased track temperature, is that the aerodynamic stall characteristics of anything running near the ground alter. A full understanding of this is very important to allow a team to optimise ride heights when they get to hotter conditions.

During pre-season, it was always more important to me that the car balance could be tuned for each of the compounds, changes in temperature and different fuel loads, and whenever the driver went out on the track the balance was somewhere near what it was previously. If you can achieve this comfortably then you should be in a reasonable position when you get to the hotter climates.

Every team will have developments planned for the first race in Melbourne, but these will be in line with the initial car-research direction. Any change in that direction that comes as a result of initial testing is vitally important, since it could mean that already committed components are no longer required, or that a different path needs evaluating.

There is just under a month from the start of testing until the cars run in Australia, so there is not much time to recover if you have major problems. Within the design, there is normally room to recover from pursuing the wrong concept. Red Bull had to do it last year and managed to close the gap to Ferrari and Mercedes as the season progressed.

But it takes time and money to develop a new concept, so if you're a big, well-funded team then recovery is possible. But if you're on a tight budget then it's not so easy.



WHAT TO EXPECT FROM FERRARI'S NEW F1 STAR

New Sauber recruit Charles Leclerc romped to the 2017 Formula 2 title. Alex Kalinauckas explains what he will bring to the F1 grid

harles Leclerc is confident, yet humble. Excitable, yet focused. Riding the crest of a wave all the way to Formula 1. He spent much of 2017 building momentum in a sensational rookie Formula 2 campaign, while often being spotted playing football or tennis next to the paddock-parked trucks. In short, he's a special and likeable talent.

After claiming seven wins and eight poles on his way to the F2 crown, as well as making four FP1 appearances for Sauber last year, Leclerc was signed as a race driver for the Swiss squad in 2018.

Leclerc has been backed by Ferrari since 2016; Sauber will run the Italian marque's up-to-date F1 power units this year, while the team has a major new brand partnership with Alfa Romeo. So, just like his friend and mentor Jules Bianchi in '13, Leclerc is Ferrari's latest upcoming star preparing to take their F1 bow.

"It's unbelievable, first of all," he explains. "To arrive in F1 is crazy because it's a dream come true, and then to arrive with the return of Alfa Romeo, which is such a historic name, is just great. Then, on the other side, I'm not putting additional pressure on myself — the goal for me will be exactly the same as the other years: give the best of myself and try to bring the best results possible home."

FOCUS

Leclerc's focus is one of
his key strengths. When
smoke poured from his
engine during the early
stages of the Silverstone
F2 feature race last year,
his Prema Racing team
momentarily panicked, but
Leclerc carried on undeterred.
Nothing stopped him that day, not the
oil leak with all the hallmarks of a serious
engine failure, not the pre-race brake fire,
and not a wing mirror going missing in
the closing stages.

In 2017, he deployed the tried-andtested 'one-race-at-a-time, one-seasonat-a-time' approach and it paid off handsomely with the first rookie GP2/F2 title since '09. Calm and motivated, it's no wonder he's sticking with that approach ahead of his F1 debut.

Ferrari has had a significant hand in Leclerc's development and improvement from his 2016 GP3 season, where he won the title but sometimes struggled to adjust from FP1 running with Haas F1 back to his car in the third tier. As well as being able to see how Sebastian Vettel and Kimi Raikkonen go about their business, and driving the simulator at Maranello, the 20-year-old's focus is being further honed by Ferrari's Driver Academy.

"They were training me mentally and physically," says Leclerc, who spent the winter engaging in mountain-based physical preparation for his F1 debut. "So all of these things helped me to become the driver I am today – obviously there's still a long way to go and they are still helping me."

From a practical point of view,
Ferrari's support has been very valuable
for Leclerc ahead of his first competitive
grand prix outing: "There's no track
that comes along [in 2018] that I've
never driven on the simulator. I have
the base of all the circuits because
of the simulator, so that's great."

F 1 2 0 1 8

SPEED AND DETERMINATION

Helpfully for Leclerc, his focused approach is paired with a combination of searing pace and steely determination. After clinching pole at the F2 season opener he faded to third in the feature race, but then charged to a maiden second-tier win in the sprint event and improved his tyre-management skills to score four of the next five race-one wins.

"To work with, he's quite a good guy

— Charles is very open," says Guillaume
Capietto, technical director at Prema, which
clearly adored having Leclerc in its ranks in
2017. "It was a very good year in terms of

atmosphere. He's more cool and when there is a mistake he takes a lot on his side, even when sometimes it's not fully his side he says, 'OK, it's my fault and I go [and work] on it."

Leclerc's analytical approach was also a strength in 2017. Prema team boss Rene Rosin recalled him asking for feedback on where he could improve despite only a harsh 10-second time penalty scuppering a weekend double in Baku. At the season finale in Abu Dhabi, he forensically explained how he'd missed out on pole by focusing on the first sector at the expense of tyre life later on in the lap.



Rain is something of a machinery leveller in motorsport, and it often helps the truly great drivers show off their skills.

There weren't too many occasions where the F2 field had to cope with wet weather and changing conditions last season, but when they did Leclerc took full advantage. At Spa, after also missing most of practice when his car's fire extinguisher unloaded itself as he ran through Eau Rouge, Leclerc topped the wet session by a hefty 0.6 seconds, and then catapulted into victory contention in the wet-to-dry feature-race thriller at

Monza (below), which ended in final-lap drama when he came together with Nyck de Vries.

"He's a very good driver," says Capietto. "He's one of those, for example, you will see that they are always in front when it's damp."

"They are always anticipating the evolution of the track and are much quicker in these conditions compared to when it's normal conditions and everybody is able to be close to the pace."





RELENTLESS ATTACKING

F1's aero-heavy but varied machinery may not produce the kind of spectacular racing often seen on the grand prix support bill, and Sauber has been the championship's de facto backmarker since Manor's demise, but Leclerc is unlikely to give anything less than his maximum, all of the time. As if a Ferrarisupported emerging superstar with backto-back junior titles would ever do otherwise.

Leclerc's default attacking mode was on full display during his F2 campaign, as evidenced by his Bahrain sprint-race win, and back-of-thegrid charges in Hungary and Italy. In 2006, and then working for ART Grand Prix, Capietto saw the same attitude in another rookie second-tier champion: Lewis Hamilton.

"They are strong characters," he explains. "They always [come back], when there is something. Like when we were disqualified from some races, [Leclerc] always came back very strong. Even starting from the back he pushed — and I remember this also from Lewis. In Turkey he did a spin in race two, so he was last, and he came back to P2 driving, like, one second quicker than he was doing before. [Leclerc] is able to do the same — when we started last in Budapest, he came back to P4, producing a very strong race and lap times.

"I also must say the ability to put your car in the right position in the race to overtake is something that both have and that is at quite a high level."

At times last season, Leclerc's performances were almost PlayStation-esque — that drive from the back in Hungary (somewhat aided by a late-race safety car) makes excellent repeat viewing. But he's sensibly setting realistic performance targets ahead of his F1 debut.

"In F1 you can only put the target of giving the best of yourself in the car, and that's what I will do in 2018," he says. "For the results, it's quite hard to predict anything in F1 and the target will be to improve the car during the year and then see where we finish at the end of the year. But then obviously I will have to give my best in the car and this is the most important [thing] to me. In a way, the goal doesn't change, but what you can expect before a season is a bit different because in F1 it's quite hard to expect anything before you actually put the car down on track."

FEW OFF-TRACK FIREWORKS

Prema's esteem for Leclerc radiated through the team last season. It had a family-like atmosphere – taking the highs and lows together, while having as much fun as possible. Of course it's easy to be happy when things are going well, but there were tough times too.

As well as the disqualifications – Leclerc also lost a dominant feature-race win in Belgium due to excessive plank wear – he collided with team-mate Antonio Fuoco at the Red Bull Ring. It was clearly a racing incident, and there was little animosity between them then, or throughout the season, with Fuoco usually joining Leclerc for a game of tennis or football.

Leclerc also proved he was willing to play the team game at the season finale, when he almost stopped on the run to the finish in the Abu Dhabi feature race to hand Fuoco the final spot on the podium at Prema's behest.

Intra-team politics and dynamics are on another level in F1, but Leclerc sees no reason why he won't get on with new team-mate Marcus Ericsson.

"[During] the FP1s last year I got to know him and he's a really cool guy," Leclerc says. "To be honest, I've never had any problems with my teammates and I'm always pretty chilled – and he looks the same. So, I don't think there will be any problems."

LAT IMAGES





NO OTHER DISTRACTIONS

Thanks to its new engine, Sauber is unlikely to be propping up the F1 field this year. The team will also want to turn heads in the first season of its Alfa tie-up. But, as he's already pointed out, that won't faze Leclerc.

It helps that as well as getting to know Ericsson during his practice outings last year, Sauber is not unfamiliar territory to the Monegasque racer. The sessions also gave him a solid starting base going into the new year, although some things will of course change with the new car.

"I've worked with all of [Sauber] last year during the FP1s, which I think has been very helpful for me to be more familiar with the team," Leclerc explains. "It helped because F1 is very different to F2 — especially as all the procedures and things like that are quite hard to learn and to be familiar with.

"In F1, I believe from one year to another the cars change quite a lot so I'll have to readapt to a new car. But this is the same for everyone else so I will just try to be on the pace as quickly as possible."





As Ferrari's rising star, there are already questions about when Leclerc will be promoted to the Prancing Horse's works team — with some even previously suggesting that he should have got a drive for 2018. While that was no doubt a step too far for Ferrari's famously conservative approach to driver line-ups, it's fair to say that unless Kimi Raikkonen avoids another of his methodically mediocre showings, those questions will continue getting louder.

Ultimately — and not unsurprisingly, given his calm, down-to-earth approach — Leclerc is not even thinking about a

Ferrari call-up for 2019 just yet. He knows he has to let his results do the talking, centre on what's coming next with Sauber, and take each opportunity as it arises.

"My career at Ferrari, for now, it's so far away that I can't..." he ponders. "I think my mindset for 2017, I need to take it to '18 and really focus on the season itself more than the future. At the moment, I just want to do the best job possible in '18 and then if I get good opportunities for' 19, then even better."

Confident, humble, focused — don't expect the wave to break for Charles Leclerc any time soon.



ENTER THE NEXT LECLERC



CHARLES LECLERC LIT UP THE lower levels of single-seater racing on his way to Formula 1, and now his younger brother Arthur is set to try to follow in his footsteps.

The younger Leclerc will make the step up from karting this year, competing in the French Formula 4 Championship, which runs over a seven-event calendar that gets under way at Nogaro in March. But the latest Leclerc to make his car-racing debut – the brothers' late father Herve raced in Formula 3 in the late 1980s – has not had an easy ride in his career so far.

"We've never really had the money to keep him going during all his career, so he stopped for four years and then we found the budget this year to bring him to Formula 4," explains Charles.

"So, it's not the normal path that everyone does because no-one stops one year, or it's quite exceptional when a driver stops one year and restarts his career, especially when they are that young."

Charles has found the formula to make it to the top of the single-seater ladder, but although he's happy to offer advice when called upon, he wants his brother to find his own recipe for success.

"Yeah," he says when asked if he has been helping with his sibling's preparations for the year ahead. "But on the other side I prefer to stay a little off. I think it's also good that he learns from himself, [but] the errors I've done in my career before – small things that I can help him with – I always do. Then once he's on-track and with the engineers I prefer to

stay off, watch him and that's it. Obviously if I see one thing that is completely wrong, then I will go to see him, but until now I haven't helped so much."

So how does Sauber's new recruit rate his brother's chances this year? "It's going to be quite hard," says the elder Leclerc. "But looking at the tests, I think everyone has been very impressed. [With the] small time he has had in the car or in karting, coming straight away to formula racing I think was great.

"That's why we pushed to try to find people that were helping him, and it's great to see him there. Now he will have to work a lot to have a good year, but I'm pretty sure he has the capacity to do that – he just needs to work the right way and focus on himself and everything will be fine."

FreeSports

The Daytona 500 will be beamed into 18 million UK homes on free-to-air television for the first time this year thanks to the new FreeSports channel.

The February 18 event is the traditional season opener of the NASCAR Cup Series, where drivers will fight for a winner's prize of at least \$1,400,000 (£1,000,000) at speeds of over 200mph, with FreeSports viewers able to watch every minute of the action for free.

The channel is also offering one lucky prize winner a seven-day trip to Orlando, Florida, to the Daytona 500 in 2019, which can be entered on the FreeSports Facebook page (www. facebook.com/freesportsuktv) while there's also a £1 subscription offer for Sky customers to the sister channel Premier Sports on offer, which will show the remainder of the NASCAR Cup Series races in 2018 live.

The season kicks off in Daytona Beach, Florida, before taking in 25 other races across America, from Las Vegas to Texas.

Following the regular season is NASCAR's championship playoffs, The Chase, where 16 drivers are whittled down to a final five for the season-ending finale on November 18 at Homestead Miami, where the champion will be crowned live on Premier Sports.

As well as watching the action with FreeSports and Premier Sports, fans of the series can enjoy the action with like-minded fans in Britain, via the NASCAR Fans UK Facebook page (www.facebook.com/groups/8358437374). A live chat takes place to supplement each event, while fans can discuss the US's biggest motorsport between races. Over 4500 fans populate the group.

Both FreeSports and Premier Sports will be showing a range of motorsport coverage in 2018, including NASCAR Xfinity and Truck Series, Australian Supercars, Polish and Swedish Speedway, Formula E, Monster Jam and AMA Supercross.

ratian Supercars, Polish and Swedish Speedw.
Ila E, Monster Jam and AMA Supercross.

FreeSports is slated to become a full HD

channel on Sky by summer 2018, with the

long-term objective of becoming a

top-three sports channel.





Other programmes in its portfolio include NHL, football, boxing, Rugby League and Rugby Union, MMA, British wrestling and basketball, tennis, pool and cricket. It plans to show 1000 hours of sporting events.

▶ To claim the £1 Premier Sports subscription on Sky, quote NASCARFANSUK when signing up on premiersports.com or on the phone at 0871 663 9000 before February 24.





NASCAR's new age

With some of the series' old guard departing at the end of 2017, the new NASCAR season is set to feature plenty of change and chatter

By Tom Errington, Special Contributor

y @tomgerrington

rom winning the season-opening Daytona 500 to almost losing his seat at Stewart-Haas Racing – by the time Kurt Busch had re-signed to ensure he'd defend his win this year, 2017 had been a rollercoaster by any measure. But that topic wasn't covered much in his press conference at the 2018 pre-season media days, instead, he was defending his brother.

Kyle Busch had taken issue with NASCAR planning for the future by promoting its next generation of young drivers at a time when star names including Danica Patrick, Dale Earnhardt Jr and Matt Kenseth had moved to the exit door, whether voluntarily or otherwise.

NASCAR is also continuing to see a steady decline in viewers amid various attempts to re-energise the series. It has therefore taken to encouraging emerging names such as Penske's Ryan Blaney and Hendrick Motorsports' Chase Elliott into becoming the more outspoken faces of the Cup series. After all, NASCAR lives for its star names and controversies but, somehow, that's been lost on Kyle.

We've paid our dues, and our sponsors have and everything else, and all you're doing is advertising all these younger guys for fans to figure out and pick up on, and choose as their favourite driver," he exploded. "I think it's stupid. But I don't know, I'm not the marketing genius that's behind this deal. I just do what I can do, and my part of it is what my part is."

Kurt is quick to jump in and defend his brother, but not without a sly dig at Elliott on the way.

"What I think [Kyle] is trying to say is that we are promoting these guys and they don't have the race wins yet," he says. "I mean there is 'zero' in the win column for a guy like Chase Elliott, there's zero for Bubba Wallace, Erik Jones – all those guys.

"You know [Kyle] Larson's out there; he's young; he's winning. They need to push him. I see him as a future champion. I think what Kyle is saving is these guys have been given a free pass, so to speak, to become a superstar and we haven't seen the success on track translate to what's being shown to the world."

When asked to give an example of a driver who was getting one of those "free passes", he picks out Elliott again.

"That's a touchy subject," he says. "I think that is what my little brother Kyle was referring to. It's cute - there are different 'chosen ones' or guys that take over iconic rides. But right now, it's Bill Elliott's son who is going to be a big-time player in our sport and has yet to win. He's doing a good job; it's all starting to blend in and I'd say he's just slightly overrated right now without the race wins that he should have in the win column."

But whether the Busch brothers like it or not, NASCAR is much changed in 2018 and nowhere is it more apparent than at Elliott's Hendrick Motorsports squad, which has embraced youth more than any other team on the grid.

Kasey Kahne, at 37 years old, has left for minnow Leavine Racing, with 43-year-old Earnhardt Jr having already committed to retirement. Between them they have 43 seasons of racing experience on the NASCAR ladder, and that's been replaced by 20-year-old Xfinity series champion William Byron and the slightly more experienced Alex Bowman, 24, who has just two full seasons of top-level competition behind him.

Elliott, one of NASCAR's leading young talents at 24, is no longer the rookie of the team, and seven-time Cup champion Jimmie Johnson — Elliott's senior by 18 years — is evermore the figurehead. It's a role he's relishing.

"I choose to see the positives that come with it," he says. "Out of the gate, just knowing young guys and their raw desire to go fast, there's a lot that we'll be able to take away >>>





NASCAR/DAYTONA 500 PREVIEW

from there. I think it's going to be important for me to understand their language, how they describe things, then understanding how to put that into the way I describe a car, the sensations I'm looking for.

"Their effort level is going to be really high. We might get some inconsistent feedback getting started until they can dial in at 100% and identify with that. But I'm excited for a fresh perspective. I find myself going in a cycle of looking what worked in different years, from a driver's standpoint, there are only a few things we can do to really be prepared.

"There's nothing to get you prepared for the bright spotlight that comes with being a Cup driver. Obviously, you end up making a lot more money than you previously have. [Plus] friendships, relationships, relationships with family, the grind of being on the road, there are just a lot of aspects to manage outside of driving the car."

Hearing those comments, the prospect of Johnson leading a young and refreshed Hendrick line-up is a tantalising prospect.

It may not be quite as exciting as teenagers getting Formula 1 opportunities, but consider that the average age of the top 10 drivers in each Cup season has been on the decline since 2012 (36 years and 277 days) and last year reached an average age of 34 years and 71 days. So, not only is NASCAR getting younger, but it's also performing at the highest level.

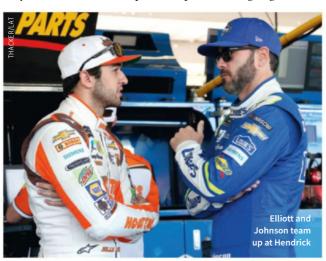
It would be too easy to put the praise on NASCAR, but instead, a similar scenario to the opportunities that led to a certain Jeff Gordon getting his break — a combination of right

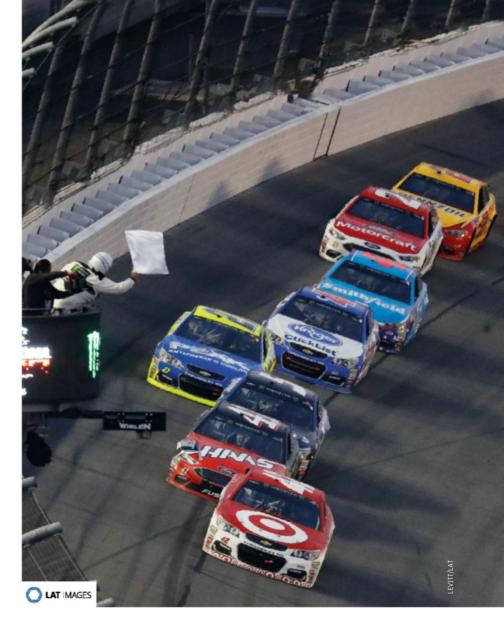
"Hendrick Motorsports has embraced youth more than any other team on the grid"

place, right time and an economic climate that meant team money and sponsor cash was harder to find — means younger talent is finding its way through the door.

Earnhardt Jr was one of NASCAR's most popular drivers and used that platform to earn a fortune, but he admits that times have changed ever since the United States was hit hard by the global recession.

"It took a while but when we had our major reset when the recession hit and everything sort of changed and the value of everything changed," he says. "The trickle-down effect, I think, is coming down through the drivers' contracts and it's making a big difference in the decisions these owners are making. You can't pay a driver five to eight million dollars a year if you've only \$10million worth of sponsorship. That isn't going to work.





"Guys aren't getting \$20m, \$30m, \$40m a year on sponsorship. Owners aren't getting that anymore. Drivers are having to understand that change is coming down the pike. And the young guys, they don't know any better. They want to race and they're taking whatever they can get. That's a good change for the owners."

It's also a good change for NASCAR when you look at the talent that's getting its chance in 2018. Penske loanee Blaney gave Wood Brothers its first Cup win since 2011 with victory at Pocono last year and now returns to his parent team in an expanded line-up that will give him the platform he needs.

Equally exciting in the pick of the fresh talent is Elliott, who has managed to somehow finish second seven times in his burgeoning career but, despite edging ever closer, is still without a victory. His fight with Denny Hamlin at Phoenix — lap-after-lap nudging and battling for position — was a highlight of 2017.

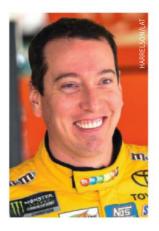
Darrell Wallace Jr at Richard Petty Motorsports will be a trailblazer in 2018, as the first African-American driver since Wendell Scott in '71, and Petty is a big fan of his new driver and the general youth trend in NASCAR. Wallace previously stood in at the team when Aric Almirola was sidelined with his injury last year, and he almost took a top-10 finish — he was 11th at Kentucky — in his short four-event spell.

It's easy to forget the younger talent that's established itself in NASCAR already but, for example, Kyle Larson is a five-time race winner at 25. Maybe it will take some of the other younger drivers winning a race for Kurt and Kyle Busch to take notice.

Last year, the Daytona 500 was almost the race of the rookies. Elliott took his second pole position in a row there, before Larson emerged as an unlikely potential winner — only to be denied by Kurt Busch. The Busch duo will again be doing their best to upstage the youth this time around, but you get the feeling there's only so long they can hold off the challenge. **

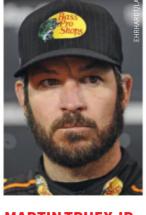
Larson leads the pack on the final lap of the Daytona 500 last year

10 DRIVERS TO WATCH



KYLE BUSCH

A clear contender for this year's title. Busch and Joe Gibbs Racing took longer to gel with the new Toyota Camry in the middle of a win drought that almost reached a year before his Pocono triumph. After that, he was a match for 2017 champion Martin Truex Jr right to the end. Expect that battle to continue in 2018 as the Toyota looks likely to be the frontrunning machine once again and Busch should have mastered the Camry.



