

# **MAN MAN MAN**

Welcome to the Green Issue of The Red Bulletin. The F1 of the future will have to embrace eco concerns so we thought we'd make a start with a magazine on 100 per cent recycled paper, printed using biodegradeable, soya-based inks. It's not much, but we have to start somewhere. Inside we examine how F1 might embrace green technologies, what's in use in other series and we offer some radical solutions for reducing the sport's carbon footprint. Until then, find out who's going clubbing and also discover which driver was murdering '80s pop songs in Tokyo earlier this week...

#### **FUJI'S REFUSE PROBLEM**

If you're planning to walk up Mount Fuji, may we suggest you take a garbage bag with you and do your bit to make Japan's highest mountain a World Cultural Heritage Site. You might think that the 3,776m peak already qualifies given its religious and cultural significance, but to date Fuji has been refused Unesco status because of littering. Last week, a team of 82 hikers collected more than a ton of rubbish. Among the more unusual items found was a car battery, which had been dumped near the crater.

#### E CLUB RAIKKONEN

It looks like the wife of the notoriously night-life shy Kimi Raikkonen is moving in on what some of the crueller





4 PACESETTER **PACESETTER** 5 The Red Bulletin • September 29, 2007 The Red Bulletin • September 29, 2007

### The environment: CAUSE AND EFFECT

The planet is getting hotter, and heading for another ice age at the same time. What's going wrong? We look at some of the reasons why we've made a mess of the planet and what's going to happen soon.

#### **FIVE BAD IDEAS FOR** THE PLANET

#### Rabbits

When Somerset farmer John Austin introduced rabbits to Australia so he could eat them, he could hardly have envisaged that 150 years later the humble bunnies would have wiped out an eighth of the country's mammal species. One of the more successful attempts to control the population was the introduction of the calicivirus disease. But while it killed millions of rabbits it also caused the few predators that feed on rabbits to starve

#### The Cloudbuster

Austrian psychoanalyst Wilhelm Reich claimed he had discovered a form of ambient energy, which was released by sexual climaxes in humans. He called it Orgone, and he was convinced it affected the weather, gravity and the colour of the sky. So Reich built a gun to harness orgone energy and when fired into the sky, it would make rain. It was a brilliant plan but with one fatal flaw: it was bollocks.

#### Killer bees

When biologist Warwick Kerr decided it was a good idea to cross-breed European honey bees with African bees, he should have thought again. He intended to build a bee that would make more honey. Instead he created an aggressive bee that swarms and attacks anyone coming near its hive. Attacks are often so vigorous that they are fatal. Worse still, the bees migrate. Since their accidental release in São Paulo, the bees have spread to Argentina, Mexico, Trinidad and Louisiana. They have even been found on boats bound for other continents.

#### **The Death Beam**

It was fitting that Croatian physicist Nicola Tesla was born during a thunderstorm as he spent much of his life working to generate electricity. In 1934, he outlined plans for a particle accelerator beam, which he dubbed the Death Beam. Tesla's ray could fire bolts of lightning at the enemy or throw up an electric force field around cities or even national borders. He was so convinced about it that Tesla predicted it would bring an end to war Unfortunately he couldn't convince anyone else to build a generator large enough to make it work

#### The Lavatory

According to some environmentalists, every time we use the toilet, we are flushing away our future. In many ways, the humble loo is a focal point of our culture – except perhaps in Magny-Cours where it's better to be like the locals and give them a miss. But toilets use up valuable water, not just in developing countries but even in the UK during drought. The solution is composting toilets, or dry toilets, which don't use water but break down waste naturally, or so say the manufacturers

#### **FIVE EFFECTS OF GLOBAL WARMING**

BRIDGESTONE

#### No French wine

Global warming will "shift viticultural regions toward the poles, cooler coastal zones and higher elevations". Which means: au revoir to Bordeaux and hello to British Beaujolais.

#### No more skiing

The organisers at Kitzbuhel had trouble finding enough snow this year and it's set to get worse. Already top skiers are finding it harder to find places to train. The good news is they're building a vear-round ski resort out of white Astroturf in Texas

#### **Fewer Bulgarian** prostitutes

No snow in Fastern Furone meant bored tourists were turning to Bulgarian prostitutes because they can't go skiing The knock-on effect is a desperate shortage of hookers in the country's cities

#### Acid oceans

The sea absorbs CO<sub>2</sub> which, when mixed with seawater, turns to a weak carbonic acid, but calcium from eroded rocks counteracts the acid. But as we produce more and more CO<sub>2</sub>, we throw off the whole balance and turn oceans to acid.

#### **More volcanic eruptions**

British scientists say a possible side effect of climate change is an increase in dangerous volcanic eruptions... and hurricanes... and floods... and bushfires.

#### Is there a solution?

According to Nasa, the rocks on the moon's surface contain oxygen. With President Bush promising to build a permanent lunar base, one day we could be packing up our French wine and Bulgarian hookers and going to live on the moon, leaving Earth to the storms, rabbits and killer bees.

But what of this magazine? Surely we can't point any fingers? Well, the paper is recycled from deciduous rainforests and although none of the lokes are derived from sustainable material, they have heen recycled many times. The pages of this magazine have been designed so that when they are torn out, they can be folded and recycled as a working model of a glider.

#### **KARAOKE KING**

the drivers' briefing room.

**BABY BOOMERS** 

→ FIRST PASS

Japanese journalist Masami Yamaguchi

hasn't missed a home grand prix yet,

and has brought some special items of

accreditation this weekend. The first F1

pass he earned was right here at Fuji in

1976. He's also brought along his tabard

from the following year. At Japan's first

at the final corner with his camera. "It

started to pour with rain, but I stayed

there and didn't bother to find cover. My

first impressions of F1 should have been

because of the conditions. I wondered

Despite a wet and less-than-thrilling first

taste, Yamaguchi-san went on to found

the popular F1 magazine GPX in 1987.

Congratulations to French journalist

Patricia, gave birth to a baby girl named

Joanne yesterday. She's the couple's first

child and they're thrilled. Also expecting

soon are Alex and Julia Wurz. Their third

son is due early next week. If this carries

on, we'll need an FIA-sanctioned crèche.

Oh wait, we already have one - it's called

Stéphane Samson whose partner,

when the formation laps would end...

about speed, but the cars were really slow

F1 race he was a mere 25-year-old sitting

Heard a Formula One driver breaking glass with his vocal chords this week? Then name and shame them in these pages by emailing secret. service@theredbulletin.com. We want a full gig review and photos if possible. Already spotted in a Tokyo karaoke den this week was Nico Rosberg. He may look like a choirboy but he certainly doesn't

have the voice of an angel - at least not according to other people in the bar on Tuesday night. Apparently, his version of Karma Chameleon left audience members pointing towards the exit and chanting: "You come, now go woahoh!"

