

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

#### **Press Information**

#### 2014 British Grand Prix Friday Press Conference Transcript

#### 04.07.2014

TEAM REPRESENTATIVES – Gerry HUGHES (Caterham), Rob WHITE (Renault Sport F1), James KEY (Toro Rosso), Pat SYMONDS (Williams), Adrian NEWEY (Red Bull Racing), Jonathan NEALE (McLaren)

PRESS CONFERENCE

Gerry, head of track operations at Caterham, could you fill us in on the details of the changes at Caterham in so far as it affects your department?

**Gerry HUGHES:** Well, I think it's fair to say that from a track operations perspective it's business as usual. The new owners are here for the first time this weekend, to observe the trackside operation. We'll show then what we do on a race weekend and as I said, it's business as usual.

### So what are the objectives for the team for the rest of 2014 and looking ahead to 2015 in terms of resources and allocating them and that kind of thing?

**GH:** Well, after a period of uncertainty with the new owners coming in, they've given us a direction and a remit and certainly our goal for the remainder of the season is to finish 10<sup>th</sup> in the championship. The design of the new car is going ahead and is on schedule, so we look forward to 2015, but certainly the remit from the new owners is to finish 10<sup>th</sup> in the championship.

#### James, coming to you, obviously some good pace recently from Toro Rosso, but also some reliability concerns – retirements etc. And also of course the issue with Jean-Eric today.

**James KEY:** If I could you tell you everything James I think we'd have our issues sorted. I think some of it to be honest is a little bit of bad luck we've had recently. I think the last three events for us have been problematic, before then it was OK towards the beginning of the season. We've had a couple of self-inflicted issues and we've had a couple of unexpected issues. Monaco, for example, was entirely unexpected, we traced the issues we had with the exhaust but they'd never happened before then or after. So that was a bit of a one-off and a great disappointment because we were strong there. Since then we've had a couple of niggles that have been self-inflicted – a bit of brake blanking which was maybe a bit too high and this sort of thing, little operational things occasionally. A bit of a surprise in Austria with the suspension issue, so it's been a frustration for sure, because when you have a little bit of pace and can finish in the points you want to make the most of that. But we're looking at everything very carefully. Clearly we want to make sure we can get through this rather rough patch of reliability and just get on with the rest of the season.

#### Your drivers seem to be performing well and they're well matched as well. How are you seeing their development?

**JK:** I think it's good actually. I think having both of them so close. Dan's come in this year and has an old head on young shoulders. His learning curve is extremely steep. His feedback and so on has developed tremendously. He's been really quite strong right from the outset, which we've been quote pleased with. And Jean-Eric is a great driver and he's more focused this year than we've seen him this year. He recognises that there is a hot-shoe across the table, pushing him, so it's a very healthy situation. They work well together and we're enjoying the fact that we've got two guys who are pushing each other.

## Jonathan, there's no escaping the fact, when you look at the championship table, that you're the fourth-placed Mercedes-powered team. What's the plan for turning it around and do you take some encouragement from what's happened today in free practice?

**Jonathan NEALE:** I don't think we take much encouragement from free practice today. Just talking to colleagues here about how the track has been today, it's been quite unpredictable out there, both this morning and this afternoon. We've got a lot of work to do internally to rebuild on the difficulties we have last year. It's well known that we're actively strengthening the team at the moment. Eric and I and Ron are working hard to make sure we return ourselves to the performance of where we should be as quickly as possible, but it's a tough job. There's no easy way through this. You have to remember that whichever end of the grid you're at, each of us has 80 runs per week in the wind tunnel by regulation. That's it; you've got to make the most of it. So you have to fight hard and that's what we're doing. But there's a lot of culture change going on, there's a bit of strengthening of the team, there are some tough things to do, but we're coming back.

#### This week Ron Dennis, your boss, gave Jenson Button a little bit of a hurryup, as we say here in England, ahead of the British Grand Prix. What are your thoughts on that?

**JN:** I think he did the same thing to Ayrton Senna. I'm pretty sure he did the same thing to Kevin. I think if you listen to my phone on a daily basis he'll be doing the same thing to me. It's chip paper.

