

Getting to know the Shanghai International Circuit

China is currently one of the top markets for car manufacturers. The country's urban middle class has a disposable income and a taste for cars, and companies like Ferrari, Bentley, and Lamborghini now make models just for the Chinese market.

Unfortunately, the interest in personal transport has not yet turned into an interest in motorsport. The massive grandstands at the Shanghai International Circuit are often empty, and there are persistent reports that the local government buses in disinterested spectators just to make the event appear more popular than it really is.

But despite the lack of local support, Shanghai is a circuit the drivers can really get their teeth into. Nailing the right set-up can be tricky, and the track is tough on both engines and rubber.

One of the biggest challenges at Shanghai is in setting up the car. The circuit demands downforce through the high-speed corners, but reduced drag along the two straights, the longest of which is 1.175km. The introduction of the drag reduction system should help in that regard, but given recent reliability problems with some of the rear wings, no team will put all of their eggs in that solitary basket when setting up their cars.

Much like Sepang, Shanghai is a Tilke track that permits overtaking. In past years, Heikki Kovalainen has pointed to Turns 4, 10, and 13 as likely spots to see some manoeuvres, while Jenson Button has highlighted the approach to Turn 5 and the end of the back straight as good overtaking zones. With the addition of the DRS, we should see even more overtakes than we did last year.

The clockwise circuit is known to be particularly tough on tyres, a fact which could help shake up the racing this weekend. Turns 1 and 2 are notorious for eating rubber – the load on the steering system needed to navigate the car around the near full-circle is the heaviest on the calendar, and left-front tyres grain in the long right-hander.

None of the teams have any direct experience of the Pirellis in Shanghai, and while the surface of the Chinese track is smoother than the one in Sepang, the greater cornering loads could lead to as great a spectacular as we saw last weekend. But don't pin all your hopes on a pit stop extravaganza – much will depend on the local climate, as track temperature has a vital role to play in tyre wear.

Shanghai is often a chilly and wet grand prix, but current reports indicate that the region is experiencing a warmer and dryer spring than we're used to seeing. While tropical temperatures of the sort on offer in Malaysia are somewhat unlikely, a toasty Sunday combined with hefty cornering loads could see the teams stopping more often than first anticipated.

Should the weather remain cool, however, other challenges will present themselves. Getting enough heat into the prime tyre in race conditions can be tough in China.

According to Pirelli, who will be bringing the hard and soft compounds to China, "one of the characteristics of the Shanghai circuit is heavy braking, which tends to put more stress on the front tyres than the rears. In severe braking zones, the car and tyres are subjected to deceleration forces equivalent to 5G."

The front left tyres are particularly susceptible to graining, thanks to the high lateral loads experienced in cornering. Turn 2, with its increasing radius, and the banking on Turn 13 are two of the corners that cause the most wear.

The 2010 race, which was held in changeable conditions, saw 67 pit stops – even more than we saw in Sepang last weekend.

Engine wear is another consideration for the teams. While only 55 percent of the lap is run at full throttle, thanks to the slower corners, the two long straights need as much power as the engine is willing to give. According to Cosworth, "last year, ambient conditions were such that raw engine power output was the highest of the season. A high ambient pressure of 1026 mbar, and a rather chilly air temperature of 12°C at the start of P1, meant that the conditions in 2010 worked in the engine manufacturers' favour."

The current configuration of the Shanghai International Circuit has been in use since the race's debut in 2004, and measures 5.451km. The race will last for 56 laps, bringing the total distance run to 305.066 kilometres.

The group of past Sepang winners currently racing in F1 is a relatively small one: Jenson Button (2010), Sebastian Vettel (2009), Lewis Hamilton (2008), Michael Schumacher (2006), Fernando Alonso (2005), and Rubens Barrichello (2004).

But the group of previous pole sitters is even smaller: Sebastian Vettel (2009, 2010), Lewis Hamilton (2007, 2008), Fernando Alonso (2005, 2006), and Rubens Barrichello (2004). As for fastest laps, those have been claimed by Lewis Hamilton (2008, 2010), Rubens Barrichello (2009), Felipe Massa (2007), Fernando Alonso (2006), and Michael Schumacher (2004).

The current lap record at Shanghai is Michael Schumacher's 2004 time of 1.32.238s, set at an average speed of 212.750kph.

F1 Sofa Blog - Thursday press conference in Shanghai

Facing the media for the Thursday press conference of the Chinese Grand Prix were drivers Rubens Barrichello (Williams), Lewis Hamilton (McLaren), Tonio Liuzzi (HRT), Michael Schumacher (Mercedes), and Sebastian Vettel (Red Bull).

Three of the drivers present suffered disappointing starts to the season, so it is not surprising that disappointment was high on the agenda for discussion.

First to speak was Italian driver Tonio Liuzzi.

"You said the right word, difficult, really difficult," Liuzzi said, "but we knew that from the beginning. Everything started really late. We are building the new car for this year so we knew we would not have an easy start. We went to Australia with not one kilometre in the new car and basically the first kilometre was done in qualifying so I think the result was not too bad. A step forward from last year. We understood just a bit, doing seven laps in Australia but I think we went to Malaysia with more understanding about the new car. We showed a much stronger result. For sure we have to still work hard and the team is pushing a lot. Already here we have some upgrades. We will have some more for Turkey so everything will be better. The team starts to work much more professionally so everything is going in the right direction.

"I think we will be close in this race," he continued. "We will close the gap even more in the next few races. The car and the team are growing. The developments should be coming soon so it will depend also how other teams will react in these next few races. Virgin is the closest team with whom we have a gap who we could fight. Lotus made a big step forward but our intention is to grow more and more this year and to put the right basis for a proper 2012."

Liuzzi is confident that HRT have put the team's failure to qualify either car in Melbourne firmly behind them.

"I think it shouldn't be a problem anymore," the HRT driver said. "In Australia it was a problem as we did not have a kilometre in the car so we did not know what to expect. In Malaysia we were well under the 107 per cent and Malaysia is maybe the toughest circuit for that kind of problems. We are planning to improve the car soon and every race so we hope that we don't face any more that issue as we want to fight closer and closer with our competitors and be ahead of them soon."

But HRT are far from the only team to have suffered problems so early on. Mercedes saw its first double retirement of its present incarnation at the Australian Grand Prix, while Williams have yet to see the chequered flag.

Michael Schumacher acknowledged that all was not going to plan in Brackley.

"Well, it is natural or obvious that we had other expectations," the German driver said. "We have spoken about the reasons why a certain performance was not able to be delivered. That is where we are but in Formula One it is not the first time it has happened to me that things do not go to expectations. It is what it is and the only way to go forward is to work off your problems and that is what we are about to do right now."

The team has been trying to analyse the source of their problems, but it is an ongoing process, Schumacher said.

"Well we learned more and more about the car," the Mercedes driver revealed. "Naturally, timing after Malaysia to China there is a very short amount of time available and it is not the case that we have major upgrades for this event. We will have for other events. It is more actually to understand the car and pull out the true and complete potential. There is more potential than we have been able to show, but we haven't yet found the tweak to make use of it. You know, the secret of Formula 1 is not one particular area. It is always paying attention to all kinds of details. There are less important areas, absolutely, but we kind of try to figure out all the little bits and pieces and get them working. It is an on-going process I am afraid."

Rubens Barrichello spoke of the emotional impact of such a poor start.

"I think it would have an affect on a driver with any experience, really," the Brazilian driver said. "It is not the dream start to the year we wished we would have had. Having said that, all the time you are working hard and making the car better. By a mistake I put myself out of contention in Australia in qualifying and the race was going good until the problem again. In Malaysia it was just not there. The car was not competitive and we were struggling. I am sure it is going to be a lot better here. We have new parts, we have new things and we are hoping for a much, much brighter weekend. I think we would have qualified top 10 in the first race. The second race we were 15th and it was the best we could have achieved. Here I don't know. We just need to see how the car will develop. Without any changes I guess we can be a top 12. With the changes I hope we can be top six."

One man who has not had a disappointing start to the season is Red Bull driver and current world champion Sebastian Vettel, who has won both of this season's races from pole.

"We've obviously had two good races but we come here and we start again," the young German said. "That's the name of the game at every event, every race so surely we try to keep it going. We saw at the last race that it's getting very tight and you can take nothing for granted. Of course, the day will come when we might finish second, fifth, tenth, whatsoever but that's life. That's Formula 1.

"It's always a long weekend," Vettel continued. "Obviously you work both Friday and Saturday to prepare the cars as much as you can and ideally on Saturday afternoon you get the best position on the grid that you can get for the race. So the target, for sure, is to have a good qualifying and then ultimately have a good race because that's where you can score points. So looking back at last year's race, obviously we were not strong enough, we were struggling a little bit with the conditions but still got some points. For this year, every year is different, so we will see what we can do - but surely, as I tried to say earlier, we will try to push as hard as we can and try to get the maximum out of the car one more time, and ideally have a good result. Of course, I wouldn't mind if everything goes well and we can get another pole position or another victory."

Another hot topic of conversation was the extreme marbling we saw in Malaysia. Some drivers have claimed that the marbles were like flying bullets when they were hit by bits of rubber in Sunday's race.

“The amount of marbles or pick-up we have next to the racing line is more than what we are used to simply because we are on different tyres,” Vettel said. “We have seen this throughout testing and now in the first couple of races we have double the amount of cars on the track in the race. There are a lot of marbles but I think Pirelli is aware of that and should it become a problem I think they can get on top of it and change it. There’s nothing we have to fear. I think the amount you can see on television, as well, at the beginning compared to the end, I think the amount of marbles and pick-up is huge but as I said, I don’t think we have anything to fear.”

“I think it’s normal,” Lewis Hamilton chipped in. “In the past we had a lot of marbles in places like Montreal and of course you don’t have any run-off area, so it’s reasonably dangerous in some places there but now we have it more at other circuits – most of the circuits – but I don’t think it’s bad. I’ve tried overtaking a little bit. These tyres, OK, when you do go onto the marbles, you lose a bit of grip and it’s not that easy to clean them up as perhaps it was in the past but that’s racing. I don’t see any danger whatsoever.”

As usual, Red Bull’s pace was another subject of discussion.

“I think a lot of factors come into it,” Hamilton said. “My guess is in the last race they had to probably cool their car a lot more so they probably lost a bit of time there. Whether or not they had as good a KERS or as much KERS as us I don’t really know. It was close there but I am sure that they will be back on top form this weekend and have even more pace than they did in the last race. Whether or not we will be as close as we were in the last race we will find out here. Race pace tends to be quite similar to theirs; it is just generally in qualifying they seem to have an advantage.”