#### INVITATION TO COCKTAILS

**A NEW GENERATION** 

enjoying practice vesterday

They may be too young to remember the

last time Fuji hosted a grand prix, but that didn't stop these young fans from

> Title sponsors Fuii TV have been broadcasting the Japanese Grand Prix for 21 years and to celebrate the network has organised an evening of cocktails and canapés tonight in the Paddock Club for accredited media. It starts at 6pm - go along and to ast one another's support.

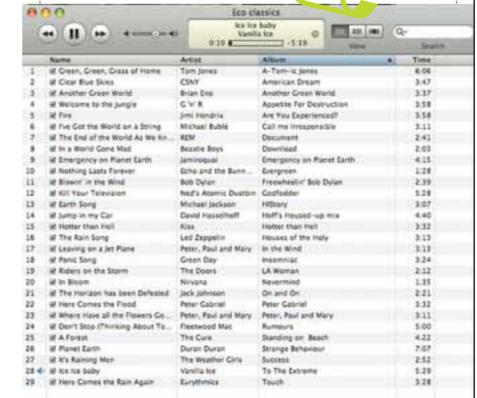
#### ON TODAY'S MENU...

With the Energy Station staying in Europe, some paddock freeloaders were wondering where their next meal was coming from. The answer is courtesy of the Speedway, who are giving the press complimentary bento boxes. Here's what's in today's boxes: Japanese Box: Scrambled eggs, fried salmon, potato gratin, cabbage, rice. Western Box Macaroni, scrambled eggs, cabbage, bread and butter, chocolate cake and an orange.

#### **DO THE ECO SHUFFLE**

24 (5)

It's all very well trying to be more environmentally friendly but Greenpeace and Friends of the Earth have yet to answer the most important question of all: what music should you listen to if you want to save the planet? We think we may have the answer with this list of top tunes to help you go green.



29 songs, 1:45:14 total time, 101.5 MB

#### The Secret Diary of Hermann Schnell, Aged 18 8/13

#### Wednesday, 12th September. Belgium

Yesterday I was a racing driver. Today I'm an environmental campaigner. Like many who are called to a vocation. I had an epiphany. For me the moment came when Johan, the marketing manager, stuck his head around my hotel room door, and said: "We're going green, there's money in it," before confiscating the keys to my Ford Focus. It's 50km to the circuit, how am I supposed to get to work?

#### Thursday, 13th September. Belgium

Was planning to cycle

across the Ardennes, but the team wants to push the green agenda, so Johan had his chauffeur pick me up in his Bentley and whisk me to a press conference (Johan has kept his car because he only has one lung and chronic bronchitis after 30 years of loyalty to the same sponsor). The message is clear: we're an environmentally responsible company and always have been. The tricky bit is that we've only been environmentally responsible since this morning.

#### Friday, 14th September. Belgium

The press conference didn't go well. I was hoping that the vultures might have been inspired by my pro-green declarations. Instead they asked what I was doing to stop it and are now hounding me for answers. I was actually glad when

that guy from The Red Bulletin asked if I prefer boxers or briefs.

#### Saturday, 15th September. Belgium

Oh dear! It's all gone wrong. The press are still bombarding me for details and I did what any good professional would do i.e. lie through my teeth and say nothing of consequence, but it wasn't enough and I sort of suggested that maybe everyone working in the factory might consider cycling to work instead of driving. I'm getting some very dirty looks in the garage. Some of those guys wouldn't know a bicycle if it ate them... But at least Elise told me that she thought I'd look cute in briefs. Saved energy by taking a cold shower.

#### Sunday, 16th September. Belgium

My mechanics want to

murder me. Team policy is to ignore death threats, but when they're made by the guys responsible for the brake-balance on your car surely that's a little different? After my hasty words, Johan made cycling official policy. He said everyone has a choice, but I think it's a choice between having a iob or not. It's all very well trying to save species from extinction, but what about me? I'm a species too. Oh... Oscar should have wrapped up the GP2 championship this weekend but he stalled on the grid. It puts it all in perspective. I may be about to be murdered, but at least I'll go knowing that my team-mate is a complete tosser



# Burn Dist. | O

# CAN F1 JUMP TOWARDS GREEN POWER? KAUNRATZ

# **TECHTALK:** REFUELLING

Ethanol could be the future of fuel – and it won't cost the earth.

#### **BY JOHN MANCHESTER**

he A1GP Series approached Zytek earlier this year, asking us to look into converting our engines to run on a bio-ethanol fuel. We began testing in May, and brought the finished product to the test track at Silverstone last month. The product that we're using is an E30 fuel – meaning it contains 30 per cent bio-ethanol, the rest is a standard racing fuel.

So, why do it? The series wanted to reduce its emissions across the board: using bio-ethanol has a significant effect on NOx and it has been calculated by the UK Government's Energy Savings Trust that this change will result in a 21 per cent reduction in CO, per car. It's an attractive proposition and I'm certain that in the future bioethanol will be used in every series.

While Zytek have a good record with electric and hybrid vehicles, this was our first project involving bio-ethanol in a racing environment. The task wasn't exactly straightforward, but while we had some issues to address, it wasn't a huge job. We've altered injectors and O-rings, remapped and recalibrated ECUs and fuel lines and tank bags have been changed

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to better protect against the corrosive effects of ethanol. The changes haven't come at a huge cost. In fact, if you look at the cost of an engine, and the running costs of the season, then

the cost of adapting the engines is insignificant.

Will it make a difference? Obviously in the context of reducing worldwide emissions, it won't: the impact of racing is inconsequential, so : changing fuel doesn't alter much in the greater scheme of things. But that isn't what this is about: going to bio-ethanol is an excellent way for topflight racing to maintain its image of engineering excellence, while getting across an important message. We can go to a circuit and educate people, showing them that it is possible to use an alternative fuel that is better for the environment, with no noticeable decrease in performance.

When the project was conceived, the idea was to use a much higher percentage of ethanol – E85. This would have been a much larger undertaking. Ethanol has only half the calorific value of a standard race fuel, effectively meaning you need twice as much to get the same power output. It worked without problem, but the increase in fuel consumption would have meant A1GP would have needed fuel stops, which was not feasible for the series. This is very much the beginning, the challenge over the next few years for all major racing series will be to increase the percentages of bio-ethanol that it uses.

John Manchester is Engineering Operations Director of the Zytek Group, manufacturers of the A1GP series engines.