Thank you. Coming to you Pat. Can you tell us about this morning? It was not a trouble-free morning for the Williams team and also this afternoon, with Valtteri's engine cover.

Pat SYMONDS: Yeah, it's been a difficult day. These are the sort of contrasts you get in motorsport. A great weekend in Austria and today we've been like a dog running after a rabbit, trying to chase down our problems. Engine problems this morning; power unit problems. We were running and engine right up past the end of its life and it was a risk we decided to take and it didn't come off. Accident from Felipe, bodywork problems this afternoon. And then on top of that it's not been an easy day anyway, as Jonathan said. The wind has been gusting, it's been very difficult to get a read on the car, the tyres have been hard too. It brought us back down to earth today.

It's been quite a turnaround for the Williams team from last year to this year. At this stage of last year's championship you had zero and now you have 85 in the Constructors' Championship. It shows it can be done but what is still missing do you think?

PS: It depends what your ultimate targets are and the ultimate target is to win the Constructors' Championship, so there is still a long way to go there. The improvements that have been made in the team are quite dramatic and they continue to show improvements all the way through. I think we need a good, solid, ambitious, long-term plan and just keep improving from here.

Adrian, it's the first time we've had the chance to talk to you in an official session since it was announced that you are staying at Red Bull but in a revised role. Can you tell us how hands on you will be in Formula One cars in the future.

Adrian NEWEY: Much less so than I am at the moment, obviously. I think I will really be stepping back to become an advisor and mentor for the team, the engineers that we have there. Some involvement, of course, in the design. But that's really towards the end of the year. For the moment I'm still fully involved.

Obviously there have been some changes at Renault. Can you give us your thoughts on that, in terms of the management changes?

AN: I think it can only be a good thing. Cyril joining; he's a very strong person. I think it will bolster Rob in terms of Rob then being able to concentrate on all the technical aspects without having to also be involved in other areas. It plays to his strengths without a doubt and hopefully we'll see the fruits of that in the future.

Rob, let's throw that to you: what does it mean for you and your team of engineers? Rob WHITE: I think it's good that Cyril comes back to us; has a change of colour of shirt. I'm looking forward to sharing with Cyril the way forwards. As we said previously, it's important that we step up to deliver the improvements that we completely understand are required. I think we have some very clear messages from Red Bull that have been expressed all over the place. It's not hard to see what's required. We know, we understand, and my job and of the team at Viry is to deliver.

So how close to the maximum performance from this power unit, in the current specification, are you?

RW: I guess that's a kind of moving target type question. At any point in time you're always extremely close to the maximum performance of the specification on the day. But the maximum performance of the specification can move on. I think we've seen already during the course of this season that we've made significant headway without a substantial change to the thing that you probably want to call the specification of the hardware and there's still scope to progress during the rest of this season and then during the winter period then the way the regulations are, the way the engineering programmes are structured, then there's more scope.

#### QUESTIONS FROM THE FLOOR

Q: (Marc Surer – Sky Germany) I have a question for James Key. When you watch the top speeds, your car is always right at the top compared to the other Red Bull team – Adrian always builds the slowest Red Bull car on the straight. Was it your intention to always make the car so fast on the straight? And if so what was the plan behind that?

**JK:** I think a lot of it is a car philosophy thing. For us, somehow, STR cars have always had a certain amount of efficiency about them: it was like it before these regulations as well. We tended to have cars that were relatively quick in a straight line. So, I think some of it is just natural from where we are. As a team, to be brutally

honest, until recently we haven't been able to extract more rear wing performance until now, so we probably just been a little bit low on rear wing capacity which has helped that. Equally I think that we did look at the competition in winter testing and recognise the only thing we could do to try to address some of the straight line speed capabilities of some of the cars, particularly the Mercedes cars, was to look at drag as well and, from a chassis perspective, try and tackle it that way. But I think it's a track-by-track thing. Here we're mid-table, so it's not always the case.

# Q: (Dieter Rencken – Racing Lines) Question for Jonathan. Jonathan, James said that currently you're fourth of the Mercedes teams, however next year you'll be first of the Honda teams. Obviously you've only got sixth months to go before the change. At what stage are you with this Honda development programme, who is responsible for what and how are the current testing regulations working against such a project?