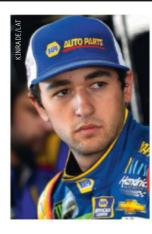
MARTIN TRUEX JR

The obvious choice as reigning champion, but the Furniture Row Racing driver has questions to answer in 2018. The Camry is clearly the car of choice, but opinions on how much of Truex's success was down to the car continued to vary in the paddock. Once Kyle Busch got to grips with his Toyota at Joe Gibbs, he went toe-to-toe with Truex. With Busch expected to hit the ground running this season, Truex will need to show he's a step ahead to dispel the doubts.



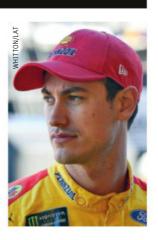
JIMMIE JOHNSON

The seven-time champion looked to be a contender early in 2017, having won three races, but his form as the playoffs approached nosedived and he exited at the round of eight with a crash at Phoenix. The Hendrick Chevrolet driver was at a loss to explain why, saying he'd never worked so hard for so little. If he can lead the team in its new era and Chevrolet's new Camaro fits the bill, a record-breaking eighth title may not be far away.



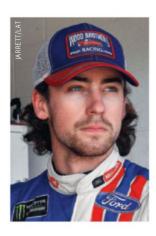
CHASE ELLIOTT

Few things were more agonising than watching Elliott repeatedly haul himself into contention for a maiden win and then end up second. Elliott is adamant there was no main reason for his defeats, claiming it was "circumstantial". As Jeff Gordon reckons, once Elliott gets that first win it'll be hard to stop him going on to greater things. At 24, that breakthrough needs to come sooner or later if he wants to start hunting titles in the same way as team-mate Johnson.



JOEY LOGANO

Penske's Logano could not have had a more unlucky 2017. He took an impressive win at Richmond, only for it to be negated after his car failed a post-race inspection. With his playoff ticket snatched from his grasp, he nearly earned a reprieve at the return race there, but narrowly missed out. No wonder he called it a "horror film" year after he just lost out on the '16 title. Refocused, he should be in the playoffs come the end of '18.



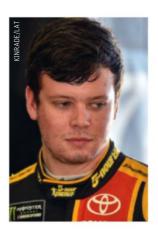
RYAN BLANEY

Blaney has served his apprenticeship at the Wood Brothers outfit after being loaned out from Penske. He excelled in a single-car squad last year, earning him a return to Penske in a three-car outfit in 2018. Having taken a first win at Pocono last season, there's no reason why Blanev can't be a consistent frontrunner, and NASCAR would be all the better for it as he's one of the series' most charismatic drivers at a time when it needs new star names.



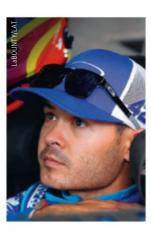
ARICALMIROLA

After Almirola suffered a serious back injury at Kansas Speedway in a collision between Danica Patrick and Logano last year, he had to watch for two months. But it was worth the wait when Stewart-Haas Racing swooped for him after it became clear Patrick's funds had dried up. Now in frontrunning machinery, a lot will be expected of Almirola, although he's already had to cope with driving for the legendary Richard Petty.



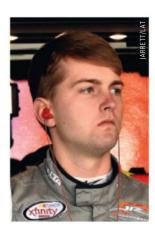
ERIKJONES

Frik Jones and Daniel Suarez were the two rookies to watch in 2017, but it was the latter who had the early advantage as he was picked for the Joe Gibbs seat ahead of Jones. But it was the Furniture Row Racing man who had the last laugh after beating Suarez in the points standings. He's now been picked to replace Matt Kenseth at Joe Gibbs and, as Kyle Busch has consistently shown, that's an outfit that can win races regularly. The onus is on Jones to continue his rise.



KYLE LARSON

Fast, but without the results the pace warrants. That's a moniker Larson needs to offload in 2018. He started last year in imperious form, winning at California after three second place finishes in a row. Those successes should have set up a title campaign, but engine trouble at Kansas eliminated him from the playoffs as Jimmie Johnson snuck through instead. Larson felt it was a missed opportunity at his first real title shot, but he needs a second chance this year.



WILLIAM BYRON

Byron's climb to the Cup series has not been conventional, as he rose through the Truck and Xfinity series to the top tier in just three seasons. The reigning Xfinity champion has stepped in at Hendrick as part of its more youthful line-up. With Elliott, Johnson and the more experienced Alex Bowman in tow, Byron will need to show what he's made of early on. With the might of Hendrick behind him, he's well primed to make another great stride forward in 2018.



Why Danica Patrick is saying farewell

The high-profile driver is ending her career with two final races in 2018, but getting a deal for the Daytona 500 has not been easy

By Tom Errington, Special Contributor

@tomgerrington

t wasn't the way Danica Patrick wanted to end her full-time NASCAR Cup series career. Midway through the 2017 Homestead season finale, the Stewart-Haas Racing driver made a slight error at the final corner of the oval, clipping the wall, damaging the car and causing a fire. She pulled her Ford Fusion to the inside line and climbed out "angry" and "disappointed". In the press conference afterwards, an emotional Patrick told the media she was retiring from racing — but not until she had one final stab at the Daytona 500 and the Indianapolis 500, the scenes of some of her career highlights. Two chances to end on a better note.

The 35-year-old's final year in NASCAR was blighted by sponsorship issues that put her future in doubt early in the season. And when they could not be resolved, it seemed her career path was decided for her. But there's no need for speculation about what she brought to NASCAR, and her return to Daytona this week is a fitting tribute to that. The scene of her first Cup race in 2012 is also the track where she took her

only Cup pole position a year later, which caused a 20-30% ratings increase to the TV figures for that weekend alone.

While it would be a shame for a driver to be defined by media appearances and gender, Patrick made it a useful tool to launch her into superstardom and take NASCAR to a variety of audiences as part of her love of marketing — an area she's already chosen to explore further in her second career, with a recently released fitness book. She was, unfortunately, the target of sexism and abuse, but her mark on the series as one of American motorsport's most successful female drivers cannot be discounted. As it stands, she is the best female NASCAR contender of all time, with the most top-10 finishes, most poles, and more laps led than any other. But what we don't know yet is whether Patrick has encouraged the next generation to follow in her footsteps.

A high-profile swansong can only help, even if it did look like it had fallen off a cliff face after a promising start. She was seen speaking to Chip Ganassi Racing not long after the news broke, with a tie-up looking likely. "I think it's a great idea for her to Patrick will have two last chances to end her career on a high at Daytona and Indianapolis







do that," team boss Ganassi said of Patrick's plans at the time. "I think it's a fabulous idea, a fabulous marketing idea — it's a fabulous opportunity and obviously the business side of the deal has to work." And then the caveat: "I'm a long way from saying, 'Yes, I can do that."

Silence followed, and a lot of it. Privately, Ganassi ruled out a deal and Autosport understands that several other leading organisations did too. Patrick's options were limited, which wasn't surprising considering that she had described her final Cup season as a "grind". With no further money in sight, Patrick was downbeat about her prospects. "It's taking longer than I would like it to take, I'll be really honest with you," Patrick told NASCAR's radio platform at the end of 2017. "I thought it was going to be a quicker process, but you can't rush things. I'm a big believer, more and more, of just letting things flow and letting things take shape and that's why I ended up finishing my career full-time last year."

Patrick's patience was admirable, but a deal remained feasible. The questions were answered by an old friend — sponsor GoDaddy, which had guided Patrick's early transition into NASCAR and supported her until 2015. In January, it announced it would back her once again and the gears for those final drives creaked back into motion, but any chance of top a seat had gone.

Instead, Patrick will race in the Daytona 500 for Premium Motorsports. To non-followers of NASCAR that may sound quite the stepdown, but there are nevertheless promising factors. To start with, Premium's acquisition of Tommy Baldwin Racing means it holds a charter, guaranteeing her participation in the race. Tony Eury Jr — Patrick's first crew chief in NASCAR — will return to guide her and she'll drive the #7 Chevrolet, a car that is supported by the experts at Richard Childress Racing.

Although Premium finished eighth at Daytona last year with Michael Waltrip, a similar result in 2018 is a tough ask, but Patrick will get the swansong she planned. The race will provide her with one final chance to prove her many doubters wrong back at the circuit that defined her impact in NASCAR.

PATRICK'S KEY MOMENTS

FORMULA FORD BRANDS FESTIVAL, 2000

Patrick's second-place finish at Brands Hatch might not have been in an IndyCar or NASCAR race, but it would inform her career heavily. Admitting she was "hurt" by her time in England, it not only showed her single-seater ability but toughened her against adversity when she moved back Stateside





INDYCAR, MOTEGI, 2008

Patrick became the first woman to win in a top-level American single-seater series with victory at Motegi. Granted, a combination of Penske driver Helio Castroneves's baffling decision to ignore Tim Cindric's strategy and good management from Andretti Autosport helped, but Patrick took her chance when the field pitted for fuel with two laps to go.



INDIANAPOLIS 500, 2009

The 2009 Indy 500 was the highlight of Patrick's strongest IndyCar season, when she finished fifth in the standings. Patrick's strategy on fuel gave her the benefit of being in the chasing pack, but a late yellow meant she rose to finish third – and Patrick believed she could have fought with winner Helio Castroneves and Dan Wheldon for the victory.



DAYTONA 500, 2013

Patrick took a gamble in switching to NASCAR from IndyCar, as few drivers have made it work. In IndyCar, she had driven for one of the series' top teams at Andretti and was a regular top-10 finisher. But she started promisingly, with pole at the start of her first full NASCAR season at the 2013 Daytona 500. She led for five laps before falling to eighth.

NASCAR, ATLANTA, 2014

Patrick had not set the NASCAR world alight, with an average finish outside the top 20, at this stage of her top-level stock car career. But Atlanta would be the scene of her best Cup finish, with two timely cautions lifting her to fourth at the final restart with three laps to go, and she ended up sixth.





Can Toyota be knocked off the top?

A new Chevrolet has raised hopes that Toyota's 'F1-style' domination of NASCAR can be halted in 2018

By Tom Errington, Special Contributor

y @tomgerrington

ack-to-back manufacturer titles, accusations of an unlimited budget, and what was described as 'Formula 1 domination' — Toyota took a decisive stranglehold on the NASCAR Cup series in 2017 as it ruffled feathers on and off the track.

Having committed to a new Camry

for road-car production in the US for 2018, Toyota surprised its NASCAR rivals by bringing a racing version to the series in '17 after a year in which Chevrolet and

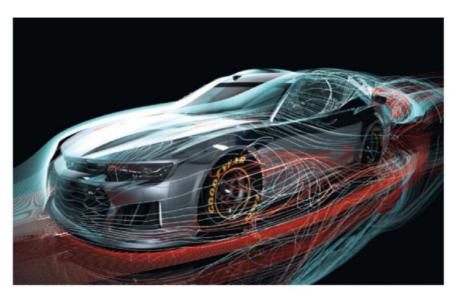
Ford had slowly crept up to its benchmark pace. It looked like that pattern could continue, with a low-key start to '17 for

Toyota, which won just twice in the first 11 races.

But by the end of the 2017 season it was in a league of its own. The final-four showdown at Homestead was a straight fight between two Toyota stars: Furniture Row Racing's Martin Truex Jr, and Kyle Busch in his Joe Gibbs Racing Camry. In truth, Ford's Kevin Harvick and Brad Keselowski were there to make up the numbers, hoping for a stroke of luck that never came. Keselowski was the one to compare Toyota to F1, and Busch's Ford-driving older brother Kurt told Autosport that Toyota "played possum" until the Coca-Cola 600 at Charlotte in May. There's some merit to Busch Sr's words: Toyota won 14 of the final 25 races, with eight victories coming in the 10 playoff races.

But as to why it dominated, that's a harder question — beyond the fact that it outspends Chevrolet and Ford. Many suspect that it had an inherent aerodynamic advantage — which, in the current NASCAR rulebook of progressively reduced aero dependence, is essential. "I would attribute our performance to be a function of a number of different things," says Toyota's American racing boss David Wilson. "It's not just the new Camry, and that's the beauty of this sport.

"While we'd love to pat ourselves on the back and put all of the credit on this new Camry, that's just not the case. It's strong



team organisations and partnerships that we developed last year. With a three-way partnership between Joe Gibbs Racing, Furniture Row Racing and BK Racing, it is very powerful. I think that really played into our performance in 2017."

It was certainly an element. While BK Racing was unlikely to star in 2017 amid ongoing legal problems, JGR's slow start to the season skewed the numbers. It took until July at Pocono for Kyle Busch to win a race and join Truex up front.

NASCAR will be hoping that a similarly weak start can be punished in 2018, and it might have its answer in Chevrolet. It will bring a new model based on the Camaro ZR1 to the series, and has been testing the car with Hendrick Motorsports' Chase Elliott in recent months. Chevrolet's engine excellence has never been in doubt, but it lacked the overall package to compete with Toyota, particularly at the mile-and-a-half ovals.

Chevrolet (above and top in main pic) has prioritised improving downforce in its pursuit of Toyota



With NASCAR manufacturers working in a largely transparent environment, Chevrolet stresses it can study Toyota to beat it at its own game. "I think we learn lessons every time one of the other OEMs enters a car," says Chevrolet NASCAR group manager Pat Suhy. "When we had our car in 2013, that project was truly a collaboration between NASCAR and the three OEMs — we were together creating the submission rules, the aero, submission targets, the geometric look the cars had to fit in, and things like that.

"We didn't have a chance to understand them, and I'll say design our way around some of them. As we watched our competitors bring out one or two new vehicles between then and now, we certainly saw trends in how they approached that, we made note of it."

Having prioritised improving its downforce, particularly at the rear of the car in comparison to Toyota, Chevrolet and Elliott believe they've made up ground. "I don't think we were completely out to lunch in any area," says Elliott. "I think it's just a little bit here and there. Whether it's a little bit of body or a little bit of drag-to-downforce numbers and that ratio, who knows what you're up against?"

There's also an off-track evolution that drivers are hoping will level the playing field - an updated inspection system.

NASCAR has gradually moved away from relying on the human eye, and its refined Hawkeye system will use 17 cameras to detect illegality in just 90 seconds. "There's a rule that says cars have to look right but they weren't inspected regularly, so you could be quite creative with how you manipulate the design of a surface," explains Suhy. "Knowing that there's a new inspection process, some of the things we probably would have done if it was strictly the [old] grid-template system, we knew were directionally incorrect."

With tighter rules and a new car to rival it, Toyota has already admitted the 2018 season could be its biggest challenge yet. Daytona this weekend will be the first showcase, and by the next race in Atlanta we should have a definitive answer. **

FORD'S WAIT CONTINUES

WHILE CHEVROLET AND TOYOTA WILL race 2018 versions of their road cars, Ford continues with the ageing Ford Fusion. But while on face value that seems a large disadvantage, there is a potential reward for its drivers, even if they're struggling to be patient.

It's still likely to be 2019 before Ford introduces a new car, with rumours persisting that it could abandon the Fusion for the new Mustang. But being the last to update could be an advantage, as Stewart-Haas Racing's Kurt Busch acknowledges.

"You hope that they do their homework and you watch Chevrolet; then when you're going to a [new] design, you see the other team show their hand and so you can capitalise on it," he says. "We can still be competitive, we have to go to work and not be disappointed by the different politics or what cars get approved or not approved and, for that matter, even the parts."

Like Chevrolet, Ford is also hoping that the new inspection process will level the playing field to allow it to punch above its weight, but a first manufacturer title since 2002 looks unlikely. "I would love to have it right now," says Busch about the prospect of a new Ford. "I would love to go with any new technology. I was surprised we had a '18 Camry racing in '17. With the Camaro this year, Chevy will get its chance, but that's all part of the game behind the scenes."

In the meantime, minor updates at the request of its teams will have to tide Ford over. It certainly didn't seem to hurt at the season-opening Daytona Clash last weekend, in which Fords finished 1-2-3-4...



WEB DIRECTORY

AWNINGS



No1 for Inflatable Structures. With you from the Paddock to the Podium.

www.aireshelta.com

HELMET GRAPHICS

Mike Fairholme Designs

Sole approved painter of Arai helmets. Silver Birches, Corby Birkholme, Nr Grantham, Lincs NG33 4LE. Tel: 01476 550630. Fax: 01476 550029. email: fairholmedesigns@btconnect.com

www.fairholmedesigns.co.uk

MOTORSPORT LEGAL ADVICE

MOTORSPORT CONTRACTS AND LEGAL ADVICE (NATIONAL AND INTERNATIONAL)

> **CALL JAMIE CHAMPKIN** 07880 96500

info@champkin.uk.com - www.champkin.uk.com

RACE RADIO



www.raceradio.co.uk



MEMORABILIA



GEARBOXES

<u>Gearboxman.com</u> COMPETITION TRANSMISSION SERVICES

Gearboxes & Axles for Road, Race, Rally and more

Telephone: 01582 840008 Fax: 01582 840007

MOTORSPORT LEGAL ADVICE

Motor Sport Legal Advice **Tudor Alexander, LI.B Solicitor** 07887 713512

RACE PARTS





RACING





RACING



RACING



PORSCHESHOP

10% off with website voucher code AUTOTEN

Or Call: 0121 585 6088

RACEWEAR





www.demon-tweeks.co.uk

TRAILERS & TRANSPORTERS



sales@husligcollective.com

TRAILERS & TRANSPORTERS



BRIAN JAMES TRAILERS >> Connected to you

www.brianjames.co.uk





TO ADVERTISE IN THE WEB DIRECTORY PLEASE CALL **0203 405 8109** OR EMAIL ads@autosport.com



Speed is of its essence

Built to outperform, the Race Transporter 6 has been designed around your race weekend.

Light-weight materials and clever design provide strength throughout. Combined with a proven wheels under the bed chassis and advanced suspension your journey with a Race Transporter will be competent and comfortable.

In the paddock the Race Transporter 6 includes many specific race weekend orientated features providing a comfortable work environment. Tyre and equipment storage is available in several places, with enhanced options also offered. Interior lighting, remote controlled electric winch and a full set of side doors with hatches all contribute to making loading effortless and speedy.

Race Transporter trailers are available from £ 7,499 + vat

Race Transporters are available ex-stock at many UK dealers Please visit our website or call us for further details.





T +44 **(0)1327 308 833**

For more information and details on the Brian James Trailers range, please contact our head office

QUALITY THAT WE ARE PROUD OF

Woodford GRP covered trailers - Value for money. Superior in design, quality and finish



DEALERS WANTED - All Woodford Trailers have full European Type Approval







Dealers who hold stock

PORTSMOUTH

BLENDWORTH TRAILER CENTRE T: +44(0)2392 412731 www.blendworthtrailers.co.uk

LONDON

VINTAGE & PRESTIGE FINE MOTORCARS T: ++44 (0) 1442 236711 Mob: ++44 (0) 7967 260673 E: richard@vandp.net

WINCHESTER TRAILERTEK LTD Warren Farm

Micheldever Station Winchester, Hampshire SO21 3AS T: 01962 774988 Fax 01962 795 093 E: info@trailers.co.uk E: sales@trailertek.com www.trailertek.com

NOTHINGHAM

GREGG MOTORSPORT T: 07977975173 E: ian.gregg@gregg-motorsport.com www.gregg-motorsport.com

LONDON-KENT

SOUTHEAST TRAILERS 498 London Road, Ditton, Kent T: 07933842719

NORTH SCOTLAND

GLENBURGIE CARS WOODFORD TRAILERS SCOTLAND Easter Lawrenceton Steading Forres IV36 2RL T: +44 (0)1309 676787 E: sales@glenburgiecars.co.uk www.woodfortrailersscotland.com

BOSTON

BLUE LINE TRAILERS Sutterton Boston PE20 2BE T: 01205 460346 E: accounts@blueline-trailers.co.uk

BRIDGEWATER

Bridgwater Trailer Centre The Wireworks Estate, Bristol Road, Bridgwater TA6 4AP T: 01278 445000 www.bridgwatertrailers.co.uk

SOUTH LONDON

SOUTH LONDON TRAILER CENTRE Hackbridge Station Depot London Road, Wallington, Surrey SM6 7BJ T: 0208 647 0110 Mob: 07836 224250 E: steve@sltc.co.uk ellisviner@btinternet.com

BERKSHIRE COUNTY TRAILERS Mobile: 07853263484 T: 01628 559782 E: sales@berkshirecountytrailers.co.uk www.berkshirecountytrailers.co.uk

1 STOP TRAILERS T: +44 (0)1787 249737 T: +44 (0)7850 554776 E: 1stoptrailers@mail.com www.1stoptrailers.co.uk

BRIGHTON

HALF MOON BAY (LEISURE) LTD Smart-Trailers.co.uk Monastery Lane Storrington RH20 4LR T: 07950 968348 E: Alan@Smart-Tow.com www.smart-tow.com

LEICESTER

MARSDEN BARN TRAILERS Unit 1 Marsden Barn, Huncote Road Stoney Stanton, Leicester LE9 4DJ T: 01455641367 Mob: 07968 888624 marsdenbarntrailers@gmail.com

NOTTINGHAM

APPLEYARD TRAILERS The Kennels, Main St,Strelley, Nottingham NG8 6PD T: 01159293901 Mob: 0785075014

MID WALES

HUMPHREYS & FOULKES Unit 6, Lion Works, Pool Rd, Newtown, Powys SY16 3AG T: 01686 628144

LEEDS

ROTHWELL TRAILERS 126 Wakefield Road Rothwell, Leeds LS26 0SB T: 01132887179 E: sales@rothwelltrailers.co.uk rothwelltrailers co.uk

READING

LOVELL TRAILERS James Farrm James Lane Grazeley Green Reading, RG7 1NB E: sales@lovelltrailers.co.uk www.lovelltrailers.co.uk T: 01183240403

NORTHERN IRELAND

MONTGOMERY MOTORSPORT T: 0044(0)2885549851 www.montgomery-motorsport.co.uk

www.**WOODFORD**TRAILERS.com

HIGH QUALITY TRAILERS FOR CLUB, PRIVATE AND PRO MOTORSPORTS

Woodford Trailers Limited • 14 Great Central Way • Daventry • Woodford Halse • Northants • NN11 3PZ Telephone: 01327 263384

TRAILERS & TRANSPORTERS

MAUTOSPORT

If you wish to advertise your products and services with Autosport in print and online please contact Ben.kavanagh@ motorsport.com or call 0203 405 8109



OFFICE & HOSPITALITY TRAILER

Custom Built for Porsche in 2008

In exceptional condition with very low mileage, the trailer consists of: luxury meeting room; salon toilet/shower; bedroom/office/store; kitchenette/staff area; communication/PR office with separate access stairs; onboard 27KVA silent running generator; large storage lockers.