Vettel confirmed that Red Bull was aiming to run KERS again this weekend.

“I think I said many times that KERS is an advantage this year so to run KERS will actually help you if you’re looking for lap time and performance,” the world champion said, “because compared to two years ago, you obviously don’t have any flexibility or any advantage to get by moving the weight distribution and so on. Your hands are tied this year so it makes sense to run KERS and it’s our target obviously. We were not proud not to have it in Australia. We were, for the majority of the weekend, able to run it in Malaysia and within that short amount of time I think we made a big step. Obviously now we’ve only had a couple of days but the guys again have been pushing very hard and I’m confident we will have it in the car, that’s for sure and I’m confident that it will work all weekend this weekend. Yes, we will be using it tomorrow – and Saturday and Sunday, I hope.”

FI Sofa Blog – Components, upgrades, and aero packages in Shanghai

With barely a moment in which to catch their breath between races, upgrades in Shanghai are thinner on the ground than they will be in Istanbul early next month. As usual, the teams have been evasive when it comes to supplying the media – and their competition – with information about new parts being tested for Sunday’s race.

Speaking before the teams landed in China, McLaren team principal Martin Whitmarsh admitted that the Woking outfit would be running a range of new parts on Friday. “We’ll be spending Friday evaluating a number of new components alongside our regular tyre and set-up programmes,” Whitmarsh said. “We have a number of new parts that we want to evaluate on Friday – either for potential incorporation into our programme for the Shanghai race, or as part of longer-term development strategy.”

Over the course of Friday’s running it emerged that the new parts in question comprised a new floor, a new wing, and a revised exhaust configuration. Speaking in Thursday’s driver press conference, Lewis Hamilton explained that the upgrades being run this weekend have been seen before.

“With the upgrades,” Hamilton said, “they were upgrades that came to the last race but didn’t particularly work and so it is just an attempt to try and get them to work as there is a decent amount of potential. But whether or not we will get it done and we make it work who knows – but it will be something we will continue to work on.”

Ferrari are pushing hard to improve on their disappointing start to the season, and are evaluating a seemingly endless stream of aerodynamic configurations in an attempt to get the most out of their car. Fridays for the Scuderia currently involve flo-viz paint and a lot of sealed lips.

Team principal Colin Kolles said that HRT are bringing small upgrades to Shanghai which will later form part of a more substantial revised package for Istanbul. “We will have small improvements regarding the rear wing and, overall, aerodynamic improvements,” Kolles said. “So there will be small improvements which are all part of the update package for Turkey.” Driver Tonio Liuzzi referred to minor upgrades in the Thursday press conference, but did not elaborate further.

Force India has an aero update for this race, but the team is not going public with any further detail. Similarly, Williams have confirmed that they are running a new exhaust on Rubens Barrichello’s car, but are not saying anything more about new parts. However, Sam Michael did announce that both of his drivers will be fitted with new engines before Saturday’s qualifying session.

Renault arrived in China with a new-spec front wing, but Nick Heidfeld managed to destroy his during Friday practice.

According to Michael Schumacher, Mercedes have not had time to upgrade their car. “After Malaysia to China there is a very short amount of time available and it is not the case that we have major upgrades for this event,” the German driver said on Thursday. “We will have for other events. It is more actually to understand the car and pull out the true and complete potential. There is more potential than we have been able to show, but we haven’t yet found the tweak to make use of it.”

Red Bull, Sauber, Toro Rosso, Lotus, and Virgin were tight-lipped about upgrades this weekend.

F1 Sofa Blog – F1 in Shanghai

Red Bull were fastest on an overcast Friday morning in Shanghai. Sebastian Vettel topped the F1 timesheets with a 1.38.739s, six-tenths ahead of his teammate. The gap from Vettel to Lewis Hamilton in P3 was an astounding 2.1s.

McLaren driver Jenson Button suffered overheating problems with his KERS unit in the latter stages of the free practice session, and neither he nor Hamilton were able to get within reach of the Red Bulls once Vettel and Mark Webber had begun setting timed laps.

The next fastest man on the track was Renault's Nick Heidfeld, who was in P5 despite crashing his car after only 5 timed laps. Heidfeld lost control over the kerbs at Turn 10 and smacked into the tyre wall. He was uninjured, but the car was in no condition to get back on track. Teammate Vitaly Petrov managed 16 laps, and ended the morning in P9, roughly a quarter of a second slower than Heidfeld.

Ferrari spent the morning concentrating on aerodynamic tests, in an echo of the Friday sessions in Malaysia, and neither driver set a timed lap for much of the morning. Instead, the 150° Italia could be seen circulating with flo-viz paint while testing different front wing configurations. While times were not of the essence for the Scuderia this morning, Felipe Massa was in P6 on the timesheets, three-tenths slower than Hamilton, and Fernando Alonso was in P12, four-tenths down on his teammate.

Sauber saw rookie driver Sergio Perez end the morning in P7, 2.5s down on the Red Bulls, while Kamui Kobayashi finished in P19, 2.5s slower than his teammate.

Williams had a decent showing this morning, with Pastor Maldonado ending the session in P8, but Williams' recent problems all seem to have been race-based, with the team showing decent pace in practice. Maldonado's session drew to a close slightly ahead of schedule, when a spin at Turn 5 left him beached astride the kerbs. Rubens Barrichello ended the day seven-tenths down on his rookie teammate.

Over at Toro Rosso, Daniel Ricciardo was given some seat time in Jaime Alguersuari's car. Ricciardo finished the session three seconds down on Red Bull stable-mate Vettel, but a respectable four-tenths slower than Sebastien Buemi.

Mercedes are having trouble getting performance out of their car, and this morning was no exception. The German team had an unremarkable – if slowish – morning, and both drivers acknowledge there is work to be done before they can be competitive. Nico Rosberg explained that the rear wing still isn't working as expected, but it is unlikely the team will have a fix before the circus returns to Europe.

Nico Hulkenberg was in Adrian Sutil's Force India this morning. He acquitted himself well, and squeaked ahead of Paul di Resta on the timesheets. The two men were separated by the Lotus of Heikki Kovalainen, and finished barely one-tenth apart.

It was a good morning for Kovalainen, who finished F1 ahead of a Force India, a Toro Rosso, a Williams, a Mercedes, and a Sauber, as well as the usual Virgins and HRTs. Partnering the Finn was reserve driver Luiz Razia, who had a minor off around the session's mid-point, causing both tyre and front wing damage to Jarno Trulli's car. Trulli was unimpressed.

Virgin's mechanics were kept busy working on Timo Glock's car for most of the morning's running. The German driver completed his first lap with only ten minutes of the morning remaining, and his short session was made shorter still by an HRT with a mechanical fault.

Shortly before the chequered flag fell, Tonio Liuzzi brought the session to a halt when he stopped his HRT out on track.

F1 times (unofficial)

1. Sebastian Vettel (Red Bull) 1.38.739s – 23 laps
 2. Mark Webber (Red Bull) 1.39.354s – 27 laps
 3. Lewis Hamilton (McLaren) 1.40.845s – 21 laps
 4. Jenson Button (McLaren) 1.40.940s – 22 laps
 5. Nick Heidfeld (Renault) 1.40.987s – 5 laps
 6. Felipe Massa (Ferrari) 1.41.046s – 25 laps
 7. Sergio Perez (Sauber) 1.41.189s – 20 laps
 8. Pastor Maldonado (Williams) 1.41.222s – 20 laps
 9. Vitaly Petrov (Renault) 1.41.231s – 16 laps
 10. Sebastien Buemi (Toro Rosso) 1.41.328s – 21 laps
 11. Nico Rosberg (Mercedes) 1.41.361s – 23 laps
 12. Fernando Alonso (Ferrari) 1.41.434s – 15 laps
 13. Nico Hulkenberg (Force India) 1.41.494s – 20 laps
 14. Heikki Kovalainen (Lotus) 1.41.579s – 13 laps
 15. Paul di Resta (Force India) 1.41.610s – 18 laps
 16. Daniel Ricciardo (Toro Rosso) 1.41.752s – 20 laps
 17. Rubens Barrichello (Williams) 1.41.939s – 25 laps
 18. Michael Schumacher (Mercedes) 1.42.301s – 23 laps
 19. Kamui Kobayashi (Sauber) 1.43.792s – 20 laps
 20. Jerome D'Ambrosio (Virgin) 1.44.089s – 20 laps
 21. Tonio Liuzzi (HRT) 1.44.359s – 18 laps
 22. Timo Glock (Virgin) 1.44.438s – 11 laps
 23. Luiz Razia (Lotus) 1.44.542s – 9 laps
 24. Narain Karthikeyan (HRT) 1.45.019s – 23 laps
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F1 Sofa Blog – FP2 in Shanghai

Sebastian Vettel rounded off a successful Friday for Red Bull in China by topping the timesheets in the afternoon practice session. As is typical for a Friday, however, the timesheets do not appear to reflect each team's true pace.

While the significantly reduced gap to the McLarens behind – one-tenth, not the 2.1s we saw in the morning – might seem promising to fans of the Woking-based team, it is almost certain that Red Bull have kept some pace back for Saturday.

McLaren might have spent the day evaluating a new floor, a new wing, and a revised exhaust configuration, but it is highly unlikely that the new parts will have delivered the team a two second improvement during the lunch break. The Woking team are consistently the team closest to Red Bull, but current indications are that the current world champions have maintained – if not extended – their lead this weekend.

It was a good afternoon's running for Mercedes, whose drivers finished in P4 and P5, less than a second slower than Vettel. But given the problems the Brackley team has had so far this season, it is unlikely that the Silver Arrows made great strides in the lunch hour. Instead, given that Mark Webber was down in P10, and Fernando Alonso missed much of the session, it looks as though the times set in FP2 were not representative of anyone's true pace.

Ferrari concentrated on tyre evaluation, but their plans were affected by a hydraulics problem on Fernando Alonso's car; the Spanish driver ended up sitting out much of the session. By the end of the afternoon, Alonso had completed 17 laps, less than half the number logged by teammate Felipe Massa, whose best time put him in P6, nearly a second slower than Vettel.

Force India had a fuel pressure problem on Paul di Resta's car, so the Scottish rookie was unable to do any running in the afternoon session. But Adrian Sutil made up for lost time, and finished the afternoon in P7. Sutil's time indicates that the bulk of times set in FP2 were not representative of any car's true pace – the Force India has struggled to match the front runners throughout the season (and in winter testing), and with no real upgrades to speak of since Malaysia it is unlikely that the team have found extra seconds in their chassis.