**JN:** There's several questions in that Dieter. There's a lot of work going on in Tochigi and Sakura at the moment with Honda on the power unit. They are responsible for the power unit including the ERS in its entirety. We are responsible for the chassis and the systems integration piece. Hardware is running, the clock is running and time is short and I think there is a lot of work to do before we're ready for January of next year.

In terms of how the regulations help or hinder, then I don't think the current lack of track testing is an impediment because I don't think we're at that stage. We not ready for that at the moment to be quite honest with you. So, even if we could get out and run a car that's not something we would consider right now. We've got our hands full with our current issues right now because regardless of what power unit is in the car, we don't have the best chassis that's out there and obviously given the performance of last year and this year our immediate focus is what's going on inside McLaren. So, to some extent, we are doing what we're responsible for and sorting that out. Of course, with an eye on the horizon. But yeah, we've got a lot to do. It's exciting that the regulations have allowed, or attracted, another engine manufacturer in. I don't think any of us are under any illusion as to how challenging that is going to be, to go through another iteration of the repackaging, and go through a winter of all of the heat-rejection stuff that we've done, the packaging, the ERS etc. We've been through it once, we'll do it again.

# Q: (Keith Weir – Reuters) Question for Gerry. Can I just be clear, you say the new owners are here this weekend. Do you mean the new management or the people who put the money up – the investors about whom there is a little bit of uncertainly about who exactly they are? And have you been given any guarantees as to the level of funding, staffing, that kind of thing for next season, if you're talking about 2015?

**GH:** If I answer the first part of your question first, I suppose you probably know as much about the overall management structure and the investor as I do. Obviously clearly Christijan [Albers] is now going to be the team principal for Caterham going forwards and Colin acting as an advisor for the team. I think in terms of the short, medium and long term investment, that's not something I'm going to make comment on here.

Q: (Mike Doodson – GPweek) If there are to be any significant savings in F1 budgets the area in which it would seem logical to a dimwit like me to make them would be aerodynamics which contributes nothing to road car design

### and has no interest – or very little – to the spectator. What would your response be if someone were to suggest the introduction of spec-wings and aerodynamics generally?

AN: I'm not sure I agree with the some of the points you made in your question, to be perfectly honest, in terms of there being no interest from spectators. I think if you make the cars of an increasingly fixed aerodynamic specification then it becomes GP1 as far as the chassis is concerned. And we're already, in my opinion, in grave danger of getting close to that; that the regulations define a lot of the car. So increasingly the cars will look more and more similar. I would actually - and of course you could say I would, wouldn't I? - but I would be arguing for an opening of the aerodynamic regulations. As far as the cost is concerned then I think the RRA, in terms of restriction in wind tunnel testing and CFD goes a long way to reducing the aerodynamic cost because aerodynamic cost is two things: it's the research - wind tunnel, CFD – which is hugely expensive, then the manufacture of the parts that comes out of that. This year I think we've seen a slowing of the number of parts that people are introducing because, as I say, the regulations are quite restrictive by one point, and by another point we are now heavily into a set of regulations that had their roots in the 2009 change. So everybody's becoming guite evolved in where they are. But I think, certain from what I hear and people I've spoken to, journalists, then they insist that the public does have a lot of interest in the changes to the cars, what happens and that's what differentiates it from other sports. That you have got this combination of different factors. You've got the driver, the chassis – which is obviously not just aerodynamics but it's heavily aerodynamic-driven - and the powertrain. And it's that blend of features that makes it exciting and interesting. If you look at IndyCar, for instance, which went to one-make chassis some years ago, ever since it's been one-make it's viewing has fallen and fallen. That would be my opinion.

#### Pat, do you have a view on this?

**PS:** Yeah. I think Mike I'd probably take you up on your statement that it's not relevant. I think it's extremely relevant. Within Formula One we don't just develop the components on the Formula One car, we develop techniques. I have, in the past, been asked to use those techniques for a major OEM on road car aerodynamics for drag reduction, very successfully. In CFD, I think Formula One teams push CFD – computational fluid dynamics – much harder than would be happening were we not involved. And particularly in the areas of turbulent flow. That is extremely relevant to things like wind turbines. When you have a whole field of wind turbines, the turbulent flow off one turbine affects those in the wave behind and CFD studies which have been pushed hard in these area by Formula One are used to develop those sort of techniques – so I think what we do is extremely relevant.