Now looking for a new role in life: £35,995 plus VAT

CONTACT 07802 402484





Fieldfare Trailer Centre, Salisbury.

With over 15 years of experience in dealing with trailers, we know a thing or two about them.

Our expert and professional advice will help you find the right trailer for your requirements.

People come from all over the country to see our extensive range for a number of different uses.

- * Trailer Hire
- * Servicing

* Parts * Repairs

Selection of used Brian James Trailers for sale

A-Max, 5.0m x 1.96m, 2.6t GVW, £1800 + vat A-Max, 4.3m x 1.96m, 2.6t GVW, £1850 + vat A-Max, 4.3m x 1.96m, 2.6t GVW, £2000 + vat TT Tiltbed, 5.0m x 2.02m, 3.5t GVW, £2500 + vat Covered A-Max, 4.24m x 1.94m x 1.52m high, 2.0t GVW, £3,495 no vat.



BRIAN JAMES TRAILERS

Tel: 01980 611853 info@fieldfaretrailers.co.uk www.fieldfaretrailers.co.uk

The Trailer Warehouse, Ford Farm, Old Malthouse Lane, Ford, Salisbury, Wiltshire, SP4 6DR.









BSc (Hons) Motorsport Engineering*

NEW for 2018 - MSc Advanced Motorsport Engineering**

Accelerate YOUR Motorsport Career!

*BSc (Hons) awarded by our academic partner Staffordshire University. **MSc subject to validation.



The only TRULY FLEXIBLE route to gaining your Motorsport Engineering Degree

- ✓ APPLY ONLINE, choose your own start date & study from anywhere in the world
- Earn while you learn, study flexibly around work & family commitments
- √ 40% lower fees than other universities
- ✓ Access to student loans for UK students
- Latest industry CAD & Simulation software FREE

NMA now has students from Formula 1,
The World Endurance Championship & The World Rally Championship!

http://motorsport.nda.ac.uk









+44 (0)1159 123456





23rd February 2018

The Race Retro Competition Car Sale 2018

Stoneleigh Park, Coventry CV8 2LG

Year	Title	Estimate*	Year	Title	Estimate*
1959	Austin A35 HRDC spec	£18,000 - £25,000	2006	Gunn TS6 Sports 2000	£16,000 · £20,000
1986	Ben Bowlby SC100	No Reserve	1963	Jaguar Mk2	£50,000 - £60,000
1972	Broadspeed Escort Mkl RS 1600 FIA Race car.	£40,000 - £45,000	1970	Lola T210 SL210-07	£140,000 · £170,000
1960	Cooper Monaco T57 MkII CM3-60	£160,000 · £190,000	1975	Lola T360 F2 (HU18)	£60,000 - £70,000
1973	Datsun 240Z Club/Regularity Rally Car	£25,000 - £30,000	1970	Morgan Plus 8	£60,000 - £70,000
1960	Elva MkV Sports racer	£50,000 - £60,000	1966	Morris Mini Cooper 'S' 1293	£26,000 · £32,000
1959	Fairthorpe Electron · Coventry Climax	£22,000 - £26,000	1997	Nissan Primera Super Tourer – Ex-David Leslie	£80,000 · £100,000
1963	FIA Ford Lotus Consul Cortina	£75,000 - £85,000	2004	Palmer Jaguar JP1 TS and Trailer	£27,000 - £30,000
1974	Ford Capri 3.0	No Reserve	1994	Porsche 968 Sport and Trailer	£20,000 - £25,000
1970	Ford Escort MkI RS1600 FIA race car	£85,000 · £100,000	1981	Renault 5 GTL	No Reserve
1968	Ford Escort Mkl Twin Cam 'Works Rally Evocation'	£60,000 - £70,000	1993	Subaru Legacy RS Group A – Ex-Ari Vatanen	£120,000 · £140,000
1999	Ford Focus WRC Rally Car – Ex-Colin McRae	£120,000 · £140,000	1964	Sunbeam Alpine	£20,000 - £25,000
1963	Ford Lotus Cortina FIA Race Car	£55,000 - £65,000	1964	Triumph Spitfire 'Le Mans GT Fastback'	£15,000 - £20,000
1999	Ford Mondeo 'Super Tourer' – Ex-Anthony Reid	£70,000 - £80,000	1946	V8-60 "Midget Racer"	£13,000 · £16,000
1990	Ford Sierra Cosworth RS500 'Group A'	£175,000 - £220,000	2002	Williams FW 24 Formula 1 race car (no engine)	£15,000 - £20,000

*All lots subject to buyer's premium of 15% including VAT @ 20%

A NEW APPROACH IN AN AGE-OLD BUSINESS

+44 (0) 1926 800 519 | silverstoneauctions.com



MARKETPLACE



G4R 12HOURS SEBRING RACE REPLICA

Class winning car in Masters Gentlemen Drivers (over 6 wins, 5 x 2nd wins & 2 x 3rds in the last two years)

Full FIA HTP papers

Geoff Richardson Twin Cam engine

No expenses spared in preparing this class winning car - very reliable & very fast.



ON THE BUTTON & READY TO RACE

CONTACT: ANJA / MASTERS HISTORIC RACING

£95,000 ONO

T: +44 7778 570030 - E: anja@mastershistoricracing.com

CLUB RACING



MOTORSPORT FOR CARS OF ALL AGES





The Classic Sports Car Club organises friendly club racing with an emphasis on great value for money and high driving standards. We race at the best circuits in the UK and abroad, with simple regulations and class structures.

Highlights for 2018:

- New Bike-engined group in Gold Arts Magnificent Sevens.
- Multiple races at Spa Francorchamps including the Spa 3 Hours race.
- Open Series races at Magny-Cours, France.
- New forced induction race series Motorsports School Turbo Tin Tops, for Supercharged and Turbocharged front wheel drive cars.





Classic Sports Car Club Tel: 01225 810655

Email: info@classicsportscarclub.co.uk

f Classic Sports Car Club 💆 @CSCCRacing



MARKETPLACE

MEMORABILIA

NUMBER PLATES

TYRES







Fax: 0121 331 1144

email: sales@bmtr.co.uk

e our new website at www.bmtr.co.uk

RACE PRODUCTS







MAUTOSPORT

If you wish to advertise your products and services with Autosport in print and online please contact

Ben.kavanagh@

motorsport. com

or call

0203 405 8109

RACE PRODUCTS





YEAH BABY!



MARKETPLACE / MOTORSPORT JOBS

MAUTOSPORT

Want to advertise a motorsport job?

If you are recruiting in motorsport and wish to advertise with Autosport in print and online please contact james.robinson@ motorsport.com or call 0203 405 8105.

For all current vacancies advertised please visit our website www.autosport.com

FLORIS1

Floral Events 2 Bespoke Florist with both Motorsport Hospitality

Motorsport Hospitality
and Product Launch Experience.
Prepared to travel throughout UK
and Europe, leaving your team to do
what they do best.

Contact Julie on

Mobile 07957831398 • Office 01538 308259 or
email Julie@floralevents.co.uk

www.floralevents.co.uk



MOTORSPORT JOBS





R0000377 NDT COMPOSITE INSPECTOR

WE HAVE AN EXCITING OPPORTUNITY FOR AN INSPECTOR TO JOIN OUR COMPOSITE NDT INSPECTION DEPARTMENT.

In this role you will be involved in the detailed inspection of complex and critical race car components and assemblies (composite and metallic) to the highest standards using various inspection methods, recording and reporting results in accordance with our procedures.

The applicant will have extensive proven experience and ideally hold level 2 qualifications in Ultrasonic, Magnetic Particle, Penetrants and Eddy Current. Experience of other Phased Array methods would be an advantage. You will also be able to demonstrate skills in the use of inspection measuring equipment.

Applicants interested in applying will ideally be apprentice trained, hold an ONC/HNC qualification or equivalent and have proven experience and knowledge within a Manufacturing/Inspection capacity. You will be a self-motivator with a proactive approach and it is essential that you have a flexible attitude to shift patterns. In addition, you will also have excellent communication skills and the ability to work to very tight deadlines, often with minimum supervision and have the ability to deal with challenging situations and delivery pressures.

This role is based at Red Bull Racing and Red Bull Technology's headquarters in Milton Keynes, and you may be required to travel to race and test events.

Closing date for applicants is Sunday 25th February 2018
To apply to this vacancy please visit www.redbullracing.com



Receive a Ferrari 150°
Italia 1:12 scale
nosecone from the
Amalgam worth £115!



Subscribe today to receive the 2018 F1 season preview covering every team, driver and circuit

SAVE 58% on the cover price

NEVER

miss an

UNLIMITED

access at home or on the go

FREE

gift worth £115

SUBSCRIBE ONLINE AT www.autosportmedia.com/offer/ASP1802

...OR CALL

03451202004

QUOTE THE PROMOTIONAL CODE P1802DB

OVERSEAS RATES ARE AVAILABLE ON +44 (0) 1604 828 743

CLUB AUTOSPORT

NATIONAL RACING • HISTORICS • HILLCLIMB • TRACK TESTS • FEATURES



BRITISH GT

Buurman joins Mercedes GT3 line-up

FORMER GP2 RACER AND CURRENT AMG factory driver Yelmer Buurman will compete in British GT this year alongside Lee Mowle in a Mercedes-AMG GT3 run by new team ERC Sport.

Mowle's Mercedes will be back for a full season this term, having only run a part campaign around the Michelin Le Mans Cup last season.

Buurman will be making his British GT debut, but was a fixture on the UK single-seater scene as a teenager, winning races in Formula Renault UK in 2005 and in British Formula 3 in '06. Apart from GP2, he went on to race in Formula Renault 3.5 and Superleague Formula.

The Dutchman was part of the crew that won the Dubai 24 Hours earlier this year, and his main programme last season was in the Blancpain Endurance Cup.

The new ERC squad is headed up by former Trackspeed and Triple Eight engineer Keith Cheetham.



Mowle said: "I've raced with Keith for years, so when I found out he was setting up his own team for this year it made a lot of sense.

"When I was looking at what to race this year I looked at Europe, but then when you see the stellar grid British GT is attracting for this year it makes you think, 'What's the point in spending the Buurman raced in Superleague Formula before switching to sportscars in 2012 extra money on Europe?'The calibre of drivers this season is higher than it's ever been and if you win, you're beating the best in the game.

"I only wanted to come back with a properly quick factory driver alongside me, so Yelmer is a great addition. We've had a few test days together already and he's great to work with, so I think it'll be an exciting season."

Mowle has raced in British GT since 2012, with a best championship finish of third overall alongside Joe Osborne in a Triple Eight-run BMW Z4 GT3 in 2015.

ERC's takeover of the running of Mowle's Mercedes ends the AmDTuning. com team's spell in British GT. Shaun Hollamby's squad had been a fixture since 2015, but will now cease its GT programme to instead focus on its expanded British Touring Car Championship commitment running two Audi S3s and a pair of MG6 machines.

Comprehensive motorsport insurance products to keep you on track;

- Accident damage On Track
- Rally damage On Event
- Storage and Transit
- **Ø** Liability
- Personal Accident
- Track day

Log on to www.ryanmi.com to obtain your online quote

Email – info@ryanmi.com Tel – +44 (0) 1799 524202

Ryan Motorsport Insurance Limited is an appointed representative (557405) of Independent Broking Solutions Limited who are authorised and regulated by the Financial Conduct Authority, its Financial Services Register number is 31200







BRDCBRITISHF3

Lundqvist steps up to BRDC British F3

LINUS LUNDQVIST WILL GRADUATE TO the BRDC British Formula 3 Championship with Double R Racing this season.

After cutting his teeth in Swedish Formula Renault 1.6 in 2015 and '16, Lundqvist competed in British Formula 4 in 2017, also with Double R. Although his season was blighted with bad luck, he took five wins on his way to fifth in the standings. He also made a single appearance in British F3 at Spa, securing a best result of seventh.

"I learned a lot from that one-off at Spa last year, and it remains one of the highlights of my season," said the 18-year old. "The car is so much fun to drive, and by the end of that weekend I was down to just a few tenths off the fastest guys. Having done that race at Spa also means I will be familiar with all the tracks on the calendar; I obviously know the British ones from F4. There will still be things to learn, but overall I'm feeling pretty confident going into pre-season testing."

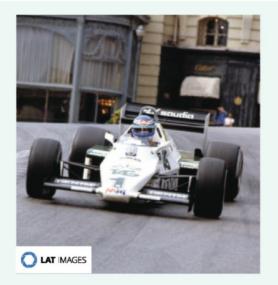
The Woking-based Double R squad, which won the British F3 title in 2016 with new IndyCar rookie Matheus Leist, will partner Lundqvist with American USF2000 graduate Dev Gore, with its third driver yet to be confirmed.

"Linus is a quality driver, a real genuine prospect, and our aim is to be regularly challenging for podiums and race wins as the championship unfolds," said team boss Anthony Hieatt. "We've got a fantastic relationship and everyone at the team is very hungry to achieve a lot of success in British F3 this season."

Elsewhere in British F3, Carlin has signed Nicolai Kjaergaard. It will be the 18-year-old Dane's second attempt at the championship, having raced with Fortec Motorsports in 2017.

"I definitely feel excited to be joining Carlin; the team won the championship last year," said Kjaergaard. "Hopefully I can go out and be a challenger for the championship this season — this is the goal for me and the team. I feel like this move is a step up in terms of expectations, both from myself and the people around me.

"Testing so far has been good and the guys in the team have been great, very helpful, and have made me feel really welcome, so it's been easy for me to settle in and focus on performance."



THRUXTO

Williams FW08C for Thruxton celebration

AN ON-TRACK DEMONSTRATION of a Williams FW08C Formula 1 car will be one of the highlights at the 50th-anniversary meeting of the Thruxton circuit in June.

The Williams team is supporting the meeting and, as well as the FW08C, will provide other racing cars to be on static display. No driver has yet been assigned to perform the demonstration laps, which will take place on both days of the June 2-3 event.

Thruxton Group managing

director Bill Coombs said: "I have no doubt the FW08C will make for a quite incredible spectacle in June. It is what I would call a 'proper' F1 car – with its screeching V8 engine and wide rear tyres – and it will surely bring back many evocative memories for those like me who were lucky enough to have witnessed it competing during its heyday. This really will be very special indeed."

The FW08C won the 1983 Monaco Grand Prix in the hands of Keke Rosberg (left), and a previous iteration of the machine won the 1982 F1 world title with the same driver. It was the last Williams to race with a naturally aspirated engine until 1988.

Other attractions at the Thruxton meeting will include a full roster of historic racing, including the HSCC Formula Libre event for cars including Historic F2 machines, and the Super Touring Car Trophy.

During the meeting the new hospitality centre – which is mid-build – will be unveiled



BRDC BRITISH F3 Billy Monger is targeting a drive with Carlin in BRDC British Formula 3 this season as he makes his comeback from the horrific crash he suffered at Donington Park last year. At a snowy Oulton Park last week, Carlin gave the 18-year old his first full day in a single-seater since the crash. Monger is now attempting to secure the budget to race in the series. **Photographs by Jakob Ebrey**

RENAULT UK CLIO CUP

Nic Hamilton takes on Clio Cup

NIC HAMILTON WILL CONTEST a full season of the Renault UK Clio Cup this year after taking part in five events last term.

Hamilton, the younger brother of four-time Formula 1 champion Lewis, will again drive for WDE Motorsport in what will be his first full season of racing since he competed in the Clio Cup in 2012.

Hamilton has secured an increased budget for this season, allowing him



to take part in pre-season testing. He has cerebral palsy and must drive a specially adapted car.

Team boss Wayne Eason believes Hamilton can make a major step forward this year.

"He's got the right budget in place now – he hasn't got to scrimp and save," said Eason. "Now he's going to hit the ground running and is aiming for consistent top-10 finishes, which he is more than capable of and the data shows that."

Hamilton took a best result of 13th last year and finished 20th in the standings. Former WDE driver Luke Reade won't return with the team but will race in the Mini Challenge.

FORMULA FORD

Brits to head to New Zealand races

HISTORIC (PRE-1972) AND CLASSIC (Pre-'82) Formula Ford owners are being offered a golden opportunity to celebrate the 50th anniversary of the class's debut in New Zealand in an exciting four-event, 12-race mini-series to be promoted over successive weekends in January 2019.

The Southern Cross World FF Challenge visits Taupo, Hampton Downs and Pukekoke.

It has been masterminded from the UK by London-born, New Zealand-raised Alan

Crocker, who competed in the country's first FF race in a Lotus 20B and still contests the French FF series each summer and 'down under' in Europe's winter.

Crocker has put together a package to include return shipping, insurance, customs bonds, entry fees and intervenue transport for under £4000.

"All drivers have to do is turn up, add fuel and have fun," he told Autosport. "Around 10 are on board already."

IN BRIEF



PORSCHE FEATURE AT GOODWOOD

Porsche will this year become the first manufacturer to occupy the central feature at Goodwood's Festival of Speed three times. The 70th anniversary of its first sportscar, the 356 (above), will be celebrated as part of the display at the July 12-15 event. The company's other two central feature slots were for its 50th anniversary in 1998 and for the 50th birthday of the 911 in 2013.

FIESTA DRIVER HAWLEY TO CLIO JR

Fiesta Junior racer Jamie-Lea Hawley will contest Renault UK Clio Cup Junior this year with Finsport, after she took 10th in the Fiesta standings in 2017. It will be the first entry into the Clio category for Finsport, which has raced in a number of club championships and planned to contest the series last season.

CATERHAMS ARE IN DEMAND

Caterham has suspended its championships from taking any more entries following high demand.
Caterham's five British Racing & Sports Car Club categories (Academy, Roadsport, 270R, 310R and 420R) have enjoyed record entry levels; 213 registrations is an increase of 18% on this point last year.

KESTENBAUM CONTINUES 30-YEAR RUN

Formula Ford veteran Stuart Kestenbaum will campaign a Crossle 16F in Historic FF1600 and had planned to shake down the newly rebuilt car at Mallory Park until testing was lost to bad weather. The car is being run by fellow Formula Ford veteran Don Hardman and the project starts the 30th season for the Kestenbaum/Hardman alliance.

CHAMBERLAIN RETURNS... IN A LOTUS

Richard Chamberlain's iconic orange Porsche 935 (below) will return to the GT Cup later this year despite the major fire it suffered last season. Chamberlain is in the process of rebuilding and improving the car, but before the Porsche is ready Chamberlain plans to compete in a Lotus. Race-winning duo Aaron Scott and Arwyn Williams will also be back in the series this year with a Lamborghini Huracan.





HISTORICS The 1990 British Touring Car Championship-winning Ford Sierra Cosworth RS500 has come up for sale with Silverstone Auctions. Robb Gravett won the Group A and overall honours that year, setting a record of nine wins over the 12 rounds. After 20 years in storage, it will be sold at Race Retro on February 23 and carries an estimate between £175,000 and £220,000. The car has been returned to its period livery and is eligible to race in the Historic Sports Car Club's Super Touring Trophy. **Photographs by Sutton Images**

LAKETORRENTCIRCUIT

New Irish track seeks car races

THE OWNERS OF THE LAKE TORRENT CIRCUIT IN Northern Ireland are hopeful of securing a headline carrace meeting after securing its first major event for 2019.

Work on the £30 million Northern Irish track is under way, and those behind the project are confident that many major events could follow the lead of the World Superbike Championship in signing up to race at the Coalisland venue, which is 40 minutes from Belfast.

"We are evaluating all potential race events including touring car, single-seater and GT race championships, and we will make further announcements as soon as we are in a position to do so," said David Henderson, the driving force behind the 2.23-mile circuit. "Lake Torrent has broken ground and we are now working towards completion in early 2019. We have a comprehensive programme of construction and a wealth of experience within the team."

Ben Willshire, the managing director of circuit architect Driven International, added: "On site we are doing a lot of earth moving and preparation work and it's full steam ahead now. Hopefully there's more event announcements to come over the next year. It [World Superbikes] is a blue-riband event and it gives everyone some focus too — we know that's happening and we know what standards to build the track to."

GT4SUPERCUP

ELITE TO THE GT4 SUPERCUP WITH KING

FRONTRUNNING GINETTA
Junior team Elite Motorsport
will expand into the GT4
Supercup for the first time
this year, running a single
car for Harry King.

King, 17, has been a race winner with Elite in Juniors for the past two seasons and finished sixth in the standings in 2017.

Since Elite is running six drivers in Ginetta Junior this term, team boss Eddie Ives believes now is the right time to move up.

"I wanted to be able to offer a step up for our Junior drivers," said Ives. "It seems a shame after two or three years in Juniors to say, 'We don't have anything for you.' I wanted another championship that we can grow into – it would be good to have a GT4 programme in the next few years.

"We are out to win races. We're not in it just to make up the numbers."

• M3 Cup champion Adam Shepherd has confirmed he will also join the GT4 Supercup with Team Hard, after contesting Britcar races in a G55 at the end of last year in preparation. "It's probably a bit optimistic in the first year, but we're going out there with the intent to win," Shepherd said. "Realistically I think the top three is achievable if we have the reliability and we get some testing."

HSCCROAD SPORTS

Immolated Elan gets a full rebuild

BARRY DAVISON'S 1967 LOTUS Elan S3, which was extensively damaged in a fiery incident in the Historic Sports Car Club's Road Sports Championship finale at Silverstone last October, is now "fighting fit" again following an extensive rebuild by Ricketts Racing in Hertfordshire.

Davison's Elan was hit by Andy Shepherd's Lotus 7 at Becketts on the opening lap.

"He was extremely lucky not to damage the chassis," said Ricketts Racing's Mike Loughlin, who has repaired it with Paul Brimmer.

"The tail was torn off by the impact, which took the fuel tank with it, but the entire rear suspension was bent and the brake discs broken.

"The size of the explosion

was quite sobering, with 20 litres of fuel, but we've taken steps to ensure that it won't happen again. The new [ATL] safety cell has a lanyard attached to a dry-break coupling. If the tank goes it will seal. We'll now do that on all the Elans we build."

The Historic Road Sports season starts at Donington Park on April 7-8.





Number crunching

Just over a month before the British Formula 3 season starts, we know who the favourite is — but will he have any meaningful opposition?

By Stefan Mackley, Special Contributor

y @Smackley27

AFTER SIGNING UP TO COMPETE WITH THE TEAM

that took Matheus Leist to the 2016 title — Double R Racing — there's no doubt who the pre-season favourite is in BRDC British Formula 3 at the moment. It's Linus Lundqvist.

Five wins in British Formula 4, and fifth place in the final standings, marked Lundqvist out as a talent worth keeping an eye on. One of the key questions, though, is what sort of opposition he'll be ranged against this season.