Renault driver Nick Heidfeld had a repeat of his morning accident, and shed another front wing, this time at Turn 12. The German driver tried to make it back to the pits under his own steam, but eventually came to a halt and had to be pushed the rest of the way by his mechanics. By the time the car was ready to get back out on track, Heidfeld was reduced to 25 minutes of running time. Heidfeld and teammate Vitaly Petrov set near-identical times this afternoon. The Renault might be the only car out there showing true pace in FP2.

Sauber, Williams, and Toro Rosso made up the middle of the pack. Kamui Kobayashi was fastest of the group, with a 1.39.538s, while Sauber teammate Sergio Perez was slowest, setting a 1.39.953s. With only four-tenths covering seven drivers (and a Lotus within nine-tenths of Kobayashi), current indications are that it will be a very tight Q2 in Shanghai tomorrow.

In terms of timesheet order, Lotus were back with the other 'new' teams at the end of FP2, although both Heikki Kovalainen and Jarno Trulli were well clear of HRT's Narain Karthikeyan in P20. Kovalainen was in P18, 2.5s faster than Karthikeyan, while Trulli was in P19, and had a 1.5s lead on the Indian driver. Kovalainen was only half a second down on Perez in P17.

Following a mechanical problem in the morning session, HRT were only able to get Tonio Liuzzi out for a single timed lap in FP2. Nevertheless, the Italian driver was able to out-pace both Virgin drivers, which should bode well for the team in Saturday's qualifying session.

Virgin spotted an exhaust problem on Timo Glock's car, but the mechanics also evaluated the German driver's engine before bringing his day to a premature end. Jerome D'Ambrosio ran off shortly before the end of the session, and neither Virgin driver was able to beat HRT in the afternoon's running.

FP2 times (unofficial)

1. Sebastian Vettel (Red Bull) 1.37.688s - 34 laps
2. Lewis Hamilton (McLaren) 1.37.854s - 22 laps
3. Jenson Button (McLaren) 1.37.935s - 31 laps
4. Nico Rosberg (Mercedes) 1.37.943s - 34 laps
5. Michael Schumacher (Mercedes) 1.38.105s - 29 laps
6. Felipe Massa (Ferrari) 1.38.507s - 36 laps
7. Adrian Sutil (Force India) 1.38.735s - 35 laps
8. Nick Heidfeld (Renault) 1.38.805s - 26 laps
9. Vitaly Petrov (Renault) 1.38.859s - 31 laps
10. Mark Webber (Red Bull) 1.39.327s - 33 laps
11. Kamui Kobayashi (Sauber) 1.39.538s - 33 laps
12. Pastor Maldonado (Williams) 1.39.667s - 37 laps
13. Sebastien Buemi (Toro Rosso) 1.39.771s - 18 laps
14. Fernando Alonso (Ferrari) 1.39.779s - 17 laps
15. Jaime Alguersuari (Toro Rosso) 1.39.828s - 25 laps
16. Rubens Barrichello (Williams) 1.39.925s - 32 laps
17. Sergio Perez (Sauber) 1.39.953s - 30 laps
18. Heikki Kovalainen (Lotus) 1.40.476s - 30 laps
19. Jarno Trulli (Lotus) 1.41.482s - 32 laps
20. Narain Karthikeyan (HRT) 1.42.902s - 25 laps
21. Tonio Liuzzi (HRT) 1.43.850s - 3 laps
22. Jerome D'Ambrosio (Virgin) 1.44.008s - 35 laps
23. Timo Glock (Virgin) 1.44.747s - 12 laps
24. Paul di Resta (Force India) NO TIME SET

F1 Sofa Blog – Friday press conference in Shanghai

Friday's press conference is one for the more technical fan, as it was made up of technical directors Aldo Costa (Ferrari), James Key (Sauber), Paddy Lowe (McLaren), Naoki Takunaga (Renault), and Geoff Willis (HRT). While the assembled technical directors gave their run down of the day's practice sessions, there were far more interesting items on the agenda.

First and foremost, tyres. Everyone wants to know why the Sauber is so light on its rubber, and James Key explains that the team cleverly kept their options wide open.

"Obviously everyone had to design their cars without really understanding the tyres," Key said. "Although Pirelli did a good job of giving up front information to everyone, it was always very provisional, you had to treat it a little bit cautiously because they were still developing the way the tyres were going to be and we didn't really know until winter testing what we would get. So from our side, we wanted to try and leave our options open with the way we set the car up, as much as possible. It was a more complicated car compared to last year with the number of options of mechanical set-up and so on. And it has allowed us, to a certain extent, to adapt to using the tyres in what we feel is an efficient way. It has its downsides. In Melbourne, for example, we had to use three laps to qualify but then we were able to do one stop."

Even though Sauber and Ferrari are running the same engine and KERS units, the teams' design philosophies are so different that the Scuderia haven't been able to build in such a light touch on the Pirelli rubber.

"There are some architectural differences or let's say some influences architecturally that they have but fundamentally they are units that we put in the car," Key said. "The gearbox is probably the biggest part of what we're supplied which influences the way in which we have to deal with the car, so the rear suspension obviously picks up off the gearbox, it's our design but the pick-up points are pre-determined. ... The aero side clearly plays a huge role in this and you've got to match your mechanical and your aero together to get the car to work properly and so on, and the front suspension needs to work in tune with the way the rear of the car is so the philosophy is that it's the whole car and the parts we get supplied play a part in that, but not a huge part."

Aldo Costa agreed. "We supply the power train," Costa said; "all the rest is different, so in terms of tyre management, for example, you can have different suspension geometry, even if, as James said, starting with the pick-up points on the gearbox have to be the same so you can have different suspension geometry, different set-up as well as different aerodynamic development, so you may have a car that is easier on the tyres, thanks to the good job they have done."

One thing all of those present could agree on was that there is still a lot to learn about the Pirelli rubber.

"We are in a very, very steep learning curve at the moment and we found different surprises in different circuits and in different conditions," said Renault's Naoki Takunaga. "It is quite difficult to predict precisely how the tyre will behave at this circuit, which is again different to any other previous races or tests, so we have to see. It is quite difficult to predict."

HRT's Geoff Willis agreed that accurate predictions about tyre performance were hard to come by at this juncture.

"Certainly we are learning a lot and our experiments are somewhat complicated by the fact that we are changing the car hugely from session to session," Willis said, "as we explore the operating envelope of the car and understand the car better so some of the car balance changes that we see since Melbourne practice to here are somewhat compensated by what we have been doing with the car. Certainly we are aware that we have to start from zero again with our understanding of what the tyres are going to do and particularly how they evolve during the weekend. It is interesting to see what strategies end up on the race day given what we think we know about them on Friday and Saturday."

James Key agreed. "I think we are still learning," he said. "Predictions are kind of in the right direction but the extremes of those predictions on what is going to happen to the balance of the car is still quite tricky to predict at the moment."

Albert Costa explained that the situation was complicated by the range of factors affecting the tyres' performance.

"Track asphalt condition," Costa said, "asphalt type, but also track temperature, also car set-up, and driving style, so there are a lot of parameters to play with and quite a lot to learn. You see that in the first two races, even in the same team, there was quite a lot of difference between driver to driver, so quite a lot to learn overall."

But Paddy Lowe thinks the varying degradation levels have done a lot to spice up the action on track.

"I think it is really exciting," Lowe said, "as we have got a formula now where it seems to be panning out that the tyre wear is very, very critical. I think what is particularly interesting – great, really – a big challenge for us on the pit wall side, is you have got to manage the tyres across qualifying and the race. If you were doing four stops you have used five out of six tyres, completely consumed in the race, and how you use those tyres in qualifying has a big consequence on your race result, which we saw to Lewis' cost in Malaysia. Crucial phases of the race where he lost out were a consequence of tyre consumption that he had done in qualifying so great spectacle I think and a job for us to manage it well."

"I think most of the pace differences you see through the race are as a result of the state of the tyre at that instant," Lowe continued. "Every lap you run, the tyre is going off and sometimes at higher rates than others and different with different drivers. If you have done three laps on a tyre in qualifying, when you hit the track with it in a race you are already set back that amount. If another guy has come out on a new tyre then he is ahead of you, so I think there are phases in a race where you are quicker or slower than the people you are racing but it can come back to you depending on your tyre choices. That means the race result isn't really known until the very end as we have been seeing."

Ferrari has had a disappointing start to the season by their high standards, and Aldo Costa was grilled about his teams' efforts to get back to the front

of the pack.

The team is currently conducting an in-depth analysis to try and establish why their track data is not matching up with their wind tunnel projections, the Italian said, but there is not the panic currently being reported in the media.

“The purpose is normal: go back home and spend a few days at home between one race or another,” Costa said. “It was not an emergency going back to Maranello. It was already programmed. Of course, we have to catch up. We are quite behind, as we have seen in the first two races, so at home people are really motivated to progress and we were discussing, as usual, development programmes and which bits we can bring to the races, how many parts we can anticipate at what race and all this usual stuff. But being with a good awareness where we are at this moment in terms of performance so people are really, really pushing to catch up and really motivated to come back to the performance we would like to have.

“In the winter development, in the last test, we have tested a lot of new components and as I already said, some of them are not delivering the performance expected, so we started an investigation so we are doing correlation job between the track and the wind tunnel, trying to understand why that should be,” Costa added. “A Formula 1 car, these days, is a very, very complex aerodynamic machine so there are a lot of vortices that can interfere one with the other. It’s not only happened to us, it’s happened from time to time that developments are not bringing the expected performance. So we are doing this investigation and we think that by Turkey we should be able to answer all our questions.”

Where Ferrari appear to have slid backwards since winter testing, McLaren have made great strides forwards. Paddy Lowe explained.

“I think that quite honestly, our ambitions exceed our ability to deliver,” Lowe said, “so fairly late on, through the winter testing, we realised we needed to regroup and consider a different design, something that we would actually know how to make and get on the car reliably. I think it’s also worth pointing out that the car was desperately unreliable, actually, through the tests in February but not all as a consequence of this subject that we’re talking about, so we had a range of issues which we fortunately managed to sort out. On the exhaust philosophy, we jumped ship, effectively, to a new design concept. ... It’s not always easy to look at what other people are doing and say ‘OK, he’s quick, let me just copy what he’s doing’, because a lot of these things are a consequence of actually, at times, years of development and a philosophy that gets you performance that’s unique to the style of your team.”

Finally, Geoff Willis went into detail about the development of HRT’s F111.

The car “has had a very short gestation period,” Willis said. “We started the design only in mid-December and it is 75-80 percent a new car, and we clearly have had to take a number of short cuts in terms of its aerodynamic performance. We have got a very limited CFD programme, so one of the things we have been doing over the three race events is exploring the aero map. We don’t have the sort of level or aero map we would expect to have to optimise the set-up of the car, so we are playing a lot with ride-heights and spring-rates, all sorts of things, to try and reverse engineer what we have got with the car.