#### Do you have a view on this Jonathan?

**JN:** I fully support what Pat and Adrian have said. I also think that to some extent the genie is out of the bottle of aerodynamics and I don't think we can roll the clock back and go to the glorious days of sliding bicycle tyres around Monaco. I don't think that's going to be quite the spectacle that Formula One is now, in terms of its relevance. I do think that it's relevant to efficiency and to car production – I would say that because we do that in McLaren with our sports car business – but I also think that a great deal is made of the cost-base of Formula One and the contribution of aerodynamics specifically to it. And I think there are a lot of proxy wars going on there that probably have more to do with income models and how businesses are being run. Nobody's being forced to spend that. I think there are a whole load of

issues being mixed into one – but for aerodynamics specifically, I support totally what Pat and Adrian have said.

#### Q: (Haoran Zhao – F1 Express) Adrian, are you going to change your office location because as we understand your office is quite close to Christian? What if Christian just came up and said 'look, we totally messed up the twin exhaust, just sort this out for me?' Would you do that, in the future, in the next season?

**AN:** I doubt if Christian would come up and say that to me. No, I will maintain my existing office within Red Bull Technology which I will use occasionally. I will have a second office in the new Advanced Technology department.

Q: That's where you're going to spend most of your time, is it? AN: It will be the majority there, yes, that's correct.

#### Q: (Bob Bull – BBC.co.uk/threecounties) With the current regulations which don't allow much change of the engines, once you've set them for the year, and the limits on what you can do with aerodynamics, do you think that the current situation is stifling innovation and possibly discouraging potential designers for the future?

**JK:** I'm not so sure... I think with the engine side the homologation was an agreed regulation and if you've got a bit of a disparity in reliability or whatever then that first year could potentially be quite tough for some compared to others. I think it goes down two ways. You've got, in some cases, restriction be it chassis or engine which maybe is a little bit off-putting, as Adrian has said, on the aero side, for example. Equally, it does also encourage innovation because you've got less areas to look at and some clever ideas often pop out of that. I think it's just as interesting. It may be slightly more painful but I think it's just as interesting and if we look at what happened in 2009, I think, when the new regs came along which is similar to what we have now for aero, that's when things like F-ducts, exhaust-blown diffusers and so-on all popped up. Before that, we weren't seeing such levels of innovation and that was with something that was more restricted. So I think within restrictions it's still very interesting from an engineering point of view.

**RW:** I think there's a number of elements in the reply. Firstly, as concerns the engine and the spec, I think it's important not to get too hung-up about this aspect and certainly not without looking closely at the regulations and understanding them because the fact of the matter is that it's a double-edged sword. The sporting regulations where the homologation restrictions are contained, are very explicit about what you may and may not do and it's very simple: you may not do anything without the prior approval of the FIA. There's a mechanism which is wellestablished, which works very well which deals with short-term matters. The fact is that it is potentially a restraint if you happen to have a silver bullet sat on the shelf that you want to deploy - well you probably can't if its purpose is principally to make the power unit go quicker. On the other hand, it protects you if your competitor has a silver bullet on the shelf that he wants to deploy. Going forward, because this was a set of regulations built up over a period of time with some foresight and some knowledge of what happens when the power units are frozen or the engines – as they previously were – then the progressive freeze and the year-on-year permitted evolutions is a window of opportunity. It's also a window of risk so I think that in the world of power units, to have in mind that there are mechanisms for the design and construction of the spec to change.

In terms of stifling innovation of designers, which I think was at the end of the question, I think for the time being, at least in the world of power units, we're not yet

there because we have a very complicated set of constraints. There's a small number of things that are explicitly determined for us in the regulations; there's many thousands of things that are not and therefore the freedom of expression is substantial.

And then an opinion that comes back to the previous question: I think we need to be extremely careful about unintended consequences because when stuff becomes really fixed and really standard, then you get into a fairly disreputable situation where in order to gain advantage, then you have to spend a massive amount of money and that becomes poor value for money and that's an unintended consequence that we must be aware of as the future homologation requirements become more severe.