# ON THIS DAY... **SEPTEMBER 29**



Watch the race highlights:

1985 Kate Bush's album Hounds of Love tops the charts. It's considered by



Cloudbusting with Kate: YouTube search: Cloudbusting + Kate + Video

2007 It's Museum Day in the US, as children learn about the world.



Watch the dinosaur apocalypse: YouTube search: Dinosaurs + death + dynasty

#### **DEATHS**

1902: William Topaz McGonagall (b 1825), Scottish eccentric and world's worst poet. Billy Connolly reads a terrible poem of nature's destructive power: YouTube search: Connolly + Bridge + Tay

1913: Rudolph Diesel (b1858), inventor of the economic diesel engine, commits suicide Diesel power:

YouTube search: R10 + TDI + Audi



ınt wins in the driving rain to 976 Hunt wins in the

Watch the race highlights:



FROM THE DIRECTOR OF INDEPENDENCE DAY



# 

We should all take global warming and the destruction of the planet seriously... unless of course you're at the cinema, in which case, it's a right laugh. Pass the popcorn and enjoy the mayhem...



Earthquake (1974)
Poor Charlton Heston spent the '70s sorting out one human disaster after another. There was nuclear war in Planet of The Apes, cannibalism in Soylent Green and he fought vampires with silver afros as The Omega Man. As the title suggests, this one involved a really big earthquake.



On Deadly Ground (1994)
Green, but no peace. Steven Seagal takes time out from snapping the necks of drug barons to become the ultimate ow Warrior, and snaps the necks of oil workers. Then, just when you think it's safe, he bores the audience to death with a lecture about clean air.



Silent Running (1972)
It's the future and all plant life has been wiped out on earth.
It falls to one lone hippie and three friendly robots to save the world's last remaining plants.



The Birds (1963)

Avian wildlife wrecks the plans of a spoilt socialite (Tippi Hedren) to seduce an eligible bachelor (Rod Taylor) by pecking the inhabitants of a small Californian to death. Ravenous ravens and salivating seagulls create havoc, destroying poor Tippi's hairdo along the way.



Fernando appreciated the attention from Japanese fashion addicts, but was getting bored with writing out the name and address of the



Worried about the risk of Deep Vein Thrombosis on the long flight from England, Murray had opted for more sedate transport. After two months on the road, he finally made it to Fuji Speedway..

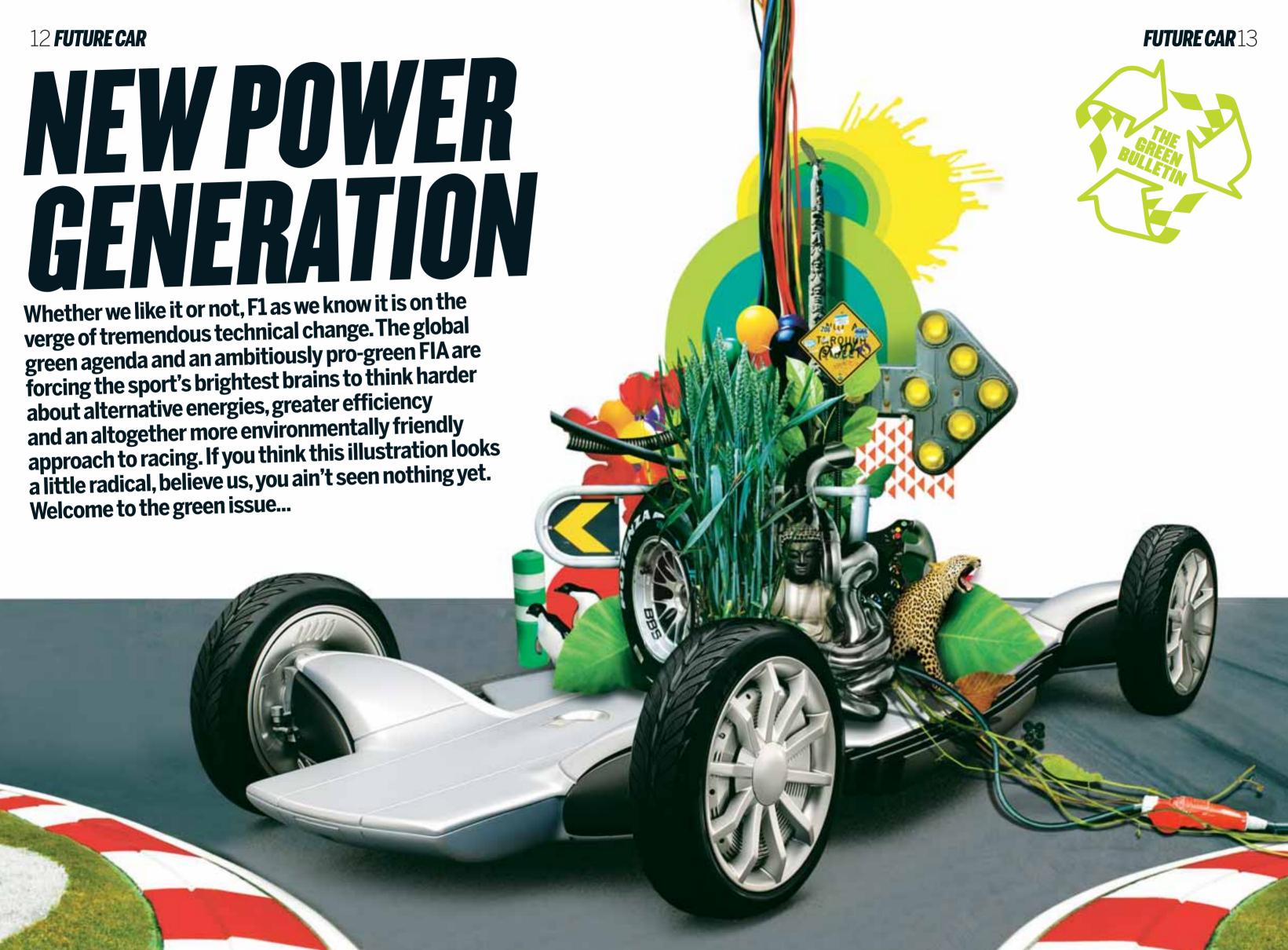
....but once he got here, there was no stopping him, nor his commentary: "AND IT'S GO, GO, GO, as Walker comes up alongside Hamilton, with the two Brits battling it out in a frantic dash to the flag! And Walker gets the win! AMAZING! And I'm going to stop now because I've got a lump in my throat....'



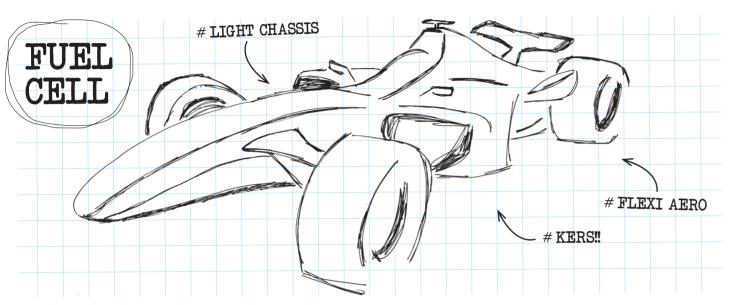








So what might a future green-tech F1 car look like? We canvassed opinion from some top Formula One brains and came up with some remarkable answers...