“At the same time we have got quite a new group of people in the garage, so there is a lot of learning to be done there,” Willis continued. “Usual sort of mistakes and quick improvements. It is very impressive, in fact, over the last three race weekends how quickly it has all come together. We did have quite an experienced group of individuals designing the car but they hadn’t worked together and they were certainly working in a distributed network and we have got a new group of people in the garage. Again, I am very pleased that almost on a session by session basis we make the car faster, we make decisions better. We still make mistakes, but I hope we learn from them. It is difficult to say whether it is better or worse than I thought. Starting from the restrictions we had I think we have done an extremely good job but we are all very determined to do a much, much better job. Looking back, there is a lot behind us and looking forward there is a lot in front of us and we just need to keep pushing every session, every race and bringing bits as fast as we possibly can. And building the team, growing as we go.”

F1 Sofa Blog – FP3 in Shanghai

Sebastian Vettel topped the timesheets yet again on a slightly chillier Shanghai morning. Two-tenths behind the current world champion was McLaren driver Jenson Button, with teammate Lewis Hamilton a further two-tenths down.

Vettel’s Red Bull teammate, Australian driver Mark Webber, finished the morning in 15th on the timesheets. Webber was only able to get five laps under his belt in FP3; he spent the bulk of the session sitting in the garage having been sidelined with an electrical problem thought to have its roots in his KERS unit.

Vettel has dominated the Chinese race weekend thus far, and FP3 was no exception. With each timed lap that he posted, the young German driver popped up at the top of the timesheets, dethroning all who dared to be fastest. Depressingly for the competition, Vettel’s first timed lap – set half-way through the session – saw the young German nearly nine-tenths clear of the other times. Making it worse, the RB7 was shod in hard rubber at the time.

In Sebastian Vettel’s hands, the RB7 has been blisteringly quick at every circuit, and Shanghai is no exception.

While other drivers briefly took a turn at the top of the timesheets, the real meat of FP3 came in the final stages, when drivers took to the track on soft rubber in an attempt to squeeze one final qualifying simulation out of the practice session.

Times fell, as they are wont to do, and Nico Rosberg had a decent spell at the top of the timesheets, but when the chequered flag marked the end of the session, the results were as they’ve been all season: Red Bull fastest, McLaren a bit slower, everyone else behind, with a Ferrari in P5.

Of course, FP3 results mean very little. The times set this morning are nowhere near as important as the times set in qualifying later on today. What is important are any accidents or mechanical issues that can be carried over to the afternoon and run the risk of ruining a driver’s weekend.

To that end, Red Bull’s mechanics are going to have a long hard lunchtime slog if they want to ensure that both the team’s drivers have access to a

working KERS unit in Saturday qualifying.

FP3 times (unofficial)

1. Sebastian Vettel (Red Bull) 1.34.968s - 13 laps
2. Jenson Button (McLaren) 1.35.176s - 15 laps
3. Lewis Hamilton (McLaren) 1.35.373s - 14 laps
4. Nico Rosberg (Mercedes) 1.35.677s - 18 laps
5. Felipe Massa (Ferrari) 1.35.818s - 17 laps
6. Fernando Alonso (Ferrari) 1.35.971s - 15 laps
7. Vitaly Petrov (Renault) 1.36.098s - 18 laps
8. Adrian Sutil (Force India) 1.36.125s - 15 laps
9. Michael Schumacher (Mercedes) 1.36.141s - 14 laps
10. Paul di Resta (Force India) 1.36.370s - 18 laps
11. Nick Heidfeld (Renault) 1.36.404s - 16 laps
12. Kamui Kobayashi (Sauber) 1.36.582s - 18 laps
13. Sergio Perez (Sauber) 1.36.596s - 17 laps
14. Sebastien Buemi (Toro Rosso) 1.36.717s - 16 laps
15. Mark Webber (Red Bull) 1.36.896s - 5 laps
16. Jaime Alguersuari (Toro Rosso) 1.36.953s - 14 laps
17. Rubens Barrichello (Williams) 1.37.007s - 20 laps
18. Pastor Maldonado (Williams) 1.37.304s - 18 laps
19. Heikki Kovalainen (Lotus) 1.38.176s - 12 laps
20. Jarno Trulli (Lotus) 1.38.739s - 12 laps
21. Timo Glock (Virgin) 1.39.938s - 17 laps
22. Jerome D'Ambrosio (Virgin) 1.39.998s - 16 laps
23. Tonio Liuzzi (HRT) 1.40.593s - 17 laps
24. Narain Karthikeyan (HRT) 1.40.881s - 18 laps

F1 Sofa Blog – Q1 at the Chinese Grand Prix

As Q1 gets underway at the Shanghai International Circuit, tyre choice is what separates the men from the boys.

Front-running teams confident in their pace can get out of Q1 on hard tyres, while the more marginal mid-field contenders need to decide whether they need to sacrifice a precious set of soft tyres to ensure a place in Q2.

Early on in Q1, McLaren's Lewis Hamilton set the fastest lap on a set of hard tyres, while Williams and Toro Rosso have had to make the soft tyre gamble to improve their chances of a slot in the next session.

Ferrari is another team concerned that their drivers will not make the Q2 cut-off point, and have shod both drivers in the soft rubber to improve their lap times. This is an unusual decision for a team of Ferrari's stature, but there is no denying that the Scuderia have struggled – by their standards – in qualifying so far this season. In order to give Fernando Alonso and Felipe Massa the best possible starting point from which to capitalise on their fairly strong race pace, the pit wall is having to break tradition in qualifying.

While Q1 in 2010 automatically meant the six cars from the new teams plus one unlucky extra, Lotus are not making it quite so easy this year. Over the last few races the Norfolk-based team has reduced the gap to the midfield to around half a second, a manageable gap, especially if the competition is having a bad day.

It was a tough qualifying session for Mark Webber, whose KERS unit failed early on in this morning's practice session. The Australian driver was only able to get 5 laps under his belt as a result of the KERS failure, and his mechanics have been unable to repair it over lunch. A KERS-less Webber used the hard tyres to try and secure his place in Q2, but his efforts did not bear fruit.

Thanks to a combination of a lack of running, no KERS, and the wrong tyre choice, Mark Webber joins 2010's 'new' teams in the Q1 drop-out zone.

Drop-out zone

18. Mark Webber (Red Bull)
19. Heikki Kovalainen (Lotus)
20. Jarno Trulli (Lotus)
21. Jerome D'Ambrosio (Virgin)
22. Timo Glock (Virgin)
23. Tonio Liuzzi (HRT)
24. Narain Karthikeyan (HRT)

F1 Sofa Blog – Q2 at the Chinese Grand Prix

The big news as Q2 gets underway at the Shanghai International Circuit is that Red Bull driver Mark Webber was knocked out in Q1. The Australian driver completed his qualifying laps on hard rubber and without KERS, and was severely disadvantaged as a result.

In other Q1 news, none of the teams fell foul of the 107 percent rule, and Sunday's grid will be made up of 24 drivers.

Rubber is key this afternoon, and the pit lane seems to have learned from Webber's mistake. Ferrari have sent both drivers out on used soft tyres for their first Q2 lap, while Sebastian Vettel is also using the option compound in this session.

With no rain yet this weekend, track conditions are improving with every lap. As a result, the timesheets are changing every time someone crosses the finish line. Decent laps set at the start of the session are anything but safe, and the smart money is on saving a set of soft tyres until the final few minutes of the session, and gambling on a flying lap free of traffic to get them into Q3.

It will be a busy end to the session as teams try to benefit from the improved track conditions, but traffic will be king, and we could see more upsets on the grid.

Shanghai's practice sessions have shown that it is very tight in the middle of the pack – on Friday, nine-tenths of a second covered the spread from Kamui Kobayashi in P11 to Heikki Kovalainen in P18.

Mark Webber's Q1 elimination has shown that no one is safe, and the mid-field teams of Williams, Sauber, Toro Rosso, and Force India are currently fighting for their Q2 lives. But even the likes of Renault, Mercedes, and Ferrari are concerned.

Vitaly Petrov stopped his Renault on track with only two minutes remaining of the session, bringing out the red flags thanks to an apparent hydraulics failure. Petrov had just completed a strong flying lap, and could make it through to Q3 on the strength of his time, but Renault teammate Nick Heidfeld has yet to set a time.

There is now no doubt whatsoever that traffic will play a vital role in the final minutes of Q2. Once the pitlane is reopened, there will be a long queue of drivers who have yet to set a time. There is just enough time remaining in the session for one more flying lap, and the other cars on track will make the difference between dropping out in Q2 and make it through to Q3.

With the session restarted, the queue to get out on track resembles the M25 in rush hour. With much more expensive cars, naturally. Everyone is desperate to get that one lap in, and there's a lot of fighting for space and position to give them the best possible advantage on their one-lap opportunity.

Avoiding the chaos are Sebastian Vettel, Lewis Hamilton, and Jenson Button, who are confident their times will see them through to Q3.

Paul di Resta continues his out-qualifying Adrian Sutil streak, and makes it into Q3 for the first time in his F1 career on his 25th birthday. Not a bad present, all things considered, even if he did have to earn it.

Drop-out zone

11. Adrian Sutil (Force India)
12. Sergio Perez (Sauber)
13. Kamui Kobayashi (Sauber)
14. Michael Schumacher (Mercedes)
15. Rubens Barrichello (Williams)
16. Nick Heidfeld (Renault)
17. Pastor Maldonado (Williams)

F1 Sofa Blog – Q3 at the Chinese Grand Prix

The Q1 surprise was the elimination of Mark Webber, and the Q2 surprise was Vitaly Petrov's red flags with two minutes left on the session clock. Petrov unwittingly ruined a lot of flying laps – including that of his teammate – and the Q2 eliminations were shaken up as a consequence.

Petrov will be starting from P10 on the grid, as he qualified for Q3 but his car was unable to run in the session, so there are now only nine men left competing for grid slots for Sunday's Chinese Grand Prix.

The tyre compound of choice for Q3 is the option rubber, as usual. The softer tyre is worth an extra second per lap, making it the obvious choice at the end of qualifying.

Lewis Hamilton spends much of the session sitting in the garage, leaving it till the final stages to complete his flying lap. The Briton's Malaysian race was negatively impacted by a lack of fresh soft rubber, and McLaren appear to be keen to save a set of options for Sunday's race. Force India, Ferrari, and Mercedes look to be on a similar strategy.

Sebastian Vettel sets a provisional pole lap that sees him with nearly eight-tenths in hand, but the RB7 looks to be capable of even more.