**GH:** I think the regulations are a framework by which we must all work, however they've been formed. As James said, obviously the aero regulations span a number of years now so I think there will always be areas for innovation, there will always be areas - as Rob said - where there's going to be a greater level of restriction. I think that's what makes Formula One Formula One, that there will always be innovation. **PS:** I think it's remarkable that we're accused of lack of innovation when we've just introduced the most innovative power unit we've seen in years and I'm not just talking about in racing. And each aspect of that power unit is incredible: even gasoline direct injection, GDI, to run it at the sort of speeds that we're running has been a bit of a breakthrough. The energy recovery, also a breakthrough. Even on the chassis side, there are a lot of clever things in there: passive pitch and warp-link suspensions, inertia dampers - there are all sorts of things that are still there. I'd agree, we don't have the freedom of regulation that we might have had twenty or thirty years ago, but we don't have the money to be able to do those sort of things but we still have inquisitive minds and a lot of the innovation is in the attention to detail these days and it's all very relevant.

**AN:** I think it's a very difficult one. Obviously, as engineers, I guess we would ideally like the sort of CanAm-type regulation of maximum length and width or whatever it was and do what you like within that, but realistically, that's not practical nowadays, so I think it's a very difficult one to strike that balance between something which allows the maximum amount of freedom whilst – as Pat hinted – not having the budgets going completely out of control, where it becomes a complete spending war and without having a huge difference in the performance of the vehicles, because if we had too much freedom, the chances are that one team would strike it right each year and everybody would complain that the racing's a bit dull. Unfortunately, that has happened a bit this year but that's another matter. I think as far as the power train is concerned, the only slight concern that I would voice is that I think it is absolutely correct that these power units are an incredible piece of technology and as Pat said – something of which we should be very proud of as an industry. What's not clear is that as the freeze becomes more and more solid - if you like - if one power unit then has an advantage over another or one is clearly behind, how that is addressed, because if you are in that position you have no way of upgrading your power unit because you're frozen, then you're doomed to forever be behind but I think that's something which hopefully can be discussed and should be resolvable, particularly because the engines do all now carry - or all cars carry - torque sensors. Those torque sensors do seem to be a little bit noisy but basically very reliable and give a good signal and so it's entirely possible for the FIA to look at the outputs from those torgue sensors and see where everybody is, not only across engine-matched factories but also of course the variable of fuel, so if a particular engine and petroleum company has the benefit over another, then it's able to do so

and within that, it has the means, if it wishes to, to allow some equalisation for anybody that finds themselves behind in a frozen area.

**JN**: I think I need two points that I would add to that is that – Adrian mentioned it there – that there is still room and a lot of performance to be gained through the fuel and lube development which is open. Rob's already mentioned – or Pat did – about what can be done around the energy recovery systems. But to the point about whether designers feel constrained, then I think it would be reasonable to assume that if the designers felt constraint and didn't know where to go then we would see a much closer grid that we see at the moment. Mercedes have clearly put a package together that's effective in a number of areas and the rest of us are working very hard to catch up. If that were easy, we would have done it by now, so I think there's plenty to go at.

Q: (Haoran Zhao – F1 Express) Jonathan, the whole Formula One industry is crying out about the new power unit but yet at Le Mans this year we had 480bhp, six megajoul hybrid unit from Toyota and nobody from Le Mans is crying. Formula One being the peak of motor sport, what has happened and are you happy with the money that Honda is throwing in at the moment? **JN:** Yeah, I'm very happy with Honda coming back, thank you. I'm delighted about that. It was a very ambitious programme. Formula One had the option to stay with the V8 technology but the regulation makers and the teams consulted and the decision was taken to put a very advanced and efficient series together. In our first year, I think that that's thrown up some interesting challenges, many of which have been spoken about here already but we should never under-estimate the cost of development of these things and over a period of time, with stability. I'm sure that if we looked at the marginal cost of production of an engine in three, four, five years time under this level of homologation, even if there is some equalisation as Adrian discovered, unit cost of production will be very effective. What price the engine manufacturers will want to charge the teams at that point is a moot point but development cost of these vast technology things are not easy to do. We've got what we designed.

Ends