As it stands, there are eight confirmed entries in BRDC British F3, but that number is likely to rise well into double figures. Fortec Motorsports and Chris Dittmann Racing have yet to announce any of their three drivers, and neither has Douglas Motorsport, which plans to run three cars for the first time this season. Stratton Motorsport, known for its British GT exploits, has announced its intentions to field a team, and there is a spare seat each at Carlin, Lanan Racing and Double R.

Since the series rebranded from BRDC F4 to F3 in 2016, numbers have slowly dwindled. Twenty-nine drivers took part in the inaugural season, but this number dropped slightly for

2017 as only 23 competed across the year. There were 18 on the grid at the opening round at Oulton Park, but that was a season high; for the final round at Donington Park, only 14 cars were present.

For the most senior

"Should Monger choose British Formula 3, then interest in it will spike"

single-seater category in the UK that simply isn't good enough. So why is it happening? The championship has fallen into something of a void between F4 and 'proper' FIA F3. The Tatuus-Cosworth lacks the downforce of a true F3 car but is more powerful than those used in F4 championships. Drivers making the step up into cars from karting arguably prefer to use the less-powerful vehicle to make the transition easier.

British F3 has lost its identity on the motorsport career ladder. The Formula Renault Eurocup is potentially causing the most harm to its reputation. A drive in the Eurocup costs approximately $\ensuremath{\mathfrak{e}}350,000-\ensuremath{\mathfrak{e}}400,000$ (£310,000-£350,000) with a top team, and for that you can compete at tracks across Europe, some of which will have relevance higher up the ladder.

The cost for a drive in British F3 is slightly less, although it's rumoured some teams charge almost £300,000.

Max Fewtrell and Lando Norris, champions in British F4 (though it was called MSA Formula when Norris won in 2015), ventured off to Eurocup rather than progress into British F3. Norris did enter some rounds of the 2016 British F3 season, but he was focusing on (and won) the Eurocup title.

Even Euroformula Open — which uses the same chassis as European F3, only with spec Toyota engines — is an option; last year's British F4 champion Jamie Caroline is said to be very close to competing in this series. Countless other young drivers have left British shores and in the process bypassed British F3.

In an era in which testing restrictions are more stringent than ever, learning European circuits — tracks on which drivers will expect to race as they further their careers — has become of paramount importance. This inescapable fact therefore makes European series that much more attractive.

But to say that BRDC British F3 hasn't enabled drivers to make progress up the career ladder would be wrong. Leist will make his IndyCar debut this season and last year's title winner with Carlin, Enaam Ahmed, will compete with Hitech GP in the F3 European Championship alongside fellow British F3 frontrunner Ben Hingeley.

But apart from those examples it's been slim pickings for the past two years, and the lack of strength in depth of the grid has been one of the series' biggest problems. But if its relatively

low profile has been another negative, that could be about to change.

The inclusion of British F3 in the Sunoco Whelen Challenge this season, offering one driver the chance to race in the 2019 Daytona 24

Hours, could help attract entries. And one potential entrant in particular is sure to draw attention to the series: Billy Monger.

The 18-year old's horrific F4 accident at Donington Park last year, the double leg amputation he had to undergo as a result, and his gritty determination to return to racing have made him headline news beyond the world of motorsport.

That return reached another milestone last week when he tested a single-seater for the first time since the accident. Although it was only his first test and performance details weren't released, Monger has made no secret that he wishes to return to single-seaters. He even lobbied the FIA to lift a rule banning disabled drivers from competing in the discipline.

Should Monger choose British F₃ as the series in which to make his racing return, then media interest in it will spike.

But that won't fix British F3's lack of identity on the single-seater ladder. With the FIA beginning to implement Regional F3, starting in Asia and the US, perhaps a move towards this could help British F3 find a home in the future...

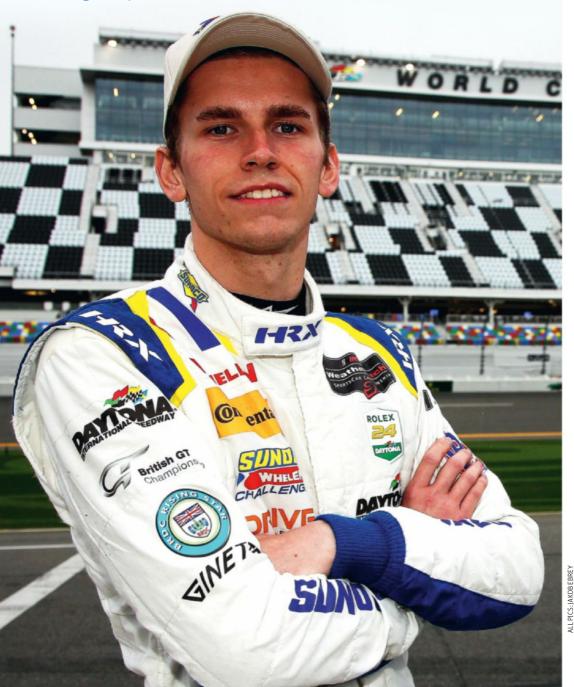
For now, though, Lundqvist remains favourite on the track, and more strength in depth is needed to challenge him. **

Thrown in at the deep end

Stuart Middleton won a cameo drive in the Daytona 24 Hours with success in the Sunoco Whelen Challenge. It turned into something bigger than anyone expected

By Gary Watkins, Special Contributor

y @gazzasportscars



t would have been a big ask for anyone on the grid. But for Stuart Middleton it was probably beyond the call of duty. The 2017 winner of the Sunoco Whelen Challenge was last month driving something quicker than a GT4 Ginetta for the first time, and was being unexpectedly called upon to get back in a full-house prototype to battle for a podium — or perhaps better — over the final stint of the Daytona 24 Hours.

Just to make 18-year-old Middleton's life more difficult, his Action Express Racing Cadillac Daytona Prototype International was afflicted by rising engine temperatures and fluctuating pressures, and he had to save fuel to avoid a late splash-and-dash.

Middleton hadn't been due to drive again. Last year's GT4 title winner in the British GT Championship had done his stints earlier. But a miscalculation by the team left him 50-odd seconds short of the two-hour minimum drive time. There was no choice but to strap Middleton back in for the final stint. Regular drivers Felipe Nasr — a former Sunoco prize winner as well as an ex-Formula 1 driver — Eric Curran and star enduro signing Mike Conway could only watch nervously from the pits.

Middleton, who is just beginning his fourth season of car racing and his second beyond Ginetta Junior, proved equal to the task aboard the Action Express Cadillac DPi-V.R. Just as he'd been all week. His reward was a second place in the IMSA SportsCar Championship opener as the youngest outright podium finisher at Daytona this century.

"Some people in the team were saying that we should put Stuart in and then bring him straight back in," says Tim Keene, race engineer on the #31 Whelen Engineering Action Express entry. "But I pointed out that we were fighting for second and couldn't afford an extra stop. I said, "Trust me, Stuart can get the job done." I knew he could handle it; I had confidence that he would hold up. And he responded magnificently to a very difficult set of circumstances."

Keene's confidence was born of a solid performance when Middleton completed what the team thought were his two hours of running through a Saturday evening triple stint. (As a 'guest' of Sunoco and Whelen, he was never scheduled for more.) "I'd give him a lap time, and he'd do it, and reel off five of them," explains Keene. "Then I'd give him another target, and he'd do the same. Stuart did everything asked of him."

Action Express did have doubts about Middleton when he was announced as the recipient of the prize drive. He is the youngest and least-experienced winner so far. He was also the least-prepared. Unlike his predecessors, Middleton



didn't get any time aboard his race mount before the official pre-race 'Roar' test in early January. Action Express was forced to skip the December IMSA test at Daytona because its new 5.5-litre Cadillac engines weren't ready.

Anders Hildebrand, the architect of the challenge as the UK importer of Sunoco racing fuels, admitted to concerns about Middleton driving a DPi because "he'd never raced anything with downforce". But not too many, even though his man only got 90 minutes of running at the Roar.

The Sunoco points system, which rewards pole positions and fastest laps as well as race results, will always bring the cream to the top, he insists. "It was just a question of how long it would take Stuart to adapt," he says. "The Sunoco Challenge isn't so much a promotional tool anymore, it's a talent-finding scheme."

Middleton reckons that driving the Ginetta G55, in which he took the class title in British GT last year with Will Tregurtha, wasn't the worst preparation for a DPi. "The Ginetta probably has the most downforce of any GT4 and is the best-handling car," he says. "But it was still a big step to drive such a full-on bit of kit. There was a lot to take in."

Take it in, he did. "I've got to be happy with how I performed on such a massive step up," says Middleton, who is planning to move to the GT4 European Series in 2018, again with Tregurtha as his teammate at HHC Motorsport. "I did make some mistakes, but that's to be expected due to my lack of experience.

"It's taken me a while to come back down to earth. I wasn't expecting to get back in and I was pretty nervous. But I wasn't complaining — I got to take the chequered flag at Daytona in second place." **

Again and again Parfitt wants Daytona return

WHEN RICK PARFITT JR STARTED his racing career proper, he had a clear goal. But after making his international racing debut in the Continental Tire SportsCar opener last month at Daytona, he's got a new target.

The initial aim was to race at the Le Mans 24 Hours. But now last year's British GT Championship winner, inspired by his outing in the four-hour 'Conti' race for winning the Sunoco 240 Challenge, is hankering after a Daytona return. Only next time he wants to race in the 24 Hours.

"Le Mans was always my target," says 43-year-old Parfitt, who began racing regularly in the Ginetta GT5 Challenge back in 2011. "Now I want to go back to Daytona, but in the main race. I feel I've got some unfinished business."

That's because Parfitt, a full-time musician, was looking good for a strong result in the traditional Friday afternoon support event to the 24 Hours. He'd qualified an impressive fourth and was fighting over that position when unexpected problems struck his GMG Racing Audi R8 just as he was due to hand over to the first of his team-mates, Darren Jorgensen.

"The car just spluttered to a halt with some kind of air-lock in the fuel system," Parfitt says. "It was a shame because we could have sneaked a result."

Parfitt says he was "particularly proud" of his qualifying lap that made him the first true amateur driver on the grid. "I was being told how to drive the car and I couldn't make it work, so I started to drive it differently, more like my Bentley Continental GT3," he recalls. "I was much more aggressive on the brakes and got a lovely tow up to the Bus Stop. I don't think anyone expected me to qualify that high."

Parfitt, Jorgensen and pro-driver Cameron Lawrence eventually finished a distant 26th in the mini-enduro after the car was recovered, and the race served to whet his appetite for Daytona.

"I didn't understand the enormity of the Daytona event," he says. "There was so much pomp and ceremony, and I had the opportunity to sample it thanks to Sunoco. I'm determined to go back."



WHAT'S ON

What to watch in 2018

We all know when and where Formula 1 is on TV, right? Autosport has dug out other great series and events you can and should be watching on TV and online this year



SUPER FORMULA MOTORSPORT.TV

Considering it's in effect an IndyCar Series of the east – one chassis, two engines, push-to-pass – Super Formula has struggled to gain much recognition in Europe, largely because it hadn't enjoyed much of a presence on television.

That changed last year once Motorsport TV started airing coverage, and in recent weeks the channel has been showing full race replays. The standard of driving and the quality of the cars is on par with anything in single-seaters outside Formula 1, and some of the tracks are fantastically old-school.

If you've no idea how good the likes of Hiroaki Ishiura or Yuhi Sekiguchi are, there's now no excuse for remaining in the dark.



WORLD RALLYCROSS FREE-TO-AIR TBA

It's short and sharp, but brilliantly exciting. World Rallycross has gone from strength to strength since its inaugural season in 2014, and each year it brings a bigger manufacturer or works driver to add to its appeal.

The finals are excellent. A mixture of loose surface and asphalt tests the drivers' capabilities when the going gets tough (or smooth), and superstars such as Sebastien Loeb from world rallying and Mattias Ekstrom from DTM have made the championship a home. Speaking of making a new home, the championship visits Silverstone instead of Lydden Hill for the first time in 2018. A big event is planned – but can it beat Lydden, the spiritual home of rallycross?



GOODWOOD MEMBERS' MEETING AUTOSPORT.COM

Goodwood puts on some of the most exciting races every year and always features great machinery. The Revival, which is 20 years old in 2018, is the most well-known, but the Members' Meeting is a gem. It's only open to Goodwood Road Racing Club members and fellows and, as such, is less busy than the Revival. That means you can get around the paddock and circuit more easily.

The Gerry Marshall Trophy for Group 1 touring cars is always a highlight, and there's the usual mix of sportscars and single-seaters. Additions for 2018 include the Ronnie Hoare Trophy (for sports and GT cars raced between 1963 and '66) and the Bolster Cup (British specials built either side of the Second World War).

READ AUTOSPORT ON THE MOVE

DOWNLOAD IT NOW FROM







HOT ON THE WEB THIS WEEK

MERC BOSS TALKS ALL THINGS HALO

Search for F1 Explained: The Halo

Mercedes technical director James Allison delivers an erudite insight into F1's new, and hugely controversial, safety feature: "It's a bit of an acquired taste and we're still busy acquiring it, and I'm sure everyone else is too." Unsurprisingly, all semblance of civility is swiftly abandoned below the line...



NASCAR PREMIER SPORTS AND FREESPORTS

Free! It's free! There's no excuse to miss the Daytona 500, the 'Great American Race', this year because NASCAR's showpiece season opener is being shown live by Premier Sport sister channel FreeSports. But don't just watch that and then skip the rest of the season, which will be broadcast live on Premier Sports.

There's a changing of the guard occurring in NASCAR currently, as long-time heroes including Jeff Gordon and Tony Stewart have been replaced by up-and-comers such as Chase Elliott and Ryan Blaney. These young guns can shift and have brought a new vigour to the American series, which can thrill right up until the last lap. That's usually when the race is decided.



FIA EUROPEAN F3 YOUTUBE

The Formula 3 European Championship's YouTube channel has been screening live coverage of every race since the series started. So as long as you've got a smartphone to hand, you can watch it wherever you are.

British commentary (BTCC duo David Addison and Chris Hartley are among the revolving cast) makes for an easy viewing-and-listening experience, and the live screening usually cuts in a few minutes before the formation lap, so you won't miss a thing. And you'll be in good company: apparently the F1 team bosses, in the paddock at the 2014 Austrian GP, were glued to the epic F3 action from Spa, where two youngsters named Verstappen and Ocon appeared on their radars...



INTERNATIONAL MOTORSPORT

RALLY SWEDEN

WORLD RALLY CHAMPIONSHIP Rd 2/13

Sunne, Sweden

February 15-18

Live BT Sport ESPN, Saturday 1500. BT Sport 2, Sunday 1100. Red Bull TV, Saturday 1345. Live coverage of every stage on wrc.com All Live service (available via WRC+). **Highlights** Motorsport.tv, Friday, Saturday and Sunday 2230

NASCAR CUP

Rd 1/36

Daytona, Florida, USA

February 18

Live Premier Sports, Sunday 1900



UK Motorsport

MONDELLO PARK

February 18

Fiesta Endurance Race

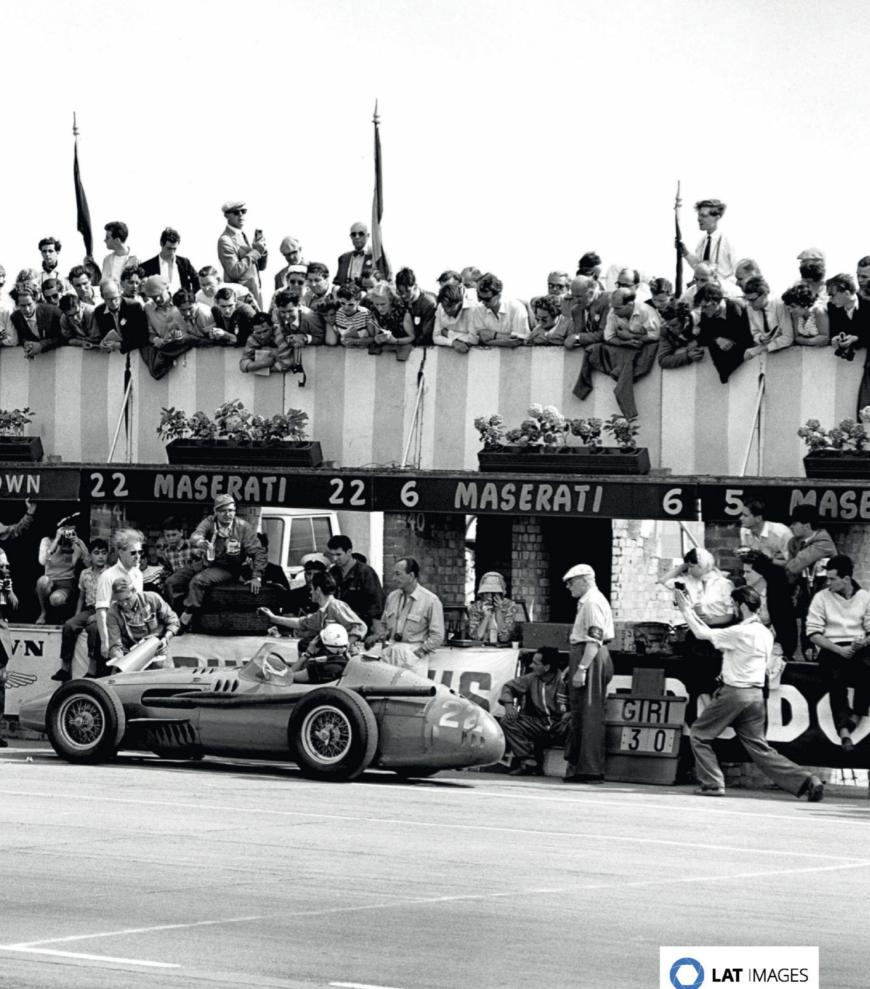




FROM THE ARCHIVE

Jo Bonnier (Maserati 250F) is the focus of attention – Autosport's own John Bolster is in the midst of the melee – as he pits during the 1958 British Grand Prix at Silverstone. Bonnier had qualified 13th, and retired after completing 49 laps when his gearbox packed up.

latimages.com **y**@latimages





n the summer of 2005, Will Power's career was on the up. He'd scored two wins and three poles with Carlin Motorsport in Formula Renault 3.5 and, unbeknown to most of the racing world, had tested a Champ Car at Portland Raceway. In Walker Racing's spare car, an aged and unfashionable Reynard, he'd set a time that would have put him sixth on the grid for that year's race.

But after returning to Europe and driving in Donington's World Series rounds in September, Power briefly rejoined Alan Docking Racing, where previously he'd raced in British Formula 3, because it was running Team Australia in the brand-new A1GP series.

"When A1GP came about, I was quick to get on the phone," he recalls. "All you care about at that point in your career is getting seat time in any kind of car. Those cars were kind of strange – the front track was a lot narrower than the rear, so if you

kissed a kerb with the fronts, your rears were all over it! But you adapt." In qualifying at Brands Hatch, Power finished fourth fastest, behind Nelson Piquet Jr (Brazil), Matt Halliday (New Zealand),

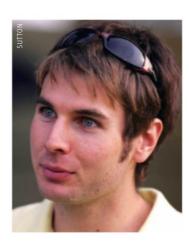
and Alexandre Premat (France), and would go on to take fourth

in the sprint race and second in the main event.

"I think A1GP ran an F3000 diff, and we hadn't worked out that for better handling, you turned the diff ramps around, from what I recall," says Power. "That made it a lot more stable on coast and on power, and Brazil [run by then-ART Grand Prix parent company ASM] and New Zealand [West Surrey Racing] had that figured out. Our car was pretty twitchy.

"In the main race, Nelson had a problem in the pits so I led on a restart, but then 10 laps from the end there was another safety car and he got by me and we just didn't have the car to hang onto him.

"But overall it was one of those decent one-off weekends. Docking's team was good to work for, and Brands Hatch is a great track, so yeah, I really enjoyed it." # **DAVID MALSHER**



Power's second place at Brands Hatch was Team Australia's best result of 2005-06 A1GP season

Technical Team Leader Geoff Creighton Head of UX and Digital Design Amar Vijay Correspondents Argentina Tony Watson Australia Phil Branagan Austria Gerhard

Autosport Plus Editor Scott Mitchell

Social Media Editor Fatema Chowdh

International Editor Jack Cozens

Carpinter Russia Gregory Golyshey Spain Raimon Duran Sweden Tege Tornvall **USA** Bruce Martin, Jeremy Shaw **UK & Ireland** Pete Allen, Lee Bonham, Stephen Brunsdon, Jonathan Crawford, Dom D'Angelillo, Kerry Dunlop, Charlie Eustice, Joe Hudson, Jake Jones, Samarth Kanal, Matt Kew, Mark Libbeter, Stefan Mackley, Dan Mason, Damian Meaden, Lucy Morson, Will Moulton, James Newbold, Jason Noble, Mark Paulson, Brian Phillips, Graham Read, Hal Ridge, Peter

Tel +44 (0) 20 3405 8106 Email autosport.ads@motorsport.com Advertising Director James Robinson Sales Manager Don Rupal Display Advertising Jonathan King, Karen Reilly, Jamie Brooker Classified Advertising Ben Kavanagh, Aaron McNamara Head of digital Fiona Bain Online Advertising Chris Hermitage

Advertising Production

Senior Production Controller Abbey Gunner

Tel +44 (0) 20 3405 8131 **Email** abbey.gunner@motorsport.com

UK +44 (0) 344 848 8817 Overseas +44 (0) 1604 251451 Email help@asm.secureorder.co.uk Back issues 0344 8488817

Autosport, ISSN number 0269946X, is published Autosport, ISSN number Uzesbeak, Is published weekly by Autosport Media UK Itd, I Eton Street, Richmond, TW9 IAG, United Kingdom. Airfreight and mailing in the USA by agent named Air Business Ltd, Co Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA Periodicals postage paid at Jamaica NY 11431. Subscriptions genoda sea maintained at Autosport. Subscription records are maintained at Autospor Media UK Ltd, 1 Eton Street, Richmond, TW9 1AG Air Business Ltd is acting as our mailing agent

Licensing and Syndication

Stuart Williams Management

Publishing Director Stuart Williams Editor-in-Chief, Autosport Media UK Andrew van de Burgt Creative Content Director, Autosport

Media UK **Anthony Rowlinson** Group Publishing Manager Sunita Davies Special Events Manager Laura Coppin Digital Product Manager Simon Grayson Digital Content Manager **Edd Straw**

We abide by the Editors' Code of Practice and are committed to upholding the highest standards of journalism. If you think we haven't met those standards and want to make a complaint, contact 0203 405 8100.