The final few minutes of Saturday's qualifying session sees the track fill up with men on options. There's a combination of old and new rubber on track, which will severely impact lap times.

Hamilton's only shot puts the McLaren driver in P3, out-qualified by his teammate for the first time this season. Vettel holds pole, with Jenson Button completing the front row. Nico Rosberg will line up in P4, with the Ferraris of Fernando Alonso and Felipe Massa behind on row three. Jaime Alguersuari and Paul di Resta are on the fourth row, while Sebastien Buemi and Vitaly Petrov round out the top ten.

Provisional grid

1. Sebastian Vettel (Red Bull)
 2. Jenson Button (McLaren)
 3. Lewis Hamilton (McLaren)
 4. Nico Rosberg (Mercedes)
 5. Fernando Alonso (Ferrari)
 6. Felipe Massa (Ferrari)
 7. Jaime Alguersuari (Toro Rosso)
 8. Paul di Resta (Force India)
 9. Sebastien Buemi (Toro Rosso)
 10. Vitaly Petrov (Renault)
 11. Adrian Sutil (Force India)
 12. Sergio Perez (Sauber)
 13. Kamui Kobayashi (Sauber)
 14. Michael Schumacher (Mercedes)
 15. Rubens Barrichello (Williams)
 16. Nick Heidfeld (Renault)
 17. Pastor Maldonado (Williams)
 18. Mark Webber (Red Bull)
 19. Heikki Kovalainen (Lotus)
 20. Jarno Trulli (Lotus)
 21. Jerome D'Ambrosio (Virgin)
 22. Timo Glock (Virgin)
 23. Tonio Liuzzi (HRT)
 24. Narain Karthikeyan (HRT)
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F1 Sofa Blog – The post-qualifying analysis

Wasn't that a turn-up for the books?

Sure, Sebastian Vettel's on pole with a McLaren next door, but the rest of the day's results were anything but predictable. Until you get down to P19, that is.

If ever there was a day of mixed results for Red Bull, that day was today. While Vettel's pole lap seemed effortless, teammate Mark Webber was knocked out of qualifying in the first session, thanks to a combination of bad luck, bad timing, and the wrong tyre choice.

"We all thought we were going to get enough laps in on the prime to get the two timed in," Webber said, "but we were a bit late going out, and they were the wrong tyre as well. The timing was the problem, not the tyre."

But there was more to Webber's bad day than just tyres and timing. The Australian driver's KERS failed during FP3, leading to severely reduced running time and a hefty workload for the mechanics. Webber then had to attempt to qualify without KERS, and for reasons unbeknownst to anyone the team elected to send him out on the harder tyre compound.

Running the hard tyre in Q1 is generally a no-brainer for the faster cars. They tend to have enough of a speed advantage that they can safely make it through to Q2 on the primes, and the more unused soft sets a driver has for the race, the better. But Webber's situation was somewhat different. Disadvantaged by the lack of KERS and the lack of set-up time, the Australian had already seen a close shave in Malaysia when setting qualifying times on the hard rubber. Instead of learning from that mistake, Red Bull was doomed to repeat it, this time with consequences.

While it will be a tough race for Webber, fans should benefit. With or without KERS, the RB7 is a fast beast of a race car, and we should see lots of overtaking tomorrow as the Australian carves his way up through the field.

McLaren had a decent run this afternoon, with both drivers qualifying in the top three. With Vettel seven-tenths clear of Jenson Button in P2, the boys from Woking have yet to catch up with the current world champions. But they're the closest competition Red Bull currently has, and they are being consistent in qualifying. With the right strategy in tomorrow's race, at least one of the two McLarens should finish the day on the podium.

"We are in quite a strong [tyre] position: the options I just qualified on, a new set of options and a new set of primes and a decent set of options as well," said Lewis Hamilton. "I just wanted to increase chances for the race because that is what counts. The strategists say it is quite simple but the race is never simple, you have the start, all the stops you want to do, and looking after tyres. It will be tricky again tomorrow but I want to put myself in a decent spot. I feel I am in position to have a good opportunity in the race. I didn't have the best opportunity last race."

While their day wasn't quite as divided as Red Bull's, Mercedes was another team to see a mixed bag of results on Saturday afternoon. Michael Schumacher was knocked out in Q2, as appears to be a habit this year, while Nico Rosberg pretended it was 2010 all over again as he put the car into a grid slot that by rights it didn't deserve.

Before last year, Rosberg was one of the grid's most underrated drivers. But having spent a season beating Schumacher into a cocked hat, it is safe to say that Mercedes' young driver is growing in confidence and skill. His aim for tomorrow is to pressure the cars in front: "I think I can put some pressure on them," Rosberg said. "Why not? We'll see."

Whether or not he will be able to achieve that aim is another matter entirely. The Red Bull is so fast it's barely in the same race as anyone else, while

the McLarens share an engine and KERS unit with the MGP W02. Rosberg won't have a straight line speed advantage over Button or Hamilton, and even if he got an excellent start and found himself staring at the back end of Vettel's RB7, he won't be able to touch him in the corners. Maintaining P4 throughout the race would be an achievement, given that he will be lining up ahead of two prancing horses.

According to Fernando Alonso, Ferrari's qualifying was the best the team could have hoped for. "I had not expected much more than this from qualifying," the Spanish driver said. "Fifth and sixth places represent the maximum we can aspire to in our current situation. We already knew all about Red Bull and McLaren, but here we saw an improvement from Mercedes, so the situation is now even more difficult."

While the Scuderia might not have hoped for anything beyond the third row on Saturday, Alonso and teammate Felipe Massa should prove to be a formidable force in Sunday's race. The 150° Italia has decent race pace, and doesn't seem to be too hard on its tyres, although it lacks the ethereal touch of the Sauber.

Both Ferrari drivers are under enormous pressure to deliver a podium before the F1 circus returns to Europe, and they will be making the moves on Rosberg, Hamilton, and Button as soon as the lights go out. I would not be surprised to see a pincer movement from the pair as they attempt to make up ground by the first corner, squeezing the opposition into submission.

While Toro Rosso got both drivers into Q3 this afternoon, they acknowledge that some of their success was due to Vitaly Petrov's red flags Q2, which fell at the perfect time for the team. After the session, technical director Giorgio Ascanelli said "although what happened to Vitaly was unfortunate, I can't say I feel sorry for him because it has given us a chance to be ahead. Can we stay ahead in tomorrow's race? That's another story. The weather forecast is currently stable, but if there was to be any rain or anything else unpredictable happening, then starting ahead can be an advantage."

Toro Rosso will have to contend with Force India driver Paul di Resta and Renault's Petrov; the four drivers will be making up the fourth and fifth rows of the grid. Based on past performance, the Renault has the speed advantage over both Force India and STR. But di Resta will be eager to capitalise on the first top ten result of his career, and the smart money is on some aggressive defending from the young Scot, who will be unwilling to cede places off the start.

Adrian Sutil could be the surprise of the afternoon. Provided the race starts in the dry, as has been forecast, he will be desperate to improve on his P11 qualifying slot. And as the first man on the grid with a free choice of rubber, he will be in the ideal position to capitalise on his fresh tyres and make up places off the start. Sutil has been out-qualified by his rookie teammate at every race thus far, and he needs a strong performance this weekend to silence the critics.

Renault were the cause of today's non-Webber related qualifying upset, and overall the team fared rather better than their competition as a result. Nick Heidfeld might have been out in Q2, with a flying lap cut short by his teammate, but Petrov made it into Q3. And the silver lining in Renault's cloud is their tyres. Thanks to Petrov, both Renault drivers now have an extra set of unused soft tyres for the race. That, coupled with their straight-line speed and some tactical driving, should make the Enstone team a force to contend with tomorrow.

Sauber are another team who think their qualifying was impacted when Petrov stopped on track in Q2. The Swiss team has seen a man in Q3 at every race so far, so they probably have a point. But wherever Sauber qualify, they are a serious Sunday threat. Pirelli can't understand why the C30 is so much lighter on rubber than any of the other cars in the field, but it doesn't take much analysis to see that longer runs and fewer stops should give Sergio Perez and Kamui Kobayashi an advantage over the men around them.

Williams continue to struggle, and today's qualifying session was no exception. Both drivers were out in Q2, as has been the case all season, but poor Saturdays have been eclipsed by ghastly Sundays - neither Rubens Barrichello nor Pastor Maldonado has seen the chequered flag in 2011. Expect a cautious start to tomorrow's race from both men. Given that the Grove outfit is desperate to finish a grand prix, neither driver will want to get caught up in any trouble off the line. At this point, a finish is more important to team morale than the actual finishing order.

Currently in a class of its own is Lotus - the team is significantly faster than HRT and Virgin, but not fast enough to challenge the mid-field. Their focus tomorrow will be reliability, as they have not seen both cars to the chequered flag yet this season. Heikki Kovalainen showed last week that he can comfortably run the T128 with the mid-field given the right start, and with the traditional chaos off the line he and teammate Jarno Trulli could repeat the feat this week.

Virgin and HRT set similar times in Q1, and both teams had a margin of over one second to the dreaded 107 percent cut-off point. Neither team is likely to cause much of an upset in Sunday's race, but expect to see them fighting for supremacy at the back of the track. There are old scores to settle between the two teams, neither of which wants to be on the bottom of the pile when the chequered flag falls on the 2011 season.

F1 Sofa Blog – Saturday press conference in Shanghai

A surprising Saturday in Shanghai was rounded off by the post-qualifying press conference featuring the three fastest men of the afternoon. Surprising no one, Red Bull's Sebastian Vettel took pole. Joining Vettel were McLaren drivers Jenson Button and Lewis Hamilton.

Vettel's run of pole positions is such that he has started directing his post to P1, [insert circuit here], F1 circus, Worldwide. Only three races in to the season, and Saturdays have already got a definite hint of *dèjà vu*.

Button and Hamilton were asked whether they found his seemingly endless success to be demoralizing, but Button knows not to get depressed - he has seen it all before.

"I've been racing in F1 for twelve years," Button said, "and more often than not there's a guy up the front - he was normally wearing red. It's the way Formula 1 is, it's a very competitive sport and if you look at the last five years there's been a different World Champion every year and we've got to try and make sure that this one in the middle here (Sebastian Vettel) doesn't walk away with it this year. But it's not depressing because you work as a team, you win as team, you lose as a team and we are just going to fight as hard as we can, to get everything out of this car and more and really take

the fight to Red Bull which is tough at the moment but it's three races in, there's another 16 races to go – well, there's actually 17 races to go.”