#### **LIGHTER CARS**

Current cars carry up to 100kg of ballast. If that was removed and a lower minimum weight limit of 500kg was introduced, cars would need less power and fuel for the same performance. Another benefit of lower weight would be increased safety: less mass in an accident means lower momentum.

#### **FREE-DEVELOPMENT ENGINES**

Among ideas discussed for future F1 engine technology is a limit on the total amount of energy used, but with complete technical freedom as to how the energy is used. This would be a marked shift from the current, tightly restrictive regulations which have largely stifled engineering innovation in order to contain costs. Manufacturers might, for example, develop tiny hybrid V6 engines, perhaps attached to a CVT, so that the engine is running constantly at maximum efficiency.

Alternatively there might be electric engines which give boost when needed – for example with electric motors attached to the front wheels to provide extra power and traction out of corners. Smaller engines would need less cooling, reducing the need for radiators and bodywork to go around them. Or, if more ceramic parts were used, engines could be run at higher temperatures without the need for radiators.

#### **NEW FUEL RULES**

From 2008, F1 will run with fuel containing 7.5 per cent bio-ethanol, but in America, the Indy Racing League is already using 100 per cent bio-ethanol.

Hydrogen is already being used as a road car fuel and has been developed with some success by BMW, while Mercedes is investing heavily in electric motor development and Toyota

continues down the hybrid route. With greater technical freedom, competing manufacturers could devise radically different means of powering their cars.

#### **ENERGY RECOVERY SYSTEMS**

Kinetic Energy Recovery Systems (KERS) are a buzz topic in F1, as they are due to be introduced from 2011. Already being heavily researched for road car use, where energy recovery from braking, exhaust and cooling systems could give greater efficiency, it could just as easily be used in F1 to provide extra power.

Five seconds' worth of energy saved could give a driver a 50bhp boost for five seconds on the next lap, perhaps with a 'boost button'. The new Formula Master series will be trying something similar next year. Regulations could be changed to force teams to use 50kg of energy recovery equipment instead of 50kg of ballast.

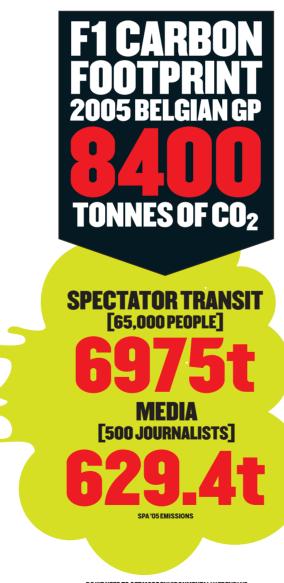
#### **MATERIALS**

F1 has been in love with carbon-fibre for more than 20 years, but its poor recyclability makes it 'un-green'.

Alternatives are being developed: hemp, which can produce a fibre that's stronger than carbon-based materials, and silk as a full carbon substitute. Both are fully organic and recyclable.

#### DYNAMIC AERO

Moveable aerodynamics would give a big efficiency benefit. 'Downforce on demand' would greatly reduce drag on the straights, but give downforce when needed – under braking and through corners. Changeable ride height would allow a car to run at maximum efficiency at all times. Much of this technology exists and has been used in F1 before, but is currently outlawed.



# MANIFESTO!

If the cynics and critics are to be silenced we need to get our house in order now. We need a new way of doing things. We need a green revolution. We need to...

## BAN SPECTATORS FROM EVENTS – ALL EVENTS, NOT JUST GRANDS PRIX.

CAP THE NUMBER OF TRUCKS TEAMS TAKE TO RACES. HOW ABOUT ONE EACH?

# BAN DRIVERS AND TEAM PRINCIPALS FROM USING PRIVATE JETS. TRY WALKING

BAN MOTORHOMES AND EXPENSIVE, ENERGY-INEFFICIENT HOSPITALITY SUITES

#### BAN FRIDAY PRACTICE - OR AT LEAST RUN IT ONLY AT GRANDS PRIX WHICH ATTRACT A CROWD

**BANTESTING** 

#### **BAN WIND TUNNELS**

BAN DRIVER GO-PEDS (SORRY JEAN)

#### BAN FLYAWAYS - ONLY RACE AT VENUES REACHABLE BY TRAIN OR BOAT

RACE ENTIRE SEASON IN AUSTRALIA

#### DRIVERS PAY FOR OWN FUEL -GUARANTEEING ECONOMY

WORE COURT OF APPEAL HEARINGS: HOT AIR CAN THEN BE RECYCLED

## WIND FARMS WITHIN CIRCUIT PERIMETER AT ALL RACES

TYRES LIMITED TO ONE SET PER SEASON

#### LIMIT TEAM PADDOCK PASSES TO 50

TRUCKS TO RUN ON CNG ONLY. CNG FILLING STATION IN EACH PADDOCK

## NO DRIVER SHOWERS OR PRIVATE LOOS (SORRY, DAVID)

NO WASHING TYRES WITH DETERGENT AFTER A SESSION

#### NO AERO MODS AFTER RACE ONE, THUS HALVING CARBON-FIBRE WASTE AND AUTOCLAVE TIME

QUALIFYING ON PLAYSTATION, RATHER THAN ON TRACK

#### **BAN HELICOPTERS**

BANFI





# **CHAMPION OF FARMING**

# From F1 to selling weapons systems to breeding cattle: meet the Formula One driver who went really green.

Think Jody Sheckter, think grumpy Ferrari 1979 world champion, right?

Reset: think Jody Scheckter, think Britain's leading organic farmer and passionate believer in all things 'from the land'.

For much of the past decade, Scheckter, 57, has devoted his not inconsiderable energies to turning a large slice of Hampshire countryside in the UK into a model biodynamic farming enterprise, Laverstoke Park.

Contained within its 2,500 acres are a state-of-the-art abattoir, champagne vineyard and under construction is a bioresearch lab, which one day should allow the creation of some of the world's most fertile soil. He also has Britain's largest herd of buffalo, orchards, a walled garden, an ice-cream-making plant, a sausage and burger-producing facility and endless acres of land for growing a burgeoning portfolio of vegetables and for rearing free-range pigs, chicken, boar and cattle. Not to be left out are 13 (of 40 in Britain) pure-bred Angus cows which

Scheckter reckons will one day produce the world's finest-tasting steaks.