Photography

MAUTOSPORT

Autosport Media UK Ltd, 1 Eton Street, Richmond, TW9 1AG Tel +44 (0) 20 3405 8100 Email autosport@autosport.com Individual email firstname.surname@motorsport.com

Website www.autosport.com Twitter @autosport

Editorial

Editor Kevin Turner

Deputy Editor Marcus Simmons Grand Prix Editor Ben Anderson

Chief Sub-Editor Peter Hodges

Executive Editor Stuart Codling

Group National Editor Jack Benyon Rallies Editor David Evans

BTCC Correspondent Matt James

Senior Designer Michael Cavalli

Office Manager Joanne Grove

Art Editor Lynsey Elliott

Deputy Editor Matt Beer

Autosport.com Editor Glenn Freeman

F1 Correspondent Lawrence Barretto Assistant Editor Alex Kalinauckas

Glenn Dunbar Sam Bloxham Zack Mauger

Special Contributors

Gary Andersor Alan Eldridge Tom Errington Rob Ladbrook Stephen Lickorish Stefan Mackley David Malsher Marcus Pve Dieter Rencker Nigel Roebuck Caroline Stammers Jim Utter Gary Watkins

Kuntschik **Belgium** Gordon McKay **Brazil** Lito Cavalcanti **Finland** Esa Illoinen **Germany** Rene de Boer **Greece** Dimitris Papadopoulos Italy Roberto Chinchero Japan Jiro Takahashi New Zealand Bernard Scherer Jan Sowman, Chris Stevens, Oliver Timson, Jan Titchmarsh, Eddie Walder, Rob Watts, Richard Young

UK Sales Director Matthew Witha

Laura Paterson +44 (0) 20 3405 8129 recycle

CIRCULATIONTRADE ENOUIRIES

our Distribution Ltd. 2 Fast Poultry Avenu 2 East Poultry Avenue, London, EC1A 9PT. Tel: +44 (0) 20 7429 4000. Printed by William Gibbons & Sons Ltd, 28 Planetary Road, Willenhall, Wolverhampton WV13 3XT. ISSN 0269-946X. Auto is published weekly by Autosport Media UK Ltd, 1 Eton Street, Richmond TW9 1AG.

© 2018, AUTOSPORT MEDIA UK LTD Trading as Autosport Media UK. Publishing, trade and further subscription details on www.autosport.com. While due care is taken to ensure the contents of Autosport are accurate, the publishers and printers cannot accept liability for errors and omissions for publication in Autosport only upon Autosport Media UK's Standard Terms of Acceptance of Advertising, which are available from the Advertising Department.



Select Motor Racing.com



MOTORSPORT TRAVEL, RACE TICKETS, HOSPITALITY

Travel the World with our Escorted Tours and UK Travel Team



ALL FORMULA ONE EVENTS

F1 Escorted Tours; by Air or Coach to European events

Winter & In Season Testing

Team Factory Visit

Extended options; China, Canada, Japan, US Austin, Mexico

Combined Tour; France + Austria | Germany + Hungry |

Belgium + Italy | US + Mexico



LE MANS 24HR - WEC - BLANCPAIN

- Le Mans 24hr Travel Tickets Circuit Camping
 Coach Tours | Self Drive | By Air or Train
- WEC 6hr SPA | Silverstone
- ♦ BLANCPAIN: Monza and Spa 24hr



HISTORIC RACING

- ♦ Monaco Historique
- ♦ Mille Miglia
- ♦ Spa Classic
- ♦ Le Mans Classic
- ♦ Goodwood Festival of Speed
- ♦ Goodwood Revival



CANADA and US 'ROAD TRIPS'

Niagara Falls and Toronto

Route 66 Tour; Las Vegas, Grand Canyon, Monument Valley NASA Tour with NASA Space Centre and Galveston Music City Tour stay New Orleans, Memphis and Nashville



Call your UK Travel Team: +44 (0) 1451 833 721 Book Online enquiry@selectmotorracing.com





PROFESSIONAL VALETING SUPPLIES



ADVANGED NIEUTANI SNUFDAN

www.valetpro.eu

MAUTOSPORT

HISTORICS



POWER, SPARKS & WHEELSPIN

Why historic motorsport is booming



SECRETS OF THE ACES

AUTOSPORT'S STAR CARS

HOW TO RUN AN F1 CHAMPION





Inspired by the high-octane thrills and physics-defying engineering of the automotive world, the **C7 Rapide Automatic** shares the same prized values of mechanical precision and innovative design, coupled with the highest quality materials used throughout. Bold in appearance and championing a Swiss-made automatic movement, this is a watch with horological horsepower in abundance.







Enduring appeal of historic racing

to historic motorsport's headline fixtures

Historic racing is one of the most vibrant branches of motorsport and has been for many years now. Autosport has wanted to produce a supplement on the subject for a while and long-time historics supporter Dunlop has helped make it happen.

The sights and sounds of the cars, which range from pre-Second World War leviathans to Group C monsters and screaming Super Tourers, have helped make historic racing so appealing. Meetings such as the Silverstone and Le Mans classics, and Goodwood Revival, are among the biggest events on the motorsport calendar and attract a gamut of professional drivers, historic specialists and amateurs.

Organisations such as the Historic Sports Car Club and Historic Racing Drivers' Club also cater for the grassroots level and provide some of the best club-level motorsport many drivers now spend their entire careers driving 'old' machines.

The scope of historic racing is truly

massive, providing far more subjects than can be covered in one supplement, but we hope the following pages give a flavour of the genre. As well as hearing from some of the masters of the historic racing art, we also profile the top drivers and some star cars, and find out what it's like to run a world championshipwinning Formula 1 machine.

Autosport's coverage of historic racing is set to increase in 2018 and we thank Dunlop for its support with this special publication.





KEVIN TURNER Editor



CONTENTS

4 Historic secrets

Why historic racing is so strong, plus driving secrets of the aces

12

Rules of the game

What the FIA's Appendix K brings to the historic-racing party

14 Top drivers

Marcus Pye picks out the best exponents of the art

22

Star cars

Paul Lawrence profiles eight fine historic racers

28 Have

How do you run an old F1 car?

Rod Jolley tells Autosport about racing his 1959 Cooper

32

Dunlop historics guide

Clubs, events and series to look out for in 2018

42

Historic industry insight

Dunlop specialist John Pearson on the historic-racing scene today

SUB-EDITOR Peter Hodges CONTRIBUTORS Matt Kew, Paul Lawrence, Marcus Pye ART EDITOR Lynsey Elliott PHOTOGRAPHERS Jakob Ebrey, Gary Hawkins, LAT, Paul Lawrence, Mick Walker

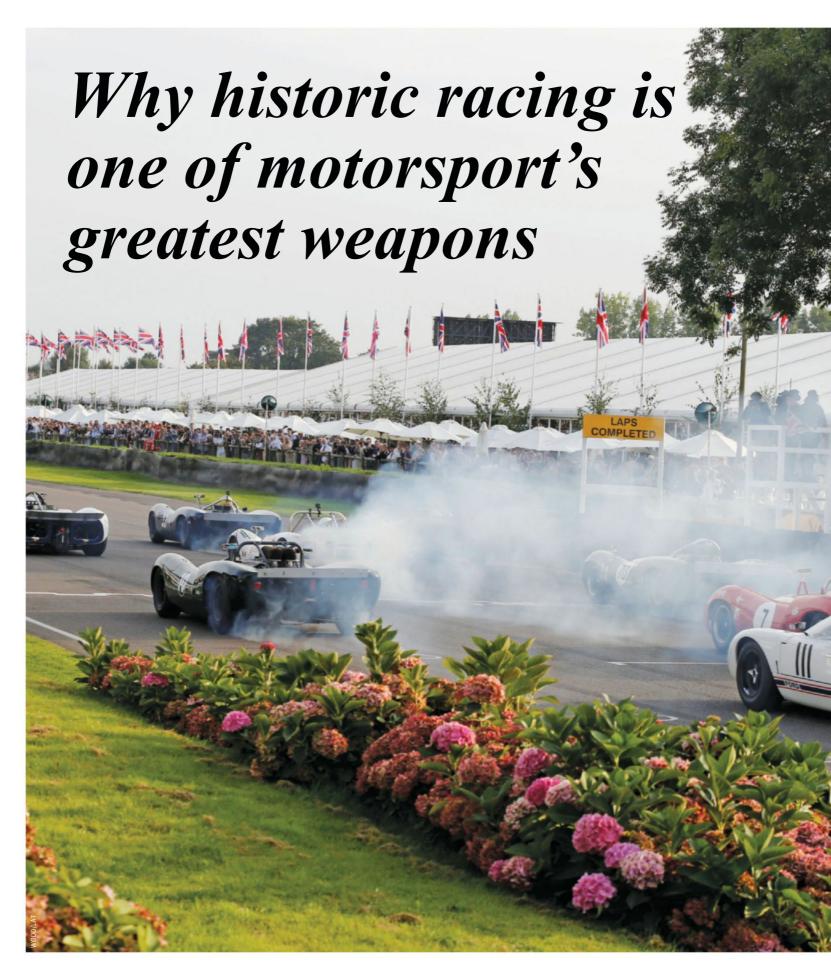
ADVERTISING ENQUIRIES Don Rupal EMAIL don.rupal@motorsport.com













Rather more than some old cars reliving former glories, historic motorsport is booming at a time when other categories are struggling

BY KEVIN TURNER

ven motorsport's world governing body acknowledges that historic racing is one of the strongest branches of the sport. In 2016, FIA Historic Commission president Paolo Cantarella admitted that "historic racing can play a huge role in attracting people to the sport".

Events including the Silverstone Classic and Goodwood Revival are hugely popular with enthusiasts and competitors alike, and organisers such as the Historic Sports Car Club fill grids around the country throughout the year. And this during a period when some other categories — junior single-seaters, for example — are finding things tough.

Circuits and promoters have seen the advantages of putting on meetings, and few major tracks don't host historics. "We've been extremely fortunate over the past 15 years," says leading historic racer and preparer Simon Hadfield. "When I started 30 years ago, we had no idea we'd go to Le Mans, Monaco or Goodwood..."

From the grassroots to the grandiose festival meetings that **>**

"THE TRACK IS MY CANVAS, THE CAR IS MY PEN" GRAHAM HILL



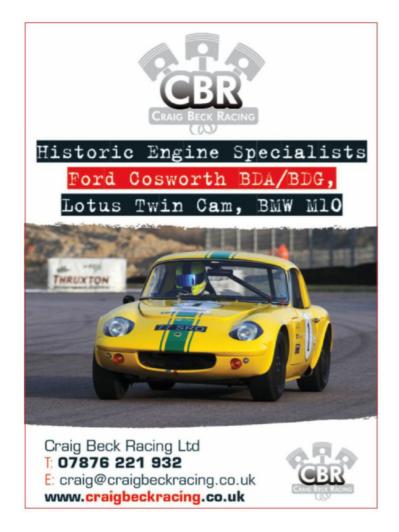
SOMETIMES ALL YOU NEED IS A GOOD QUOTE.

Track Day Cover - Laid-up Cover Including in Transit,
Trailer/Transporter Insurance - In-between Events Road Cover

We're in pole position when it comes to motorsport insurance cover, call us today for a great personalised rate... **0800 085 6186** or visit **adrianflux.co.uk/motorsport**



Authorised and regulated by the Financial Conduct Authority







means there's

something to

appeal to

every fan

attract scores of professionals past and present, historic racing is big. So why is it so popular and what are the secrets of getting the most out of classic machinery? Autosport asked some of the key figures in historic racing...

CARS AND COMPETITION

Perhaps the most obvious appeal is the cars themselves. Older machines give many fans what they say they want.

There are lots of things about modern motorsport — hybrids, the move towards electric racing, and high levels of downforce — that some don't like. Those developments are probably essential and are certainly here to stay, but that doesn't mean enthusiasts can't get their fix of rumbling V8s, screaming V12s and singing straight-sixes — there are plenty of each (and more) in historic racing.

"The cars look great, they move around, they sound unbelievable," says historic ace Gary Pearson. "The older cars are so much fun to drive. And the racing at events such as Goodwood brings out the competitive element in everyone."

Because many (though not all) historic categories feature cars with more power than grip, it's visually obvious that the cars are on the limit. They writhe, slide and move around while the drivers wrestle with the steering and play with the throttle. The cars are slower than their modern counterparts, but they *look* quicker. As MotoGP shows, lap times become irrelevant if the racing is good and there is virtuosity on display.

Top historic drivers competing alongside current or retired pros makes for a potent mix. Certain races, such as the Goodwood Revival's RAC Tourist Trophy Celebration for 1960-64 GT cars, have become important to win. That has its downsides, chiefly the issue of car development, but it also means the drivers *really* want the victory. And that means the cars are driven flat-out.

The battle between contemporary racers Rob Huff and Michael Caine at the Revival last year was a prime example. They were in relatively slow Austin A40s as they fought in the St Mary's Trophy, but the constant overtaking and obvious tests of car control captured the imagination.

"It's just such fun, the smile factor is huge," says 2012 World Touring Car champion Huff, who





started his career in an MGB. "The racing's close — you can't compare it to anything. I thoroughly enjoy the atmosphere — it's why I started in motorsport, for the passion side of it."

The simplicity of the cars also appeals, particularly when compared to the reams of technical data and analysis required to be competitive in contemporary series.

"You're going back to basics and can have a bit more of an input as a driver," reckons triple British Touring Car champion Gordon Shedden, who has successfully moved into historics in recent years. "In current cars, unless everything is perfect you won't be competitive. You don't drive a modern car with a smile on your face because there's so much pressure."

Huff has a similar view: "Old cars have got the grip they've got, but the driver can create a lot more. There are some very, very good drivers that most people have never heard of. You can just do so much with the car, a lot of it is down to the driver, so it makes it even more rewarding."

Because the cars move around more, different driving styles are more obvious, and fans tend to cheer for the most flamboyant. That's much harder to spot in modern cars, which need to be driven in straight lines to deliver lap time.

UNMATCHED VARIETY

Another strength related to the cars is historic racing's variety, in many forms. A huge timespan is covered — from pre–Second World War to Group C and Super Touring of the 1990s — and all categories are present: single–seaters, sportscars and touring cars. You may not like it *all*, but it's likely you will like *some* of it. As Pearson says, "there's something for everyone".

There is also a huge mix of machinery within most series and on a majority of grids. That provides an antidote to the proliferation of single-make categories that have taken over modern racing during the past couple of decades.

"If there's a good, diverse grid, then there's nothing in contemporary racing to touch it, with the possible exception of top-level sportscars," reckons Hadfield. "There are so many different

REVOLUTION COMPETITION A WHEELS

REVOLUTION OF THE SPECIES FROM RACE TO RALLY



MILLENNIUM RALLY
15 X 7.0 TO 15 X 8.0 / 16 X 5.5 TO 16 X 8.0
17 X 7.5 TO 17 X 8.0 / 18 X 7.5 TO 18 X 8.0



CRIO FLOW-FORMED RACE NEW

15 x 6.5 / 16 x 7.0 to 16 x 8.0

17 x 7.5 to 17 x 9.5 / 18 x 8.0 to 18 x 10.0

18 x 10.0 weighs 10.3 kg. also available in centre loc



GR14 RALLY
15 X 6.0 TO 15 X 7.0 / 16 X 7.0 NEW
AVAILABLE IN 4, 5 & 6 STUD



4 SPOKE RALLY 13 X 5.5 TO 13 X 10.0



RFX RALLY

13 X 5.5 TO 13 X 6.0 / 14 X 5.5 TO 14 X 6.0

16 X 7.5 TO 16 X 8.0 / 17 X 7.5 TO 17 X 8.0 NEW

BMW E30 M3 & COSWORTH SIERRA FITMENTS AVAILABLE



5 SPOKE RALLY
15 X 6.0 TO 15 X 10.0
MANTA/ASCONA 400 FITMENT NOW IN STOCK



4 SPOKE RACE
10 X 7.0 NEW / 13 X 5.5 TO 13 X 10.0
FORMULA SUPER VEE FITMENT NOW AVAILABLE







heroes sat and

get a taste

of what they

experienced

shapes, sizes and sounds."

And that isn't just appealing to the fans. It can create interesting dynamics for the drivers. At many events it's obvious that cars have strengths in different places, with

some contests being best described as power versus handling.

"There's such a difference between the cars, so you've got to get your head around different types of driving," explains Shedden. "In the Gerry Marshall Trophy [for Group 1 touring cars], for example, the Chevrolet Camaros are fast in a straight line but our Rover is better on the brakes."

"That's a challenge for the drivers and makes it more vibrant," adds Hadfield.

As time goes by, that diversity could increase further as new categories become 'historic'. The new Masters Endurance Legends series allows sportscars and GTs that are little more than five years old — and some of them can outpace many current cars.

NOSTALGIC APPEAL

Nostalgia is a strong draw in many areas of society, for a variety of reasons, and that certainly plays to historic racing's advantage. It allows people to see cars they remember fondly from their youth, or that they were too young to catch the first time around.

The drivers aren't immune to this, as Hadfield shows: "To sit where your heroes sat and experience something of what they experienced is a vast amount of it for me. It's competition archaeology — why did they do what they did? Why did some fail and others succeed? You're able to lift the curtain and look underneath.

"It's not about mega engineers and super-duper-clever people. For me it's about trying to do what your heroes did."

Steve Soper's approach is rather different. The touring car legend has little enthusiasm in revisiting *his* past, but the cars from a less-complicated era give him an easy way to have new experiences. "I like it because I've never driven these cars before and they are simple," he says. "To get the cars right — if you've got a little bit of technical ability — is relatively easy. I probably prefer tinkering with the cars. You don't need a data guy."

Fewer technological hurdles, combined with huge variety, close combat, machines that are great to watch and drive, nostalgia, and cars that don't lose their value. Historic racing's appeal varies for different people, but perhaps the reason it's so strong is that it ticks so many boxes. ▶

The circuits' view

MotorSport Vision's circuits – Brands Hatch, Cadwell Park, Donington Park, Oulton Park and Snetterton – hold their fair share of historic events. MSV chief executive Jonathan Palmer (below, right) has no doubts about the genre's strength.

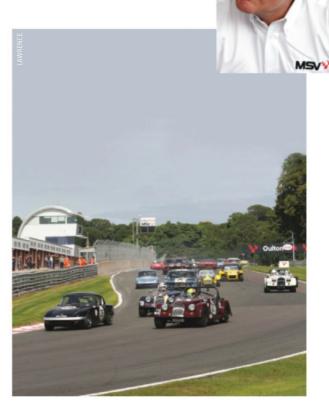
"We've seen historic motor racing grow significantly in popularity over the past decade, though it has understandably flattened off more recently," he says. "Competitor and spectator interest remains strong and historic meetings will remain an important feature of our calendar across all five MSV circuits."

The Historic Sports Car Club will visit all five in 2018, including the Oulton Park Gold Cup, while the Donington Historic Festival and the Masters Historic Festival at Brands Hatch are also big events.

"I think the appeal of historic racing comes from a number of factors," adds Palmer. "From the competitors' point of view, there is a wide variety of cars and prices to choose from, and their values may well increase, rather than depreciate.

"There is a more relaxed environment with the racing – as the cars are often quite different in performance, it's still great fun racing anywhere down the field. Spectator appeal is also enhanced by the fact that there is such a variety of distinctive-looking machinery – often devoid of the sponsor decals that can smother a car's identity.

"Finally, there is the visible action to be enjoyed with old cars – they roll going through corners, they slide around and, in single-seaters, you can see so much more of the driver too!"





CASE STUDY 2015 St Mary's Trophy

One of the finest examples of historic racing came at the 2015 Goodwood Revival, in the first of the weekend's St Mary's Trophy races for 1960-66 production saloons. There was a great range of machinery, from Minis to seven-litre Ford Galaxies, and British Touring Car rivals Gordon Shedden and Andrew Jordan were in Ford Lotus Cortinas. Shedden took pole, with GT ace Frank Stippler splitting them in an Alfa Romeo Giulia Sprint GTA.

Come the race, the trio put on a masterful display of on-the-edge, nose-to-tail combat. Jordan grabbed the initial lead, while Stippler had to recover from a moment and being overtaken by Andy Priaulx's BMW 1800 TiSA. Shedden passed Jordan on the Lavant Straight on lap two of the 17-lapper, by which time Stippler had joined them in a three-car breakaway.

With Jordan struggling for power, the Alfa also went ahead before Stippler went around the outside of Shedden at Woodcote to lead. The positions remained the same for much of the race, but the three cars stayed locked together, lights ablaze, sliding and kicking up the dust on the edge of the track.

If this fight demonstrated car control at its best, the 'box office' appeal was provided by Tom Kristensen (below), who started from the back in Alan Mann Racing's Ford Fairlane Thunderbolt. Having not seen the car before arriving at Goodwood, he charged through the field and into the lead in the final five minutes.

Shedden took advantage of Kristensen coming through to pass Stippler into the right-hand element of St Mary's and the Alfa took to the grass when the German tried to retaliate at Woodcote. The final order was Kristensen-Shedden-Stippler-Jordan.

"That was a great race," recalls Shedden. "The three of us were on the ragged edge."

Jordan agrees: "We were all pressing on and the cars were really moving around. They're the sort of guys you can trust."





SECRETS OF DRIVING

Views on driving historic racing cars often fall into one of two camps. Either the historics (and, therefore, those who drove the cars in period) are better than contemporary competitors because you can see the cars moving around a lot more, or they are worse because they are slower and less sophisticated.

There is the idea that the attitude of a low (or non-) downforce car can be readjusted mid-corner if you get it wrong, whereas in a high-downforce machine if you commit too much entry speed there is nothing you can do due to the higher levels of grip.

Leading drivers agree there are different styles, but ultimately feel the challenge of driving a car on the limit is equally tough whatever the era.

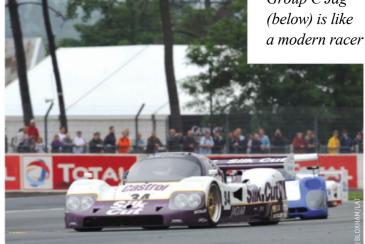
"You've got to get a historic car floating on the tyres," says Hadfield. "The pre-1965 cars allow an expression you don't get with modern formulas, but when you're on the edge in any car the commitment doesn't allow you to change your mind."

Shedden agrees and also points out that, although you can be more spectacular in low-grip machinery, it's not usually the fastest way. Keeping things neat has its rewards. "Once it's going wrong there's nothing left," he says. "You're not going to pick up grip. At the sharp end everyone is on the ragged edge. Historic and current cars are both just as hard.

"In historics, if you're not happy with the car sliding you're not







classics can be spectacular, but sideways isn't usually the quickest way

going to be anywhere. But it's not about armfuls of opposite lock — sometimes you set the car up and hardly have to move the steering wheel at all. You can't jump on the brake or the throttle. You've almost got to trick the car into doing what you want it to."

Soper sees even less of a difference when it comes to driving approach: "Historics don't do anything you want them to — the tyres have such a small contact patch. But I drive them all the same way, I don't have to put my 'Cortina brain' in.