“We're doing our best to catch up,” Hamilton added. “It's encouraging for us to have been on the first and second row for the first three races, considering where we were in winter testing. I think we're happier than we could have ever have hoped at this point of the year. It's clear, since God knows when – since 2009 – that they've had a ridiculously fast car, a great job done by the team and Sebastian and so we are pushing as hard as we can to close the gap. It is possible but I'm sure it will take several races, probably, before we get to where they are now, but I'm sure they will also make many, many steps forward, so we will continue in the chase, and hope that our development rate can be as fast as theirs, if not better.”

“There are 24 of us on the grid,” Button chipped in, “and there's only one person that's ever going to be completely fulfilled with their race result and that's the way Formula 1 is, it's all about winning. We are in a better position than anyone else on the grid to challenge the Red Bulls. We should be happy with that and what we've achieved so far this year. [McLaren] is a team that will never give up. They've fought for so many World Championships and they have the resources, they have the manpower and they have the passion to really fight for this and they will do everything they can to make sure that we catch Red Bull sooner rather than later.”

And Vettel is well aware that behind him are 22 men waiting for Red Bull to make a mistake, to slow down enough that the cars are within reach on Saturdays and beatable on Sundays.

“We have to go step-by-step,” Vettel said. “As I said, teams like McLaren, Ferrari and Mercedes, obviously they are not as happy as they want to be and they are pushing very hard, so to stay where we are, we have to push harder than them to stay there, so we are all aware of that. Since halfway through 2009 we have had a very, very competitive car and we enjoy running at the front but we still haven't forgotten how it feels to run at the back, not only finishing fourth, fifth, sixth, even further down. That's Formula 1, just as Jenson says, it's competitive. Sometimes you might be in a comfortable situation, other times it will be very tight and other times you will be behind but then again, there are so many races left and so many things can happen. I can't predict the future.

“Overseas it's pretty difficult to react,” Vettel continued. “I think once we go to Europe – I think it's the same for everyone – then it's a bit easier to bring the parts, customs are less strict. It makes our life or the team's life much easier. I think that to stay where we are now we have to keep pushing hard because I can assure you, people like McLaren, Mercedes or Ferrari, for sure they are not resting at this stage, so we have to keep pushing at least as hard as they do.”

Few would have predicted that Vettel's Red Bull teammate, Australian driver Mark Webber, would have been eliminated in Q1 in Shanghai. Vettel was asked to comment on Webber's bad day.

“It's true Mark did not have a good day,” the Red Bull driver said. “Already this morning he had some problems and in qualifying it was quite a shame as I think the car is quick enough. He has had a tough weekend so far so it is a shame that we are not both up there. But I think he improved the last race pretty well from where he was after the first lap so I hope he has a good race. ... It is quite a shame for Mark as he was quick. He didn't really have a smooth weekend. He had some problems. I think in the end it was tight with the timing and he went out on a set of hards, of primes, and as you said tyre management, the way you bring the tyres in, can be important and the hard tyre is probably not as easy as the option. Not much he was missing, but it is shame that we could not have both cars up there but looking at myself obviously very happy.”

One of the key topics of conversation in the press conference was tyre management and strategy, stemming from Hamilton's decision to do a single run in Q3.

“The reason behind it was clearly the last race showed how important it is to have fresh tyres during the race,” Hamilton said. “Obviously we would have a used option if we are doing a three stop. In the last race I only had two options I could use and then I had a new prime and an old prime. I wanted to make sure I had plenty of fresh tyres so we are in quite a strong position. I have got the options I just qualified on, a new set of options and a new set of primes and a very decent set of options again. Just tried to increase the chances for the race as that is where it actually counts.

“The strategy is quite simple,” he continued, “but obviously the race is never simple: you have the start, you have all the stops that you need to do, you have to look after the tyres and so it's going to be very tricky again tomorrow but I really wanted to put myself in a decent spot, and I feel I am in a decent spot, and in a position to really have a good opportunity in the race because I didn't really have the best opportunity in the last race and that's what caused the result.”

Hamilton's teammate thinks that strategy could give the 2008 world champion the advantage in the race.

“Obviously Lewis is in the best position in terms of tyres,” Button said, “but Sebastian and myself have done only two laps on our other set of options, the one that would have been new, so for me it was important to get position on the grid for the race. After Q2 I thought it was possible to get pole position. Obviously that was way out of reach but I thought there was an opportunity and I felt that it was better to use both tyres in Q3 and get the best out of the car. Unfortunately the end of Q3 I couldn't actually go any quicker. I actually lost time on my last set so we aborted it.”

But Vettel was unconcerned by his rival's tyre strategy.

“I don't know how many sets [Hamilton] has left,” Vettel said. “Obviously he saved a set of options which can be important but the main thing is that you know your tyres are in good shape and I think we did a very good job. We did what was necessary. In hindsight with the qualifying system we have had now for quite a while it is very easy to save a set of tyres and then not making it and then you miss out more than probably starting the race with a set less or a scrubbed set rather than a new set.”

Red Bull's use of KERS was another item on the agenda, following Webber's KERS failure in FP3.

“We don't really know what [Vettel's] pace in the race is going to be like,” Button said. “If he's a second quicker, it's definitely not possible to race with him, whereas if he's four tenths quicker normally and then we have KERS, it's possible. I don't know. We've got to see where we stand tomorrow. If you're talking about the start, there's a very short period before turn one, it's going to be very difficult to get past, even with KERS, if Sebastian doesn't run it, which I'm sure they will. But during the race, I think they're quick anyway. If you look at Malaysia, a lot of the race he didn't use KERS and his

pace was still very good.”

Vettel confirmed that he would be using KERS on Sunday. “Looking at us our KERS was running and we were using it and we will be using it as well tomorrow from the start,” he said. “It is important I guess against those two red or silver or whatever guys.”

Finally, Button pointed out that the DRS zone has been changed for Sunday’s race.

“The line has changed,” he said. “When I woke up this morning and got in, I noticed that the DRS position has changed on the circuit. It was 900-odd meters, now it’s 750 before the last corner. 752 meters. It matters where you brake. Well, it doesn’t really, does it? It’s still pretty difficult to overtake round here, even with the DRS. A lot of it depends on the wind as well in terms of gear ratios. You’ve got to get a very good exit out of turn 13 to really tow up to the car in front and you’ve also got to be close enough to the car in front.”

F1 Sofa Blog – The Chinese Grand Prix as it happened

Bit of a pre-race drama for McLaren, who are working on Lewis Hamilton’s car in the garage as everyone else is lining up on the grid. The problem seems to be a fuel leak, and it’s initially unclear whether the British driver will be starting from the pits. But McLaren get the job done in the nick of time, and Hamilton starts from P3 as expected.

It’s warm and sunny in Shanghai, with an air temperature of 22 degrees, and track temperature of 32 degrees. The improved conditions since yesterday will play into the hands of some teams, but might be a disadvantage for Toro Rosso, whose car appears to be at its best in cooler weather.

And they’re off!

With the lights out, Sebastian Vettel gets overtaken off the start by both McLarens, and for the first time this season the world champion is not leading every lap of a grand prix. Well, other than those laps where he pitted, anyway.

Nico Rosberg also gives it a go, but holds P4 with Vettel ahead and the two Ferraris behind.

Further down the grid, Adrian Sutil has made the most of his fresh rubber to jump a few positions, and is now staring at the back end of teammate Paul di Resta’s car. Di Resta is said to be having trouble with his rear end, but is gamely holding on to P7.

Jaime Alguersuari pits for Toro Rosso on lap 10, but doesn’t trigger an exodus. He loses a wheel on his outlap, and the young Spaniard’s day is cut prematurely short.

At the back end of the grid, Heikki Kovalainen passes the slower Williams of Pastor Maldonado. It’s a red letter day for Team Lotus.

Nico Rosberg pits on lap 13, comes back out in P10. Before the stop he was beginning to feel the pressure from Felipe Massa, whose race pace is – yet again – light years ahead of his qualifying speed.

At the head of the pack, Jenson Button still leads from Hamilton, but the younger driver is closing the gap on his teammate. It looks as though Hamilton is losing rear tyre grip, and Vettel passes him on lap 14. But seconds after passing Hamilton, Vettel and Button pit together. Vettel gets the better stop, and comes out on track ahead of Button. They rejoin in P8 and P9.

Hamilton and Massa pit together on lap 16, and the Ferrari driver comes out ahead. They rejoin in P7 and P9, separated by Sergio Perez. If today is any indication, McLaren could do with some more pit stop practice – they’ve lost both of their head-to-heads, which isn’t acceptable for a team at their level.

Fernando Alonso – who has yet to pit – is currently leading the race, with Rosberg behind. Alonso pits on lap 17, and comes back out in P9, behind Hamilton, Massa, Vettel, and Button.

By lap 19, Rosberg is leading the race. Having already pitted, the Mercedes driver holds a genuine lead, and good pit wall strategy could lead to the young German breaking his duck here in China. He has 4.5s on Vettel in P2; behind are Button, Massa, and Hamilton.

At the back end of the grid, Lotus have sacrificed a bit of speed in the first chunk of the race. The team are aiming for a two-stop strategy, and hope to finish ahead of some of the mid-field teams.

On lap 23, Alonso is lining himself up for a pass on Michael Schumacher. Thanks to the DRS, he can get close, but it doesn’t seem quite close enough. The Spanish driver is keeping the German under constant pressure, but Schumacher just won’t open the door. The battle with Alonso is causing Schumacher to lose time on Hamilton just ahead.

On laps 25 and 26, pit stop chaos ensues. Button pits, as do Rosberg and Hamilton, and while the focus is on the pit lane, Alonso manages to take Schumacher on the hairpin. Schumacher pits for fresh rubber after he’s overtaken.

At the end of lap 29, Rosberg passes Alonso up the inside on the final corner. Vettel still holds the lead, with Massa in P2 and Rosberg in P3.

Neither Ferrari pitted during the second round of stops; the Scuderia appear to be on a two-stop strategy for both drivers. It doesn’t appear to be working – Button passes Alonso at the end of lap 30 in an identical manoeuvre to the one pulled off by Rosberg a lap before.

Later on in lap 30, Hamilton overtakes Alonso, pushing the Spaniard down into P6.

On lap 32, Vettel pits from the lead, handing control of the race over to Massa. The world champion rejoins in P6, with the two Ferraris ahead yet to complete their second stop.

Hamilton is asked to look after his tyres: McLaren radio in to tell him he's got a long way to go on this stint. Are the team trying to switch him to a two-stop strategy mid-race to cover the Ferraris? With 23 laps to go, only Perez would be able to do nurse his tyres quite that long...

Lap 33 and Alonso finally pits for fresh rubber, rejoining the pack in P10, behind Mark Webber in P9. But Webber is on a charge, and makes it past Perez into P8. Because one move is never enough, the Australian immediately tries to pass Petrov for P7, but can't make it stick.