He says: "I didn't start out by wanting to be a conservationist, but when you try to make the best-tasting, healthiest food, you automatically become one, because everything you do is about improving the quality of the soil and the environment for your animals and vegetables."

Sixty staff are helping him in his quest, as is the fortune of more than \$200m he amassed in a previous life developing a weapons-training system which he sold to the US military.

"It's all been cost so far," he says, "and really all the businesses here have been out of control in a conventional sense until very recently.

"But the question I'm trying to answer is whether an organic farm on this scale can be self-sustaining and work as a business. If that's not the goal, then it's nothing more than a massive toy and that would just be a waste of everybody's time—especially mine, as I'm busier doing this now than I've ever been before."

16 **ECO RACE CARS ECO RACE CARS** 17 The Red Bulletin • September 29, 2007 The Red Bulletin • September 29, 2007



F1 is considering different ways to make racing a little less harmful to the environment. But then, there really isn't anything new in environmentally-friendly racing.

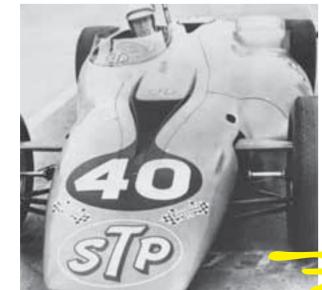
#### 1898 JEANTAUD (ELECTRIC)

Remarkable but true: the first land speed record holder was an electric car. În 1898, Count Gaston de Chasseloup-Laubat and his Jeantaud (pictured, right) charged a whole kilometre at 63.15 km/h. At the time, Jeantaud had a monopoly of the French taxi market, although whether his feat affected the driving habits of taxi drivers is open to question. The Count lost his crown to another 'electrician', Camille Jenatzy and his La Jamais Contente, but promptly regained it by fitting a pointed nose.

#### 1902 PANHARD 40 HP (PURE ALCOHOL)

French Agriculture Minister Jean Dupuy decided it would be a good idea to organise a race for cars that ran on alcohol, thus appeasing the agricultural lobby. Englishman Charles Jarrott (main image, driving), the Jenson Button of his day – he won one grand prix – entered a 650-kilo 40hp Panhard for the event, the 1902 Circuit du Nord. Other than altering the carburettor, there was no difference to how the car performed, "with the exception that the fumes emitted from the exhaust were acrid and





exceedingly nauseous". Despite battling rain and wind, in which Jarrott had trouble with his goggles and lost his cap, he managed to come second to Maurice Farman's Panhard. There were also rumours of competitors sneaking petrol into their cars out in the countryside...

#### 1967 STP OIL TREATMENT SPECIAL (GAS TURBINE)

A gas turbine burns petroleum-based fuels with high heat-value per pound, potentially having better fuel economy than low-heat alcohol products. Having said that, saving the planet was probably not on Andy Granatelli's mind when he decided to run a gas-turbine car (pictured, left) at the Indianapolis 500 in 1967. Using a Pratt & Whitney helicopter engine placed to one side of the car, they

created a contender that was potentially so quick that driver Parnelli Jones was told not to reveal its full speed capability during practice. He went on to dominate the race until a \$6 transmission bolt put him out three laps before the end. The rule-makers then stepped in.

#### **1998 PANOZ Q9 (HYBRID)**

They called it 'Sparky'. Back in 1998, before hybrids became the car of choice for the celebrity posse, the Panoz Q9 used a Zytek permanent magnet brushless DC motor independently coupled to the transaxle and a Ford V8 petrol engine. At Petit Le Mans, Road Atlanta, the car came second in class although it narrowly failed to qualify for Le Mans proper. Team owner Don Panoz sidelined the project in favour of other schemes, but Zytek boss Bill Gibson still believes entering a hybrid for Les 24 Heures du Mans to be unfinished business

#### **2004 JAG HONDA CIVIC** TYPER(LPG)

the Silverstone 1000kms.

**2004 NASAMAX DM139** 

It was estimated that just an acre and a

half of corn was needed to produce the

car ran the previous year as a Reynard

and was the subject of almost as many

column inches as the winning Bentley

change from a Cosworth to Judd engine

gave it reliability for a second season

because it used bio-ethanol fuel. A

fuel for the Nasamax prototype that

(BIOETHANOL)

Mobile-phone retailer John George reckoned that his fuel costs for each race were a mere £6.10 - not bad considering he was competing in the 2004 British Touring Car Championship. As George already ran a fleet of liquid petroleum gas-fuelled cars, he saw no reason why he should not race one as well. After all, Vauxhall had already run an LPG car in the 1998 Vectra Challenge, so a

#### Can't see the trees for the Wood

**THE RACE** 

[22 F1 CARS]

Potatoes and cashew nuts: the University of Warwick has gone to great lengths to convert its Formula Student car from last year into a racer that even tree-huggers wil appreciate. Ben Wood (below) and his team believe they can get 150mph out of their Eco One - "given a long straight and a tailwind" - despite its green credentials. The fuel, supplied by Fuchs is E85 bio-ethanol, the lubricants are bio, the shell is made of hemp. e potato and nut ace certain oils n what is actually a odyear production tyre, as well asbeing used to make brake pads at Exeter University. While all th can be made from plants, the chassis is steel construction but even that is very easy to recycle. Earlier this year, the students took Eco One to the Sexy **Green Car Show at** the Eden Project in Cornwall, UK, and finished the 2004 Le Mans 24 Hours. The ever since it has been doing the rounds of colleges and schools A fully competitive green Formula Ford is promised for next Ren Wood, who that also included a popular fifth place at is studying for an Engineering Doctorate at Warwick

savs his aim is to

produce a racing cal

that is 95 per cent

Problems within the team, rather than the installation, meant that the project had faltered by the end of the season.

Honda Civic Type R was duly converted.

#### **2004 LOLA-CATERPILLAR** B2K/10 (DIESEL)

The black smoke that the Team Taurus Lola diesel emitted at Le Mans in 2004 hardly suggested green credentials. Development was being carried out 'on the hoof' however, and Ian Dawson's limited budget did not extend to particulate filters. The Caterpillarbadged engine came from a Volkswagen Touareg. Still, it was two years ahead of the Audi R10. Dawson tried to pioneer converting cars to bio-diesel with backing from D1 Oils. Thus rendered ecofriendly, it appeared at the world's first 'green' car show at the Eden Project in Cornwall, UK, but never raced again.