"If you're on the limit it's the same as a modern prototype. If you are at ten-tenths in a Jaguar E-type you can't alter anything [mid-corner]. If a car is out of line it's slow. Whenever I get my car neat and tidy the time falls off the stopwatch. As soon as I get lairy I get slower."

Although Pearson has limited experience with contemporary machinery, he has successfully raced a Group C Jaguar XJR-11 (sometimes on the same day as pedalling a Jaguar D-type!), which produces modern levels of downforce.

"It's absolutely phenomenal," he says. "It's all about corner-entry speed and believing the car can carry it into the corner. With the older cars it's slow in — get it stopped in a straight line — and fast out.

"Downforce cars are about corner entry and braking points. You have to keep them straight. It's not seat-of-your-pants like the old cars — you have to rely more on what you did on the last lap.

It's still exciting, it's just a different discipline."

Although in shorter races historics can be driven flat-out, in the longer events car preservation becomes a consideration, another parallel with contemporary racing.

"The limiting factor is the contact patch — the tyres do go off so you have to manage that," adds Pearson. "In sprint races it's fine, but after about 25 to 30 minutes the tyres will be past their best. You have to manage it to a degree, but if you're in a competitive race you have to push like everyone else.

"There are some very good brake materials out there now — much better than in period — but the E-type has very small pads on the front. For longer races you have to use much harder pads, which reduces the stopping power, but you still use them hard."

Pearson does, however, believe that it's easier to step from modern cars into historics than vice versa. "If you're a good driver it's probably easier to get closer to the limit in Goodwood-era [pre-1966] cars than a modern one, where you need to understand all the technical side and the data," he says. "When you get the world-class drivers at Goodwood, some of the historic specialists can hold their own, but if you were to put us in one of their cars we wouldn't have a chance."

That, of course, rarely happens. But the battles against the pros in the big historic events continue to underline just how good some historic racers really are, and how tough the competition can be. ■

What should a historic racing car be?

There are many ways to run a historic racing series, but the FIA has its own framework that can be useful for organisers

BY KEVIN TURNER

ne prominent historic racer recently said: "If you ask 200 people in the paddock what historic racing should be, you'll get 200 answers."

The question of how original a historic car should be is a controversial one. Cars used regularly have to be maintained, and crashed cars need to be rebuilt. Which parts and materials should be used can be a complex debate.

Too puritanical about it and some cars will never run reliably, while others will be left in the garage due to a scarcity of parts. Too liberal and it can turn into an arms race that results in cars that *look* like historic cars but are essentially modern machines. As Historic Sports Car Club CEO Grahame White says: "There are people with vast amounts of money who are desperate to win and explore every avenue."

Most would agree that the latter isn't what historic racing should be about — if you want to push the technological boundaries, you should probably be in contemporary motorsport.

Getting that balance right is the job of the many clubs and race promoters, but the FIA has its own answer in the form of Appendix K. In basic terms, Appendix K requires things to be as authentic to the

Lotus Cortinas are entertaining to watch and drive on periodstyle rubber period as possible, with sympathetic safety enhancements thrown in — seatbelts, fire extinguishers, safety tanks. Even where items are listed as 'free', that is in relation to the parts and materials that would have been available at the time the car was



current. Owners and preparers can't just bolt modern equipment on.

Once Appendix K cars have their Historic Technical Passport, they can, in theory, race anywhere those regulations are used. That, in turn, can help those running meetings.

Motor Sports Association eligibility scrutineer Nigel Edwards believes Appendix K has a number of advantages. "It's so much easier to police and keep the playing field level," says Edwards, who is the Historic Formula 2 scrutineer, among several other HSCC series. "Appendix K is about avoiding an arms race.

"Quite a few cars are maintained abroad and it doesn't matter where you are, it's the same Appendix — it's a common standard and consistent. It's organised quite well. There are very few times where it doesn't tell you what you need to know."

Using Appendix K also means pre-1966 cars do what they should do: slide around. That's important for safety as well as the spectacle. "It's originality that's important," adds Edwards. "If you stick to those









Dunlop produced many racing tyres in the 1950s and '60s, and is an important part of the historic racing scene. The company's legacy is one of the main reasons it remains in what is a niche part of the industry, albeit an exciting one.

"We can do high-performance modern tyres and still make original 1950s and '60s designs," says Dunlop's James Bailey (right). "As a promoter you have a choice: Appendix K or modified. We can do both – there's a market for both – but Appendix K is important because we're the only company with 130 years of history. We have an obligation to maintain that heritage.

"The historic range, such as the CR65 and R5, are tyres introduced in the 1950s and are essentially the same as used in period by cars such as the Jaguar D-types at Le Mans [above, winning in' 56] and Lotus Cortinas in saloon car racing. They've largely been in continuous production."

One of the unusual problems for Dunlop is that the materials it can use have changed, creating difficulties behind the scenes that aren't noticeable from the outside – correct tread patterns are used so they look right.

"The challenge is that some of the materials are no longer available, so it's our job to create the same level of performance using a concoction of modern materials and compounds," adds Bailey. "Our goal is to keep the tyre as original as possible."

Successful historic racer and preparer Simon Hadfield believes Dunlop's involvement is crucial. "I am a huge supporter of Dunlop," he says. "They are the one company making the right size and shape of tyre, and I think pretty close to the grip of the period.

"They are the unsung heroes."



regulations you get cars that go sideways and drift. If you put sticky tyres on old suspension, it breaks. It's far better that the tyres slide than the suspension snaps."

Keeping the rubber close to the period specifications is key. "The tyre is the limiting factor to performance," says Dunlop's James Bailey. "You can give a car more power or better suspension, but if you can't put it on the track it's wasted.

uses the FIA's

Appendix K

regulations

"If we were to put a modern tyre on a Lotus Cortina, for example, it could probably lap Silverstone 10 seconds faster, but you'd start to have problems with chassis flexing, suspension, brakes... all because of the extra grip.

"The appeal of historics is people seeing overtaking and cars twitching. Having a modern tyre would change all that. It would be like putting wings on."

As with any set of regulations, Appendix K only works as well as it is applied. For it to succeed, cars need to be scrutineered properly and tough decisions sometimes need to be made. That can be particularly tricky if a wealthy competitor has several cars at one event, or if there are teams and preparers coming from contemporary motorsport.

"They have higher levels of knowledge," says Edwards. "There could be parts in the engine using metallurgy you'd only find out about if it blew. To keep a lid on it you need a bunch of historics-focused scrutineers — and you need support. Once you say something is wrong, you need support from the club and the organisers. And you have to be consistent and treat all competitors the same."

Using Appendix K is not the only way to run a successful historic racing series — plenty of categories, such as the HSCC's own Road Sports championships, run perfectly well without it. But it is a useful international method of preserving some of motorsport's history on track — one that comes from the sport's governing body, which underlines how seriously it takes this branch of the sport. ■

Marcus Pye's TOP HISTORIC RACERS

As historic racing has grown, so has the number of competitive drivers.

Autosport's long-time reporter picks out the best

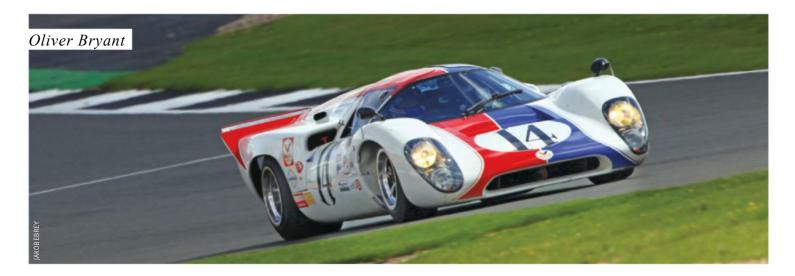
Pneumatic tyre pioneer Dunlop and historic racing are synonymous. For more than 30 years, specialist motorsport distributor HP Tyres — set up by Jaguar racer John Pearson (Sr) — has flown the yellow-and-black flag superbly, supplying and servicing a spectrum of categories on-event and from its HQ, now in Daventry.

The variety of Dunlop-shod cars, spanning towards a century of sport, showcases an enormous pool of driving talent. The following alumni are the pick of the crop, masters who wow enthusiasts at trackside or via TV streaming from monster events such as the Silverstone Classic or Goodwood's Revival and Members' Meetings. Excluding, in the main, professional drivers, these skilled

competitors can (and do) beat anybody in their field on Dunlops. Winning season after season is no coincidence. Eking every last ounce of performance from highly tuned machinery demands the ability to find the limit of adhesion. And often exceeding it, which guarantees spectacular, crowd-pleasing action.

Attempting to rank my subjective top 12 would be invidious. Having reported historic racing for 40 years, it's safe to say that, where engine power far exceeds mechanical grip, in cars unfettered by downforce, Simon Hadfield, Martin O'Connell, Gary Pearson and Martin Stretton are Dunlop's ultimate prize guys, yardsticks who rivals should be proud to measure themselves against.







JULIAN BRONSON

Burly Bristolian fork-lift company boss Bronson, 67, cut his teeth on grasstracks in a £5 Hillman Minx but switched to circuit racing with the Vintage Sports-Car Club. Ever the showman, he tamed a ferocious supercharged 1937 Riley Blue Streak Special fearlessly, once taking the chequered flag at Silverstone in a fireball when its engine exploded rounding Woodcote!

Bronson's four Monaco GP Historique race victories in ERAs (in 2002 aboard Donald Day's ex-Johnny Wakefield/Bob Gerard R14B, then a hat-trick in Mac Hulbert's ex-works R4D) are testament to his touch and tenacity. Equally adept in mighty Lister-Chevrolet and McLaren M1C sportscars, Julian currently campaigns a front-engined F1 Scarab-Offenhauser — an outmoded failure for American financier Lance Reventlow in 1960 — in HGPCA events and always claims scalps in the wet.



OLIVER BRYANT

Eyecatchingly rapid in MGB, powerful Morgan +8 and AC Cobra as a lad brought up at circuits supporting father Grahame, Oliver Bryant, 32, has built his reputation entirely in closed-wheel competition, winning more than a quarter of his 500-plus races.

Omnipresent in historics, where he races thundering Lola T70s with distinction, he has been a force on the modern GT scene since 2004. Third in the 2015 Spa 24 Hours, he raced a Chevrolet Corvette to ninth at Le Mans in the GTE Am class in '16.

Ollie has a superb record in the family Cobra, notably at Spa. But despite qualifying on pole twice, Goodwood's RAC TT Celebration continues to elude him. His victory at that circuit came in the Members' Meeting's Gerry Marshall Trophy race in the ex-Richard Lloyd Chevrolet Camaro.



DUNCAN DAYTON

Minnesota-born hobbyist Dayton, 58, has always been stunning round the streets of Monaco, where he tops the GP Historique's all-time winners' list with 11 victories, five clear of Martin Stretton. One was scored in a Formula Junior Cooper, two in a screaming 1500cc Brabham-Climax BT11 V8 and four in a front-engined Lotus 16 — all on Dunlop tyres — and four in his Cosworth DFV-powered Brabham BT33.

Dayton enjoys his extraordinary historic car collection to the full. Battling back to fitness following a fall in which he broke his neck, then returning to the cockpit of high-downforce sports-prototypes in the American Le Mans Series, remains his biggest victory.



MARK GILLIES

British-born motoring journalist Gillies relocated to the United States and is now senior ▶





Product and Technology Communications manager with Volkswagen of America. Weaned on vintage racing - his late father Barrie was a renowned Riley specialist – he honed his fast and mechanically sympathetic racing skills in the beefy supercharged Brooke Special, developing rapidly into one of the world's finest ERA and Maserati handlers.

Driving for such enthusiastic and focused owners as Dick Skipworth and (his late mentor) Rodney Smith, Mark has the best strike record of any ERA exponent in recent years. In addition to countless VSCC trophies, five wins in R3A, plus one in a Cooper T53, place him third on the Goodwood Revival's car winners' list behind Garv Pearson and Richard Attwood.



SIMON HADFIELD

Prolific winner Hadfield, 60, is a lifelong racing fanatic. Adrian Reynard's first employee, an ATS and Merzario mechanic at the poor end of F1 pitlanes in the 1970s, and a British F3 cameo racer of the mid-'80s, he knows better than most how not to go racing. Passion for detail and testing are keys to his preparation business's success.

Son of Lotus 11GT racer George Hadfield, growing up at races fuelled Simon's love for and profound knowledge of Colin Chapman's marque. He debuted an Elan in '81 and has won in many Lotuses, including



MASTERS of their CRAFT

Le Mans winners Richard Attwood, Derek Bell, Jackie Oliver, Tom Kristensen, Jochen Mass and Emanuele Pirro with 22 victories at La Sarthe between them - always rise to the big occasion. Attwood, now 77, has notched six wins at Goodwood where he was a rising star in the 1960s, thus lies second in the Revival standings.

Joaquin Folch-Rusinol and fellow FIA Historic F1 champion Christian Glaesel trade slicks and wings for original Ford GT40s and other exotica. The Spaniard exercises his ex-Bruce McLaren Jaguar E-type,

Maserati 250F and Lotus 16 with vigour while the German sometimes pilots his Alfa Romeo P3 or Jaguar D-type.

Snarling AC Cobras always entertain. American Michael Gans and Andy Wolfe (FIA Masters F1 champ in 2016 in a Tyrrell 011) scored a breakthrough **RAC TT Celebration** victory at Goodwood in one last year. Both are also quick in Lolas, a lithe T290 and thuggish T70s respectively. Rob Hall is another snake charmer who co-drives shrill 12-cylinder Matras with Andy Willis too. Nick Padmore

(another FIA Masters F1

champion) may own Goodwood's outright historic lap record in perpetuity in a Lola T70 now a closer eye is being kept on speeds. In the '50s sportscar sets, Sam Hancock has starred in svelte Ferrari Dino, throbbing Lister-Jaguar and brutal Cunningham.

Miles Griffiths and Jon Milicevic are single-seater craftsmen, while Rod Jolley and his tricycling Cooper T45/51 wow onlookers. Tony Wood's Tec-Mec -Monaco winner in 2016 - is way quicker now than its '59 US GP appearance suggested. Andrew Hibberd's FJunior/1000cc F3

successes have left Goodwood rivals panting, and FJ rival Stuart Roach's ill luck finally turned last year.

Four decades after his British Hillclmb title, David Franklin's talent shines on in Ferraris. And it's wonderful that triple US F5000 champion and sportscar ace Brian Redman, at 80, enjoys blasts in Aston Martins and Porsches.

British audiences love an underdog, thus get behind Mini hero Nick Swift's giant-killing antics. Patrick Blakeney-Edwards earns similar roars of approval in his twitchy Frazer-Nash 'Owlet'.

Michael Schryver's 72.

Hadfield and Schryver scored many wins in Michael's Chevron B6, starting a record run of five Spa Six Hours victories in '97 and '98. In its subsequent pre-1966 era Simon prevailed in Wolfgang Friedrichs's Aston Martin DP214 clone and twice in Leo Vovazides' Ford GT40.

Hadfield, whose feel in the wet is sublime, relishes a chase. Hauling Friedrichs's DP212 back from midfield, reeling in and then passing Anthony Reid (Lister-Jaguar coupe) to win Goodwood's 2013 RAC TT Celebration – in Aston Martin's centenary - rates among the genre's greatest drives.

A winner in just about everything, from Lotus Cortina to Bernie Ecclestone's Brabham

BT49 at Brno in '96, Simon has triumphed at Monaco, and in Elva Mk8 and Lola T70 at Goodwood, and has a superb Silverstone Classic record. He is equally happy, though, racing a Historic Formula Ford at Anglesey.



PHIL **KEEN**

His Formula Renault aspirations derailed by lack of budget in 2002, kart graduate Keen, now 34, took the bold step of jumping













into the Dunlop-shod TVR Tuscan Challenge, finishing third. The Reading racer has subsequently forged his career in GT and sports-prototypes. He finished second in last year's British GT title race in a Lamborghini Huracan with Jon Minshaw.

Much of Keen's historic success has also been earned with Demon

Tweeks boss Minshaw, sharing his cars or racing them solo, as at Goodwood last year in the Lister-Jaguar. Super-fast and neat, Keen's skills have translated equally to Mike Gardiner's Ford Falcon and a Porsche 934, in which he frightened rivals by trumping their prototypes in the wet at the Algarve Circuit in 2016.



ANDY MIDDLEHURST Son of 1960s Austin A40 racer

Phil Middlehurst, Andy was a Formula Ford frontrunner in the 1980s, when the class ran on Dunlop tyres. Having switched to saloons and developed the family Nissan dealership in St Helens into Britain's foremost Skyline GTR specialist, Jim Clark fan Andy, now 54, discovered historics with Lotus 23B and ex-works Ford ▶

SCHROTH RACING CHAMPIONS CHOICE





With over 20 years experience Schroth Racing indi seat has made seats in pretty much every Championship around the Motorsport World. We have clients in F1, F2, GP3, LMP, BTCC, FIA Masters Historic and many many more.

With our unique resins and polyprop beadsphere mix we protect drivers and enhance their performance. Our unique non temperature sensitive resin means we can make seats anywhere with an unrivaled turnaround. We also have many customers who continue to use the same seat over many seasons due to our non therma - set properties.

Speak to the experts and let us look after you.

Visit www.schroth.com/racing to learn more about our products.



Follow us on Facebook www.facebook.com/schrothracing



schrothracing



SCHROTHRACING







Lotus Cortina. But he realised a dream when Australian John Bowers invited him to race his Lotus-Climax 25, Clark's '63 world championship winner, prepared by period mechanic Bob Dance at Classic Team Lotus. Five straight Glover Trophy wins at Goodwood and a Monaco GP Historique hat-trick from 2012 proves their class. As did defeating Peter Horsman's 2.5-litre Lotus 18/21 with the screaming 1500cc V8 at Zandvoort last season.



ANDY NEWALL

Sometime Mallory Park Formula Fordster Newall changed direction when he was preparing historic racing cars at Simon Hadfield's emporium, building a four-wheel-drive Land Rover-based Bowler Wildcat and becoming a champion off-road competitor.

Having co-founded Gelscoe Motorsport with Jon Brewin, to build Ford GT40 evocations to FIA HTP specification, Newall returned to circuit racing through preparing cars for Sir Anthony Bamford of JCB Excavators. Andy raced Bamford's rampant Can-Am McLaren-Chevrolet M8F and Chevron-BMW B8, claiming the 2016 FIA Masters Historic

Sportscar title in the latter.

Always a forceful frontrunner, Newall, 50, has also wrung huge speed from Jaguar E-types owned by British bakery baron Ross Warburton (ex-Peter Lumsden/Peter Sargent low-drag Le Mans coupe) and German equestrian ace-turned-race engineer Rhea Sautter.



MARTIN O'CONNELL

Lauded by his peers as probably the fastest historic racer over a lap – the Rene Arnoux of his era? - stocky West Midlands speed merchant O'Connell, 45, opened eyes in speed events as a teenager, preparing cars and competing under the wing of his uncle Ray Rowan, winner of the RAC British Sprint championships in 1981 and '85 and Hillclimb title in '89.

Given O'Connell's racing

pedigree his pace should be no surprise. British Formula Vauxhall Junior champion in 1992, he graduated to the two-litre FVauxhall category with one victory, then won Class B (for older-spec cars) in '94. Runner-up to Jonny Kane in the main title race the following year, Martin suppressed Kane's Paul Stewart Racing team-mate Juan Pablo Montoya to third! British F₃ National Class champion in '97 and '99, he also showed form in sports-prototype racing, where his talent shone despite small budgets.

Historic racing has levelled the playing field in recent years. O'Connell has racked up many wins in Swiss-domiciled Scottish car recycling pioneer Sandy Watson's Chevrons – the B8s (with two-litre BMW and 1600cc Cosworth FVA power), like various Jaguar E-types, on period-style Dunlops, although he is equally adept on slicks.

Always flat-out from the start lights, Martin has blitzed opposition in the Chevron GTs, adding spice to the HSCC's Dunlop-supported Guards Trophy championship on spasmodic appearances.

In 2015 he also won the Autosport Three Hours – a retrospective of the 1957-64 races - at Snetterton driving single-handed in an E-type.



GARY PEARSON

Synonymous with Jaguars, catalyst of the thriving family motorsport engineering business he runs from a base close to Silverstone, Gary Pearson has won in everything from C-types of the 1950s to wailing highdownforce V12-engined Group C cars of the '8os.

Pearson tried his hand at Formula Ford with an elderly Hawke before broadening his competition CV. An ace mechanic, Gary was much in demand around dad John's wide circle of friends as a young man, working on David Piper's Ferraris, Porsche 917 and Lola T70s at circuits dotted around Europe and beyond. That experience was vital in evolving the race-preparation shop to serve an ever-wider client base, with Brazilian Carlos Monteverde's diverse car collection providing many driving opportunities.

With his ultra-neat laid-back driving style and open-face helmet in early cars, Gary looks every inch the period racer. He



tops the car-race winners' list at the Goodwood Revival Meeting with 12 victories, saddling Jaguar C and D-types, Cooper-Jaguar, Lister-Jaguar 'Knobbly', BRM Type 25 and Lola T70 Spyder.

A big favourite on home soil, you'll get short odds on Pearson at the Silverstone Classic, where he's taken MRL's Royal Automobile Club Woodcote Trophy chequered flag four times in Jaguar D-types - including Monteverde's ex-Jim Clark car - as well as won in an E-type with brother John Ir, Listers, XJR-11, Ferrari 250 GT SWB, 250LM and 512S, and Lola Mk5 and Brabham BT7A singleseaters. As you might expect, having tested them for tens of thousands of miles, nobody understands Dunlop tyres better.



FRANK STIPPLER

One of the few modern factory professionals who competes regularly — with an easy manner — in historic events, Audi development driver Stippler, 42, appreciates the dynamics of the pre-war Maserati 6CM, iconic 250F and Birdcage sportscars better than most, mastering them with a beautifully fluid style that appears almost effortless from trackside. Simon Hadfield

believes Stippler could be the best of all.

The 2003 Porsche Supercup and Carrera Cup Germany champion won both the Nurburgring and Spa 24 Hours in 2012 in Audi R8s, but is as happy in one of the key oldtimer festivals at Silverstone, Spa or the Nurburgring. Having started his career in an Alfa Romeo Alfetta, Cologne-born Stippler adores baiting Lotus Cortinas and BMW 1800Tis in a GTA too. He and Alexander Furiani won in one at Goodwood in 2013.



MARTIN STRETTON

Thwarted in his attempt to make the racing grade conventionally in the early-1980s Dunlop-Autosport Star of Tomorrow Formula Ford championship when he ran out of money, Worcestershire-based Stretton, 58, switched to vintage cars — in which family members were entrenched — where his natural speed brought success in chain-gang Frazer Nashes.