Massa pits on lap 34, and rejoins in P5, ahead of Schumacher. He appears to have cut the pit lane exit, but the stewards don't announce an investigation.

Webber is hanging on the back end of Vitaly Petrov's Renault, and finally manages to pass the Russian. Webber is now up to P7.

On lap 37, Hamilton passes his teammate for P2 on track. The two McLarens are behind Rosberg and ahead of Vettel, but appear to be on a three-stop strategy to their rivals' two.

By lap 38, Webber is gaining on Schumacher in P6. There will be a battle between the two in the next few laps.

Button pits from P3 – presumably his final stop of the day – and rejoins the action in P5. Hamilton has 15 seconds on Vettel, but that's not enough time for a safe pit stop without handing the advantage to Red Bull, who have one less stop to do.

But McLaren put him anyway, on lap 39. The Briton rejoins the action in P4, and will have a battle ahead if he wants to claim a spot on the podium come the chequered flag.

While Hamilton is in the pits Webber manages to get past Schumacher. The order is now Rosberg, Vettel, Massa, Hamilton, Button, Webber, Schumacher, Alonso.

Rosberg pits at the end of lap 39, handing the lead over to Vettel and putting himself in line for a battle with Hamilton for the podium. The German driver exits the pits with about a car length's lead on the Brit, and the battle for P3 is shaping up to be a frantic fight. The two cars have the same engine and KERS unit, and neither has an outright power advantage.

Mercedes radio Rosberg to tell him that fuel is critical: the young German can't afford to push too hard in his battle with Hamilton. The Briton is glued to the Mercedes driver's rear end, and he passes him on lap 42. Rosberg is now at risk of being overtaken by Button in P5.

But it's not all about the battles at the front. Lotus are in a battle with the Williams of Maldonado, and the team are confident they can claim a few high profile scalps this afternoon. Good luck to them!

In the middle of the pack, the Renault pair battle with Sauber's Sergio Perez. Perez comes out worst, losing a bit of his front wing in some exciting wheel-to-wheel dicing.

Hamilton takes Massa on lap 45, and moves up to P2. The first attempt didn't stick, but a ballsy move on the straight put the McLaren driver ahead of the Ferrari.

Rosberg is having a nightmare of a race. Asked to race hard and save fuel, the young German keeps locking up under braking, and cedes places as he does it. From an early lead, Rosberg is now in P5, and were it not for a sizeable gap to P6, he would have to be wary of the charging Red Bull of Webber. But with a 13 second gap and only nine laps remaining, Rosberg might be safe. Might..

Vettel's two-stop strategy might not be paying dividends. His tyres are falling off, and Hamilton is gaining around a second a lap. With only eight laps to go and just under two seconds separating the pair, we should be in for a thrilling conclusion to a very exciting race.

Button manages to get past Massa, and the podium currently looks like it will be Vettel, Hamilton, and Button. But Hamilton is gaining ground on Vettel, and the final laps are magic. Hamilton and Vettel have a thrilling lap 51 battle, but can't quite get past. F1's two ingénues are running too close for comfort, and fighting hard.

Hamilton has the DRS advantage, as the man behind, but also has fresher tyres than his opponent.]

Meanwhile, Rosberg and Massa are fighting for P4. Rosberg pushes Massa, and the Brazilian runs wide on the pit straight, handing the place to his opponent.

Hamilton is all over the back of Vettel, but can't quite get past. There are five laps remaining, and this is real edge of your seat racing.

Lap 52, and Hamilton past Vettel for the lead. McLaren radio Button and tell him they think that he can get past too. With four laps to go, anything could happen.

Meanwhile, Webber is up to P5, and all over the back of Rosberg. The Australian's 13 place improvement shows just what Aussie Grit can do when the chips are down. A truly heroic performance.

Lap 54, and Webber makes it past Rosberg. That's a 14 place improvement, from P18 to P4. And now he's got Button in his sights for a podium finish. What kind of magic is being wrought in Shanghai this afternoon? Artificial or not, this racing is absolutely stellar.

Webber is riding on Button's rear wing like he's glued to it, and he has the DRS advantage. Lap 55, and the Australian makes it past as the lap counter

ticks over. We're on the last lap of a thrilling race, and it looks like the podium will be Hamilton, Vettel, and Webber. Who would think it?

Man of the match? Mark Webber, no question. P18 to the podium, with the sort of drive we last saw from John Watson in Detroit or Long Beach back in the 1980s.

Race classification (unofficial)

1. Lewis Hamilton (McLaren) – 25 points
2. Sebastian Vettel (Red Bull) – 18 pts
3. Mark Webber (Red Bull) – 15 pts
4. Jenson Button (McLaren) – 12 pts
5. Nico Rosberg (Mercedes) – 10 pts
6. Felipe Massa (Ferrari) – 8 pts
7. Fernando Alonso (Ferrari) – 6 pts
8. Michael Schumacher (Mercedes) – 4 pts
9. Vitaly Petrov (Renault) – 2 pts
10. Kamui Kobayashi (Sauber) – 1 pt
11. Paul di Resta (Force India)
12. Nick Heidfeld (Renault)
13. Rubens Barrichello (Williams)
14. Sebastien Buemi (Toro Rosso)
15. Adrian Sutil (Force India)
16. Heikki Kovalainen (Lotus)
17. Sergio Perez (Sauber)
18. Pastor Maldonado (Williams)
19. Jarno Trulli (Lotus)
20. Jerome D'Ambrosio (Virgin)
21. Timo Glock (Virgin)
22. Tonio Liuzzi (HRT)
23. Narain Karthikeyan (HRT)

Jaime Alguersuari (Toro Rosso) RET

F1 Sofa Blog – Sunday press conference in Shanghai

For the first time this season, Sebastian Vettel had to hand over the centre chair at the post-race press conference. Lewis Hamilton won the race for McLaren, with Red Bull drivers Vettel and Mark Webber joining him on the podium.

Race winner Hamilton was on something of a high.

Asked whether he enjoyed driving that race as much as we enjoyed watching it, he replied “It was, absolutely. Every inch of the race, every second, was incredibly enjoyable. I love being able to fight with different drivers and have the battles and have them at their best. I really felt that today. Whilst the tyres were going off on some of the cars I felt they were really performing and driving very well to defend their position, so it made that even more exciting.”

It was an impressive result from a man who was at risk of starting this afternoon's grand prix from the pitlane. Moments before the cars were due on the grid, Hamilton's McLaren failed to start. The team worked hard to get the British driver out on track in time for the formation lap, but didn't let him know what was going on.

“I really didn't know [what was happening],” the McLaren driver said. “The car just wouldn't start. I was very, very curious. We have had it not start initially several times in the past so I thought it was nothing. But when they kept trying it was becoming more and more of a concern for everyone. I could see everyone was doing their best to find out what the situation was and also fix it so I didn't want to be asking questions all the time, saying 'what is going on, what's going on' so I just said 'how long have we got until the pit-lance closes?' It was six minutes at the time so I could relax really. I think I could relax at the time as I just have real confidence in the guys that they would figure it out. I didn't think it was going to be too big a problem, but it was right on the limit.

“As I was driving to the light I was nervous that just as I got to it, it would go red,” Hamilton continued, “but fortunately we got out and there was no problem. Then there was a bit of a rush on the grid with the guys but as always they did a professional job, kept their heads cool and thanks to that we are sitting here having won.”

While the end of Vettel's winning streak was high on the agenda, Webber's brilliant drive from P18 to P3 was the hottest topic of the afternoon.

The Australian driver described his afternoon in inimitable style.

“Today worked out for me,” Webber said. “I had a good feeling from the middle part of the race to 60, 70 percent of the way through the race that things were starting to come to us, so it's easy to sit here and say yeah, it was phenomenal, top-three drive, overdone, rah rah rah, but in the end, that's my job, mate, isn't it? You've just got to get your head down, arse up, and get into it – so that's what I did.

“It was obviously a very interesting grand prix for me,” Webber continued. “We decided to get rid of the hard tyre in the first stint because we knew we were going to be in a bit of traffic. That worked out well, the guys made the best decision there to... it was their call to start on the prime and that

worked out well. Well, I went off the track in turn one, I was struggling with the tyre and I thought 'my God, this day is getting difficult' so I just kept my head down and focused on the next corner to give it everything. The guys did a good job in the pit stops: the first one was not the best, but after that they did a very, very good job. I got a bit lucky today – we didn't have so much yesterday, but hey, look, I'll take as much as I can get."

Vettel's race was not the smoothest of rides: the German driver had problems with his team radio, with his KERS, and with his pit box, which was occupied by Jenson Button during the first round of pit stops. The drivers took the opportunity of the press conference to tease Button for his error: the exchange has been copied in full below.

SV: I just got past Lewis on the back straight and came in to pit and I thought "what's going on", because I looked at my box, but I have to say, I stayed quite calm. He pulled over and into my slot, so I was just hoping for the front jack man to react and to indicate to him to keep going, you're wrong. I lost a little bit of time because I waited, I didn't want to stop then and then go again. Fortunately, Jenson realised and I could do my pit stop. It's not easy for the guys, as I said earlier, it's very easy to lose the rhythm, wrong car and imagine if they've changed the tyres. Then it's a big mess and I have to go one spot further to McLaren and ask them: 'hello'. If I would have come in at the same time with Lewis and if he was supposed to get his new set it would have been nice, but that way, no way.

LH: I would have got tyres.

SV: From my team or from...

LH: Yeah, yeah, from your team.

But an occupied pit box was the least of Vettel's troubles this afternoon.

First, there was a bad start.

"I did [use KERS off the start]," Vettel said, "but to be honest, my initial launch was not 100 percent. I probably had problems to really start going; you feel that inside the car. It's hard to wait then and I was probably a bit too aggressive later on. You can't use KERS straight away, you have to wait until you reach 100kph, so I saw that I immediately lost a position to Jenson, which wasn't nice and then Lewis behind. I tried to defend hard into turn one, but at some point you have to give up and let the guy go."

Then Vettel was hit with radio trouble.

The lack of a radio "didn't make it easier," Vettel said. "Usually you exchange information, how the tyres are, what the other guys do, what tyres they are on and so on. I asked a lot of questions but did not get any answers. We had a problem with communication."

Finally, KERS gave up the ghost.

"On top of that we had some problems with the KERS during the race," Vettel said. "It wasn't a trouble free race. Mark obviously had a good race, very good pace, so the pace was there. It was there all weekend but once we decided to go to two stop you have to be patient, look after your tyres and when it doesn't work it doesn't work. That's why I think we missed that one step today."