#### **2007 DALLARA-HONDA IR3** (ETHANOL)

An ethanol-fuelled car was sure to win this year's Indianapolis 500. For the first time, a major series had been mandated to run on 100 per cent ethanol, even if one of the teams was caught adding methanol to its fuel during practice. The fuel is only 98 per cent ethanol in case anyone wants to drink it. Honda were forced to go back to a 3.5-litre engine to retain the performance of the Dallaras, not so much for when they raced at the Brickyard but more for circuits like St Petersburg in Florida with its slow corners. Certainly, nobody noticed the difference at Indy when Andretti Green Racing's Dario Franchitti won after a rain-affected race.

#### 2007 CHILI PEPPER VOLKSWAGEN JETTA (BIO-DIESEL)

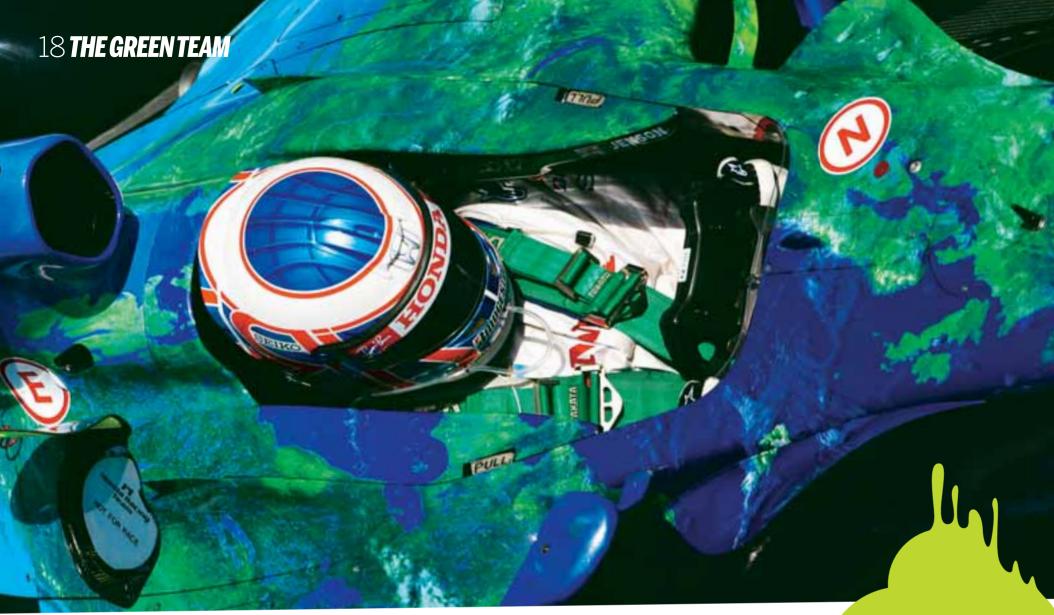
It was only a VW Jetta (pictured) in a supporting race, but when Jim Osborn of the Chili Pepper Racing Team won the SCCA SPEED World Touring Car event the day before this year's Sebring 12-hours, it was the first victory for a production-based, bio-diesel car. SCCA technical director Shawn Passen had worked out a rules package that permitted such a car to race successfully and the big diesel guns may go bio next year. Shell is working on a bio-toliquid which Audi's engine that Ulrich Baretzky hopes will fuel his cars

#### **2007 FORD FUSION HYDROGEN 999**

at Le Mans.

This August, the Ford Fusion Hydrogen 999 ran at over 200mph on the Bonneville Salt Flats. It was the highest speed recorded for a hydrogen fuel-cellpowered vehicle. A group of Ohio State University students came up with the idea, Ballard Power Systems provided the cell and Roush Racing - better known for its NASCAR engines

- helped run the car. The only by-product is water.



# F1'S ECO WORRIERS

Honda took a bold decision at the start of 2007 to deliver an environmental call to action with the Earth Car livery. As the season closes, marketing consultant Stuart Dyble assesses the scheme's success.

#### 1. What were the aims of the Earth Car programme at its launch?

"The programme was a radical move away from traditional F1 marketing models. Its aim was to replace the sponsor logos on a racecar with one clear environmental message that could then be promoted to a global audience of F1 viewers. The myearthdream environmental campaign asked people to make pledges about how they would change their lifestyles for the benefit of the environment around them.

#### 2. Which of those aims have been achieved - and to what extent?

"Just by being on the race track this season, Honda's myearthdream message will be seen by a global F1 audience of more than 550 million viewers. In addition, the myearthdream website has received in excess of 70,000 pledges from across the globe. All the names of those making pledges are placed on the car to mark their contribution to the campaign."

#### 3. How has the Earth Car concept influenced the rest of Formula One?

The Earth Car concept undoubtedly caused a stir in the sport when it was unveiled earlier this year. It was unusual not to have sponsor logos

on the car and to promote an environmental message seemed slightly incongruous. Now that the season is approaching the home straight, it is encouraging to see that many other teams are starting to incorporate environmental initiatives into their own work practices. Increasingly, we expect this approach to become the norm. The fact that Honda has led the way with its bold Earth Car initiative this season is very satisfying.

#### 4. Do you feel the Earth Car has influenced F1's introduction of greener rules?

"It's encouraging to see that the Honda F1 team and the sport are aligned in their environmental objectives.

#### 5. With hindsight do you think the Earth Car programme was a good idea?

"To raise awareness of environmental issues to an audience of more than 550 million is without doubt a good idea. That so many embraced it through pledges indicates that the programme has been a great success."

#### 6. Will it continue?

"Yes, and the campaign will evolve as time goes on. The success of the activity to date has From racetrack tothe road

"The success of the HRF1 team will have

an impact on the perception of Honda's road cars and its brand as a whole. There is a subtle link in that the efforts of those making the car a success on the track nately share their knowledge with their colleagues making road cars and it is here that most of the benefit of improved technology can be felt. Better technology will ultimately enabl Honda to make even better cars that its customers will want

shown us that there is a great deal of interest and support in the myearthdream campaign and we expect that to grow into next season

#### 7. If a major sponsor offers to fund Honda F1 with a title sponsorship in 2008, will Honda continue with the Earth Car programme and leave the overt 'green' branding dominant?

"Because the Earth Car concept is based around a licensing model rather than just putting logos on the car, there is much more scope for a sponsor to take their brand association further than traditional routes might allow. The 'green' branding would not prevent a major new sponsor coming on board, in fact we believe it is a concept that will encourage new sponsors to enter the F1 arena."

#### 8. Is the Earth Car philosophy of Honda F1 affecting the rest of the company?

"Honda has always had a commitment to environmentally conscious technologies. As such, the idea behind the Earth Car is welcomed by the rest of the company. In next year's campaign there will be an even closer alliance between the environmental objectives of Honda as a whole and with those of the team."