Having captured the attention of success-hungry car owners, Martin revelled in drives proffered in early GP cars, from a pre-war Maserati to Connaught and Cooper machinery of the '50s and a 1500cc Lotus 25 V8 in which his artistry was a joy to behold.

A new three-litre F1 chapter opened in 1995 when Simon Bull



A modern GT racing stint with Konrad Motorsport Porsches didn't bring results, but Martin had plenty on his plate in his speciality. On treaded Dunlop tyres he has notched six Monaco GP Historique victories, four at the Goodwood Revival and won the Spa Six Hours four times — thrice in Jaguar E-types with Jon and Jason Minshaw, and once in Diogo Ferrao's Ford GT40.



CHRIS WARD

When lack of finance dictated that his racing aspirations stalled









O L I V E R H A R T

The Dutch teenager debuted in 2016, but stunning Cobra drives on debuts at a soggy Spa that season and Goodwood last year suggest remarkable natural talent.

BENN TILLEY

Lincolnshire teenager jumped from Citroen Saxo to Historic FF1600 and has shone. Won most competitive class (runner-up overall) in UK Formula Junior last year.

DAVID PITTARD

A quick Toyota MR2 and Sports 2000 racer, Pittard has really found his metier in historics, displaying blinding speed in Lotus Elan, Chevron B8 and AC Cobra.

JACK RAWLES

Without the budget to continue in Ginetta Junior, Rawles returned to the family Austin-Healey speciality. Now one of the UK's quickest 3000 tamers.

PETER DE LA ROCHE

Son of a Cheshire garagiste, de la Roche won races in 500cc F3 cars, and last year drove several FJ chassis with aplomb en route to the UK title.

RICHARD WOOLMER

Incredible car control underpinned the lanky Bedford lad's remarkable 2016 Freddie March Memorial Trophy race win at Goodwood in the HWM-Cadillac (left).



at Formula Vauxhall in the 1990s, Ward scaled back his activities but continued to win in the Supersports Vauxhall class. Chief circuit instructor at Silverstone for 20 years, Ward jumped ship to run Derek Hood's JD Classics racing enterprise, a lucrative career move that has showcased his talent in some great cars.

Chris's wheel-twirling prowess in Jaguar C-type, Cooper-Jaguar T33 and Lister-Jaguar sportscars have brought much success to the Essex-based equipe. An HSCC Autosport 3 Hours win with Chris Buncombe and two RAC TT Celebration victories (with triple BTCC champion Gordon Shedden) at Goodwood in E-types paved the way to last

year's big prize, a resounding Spa Six Hours triumph with Andrew Smith in a Ford GT40. His success is unlikely to stop there.



SAM WILSON

Nine successive Silverstone Classic Formula Junior victories in the ex-Dave Charlton Lotus 20/22 and 11 from the last 14 distinguish Sam Wilson as the category's quickest and most consistent driver. The last time he was beaten in the doubleheader was in 2013, having lost out to Jon Milicevic and David Methley the previous season.

A brilliant engine builder, the red-haired Leicester tiger won on his 500cc F3 debut in a Kieft-Norton at the Goodwood Revival, and claimed FJ gold in his Cooper T59. Wilson has also won a Members' Meeting race in Alan Baillie's Cooper T71/73. Now enjoying F1 power, Sam dominated last September's Spa HGPCA races in Sir John Chisholm's ex-Jim Clark/Innes Ireland Lotus-Climax 18. ■



STAR CARS

There are hundreds of brilliant machines competing in historic racing. Here's a selection of some of the finest

BY PAUL LAWRENCE







1955 ASTON MARTIN DB3S

CURRENT OWNER STEVE BOULTBEE BROOKS

Graceful lines, sublime handling and a handsome price tag born of scarcity make the Aston Martin DB₃S a very special racing sportscar from the mid-1950s.

Just 20 customer cars were built alongside 11 works racers as Aston Martin competed in the fledging World Sports Car Championship. Victories in the TT at Dundrod and at Goodwood followed, but a Le Mans win evaded the DB3S. Second place in the ill-fated 1955 race for Peter Collins and Paul Frere, a narrow defeat in '56, and another runner-up spot in '58 for the Whitehead brothers were the best results for a well-balanced car that was normally outgunned.

Chassis DB₃S/104, now owned by Steve

Boultbee Brooks, is one of very few still being raced. This glorious piece of racing history competes in FISCAR races and has appeared at Goodwood.

Chassis #104 was completed in late May 1955 and sold to Les Cosh, one of three Australians who raced three sister cars during the '55 European season under the Kangaroo Stables banner.

At the end of the 1955 season it was sold to Rob Carveth in California and he raced it with success before selling it on. By the mid-'70s, it was stored in a chicken coop when its value bottomed out. Fortunately, one owner's plans to create a V8 street rod based on the DB3S were never realised...

Restored in the United States in the late 1970s, it later came back to Europe and was restored to original colours and raced by Peter Agg in the mid-'90s before recrossing the Atlantic to spend time in a private collection. It's finally back in the UK again, via Brian Classic, and Boultbee Brooks has owned and raced it for seven years.

This is an impressive original car, which retains the single-plug head version of the three-litre Lagonda engine, as used on the early cars, and drum brakes all round.

Boultbee Brooks races it — albeit sparingly — under the expert wing of Martin O'Connell.

1959 AUSTIN-HEALEY SEBRING SPRITE

CURRENT OWNERS
PAUL AND RICHARD WOOLMER

The Austin-Healey Sebring Sprite, registered 46 BXN, started life as the works demonstrator in Jamaica and its early racing took place there and on the east coast of the US. Initially, as is the case with all Sebrings, it was a standard frog-eye Sprite that was converted into a Sebring-bodied car.

In 1961 it returned to the UK with its then-owner Peter Jackson, who had been working at the Canada Dry bottling plant in Jamaica. Having won races in Jamaica and the US, Jackson was blown away on UK tracks because the cars were more developed. The Sprite went to John Sprinzel and had a lightweight spaceframe back end and aluminium hardtop fitted, as well as engine and gearbox work. Jackson raced it in the UK and Europe in 1961 and even drove it to the Nurburgring, finished third in the 500km race, and then drove it home.

At the end of 1961 the car caught fire on a rally in Wales and was badly damaged. It went to Peel Coachworks and had the body fitted that is still on it now. Jackson kept



the car until '65, by which time he was racing sportscars for Lotus.

It then went through five owners, who all raced it at club level, and it has never had a significant accident. One of those owners was Stuart Radnofsky, who was marketing manager at Benetton F1. The Woolmer family has owned the car since 2006, but has been involved with it for more than 30 years. They looked after it and raced it for two previous owners, with considerable success. This

quick little BMC A-series-powered car remains very close to period specification.

The aluminium body wraps around the sill, which is quite unusual as most Sebrings have flat sides. When the Woolmers took the body off during a restoration, they found charred paint from the 1961 fire. Paul Woolmer has raced it regularly over the years, but has now handed it over to his rapid son Richard, who has starred several times at Goodwood with his exuberant style.



1960 SCARAB FORMULA 1 CAR

CURRENT OWNER JULIAN BRONSON

The Scarab was the first world championship grand prix car from the US, and was conceived and built by Woolworth heir Lance Reventlow. He had raced in the United States and Europe through the 1950s, then moved his fledging team into international racing.

Built in Venice, California, the frontengined Scarab design made its grand prix debut at Monaco in 1960, but it was too late to the party as Cooper and Lotus had already moved the goalposts by developing rearengined cars. Three front-engined machines were among just eight cars built by Scarab, the others being four sportscars and one rear-engined single-seater.

Soon after the ill-starred F1 project, Reventlow, who had inherited \$25 million on his 21st birthday in 1957, started to lose interest in racing and the team was closed down in '62.

The front-engined Scarab-Offenhauser now owned and raced by historic racing ace Julian Bronson was the team's spare for the 1960 campaign, and was unraced in period. It was later acquired by Tom Wheatcroft and spent many years as part of the Donington Grand Prix collection until Bronson bought it six years ago.

Since then, despite some engine frustrations in the early stages of the project, Bronson has developed it into one of the fastest front-engined cars still racing. More than 50 years after it went to Monaco — albeit to sit in the garage and not race — Bronson took the car back to the principality to race at a circuit where he always shines.

Bronson and his small team build the engines in their own workshop and reckon they are running 240bhp, compared to a quoted 235bhp in period. But it's the blend of torque and horsepower that makes the Scarab a front-engined benchmark in HGPCA races.

1962 COOPER T59 FORMULA JUNIOR

CURRENT OWNER CHRIS MERRICK

The Formula Junior Cooper T59 now owned and raced by Chris Merrick is chassis #9 from 1962, and was sold to Curt Lincoln in Finland when new. Lincoln's daughter Nina married future posthumous F1 world champion Jochen Rindt in 1967.

The Cooper was sold to Lincoln as a complete car less engine, but he immediately installed a Ford powerplant and raced it in 1962 in Finland in exactly the configuration it remains in today, including the Finnish-flag colour scheme.

Lincoln owned a lot of Coopers, but kept each one for just a year or two, and after the T59 he bought a Brabham BT6. He won some



fairly major races in 1962 and also did some ice racing with the Cooper. Later in '62, Jochen Rindt bought chassis #6.

The Lincoln T59 went through various hands and suffered a heavy crash in Finland in 1963. There is still evidence of that accident on the chassis. It ran as a Formula 3 car in '65, mainly in Sweden, and was then laid up for some time before reappearing in the late '90s with Chris Alford. It was then owned by Dr Hugh

Chalmers in Scotland and later by Alan Biggar, who did an excellent job of the restoration in conjunction with Billy Bellinger.

Merrick bought the car in 2014 and raced it back in Sweden the following year where people still remembered it. This summer, Merrick's plan is to contest the Baltic leg of the Formula Junior Diamond Jubilee World Tour, which is named in memory of Lincoln.



1964 SUNBEAM TIGER LE MANS COUPE

CURRENT OWNERS
RICHARD AND MICHAEL SQUIRE

Three works Sunbeam Tiger Coupes were built for Le Mans in 1964, and the car registered 7734 KV — now owned by father and son Richard and Michael Squire — was the test mule.

It was the first Tiger built in the UK and, when the factory had finished with it, it was handed it over to Brian Lister to be used as one of the Le Mans cars. It was employed in the Le Mans tests, but by the time of the 1964 race the other two cars were ready and, sadly, proved to be glorious failures (7734 KV was taken to France as a spare).

After Le Mans it was used by Ian Hall, who was a Rootes works manager and co-driver. Hall did some sprints and hillclimbs with it before the car was sold to Alan Eccles.

After passing through a couple of dealers, the Tiger ended up with an



owner who used it as a road car in London. It then went to Dick Barker in California in 1973 and he spent 20 years restoring it. Barker took it back to exact factory spec and then sold it to Chris Gruys, another respectful custodian.

The Squires are the first UK owners since 1973, and when it arrived back in the UK it had FIA papers and had

already raced a couple of times, including at Goodwood in 2004. After a rework by Richard Walbyoff and his team, it made a racing return at last year's Donington Historic Festival.

All three team Tigers from 1964 have survived. One of the other cars still races regularly and the third — the Bernard Unett car — is in California.



1967 CHEVRON B6

CURRENT OWNER MICHAEL SCHRYVER

Michael Schryver has owned and raced chassis CH-DBE-2 since 1984 and has made it one of the most successful B6s of the seven cars built in early '67.

As the forerunner to the B8, Derek Bennett's stylish GT of 1967 quickly found favour — chassis CH-DBE-2 was sold to Peter Taggart, who raced it internationally when new. He sometimes shared it with Dr Tony Goodwin in longer races and it was Goodwin who became the car's second keeper in '70.

During his three years of ownership Goodwin took the fairly radical step of cutting the roof off. He was at an international race meeting and noticed that open cars were getting more start money - so he took a hacksaw to the B6 and turned it into an open-cockpit car!

When it next changed hands, it went to Peter Denty for the roof to be put back on for new owner Fred Boothby. Peter Lockhart-Smith also owned the car briefly in the mid-1970s. It was then bought Richard Thwaites, who raced it for five years, winning the '82 Atlantic Computers GT Championship. After a couple of years with Robbie Gordon, Schryver bought it in '84 for £8000.

In 34 years, Schryver has won at least five championships and the Spa Six Hours twice. He even did the Tour Britannia with it in road trim. For a couple of seasons, 1985 and '86, Schryver and Simon Hadfield campaigned the car in Thundersports. It's even been raced by Autosport's Ben Anderson.

During Schryver's tenure the chassis has been stripped twice, with friend and co-driver Hadfield doing the work. He also corrected the roofline, which wasn't quite right, using another B6 as a benchmark. It's still using the original chassis and has never had a major accident. Schryver started with an 1800cc twin-cam engine, and then used a 1600cc twin-cam from George Wadsworth for many years. More recently a two-litre BMW engine has powered the car to more race wins, and that's set to continue in 2018.



HRDC PROUDLY CELEBRATES 60-YEARS OF THE BTCC DONINGTON HISTORIC FESTIVAL



2 x 45-MINS PITSTOP RACES FOR 1 or 2-DRIVER TEAMS:

HRDC 'TOURING GREATS' for pre-'60 Touring Cars inc. 'TC63'

HRDC 'COYS TROPHY' for Touring cars 1958 – 1966

ENTRY FEE FOR EACH RACE:

JUST £695 – BEAT THAT FOR VALUE!

COMPETITION ENQUIRIES: JULIUS THURGOOD 07850 361159 · direct@juliusthurgood.co.uk · www.hrdc.eu

JOIN THE BEST TEAM IN HISTORIC RACING TODAY!



















1969 LOLA T70 Mk3B

CURRENT OWNER CHRIS BEIGHTON

Few race cars of the late 1960s have the imposing presence and brutal force of the Lola T70 Mk3B, and chassis SL76/148 has an extensive history over the course of half a century. As one of Eric Broadley's landmark designs, the sports-racing car was Lola's offering against the might of Ford, Ferrari and Porsche in sportscar racing, marrying a five-litre Chevrolet V8 engine to a very effective monocoque chassis.

Chassis SL76/148 was sold to Picko Troberg in Sweden when new in the spring of 1969, and both Troberg and Ronnie Peterson raced it before it was sold in September that year to Thanetbased Avalon Racing for Barrie Smith. Smith did a lot of races across Europe in '70, including at the daunting temporary track at Phoenix Park in Dublin.

The Lola then went to an individual who bravely road-registered it, and current owner Chris Beighton has the logbook and documents. Richard Bond took it back into racing in 1975 and then it was sold to Marsh Plant and raced by Gerry Marshall.



In the mid-1980s chassis 148 was David Piper's rental car and he hired it to various drivers over more than a decade, including Jonathan Baker. It was then in the hands of a private collector before Beighton bought it a decade ago. Having raced pretty much continuously for four decades, the Lola was fairly tired by the time Beighton took it on and was ready for a comprehensive rebuild.

It went to model expert Clive Robinson,

who had worked on it in period. When he took the monocoque apart to rebuild it, Robinson found a spanner he lost in the car in the early 1970s. A lot of the metal is original and Beighton has many of the original parts that have had to be replaced. Since the rebuild it's been raced in the Masters Historic Sports Car Championship, running a Steve Warriorbuilt five-litre Chevrolet engine.



1971 DATSUN 240Z CURRENT OWNER CHARLES BARTER

The 240Z registered OVB 72L is one of the best-known and most successful cars in HSCC Road Sports racing.

Touring car legend Win Percy owned it from new as a fast road car, and he had

it converted to Samurai specification as he was racing 'Big Sam' at the time, which was a well-developed 240Z running in the Modified Sports Car category. Percy, later a Le Mans racer for Jaguar, also used OVB 72L in competition, including the Six-Hour relay at Silverstone and hillclimbs.

Charles Barter, a near-neighbour of Percy in Dorset, acquired the car in the mid-1980s. It then went through another couple of owners' hands in the area before being parked up in an orchard. Barter reacquired it, along with a donor car, in a rather sorry state. Datsun 240Zs have a tendency to rust, and when the rebuild came back from being bead-blasted it was christened 'the teabag' because it had so many holes, but it was duly rebuilt around the original shell.

Barter had always run Imp-engined cars in competition, with engines built by Ray Payne in Bournemouth, so he handed the 240Z to Payne for a rebuild. Once ready, he started using it for sprints and hillclimbs, but when the HSCC introduced the 70s Road Sports category in the early 1990s, the Dunlop-shod Datsun fitted the regulations perfectly.

Barter has raced it in Road Sports every season since 1994, winning the overall title in 2001 and '17. The car has been developed in line with the championship's technical regulations, with input first from Tim Riley and more recently Dave Jarman, both renowned 240Z experts. Jarman's work on a fresh engine three years ago marked another step forward in performance.

How do you run an old F1 car?

Some historic racers employ big teams to run their cars, but it is possible for smaller operations to compete in F1 machinery, as Rod Jolley shows

BY MATT KEW

reparing classic cars for clients to race has become big business as the popularity of historic motorsport has swelled. Rather than a season being truncated by the fragility of older cars, the likes of Hall and Hall, Classic Team Lotus and Martin Stretton Racing specialise in delivering to their customers turnkey levels of reliability and performance.

While some companies run a full-time operation with a team of mechanics and travel to races with articulated transporters, there are still some who prefer to go their own way. Rod Jolley is one driver who still works out of his own garage, believing he is better dialled-in to find problems with his grand prix cars and develop his own solutions. And with more than 360 trophies decorating his house, it's clear that it's still possible for a comparative minnow to go it alone.

The key to being a successful privateer is attention to detail, says Jolley, who races a 1959 Cooper-Climax T45/51 Formula 1 car that he bought unseen from Australia in 1990. "When a car is together, it's all about spending at least a day every time you come back from

a race meeting taking all the body panels off, putting it up on the stands and cleaning everything," he says. "And when you do that you find things, you notice cracks in the chassis or a little bit of play in the wheelbearing or you check the brake pads.

"You get to know your car, know the weaknesses, and you get to know what to look for. There are certain things I check; for instance,

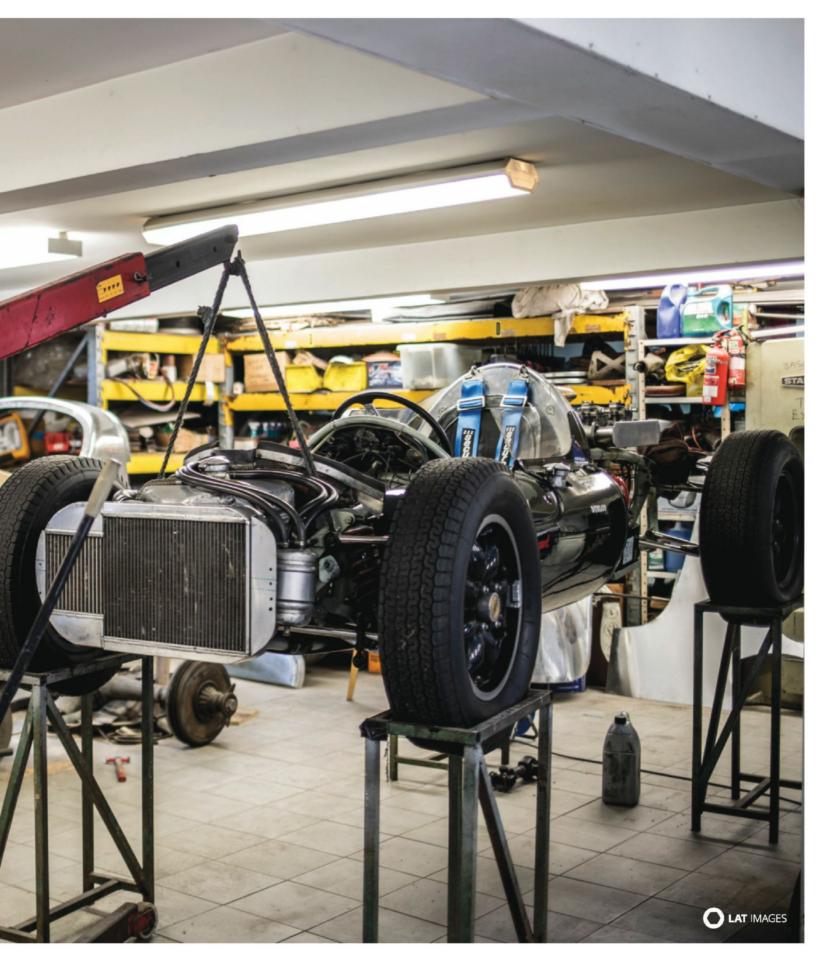
the rear driveshafts — they can break and when they do they can cause a lot of damage."

The payoff for knowing the intricacies of a car that Jack Brabham

Jolley's Cooper gets full workover after every race; he knows it inside-out







AUTOSPORT HISTORICS

drove to F1 championship success in 1959, and was used by Bruce McLaren at Sebring for his first grand prix win, is that Jolley doesn't need a blank cheque in order to compete. And, as he found out at the first ever running of the Historic Grand Prix of Monaco in 1997, which he won, it also frees up time at the circuit.

"There are all these girls and boys there, flying in over the Swimming Pool in their helicopters, with their 250F Maseratis," he says. "There were teams of mechanics having the wheels off and radiators off doing this and that.

"My little car is just sat there and a guy came along and said, 'Well, aren't you going to do anything to it?' So I got a bucket of water and washed it! I went out and won the race. That proved to me that you don't have to have pots of money to be successful. If you're dedicated enough and have some talent, you can be successful without being a millionaire. It's just the wife and me, no mechanics, but we did it and beat a lot of people that should have been quicker, on paper."

Through countless hours spent in his garage, Jolley has built up a relationship with a 239bhp piece of history funded by the sale of his business that built bodies for, most notably, Ferrari 250 GTOs. It's also a relationship that carries over into the cockpit.

"I think in many ways doing my own prep actually can give an edge because when I'm out there racing the car I can feel something through my backside. When you feel a vibration you can make a decision — 'Yeah, I know what that is. That's OK, I can carry on,' or, 'I don't like that. I'd better pull in and check it out.'

"Whereas a guy who has his car prepared professionally, as soon

as he feels something he probably feels as though he needs to get it checked out. Or completely the reverse — they'll drive it until it breaks. We see that a lot and it's criminal.

"The problem is that some of those guys have so much money that actually they know they've got a problem as the water temperature has gone off the clock and they've got two more laps to go. They know it's going to cost them £30,000 or £40,000 to rebuild the engine, but they do it anyway."

As historic racing garners more attention and draws in bigger names from touring cars and sportscars, some cars are developed to perform well above their period ability.

Speculation over cars running enlarged engines and more power is rife. By contrast, Jolley is particularly proud of how original he has kept Brabham's 2.5-litre winner, managing the balance of preservation versus development to stay competitive.