**TRANSPORT OF VIPs** 

SPA '05 FMISSIONS

Don't just plant trees, cut back on your carbon by investing in greener energy schemes, like these:

#### Solar thermal water heaters are good for large roof spaces – like your average F1 team

China is currently the world's largest user. HEATING UP THE DESERT The Stirling engine is twice as effective as photovoltaic solar cells. A 4,500-acre plant

#### is planned for the Californian desert. **CLEVER GEYSERS**

Geo-thermal power reduces emissions. When ons can be cut to zero. Big in Finland.

#### THE RING OF FIRE

The Philippine government plans to to use the Pacific Ring of Fire volcanos to increase



#### Jenson goes back

to nature For their post-Hungary holiday, Jenson Button and girlfriend Florence Brudenell-Bruce got closer to nature by heading for the campsites of France and Italy, taking in vinevards and the Alne as they headed south. During the six-day trip the couple covered 1800kms in Jenson's gold VW Camper van. "I never went camping as a teenager and felt I ought to find out what I'd missed out on. I loved it and will definitely do it again," says Button. 'We bought a fourman tent, which was massive and only cost £50! It took an hour and a half to erect, though. The deal was we would only camp at sites with hot showers and a decent restaurant nearby."

A bit of peace and quiet was what recuperate during a tough year, but things got a bit noisy behind the wheel."The only creature comfort in the Camper is a stereo and we had to turn it up to full volume just to cover the squeaks and rattles coming from the van. That, and the fact that it requires total concentration to drive, meant we would arrive at our destination deafene and exhausted. But it was a good workout, and the engine is so simple that I could do all the mechanics myself - something I had to do a lot Actually, I blew the engine the other day.



# THE GREEN MAN



#### **Environmental engineer** isn't exactly the sexiest iob title in F1. but one man at Honda gets very enthusiastic about making the Brackley factory as green as it can be.

Many people shake their heads at the idea of an environmentally-responsible F1: the concept, at best, is confused. But invariably their view tends to be narrow, and based around racing, the sharp end of the sport; it doesn't look at the much bigger business of manufacturing.

That's where Honda's latest initiative takes hold. At the Brackley factory, Honda has recently taken on environmental engineer Jamie Shaw. He oversees the evolution of the site. shrinking its environmental impact, minimising environmental risk and educating the workforce.

It is, he acknowledges, not the most exciting end of F1 engineering but it does play a significant role in the development of an F1 team, while not being entirely selfless: environmental management is one of those rare tasks where virtue does not necessarily have to be its own reward. "Environmental management isn't a cost a company has to absorb," says Shaw. "Usually it has a positive effect in terms of efficiency and budget, because an effective environment management programme cuts waste and decreases energy usage.

If you achieve those two things, invariably you cut costs."

With an environmental management degree from the University of Leeds and six years' experience in environmental management at British Aerospace. Jamie Shaw's new role is a first for Honda F1: "It's an unusual sort of place to do this kind of job," he acknowledges, "but that's good: it means there's plenty of scope for improvement."

F1 may be at the cutting edge of technology, but (with a couple of notable exceptions) its facilities tend to be mundane. Honda's industrial units are no different, and are a primary target for investigation. "We're doing ongoing detailed energy audits of all the buildings. An outside agency is looking at the usage and will suggest ways we can use less energy, and maybe acquire our energy from renewable sources. Obviously we have to use energy, but there is room for improvement: we will go forward with energy efficient lighting and ensure that whenever we upgrade, the new kit has greater energy efficiency than what it's replacing. We should be able to make significant cost reductions, but also enjoy some cost avoidance.'

Beyond energy management, Honda's environmental engineer looks after the general state of the site: reducing waste ("maybe there are organisations that might see what we consider landfill waste as a resource," says Jamie), cutting pollution and encouraging suppliers to get involved. It might not completely offset the impact of racing - but it's a move in the right direction



# 'I WONDERED IF THE DRIVERS MIGHT IGNORE OUR ADVICE'

## US GP, INDIANAPOLIS, JUNE 19, 2005, LAPS 1-73

F1 is rightly committed to a greener future, but two years ago, the FIA stumbled upon an alternative method of saving fuel when it declined to install a chicane at Turn 13, Indianapolis.

ne 2005 meeting began quietly enough. When Toyota reserve Ricardo Zonta spun off on Friday morning, with a deflated left-rear Michelin, nobody thought too much about it. People only began to get worried that afternoon, when his team-mate Ralf Schumacher's left rear went down in the middle of the banked, highspeed Turn 13, sending Ralf into the wall with some force. The German had crashed heavily at the same place during the previous year's US GP and both incidents resulted in a visit to Indianapolis Methodist Hospital, where staff may have wondered why one Schumacher seemed to spend almost as much time in hospital as the other did on the podium. It was now clear that Michelin, supplier to seven of F1's 10 teams, needed to investigate the tyre situation.

The following day's qualifying session passed without problems – but then cars were doing only a single flying lap. The question was, would the

Michelins cope with Turn 13's extreme vertical loads over a grand prix distance (mid-race tyre changes were banned in 2005)? "We freighted some different-spec rubber in from France, as a possible alternative, and carried out tests throughout the night," says Nick Shorrock, who headed Michelin's F1 operation. "Our partners were very helpful – Ron Dennis allowed us to use his plane to get engineers to test laboratories in the States – and I think I left the track at about 23.00. I got back to my hotel, slept for an hour and got up at 02.00 for a briefing with the guys at our base in Clermont-Ferrand. That lasted four hours, then we headed back to the track."

The lab results were depressing reading and on Sunday morning Michelin informed its partner teams – 70 per cent of the field – that it would not be sensible to race. Various ideas were discussed: Michelin asked if a chicane could be installed at Turn 13 (a similar thing had been done to reduce speeds during the 1994

Spanish GP meeting in Barcelona), but this was rejected. "All our cars went to the grid," says Shorrock, "and I stood in the pits, all alone at last, after a morning surrounded by TV cameras and microphones. I know what drivers can be like: racing is their life, their passion, their job—they don't want to do anything else. I wondered whether any might ignore our advice..." To a man, however, they came into the pits at the end of the warm-up lap, although one or two

'THE FANS THREW
BOTTLES ONTO THE
TRACK. SUCH WAS
THE HOSTILITY THAT
RIOT POLICE ARRIVED'

were still debating the point with their team principals over the radio. As a result, the 2005 US Grand Prix was contested by two Ferraris, two Jordans and two Minardis, which gave Michael Schumacher his only victory during an unusually unproductive season.

It also, however, allowed Portuguese driver Tiago Monteiro to score the first-ever F1 podium finish for his country—in strange circumstances, sure, and in a hugely uncompetitive car, the Jordan EJ15, but it was his moment and he was going to enjoy it: "I wasn't joking," he said. "No-one on the track was kidding around, even though there were fewer cars. I had a hard fight with my team-mate and I still had to be there at the end. It was a very weird situation, but I'm so happy—for myself and for the team. You should see their faces."

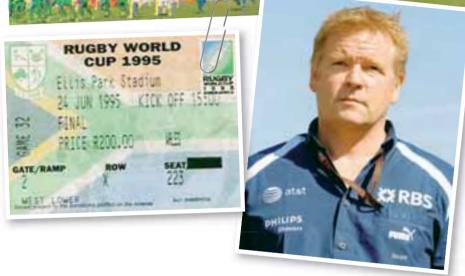
Indy's fans, however, more used to the instant-gratification of home-grown American sport, took a predictably dim view and threw hot

dogs, burgers and bottles onto the track during the race's early stages. Such was their hostility that riot police arrived as a precaution. Michelin initially received a lot of criticism, although animosity later subsided when the company offered to reimburse spectators, or else to provide them with tickets for 2006.

"It was just one of those things," says Shorrock.
"As soon as we realised there was a problem we tried everything to resolve it – and kept trying all the way through Sunday morning. The thing that will always stay in my mind, though, was our partners' reaction. At no stage did any of them put pressure on us to race – they just wanted to know how they could help."

All their efforts came to nothing, as the F1 history books now record. But while Indy 2005 is remembered by most for the ill-feeling it generated, it has one less unfortunate distinction: with only six competitors, it was, quite possibly, the greenest grand prix of all time.





# RUGBY PLAYER/WILLIAMS HEAD OF MARI SCOTT GARRE

Alongside his advertising career, Scott played rugby for top **English club Harlequins. He has the scars to prove it.** 

four seasons with Harlequins. I lived like a monk - didn't drink, didn't go out, just focused on training and playing. Every fibre of my being went into it. I have 112 stitches, artificial ligaments in both knees, and I've broken nine out of 10 fingers, an ankle, nose and the same wrist three times.

I PLAYED CENTRE IN THE era of Will Carling, Simon Halliday and Jamie Salmon, so I got in the first team games in the matches they didn't want to play in. But I did get some big games, too, including a Sevens semi-final in front of a packed Twickenham stadium and one international cap.

#### **HAVING BALANCED MY RUGBY**

commitments alongside a job at advertising company Saatchi & Saatchi, I took a job with Nike, based in a town called Hilversum, 40km south of Amsterdam. Hilversum, it so happened, had a rugby team and they were the Dutch firstdivision champions. I'd decided to retire, but Hilversum's coach read an article in the local paper that mentioned my Harlequins career. He spoke no English and I no Dutch, but somehow he persuaded me to train with his players.

I WENT ON TO PLAY THREE seasons with Hilversum and also, because I was a Dutch

**I DEDICATED MY ENTIRE LIFE** to rugby during resident, qualified for international duty. I played in the preliminary rounds of the 1995 World Cup against Israel – it was never going to go down in history as one of the great games, but Holland did nearly get into the tournament that year, if it hadn't been for a 63-9 defeat against Italy.

> I'VE ENJOYED SEEING the sport evolve from amateur to professional. What I wouldn't have given to have tried a full-time rugby career. Mind you, we used to get generous expenses. Hived a quarter of a mile from Harlequins' training ground and billed for £13 the first month. The club laughed and turned it into £130 a week. That was almost what I was earning at Saatchi. The account I was working on there was New Zealand-owned Anchor butter – the guys there had great affinity for the game and, so long as I turned up wearing the right blazer, they made sure I got out of the office at 5.30 to go training.

I STARTED PLAYING RUGBY when I was six and did it for 34 years, after which I decided it was time to give the game something in return for what it had given me. So now I coach the Oxfordshire Under-18s, whenever I'm not away at a race. The sport has taken me all over the world and I've gained plenty of lasting friendships from it. Rugby's that kind of game.

Who does what around the paddock?



#### FREDERIEKE HENS

'Fred' is Dutch, but manages to amaze hotel staff here at Fuji with her perfect Japanese. She lived in Yokohama until she was 17, and is now in her second season with Fuji TV, where she's a production co-ordinator and standby translator. She lives in Rome vith her Italian husband and 11-month-old daughter.



#### GILLES BELLEC

Fifteen-years-ago Gilles'son raced with Franck Montagny in go-karts. Now Gilles is Franck's manager. His great passion is wine, and he has a cellar full of Bordeaux, including the acclaimed 1945, 1961 and 1982 vintages. He's also one of Formula One's best golfers.



#### **SARAH WEBSTER**

Shell hospitality co-ordinator Sarah is a talented rugby player and a qualified coach. She played for the Cheltenham & Gloucester College Ladies teams. She also loves horseriding in England's Windsor Great Park. Before she began working in Formula One, she was responsible for organising car launches for Mazda.

GRIDDLE

You'd know the drivers, but can you recognise the women who supported them?



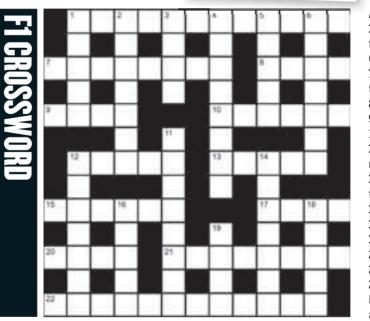
Who's this lady getting a hug from motorcycle champion Barry Sheene?



This lady's husband just finished second at Monaco, but who is she?

> Whose family is this listening to a driver announcing his retirement?

#### ALLANSWERS IN TOMORROW'S BULLETIN



#### **ACROSS**

1 British driver who finished second, to Graham Hill, in the 1969 Monaco Grand Prix (5,7)

**7** Giancarlo --. Italian driver who won the 1961 French Grand Prix (8)

8 Require (4)

9 Jochen --. German driver who had 112 grand prix starts (4) 10 Formerly, a woman in charge of

nursing in a hospital (6) 12 Luigi --, Italian driver whose

first grand prix was at Monza in 1953 (5)

**13** Vacant (5) **15**Trapped (6)

17 Largest Caribbean island (4)

20 Seize (4) 21 Afterword (8)

22 French driver who had three F1 victories between 1978 and 1982 (6.6)

#### DOWN

1Public square (5)

2 Ancient Greek city (7)

3 Takuma --, driver born in Tokyo in 1977 (4)

4 Where a form of dope could be bought and smoked (5,3)

5 Jochen --. Austrian driver who

participated in 61 grands prix (5) 6 Masten --, US driver who participated

in 42 Grand Prix, scoring 24 Championship points (7)

11 Tyre manufacturer (8) 12 Former name of Scuderia

Toro Rosso (7) 14 Small flute (7)

16 Jewish religious leader (5)

18 Gianmaria --, Italian driver with 12 down in 2004(5)

19 -- Raikkonen, Finnish driver with Ferrari (4)



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