"Obviously there's no point in building in original weaknesses if you can eliminate them," he explains. "So we incorporate those changes but within the constraints of what you're allowed to do. Another thing is that, when you think about it, Brabham and McLaren, who drove that car, they only drove it four times maybe in a year. The next year they had another car. I've had 27 years out of that, so I've developed it — only suspension settings and so on — to be what I like it to be.

"If you can make the driveshaft from something slightly stronger, what's the point in having the weaker one and letting it break? We're not developing the cars out of context though."

That's why the inside wheel of the Cooper still lifts under load, just like it did with Brabham and McLaren at the wheel 60 years ago.



reprofiled his
Lister-Jaguar's
tyres to prevent
the rubber
overheating

The car never ran a rear anti-roll bar, so it raised a tyre off the ground through an apex. In turn, that puts more load through the rest of the car and increases the rate of wear. Eliminating it could be an easy fix, but that's not in the spirit of racing a thoroughly original car. Instead, for Jolley, it's a constant process of refining the

front-suspension settings to compensate.

It's also why he's reprofiled the tyres on his other car. The second part to Jolley's collection is a 3.8-litre Lister-Jaguar raced by Jack Fairman in the 1958 Race of Two Worlds — where both F1 and Indycars competed on the banking at Monza.

The Ecurie Ecosse-built 'Monzanapolis', based around a Jaguar D-type engine, is limited in its adjustability. So to hone it to Jolley's preference, he's shaved the inside of the Dunlop rubber to artificially add camber and prevent the persistent problem of it overheating the inside of the tyre. It's not only allowed within the rules of the Historic Grand Prix Cars Association with which Jolley competes, but it's a modification that doesn't evolve the car away from its period history.

Although that sort of improvement is low-hanging fruit for someone so connected to his car, there are still inevitable





trade-offs for Jolley doing the work by himself and not having a team of professional mechanics.

"The shock absorbers on the Cooper I put on at least 15 years ago," he says.

"I only just realised that you're meant to service them every year. So the guy that took them away said the right rear was completely destroyed internally and had just been bottoming out and nothing was working at all. All the rest of them had oil in such a disgusting state that he couldn't imagine they were working at all. So we should have some shock absorbers and wheels pointing in the right direction. It might be better this year."

the most fun,

reckons Jolley

If even someone as familiar with his own car as Jolley can miss such issues, it's little surprise that he thinks both the one-man bands and the professionally-prepared entries have a place on the grid.

"They're needed," he says of the bigger teams. "There's an awful lot of people out there that have got the money, but no mechanical ability. If we didn't have teams like that, then we wouldn't have those people racing with us or that quality of cars. You need the experts and the poor guys like us. Without both, then there won't be enough racing. It's a mix — there's room for everybody."

Room for both means entry-list numbers are strong — the HGPCA race at the 2017 Silverstone Classic topped 50 starters. The professional car-preparation squads allow more drivers and spectators to relive a chapter from motorsport's past. But going it alone and accumulating enormous success is still entirely possible. Both help keep racing cars doing what they should.

"Museums are like a morgue to me," concludes Jolley. "These cars need to be raced. In a museum they're dead." ■



DRIVING AN OLD F1 CAR

By its nature, driving on the limit is fraught with risk. Racing something that's as historically and financially valuable as a championship-winning F1 car, one that's had so many hours lavished upon it, would seemingly only heighten the challenge. But when Rod Jolley is out on track, no such considerations enter his mind.

"When you drive the car you don't consciously brake, turn, change gear; it just happens," he says. "You're sat in it and just do it. It becomes an extension of you. It's like a comfortable old glove."

Although his inputs are a string of subconscious actions, Jolley's sliding style is a deliberate choice. Drifting through every apex is not only spectacular to watch, but also serves a seemingly counter-intuitive purpose of keeping things under control.

"I like to flick it so the back just comes out," he adds. "That's my style and what I enjoy. It's not the quickest way, but I drive to have fun. A clean driver would never do that, but that worries me. I like to have the car already sliding as then I know it won't go any further rather than suddenly breaking away."

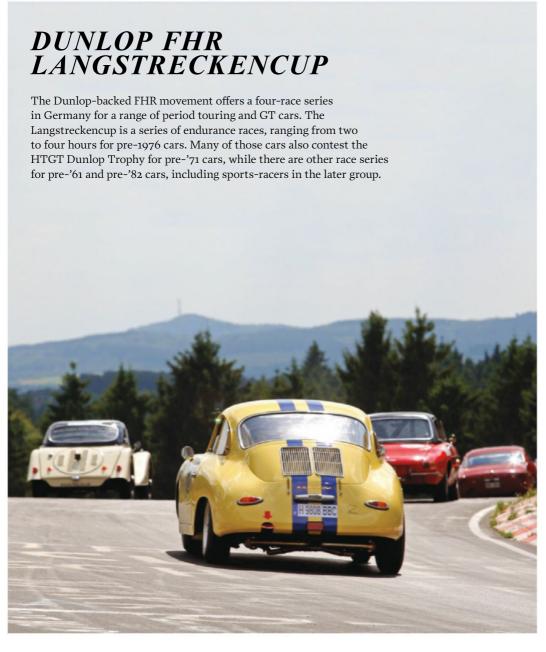
After 27 years of racing, 71-year-old Jolley's driving has changed with age. But it's not come at the expense of lap time. Instead he's doing more in the cockpit than ever, anticipating all the time: "One of the things I've noticed in myself as I'm getting older is that my perception of what can go wrong is much enhanced over what it was. I can still drive as fast as I ever did, but if there's someone who really wants to take chances, then I'll let them get on with it."

The 2018 **DUNLOP GUIDE**

to historic clubs, series and events

Whatever your racing taste, there is something out there for you. Here's a rundown of what to look out for this season

BY PAUL LAWRENCE





EQUIPE GTS

Equipe GTS has been a big success in recent times, with oversubscribed grids of pre-1966 GT and GTS cars contesting a domestic schedule of 30 and 40-minute races. Close, friendly and affordable racing on Dunlop historic tyres is the result, with more-powerful cars kept out by a capacity limit of 2750cc. New for 2018 is a sister series called Equipe Pre '63 for earlier cars.



FIA Masters Historic Sports Cars

This Masters category, for Le Mans-style and Group 4 cars from 1962 through to '74, enjoys FIA status. The cars run on treaded tyres with either two sprint races or one longer race, with the option of two drivers. Strong grids of wonderful cars make this a highlight of major European events, with a grid full of Lola T70s, Chevron B16s and much more.



FISCAR

From its inception in 2012, the Fifties Sports Car Racing Club has run a popular series of races for GT and production sportscars from the decade. It is aimed at cars that raced in period and continue to be prepared to that same, near-standard, specification and running on Dunlop treaded tyres. Lotus, AC, Austin-Healey and Aston Martin are just some of the classic marques in action and there have been a number of related spin-off annual races.





GOODWOOD MEMBERS' MEETING

The smaller of the two Goodwood race meetings takes a mid-March date to kick off the historic racing season. This is the more relaxed of the two events but the racing is just as good as the Revival, with a star-studded line-up including some grids from outside the typical Goodwood 1966 cut-off. The Gerry Marshall Trophy for Group 1 touring cars is a standout.



G O O D W O O D R E V I V A L

The most spectacular and theatrical event of the season is the annual Goodwood Revival Race Meeting in September. While much of this event is about celebrating a bygone era, the on-track action is deadly serious as top drivers bid to add a Goodwood win to their record. Sportscars, saloon cars, GT and single-seater races for cars from up to 1966 make this a remarkable experience.







For almost four decades, the Historic Grand Prix Cars Association has been protecting, celebrating and encouraging the use of GP cars from up to the end of the 1.5-litre engine formula. The pre-1966 section is all about the rear-engined cars: these are the classically simple cigar-shaped cars from Brabham, Lotus and Cooper. They are special cars raced with passion and verve.



HGPCA PRE-1961 GRAND PRIX CARS

The other element of the Historic Grand Prix Cars Association race programme is fundamentally for the front-engined cars from the early post-war years right through to the end of the 1950s. This is the place for a raft of absolute classics, including the Maserati 250F, Cooper Bristol, Talbot-Lago and Aston Martin DBR4, while grids can also take in pre-war Alfa Romeos and ERAs.

HRDC Touring Greats



The Historic Racing Drivers' Club, led by Julius Thurgood, is the prime home for touring cars from the 1950s and the Touring Greats series of races is a wonderful six-decade throwback. This is home to pre-1960 cars such as well-sorted Austin A35s and A40s, Sunbeam Rapiers, Ford Zephyrs, as well as such unlikely race cars as the Borgward Isabella and Standard Vanguard.

HRDC TC63



The HRDC's TC63 category picks up where Touring Greats leaves off with a race series for pre-1964 touring cars. Specifically excluded are performance models such as the Lotus Cortinas, Mini Coopers, Ford Galaxies and Alfa Romeo GTAs. Support is modest and grids are shared with the earlier cars as Alfas, Jaguars and even a Triumph Herald go racing.

HRDC Allstars



Some of the mostrecent cars in the HRDC portfolio, a mere half-century old, contest the Allstars series of races for pre-1966 sports, GT and touring cars. This brings in the homologation specials barred from the TC63 series. Ford Falcons and Mustangs take on Lotus Cortinas and Minis, while TVR Griffiths, Aston Martins and Lotus Elans pack out the sports and GT ranks.

HRDC Academy



One-make race series are a common part of modern racing, but are unusual in historics. The best of them all is the remarkable HRDC Academy for Austin A30s and A35s running to carefully controlled regulations. By taking a donor car and fitting a standard package of parts, drivers are into the sport with a minimumcost/maximum-fun ratio in a neatly controlled environment.

HRDC A-Series Challenge



The BMC A-Series engine was in production for 50 years and has been at the heart of thousands of competition cars. The A-Series Challenge celebrates this popular engine with a race series for pre-1966 sports, GT and touring cars running A-Series engines. Here, Minis, Austin A35s and A40s take on MG Midgets and low-production Midget-based specials.

HRDC Coombs Heritage Challenge



The newest of the package of race series from the HRDC is the Coombs Heritage Challenge for pre-1966 laguar saloons of a type that raced in international events. This is all about the Mk1 and Mk2 saloons and a pilot series of standalone races ran through 2017. Support was modest, so the cars will share a grid with other elements of the HRDC in 2018.



VBOX



CIRCUIT TOOLS driver training software

- Synchronised video and data
- Dual camera 1080p
- Ultra-smooth video
- Class leading driver training software (Windows, macOS & iOS versions)
- 10Hz GPS data logging
- Configurable pre-record buffer
- Camera preview over WiFi
- CAN interface

VBOX VIDEO HD2 captures stunning video in full 1080p HD with real-time graphical overlay.

Supplied in a rugged, water resistant case, with two cameras, internal GPS logger, backup battery supply, up to 30s video pre-buffer and real-time graphical overlay, **VBOX VIDEO HD2** represents the ultimate in tough, reliable motorsport video loggers.

VBOX VIDEO HD2 comes with **CIRCUIT TOOLS**, an intuitive analysis software package designed to help drivers improve their track performance and accelerate the learning process, ultimately leading to better lap times.



Professional racing drivers share their experience on advanced circuit driving techniques in our FREE eBook: www.vboxmotorsport.co.uk/ebook



FJHRA/HSCC Historic Formula Junior

Formula Junior is booming, with huge worldwide interest in the up to 1100cc single-seater racing cars. The category only existed from 1958 to '63, but continues to be one of the most popular of all historic racing categories as it hits 60. Expect huge grids for the Diamond Jubilee year, capped by well over 100 cars at the Silverstone Classic, while the Lurani Trophy is the flagship pan-European competition.



HSCC

Guards Trophy

The Guards Trophy is contested by pre-1966 GTs and pre-'69 sports-racing cars. The grids, which are usually very full, for the 40-minute two-driver races fall into two groups. The sports-racers are capped by the 50-year-old Chevron B8s and the occasional Elva Mk7 like that of Max Bartell and Ben Mitchell. In the GT ranks, TVR Griffiths take on AC Cobras and Jaguar E-types.



Like its 1970s counterpart, Road Sports is for production sports and GT cars, but built and registered between 1947 and '69. Big grids range from TVR to Lotus, MG, Ginetta and Turner. Extra championship points are awarded for cars driven to and from the circuit on the road, just as in period. A chance to join the 70s cars at the Silverstone Classic is a real day in the sunshine.



EFG 137C + O

HSCC Historic Touring Cars

With Mini Coopers taking on Ford Anglias, Lotus Cortinas, Ford Mustangs and Ford Falcons, the racing in Historic Touring Cars is always crowd-pleasing. One of the HSCC's core championships, it runs for pre-1966 cars developed in line with period modifications as well as those complying with FIA Appendix K rules. The class battles are often just as fierce as the overall contest.

IMAGINE® CRUISING

OGENE



CRUISING IN THE FAST LANE

Witness world-famous motorsport legends and race driving heroes in action at one of our Grand Prix Experiences.

Here at Imagine Cruising we've developed the perfect formula: A collection of amazing Grand Prix packages paired with relaxing cruises on a wide range of stylish cruise lines, exploring beautiful itineraries around the world. From the thrill of the race track, to the serenity of life at sea, we've got the perfect holiday for any Formula One fan.

Call us on

0800 049 9027 imaginecruising.co.uk/f1-Promo

Monday to Sunday 9am - 8pm



Choose your track for 2018
SINGAPORE, SHANGHAI,
CANADA & MONACO







Jaguar Classic Challenge One of historic racing's ultimate single-marque race series is the Jaguar Classic Challenge, a race series for all models of pre-1966 Jaguars. The Challenge grew out of the E-type Challenge, created to mark the model's 50th year, and is open to the XK series, C and D-types, Mk1 and Mk2 saloons and pre-66 E-types. The result is big-and-varied grids of period Jaguars running to original specifications.



Masters Gentlemen Drivers Pre-1966 GTs

A series of endurance races for two or three drivers in pre-1966 GT cars running on Dunlop L-section tyres, this is one of historic racing's best-supported championships. The grids are packed with AC Cobras, E-types and TVRs as well as lots of smaller-engined cars enjoying their own battles. Quality drivers typically ensures enthralling races.



Masters Pre-1966 Touring Cars

The Masters offering for pre-1966 touring cars is a pan-European schedule of hourlong, pitstop races for cars running to FIA Appendix K and using Dunlop treaded tyres. This is the place to see Ford Mustangs, Lotus Cortinas and Mini Coopers slugging it out, with drivers of the calibre of Steve Soper, Henry Mann and Ian Curley in action.



Masters Endurance Legends

New on the Masters roster is the Endurance Legends, which brings a whole new era into the historic arena. This is for cars from 1995 to 2012 that were eligible for major endurance races. After just one pilot race, the concept has really taken off, with GTs and prototypes packing the grid, having otherwise nowhere to race in Europe.

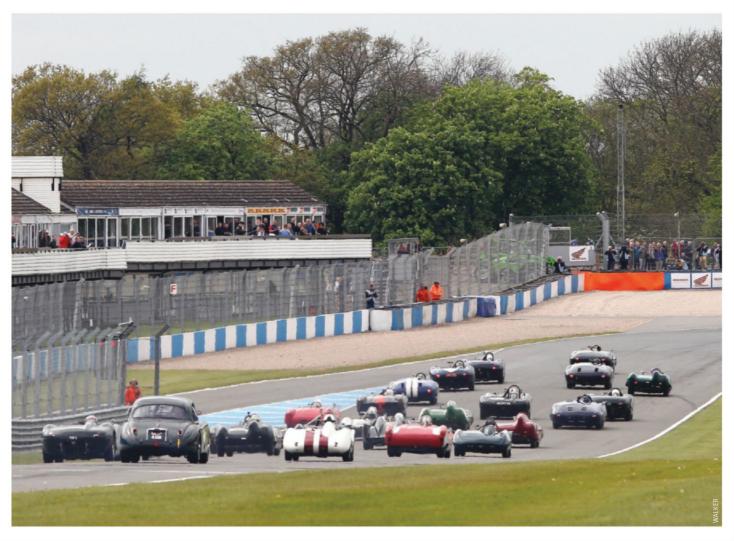
MRL ROYAL AUTOMOBILE CLUB WOODCOTE TROPHY

Now established for more than a decade, the Woodcote Trophy is a race series for genuine pre-1956 sports-racing cars. The races are usually an hour long with a compulsory pitstop and the entry is always delectable. Take Jaguar C-types and some early D-types and add cars from Cooper, Austin-Healey, Aston Martin, Maserati, HWM and Allard for a fine spectacle.



MRL SIR STIRLING MOSS TROPHY

Motor Racing Legends moves the Woodcote Trophy story forward by just five years for the Stirling Moss Trophy, which is home to pre-1961 sports-racing cars. A typical MRL focus on originality and period specification ensures strong grids and close racing in hour-long events. The series takes in the late-1950s Lister era as well as nimble Lotus 15s and Cooper Monacos.





NKHTGT

The Netherlands Championship for Historic Touring and GT Cars is the country's prime historic race category for touring cars and GT cars from 1947 to '65, all running to FIA Appendix K regulations and exclusively using Dunlop treaded racing tyres. The grids are full and varied for a pan-European schedule, which, of course, takes in two visits to the home track of Zandvoort.





PRE-1963 GT

The Pre-1963 GT series of races, supported by DK Engineering, is run by Carol Spagg's Historic Motor Racing operation and places a heavy emphasis on car originality and good driving standards. The 2018 schedule includes the Donington Historic Festival and Silverstone Classic before concluding at the Algarve Circuit in October. Some rather rare and valuable cars will grace a top quality grid.



U2TC

From Carol Spagg's HMR operation comes Europe's only historic race series to concentrate on under two-litre touring cars. By cutting the American V8s out of this pre-1966 series, the focus is on titanic battles among Lotus Cortinas, BMW 1800s and Alfa Romeos, with Mini Coopers chasing. Big grids, quality drivers and sideways action make it a big hit at each of four or five rounds. ■



A special time for historics

John Pearson of HP Tyres, Dunlop's main historic tyre specialist, and an accomplished racer himself, provides his insight into the state of the historic racing market

istoric racing is booming, so this magazine tells us. Every year another new championship or series gets announced, circuits realise that nostalgia can draw more spectators than some modern races, and seasoned

racers choose the investment potential, and driving rewards, of a historic, classic or vintage car.

This will be my 31st season in the paddocks, and occasionally behind the wheel, in historic racing. I've seen the ups and downs, and we are in a rosy period. The historic market is stable and attracts competitors who enjoy the experience as well as the racing.

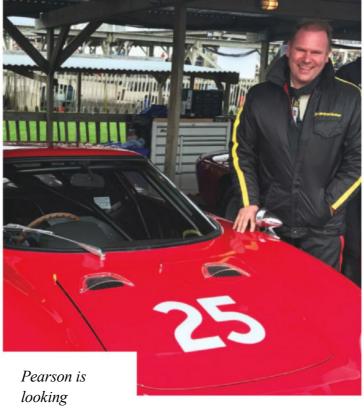
One cautionary note to all the optimism, though, is a general sense of too much racing and the strain it puts upon the teams and support services. There is the possibility that competitors will also get event fatigue in the congested calendar, with many choosing an *a la carte* approach to various events.

My own racing plans for 2018 are perhaps a good example: kick off with Motor Racing Legends' Donington Festival, then Silverstone with the Historic Sports Car Club. The highlight will be driving my dad's D-type Jaguar in Jaguar's own event at the Le Mans Classic, then to the Silverstone Classic with Masters and finally finish up at the Algarve Circuit in October with the GT and Sports Car Cup, where there will be sun, beaches and a fine racetrack. A season of multiple promoters and series, and for me the best quality and diversity we have ever known in historic racing. Truly, we are privileged to be racing old cars.

I am also optimistic about the growth of modern-era historic racing, or, to use that peculiar German-created English term, 'youngtimers'. A growing band of competitors and spectators are feeling nostalgic about cars some of us still consider modern. But the heyday of Super Touring is now a quarter of a century ago and evokes a lot of passion among fans.

We have had the pleasure of servicing the wonderfully diverse Masters events for many years, and are delighted to continue that partnership by supplying Dunlop's more recent LMP and GT-winning tyres to their new Masters Endurance Legends events. There has been a bit of a Marmite debate about the definition of historic racing. That's understandable, considering that the ORECA that won the inaugural Spa race was a frontrunner in the European Le Mans Series just a year before, but I think it is a great addition to the bill at the biggest historic events. Who wouldn't want to see Gulf-liveried Aston Martin GT1s doing battle with Ferrari 575s? It was a joy to see at Spa last year, and I'm eager to see more of these thundering cars take to the track.

Looking at the market for racing earlier-era cars, there are some feelgood stories out there. One shining star is the evergreen Formula Junior series. Last year, competitors enjoyed a world tour of iconic



looking forward to this season more than ever before

circuits, climaxing this year with a 6oth-anniversary race at the Silverstone Classic. We take our service team to the growing Historic Racing Drivers' Club meetings, where Julius Thurgood has

created some fun events. Seeing such a proliferation of Austin A35s hit the track with modern-day British Touring Car champions battling around Goodwood has boosted interest in historic racing.

Such innovative promotion is key to the continued success of historic racing. Lord March sets a high benchmark to inspire all promoters, and this year the Goodwood Revival will be 20 years old. His fastidious attention to detail means that authenticity matters. That's why we believe in Appendix K regulations, and our partnership with Dunlop means we can supply the authentic period tyre.

Dunlop once tested a historic tyre with a modern compound and I witnessed Jackie Oliver pedal an E-type an amazing 16 seconds faster around Spa using them. But in my mind, that's not authentic, and such grip potentially could lead to component failures elsewhere on the car. So the tyre engineers at Dunlop put their 'go-faster' instincts on hold and put their energy into producing tyres with the correct period performance. That matters, as the tyre is the last balance-of-performance factor in historic racing. The level of car development may be higher than in period, but if all the cars have the same contact patch and same compound then the authenticity of racing is preserved.

When our family set up the Harper Pearson Tyre Exchange in the 1980s, I never could have imagined that historic racing would evolve into such a glorious, diverse and friendly family. That's why I'm looking forward to this season even more than the 30 that went before. Our success wouldn't be possible without the loyalty of customers and colleagues, and I'm proud that many of the HP Tyres team have been involved for much of the 30-year journey. We will be flying the Dunlop flag at over 30 historic events this year, 130 years on from John Boyd Dunlop inventing the pneumatic tyre.



TIMEPIECES



STRAT-3

SWISS MOVEMENT

-Sapphire Crystal Glass -Sandblasted Titanium bezel -Forged Carbon case -Sandblasted Titanium case

GIORGIOPIOLA, COM





facebook.com/dunlop.uk

www.dunlop.eu