Red Bull have had persistent problems with their KERS device, and will need to do a lot of work in the break before Turkey in order to improve reliability.

KERS is "a key component in Formula 1 these days, mate, so it's completely obvious that we want to address it as soon as possible," Webber said. "McLaren have a huge amount of experience with Mercedes from 2009 and they're doing a good job of it, and that's not an excuse, it means that we have to work harder, we have to work as cleverly as we can and as fast as we can. Fortunately, we now have a bit of a break, so it will be a clear focus for us in terms of durability and consistency and also understanding the system."

Given that McLaren looked to be miles off the pace in pre-season testing, Hamilton was impressed with his team's ability to turn the car around in a very short space of time.

"We came out to Barcelona with the upgrade package we had there and it really wasn't working and the reliability was a disaster," the British driver said. "We couldn't even get past 20 laps. Then they pushed very hard in the space of a week-and-a-half, two weeks, and it was just incredible what they were able to bring to Australia. Australia was our first race distance and the car has been great. It really has been great."

While Sunday's race saw some brilliant driving from both Hamilton and Webber, strategy also had a major part to play in the final result.

"I think we probably tried too hard staying on two stops so the middle stint ideally should have been a bit longer but in the end you find yourself out there on the hard tyre," Vettel said. "I saw Lewis coming closer and closer and there was no point really. I tried to defend as much as I could without losing too much time to the guys behind but he found his way past easily. It was a difficult race for us."

"I think today the strategy we came up with going into qualifying definitely helped," Hamilton said. "I think my new option tyre seemed to last a little bit longer than the guys in front but I think it was quite a few things that came together really. The pit stops were fantastic. It was good for us. The guys are always pushing to improve and the car felt great. I was just trying to nurse my tyres whilst trying to pick up pace. It was one of the best races I have experienced where guys were out in front of me and I had to do quite a lot of overtaking."

The hard tyre strategy paid off for Webber.

"I think we decided to start on the prime, the hard tyre," he said, "in the first stint, which we know was not the most desired tyre for everyone in the field as it doesn't really have the characteristics of a hard tyre in terms of sometimes duration and lots of things like that so got that out of the way. But that was quite tricky actually as even with the guys I was with it was not easy. Everyone was using the DRS at the same time, which we pretty much predicted, because of the type of cars ahead of me and how they qualified."

One of the best bits of the race was the non-stop battles on track. The drivers used the opportunity of the press conference to compliment each other

on their drives.

"I couldn't believe I was catching Sebastian," Hamilton said. "He was doing a great job to stay ahead. He put up a very, very fair and strong fight and I am very happy I was able to get by."

"It was quite a nice fight with Lewis," Vettel said. "Twice down the long straight I was able to just stay ahead and also for the next corner but I saw that there were seven laps to go so not much that I could do. To be honest I was quite surprised by his move into turn seven. I think he did a very good there and surprised me."

"I had really good fights with everyone," Hamilton concluded. "None of them made it easy and that's the kind of racing I love, so I think that's why it feels even better than perhaps it's felt in the past."

Two of the press conference's most amusing moments came courtesy of Mark Webber. First, he expressed his relief that someone had finally beaten Vettel before realizing that he probably shouldn't be saying that of his teammate.

"Congratulations to Lewis," the Australian said. "It was good that someone finally... Of course, Seb is in the same team, but he has been on a phenomenal run and we are all here together fighting for victories. Shame McLaren won in a way, but also we can't let Seb get too far away. So it was good day for the racing and good day for us in terms of points for the team."

Finally, in expressing his desire to see a bit more chaos on track Webber referred to the McLarens as Vodafones. In advertent error, or a dig at Vettel, who last week mistakenly used the sponsor name to describe the Renaults? You decide...

"I was looking for more yellow flags, a few more retirements, a couple of Vodafone cars pulled over but nothing, no yellow flags, I had to pass everybody," Webber said.

F1 Sofa Blog – Analysing the Chinese Grand Prix

If pundits were complaining that Malaysia was too confusing, I don't know how they'll manage with Shanghai. The race didn't confuse me, but there was so much going on in every lap that it's hard to know where to begin.

Before I get started on a team-by-team rundown, here's the short version of the post-race analysis: tyres were king in China, and one extra set was enough to make or break an afternoon.

In finishing order, then, as it's the only fair way...

Two key moments made Lewis Hamilton's race this afternoon. First was the start, when the McLaren pair managed to get ahead of habitual race leader Sebastian Vettel. Then, on lap 37, came the moment when Hamilton overtook Jenson Button going into Turn 1.

Without that manoeuvre, Hamilton would not have been in the right place to take the lead from Vettel shortly before the end of the race.

But there is a strong argument for saying that it was the British driver's Saturday qualifying strategy that gave him the upper hand on Sunday. "I think today the strategy we came up with going into qualifying definitely helped," Hamilton said. "I think my new option tyre seemed to last a little bit longer than the guys in front but I think it was quite a few things that came together really. The pit stops were fantastic. It was good for us. The guys are always pushing to improve and the car felt great."

Button spent the latter part of the race struggling with his rear tyres, which is one of the reasons Webber was able to pass him so easily. But the defining moment of the Briton's grand prix was the *facepalm* incident which saw him pull up in Vettel's pit box during the first round of stops.

Mark Webber was the only man on the grid to start the race on the hard tyre, and while it was an unusual gamble, it was one that paid off in spades. We might not have seen the Australian driver win from the back of the pack, but today's performance shows that Webber is a worthy successor to John Watson's "ridiculous drives from the back" crown.

Like Hamilton, Webber had extra tyres left over from Saturday's qualifying session, and like Hamilton, Webber managed to squeeze every possible millimetre of advantage out of that extra rubber. His charge from the back of the grid was a masterful performance, and it is safe to say that Webber's 2011 season began in earnest this afternoon.

Vettel lost his first race of the season, but could have held onto the lead if only he hadn't pitted quite so early on the middle stint.

"I think we probably tried too hard staying on two stops so the middle stint ideally should have been a bit longer but in the end you find yourself out there on the hard tyre," the world champion said in the post-race press conference. "I saw Lewis coming closer and closer and there was no point really. I tried to defend as much as I could without losing too much time to the guys behind but he found his way past easily. It was a difficult race for us. We did a couple of mistakes, on top of that we had some problems, but still we finished second."

By rights, Mercedes should have seen a better result from today's race. While the action on track made the eventual outcome hard to predict, there was a period in which Nico Rosberg appeared to be on course for his first career victory. But it was not to be – both Mercedes drivers had trouble with excessive fuel consumption, and that was a key factor in determining their finishing positions.

"It's disappointing that we had to start looking at fuel saving with Nico which ultimately cost him at least a podium finish," team principal Ross Brawn said. "We need to look into why we suffered so much higher fuel consumption in the race than we had experienced in practice, even allowing for the changes in conditions and grip. There was clearly a problem and it's very frustrating."

Both Rosberg and teammate Michael Schumacher were on three-stop strategies, and that choice of strategy combined with clean pit stops meant that they were one of the few teams whose race was not determined by rubber.

Ferrari's race was determined by strategy, but the drivers put it a lot better than I can.

"I made a bad start," Fernando Alonso said. "Felipe managed to get past me and a Force India nearly did the same, then it was a good battle on the opening lap. After the first pit stop, I lost too much time behind Michael, thus losing touch with the leading group. I found myself fighting him again at the end of the race, with our positions reversed. Once again, it was a good battle, but I would have preferred to have been doing it for a podium finish rather than seventh place. Unfortunately, our race pace was too slow and I don't think that a different strategy would have changed anything. ... Eight days ago in Malaysia we had seen some encouraging signs, but that was not the case here: the car has not changed, while others have made progress."

But teammate Felipe Massa had a very different experience on Sunday.

"The strategy? Now, it's easy to say that we were not on the right one, but we are a team and we take our decisions together," the Brazilian driver said. "Vettel made the same choice as us and we had a reasonably similar pace. Probably we would have finished on the podium, but we need to look into all the details with the engineers. I am happy with my race; I think it was my best this year and maybe even the best including last year. We need to work out how to improve the car, especially in qualifying. It's a real shame not managing to finish this race in a better position. It really seems that, from qualifying to the race, we discover another car: yesterday, we were not competitive; today we fought with the leaders right to the end. Unfortunately, on the hard tyres we could not defend position all the way to the end."

Massa has now outperformed his teammate for two races running, and the pair is separated by a mere two points in the drivers' standings. It looks as though we are seeing a return to form for the Brazilian driver, who was denied the 2008 world championship by Toyota's decision not to put their drivers on wet tyres in a downpour. Massa's 2009 season was cut short by his Hungarian Grand Prix accident, and 2010 saw him out-classed, out-maneuvred, and thoroughly demoralized by his teammate. This could be the year that sees the tables turned at Ferrari.

Renault were not able to make it three podiums for three races, and it was a frustrating afternoon for the team. Nick Heidfeld and Vitaly Petrov didn't qualify high enough to make decent progress in the start-line brawl for position, and Heidfeld's race was hampered by a fluctuating KERS unit.

Team principal Eric Boullier thinks that strategy was also to blame, but he wasn't sure what strategy would have worked better. "We need to review our strategy," he said, "because it wasn't easy to make the calls today and it's clear you need to switch tyres at exactly the right moment."

Chief race engineer Alan Permane went into more detail. "Vitaly didn't make a great start and he was stuck in traffic during his first stint," he said. "At that point we were thinking about whether to do two or three stops, but when he finally found some clean air his pace looked reasonable and we decided it was best to do two stops. However, he struggled for pace on the soft tyres during his middle stint. As for Nick, we chose to run the same tyre strategy as Vitaly, but he struggled with KERS overheating problems, which meant the system could only be used intermittently and made it even more difficult for him to come through the field."

Sauber and Force India had middling races, partly as a result of a late collision between Sergio Perez and Adrian Sutil. Both men – and their cars – emerged unscathed, but the real victim was track position.

However, it was not looking like a brilliant day for either team even before Perez decided to throw his front-wing endplate at Sutil. Kamui Kobayashi and Paul di Resta were both on two-stop strategies, which put the advantage firmly in the Sauber camp. That car is so light on its rubber it might as well be a puck on an air hockey table.

Meanwhile, Sutil was on a three-stop strategy while Perez was on four. That might not have been the original intention from the Sauber pitwall, but was the unfortunate consequence of collecting drive-through penalties like Katie Price collects husbands.

Williams managed to get both cars to the chequered flag for the first time this season, but their race pace was unimpressive. Following a poor qualifying session for both drivers, neither Rubens Barrichello nor Pastor Maldonado was able to make much headway with the cars in front. Maldonado was overtaken by Heikki Kovalainen, and even the mix of strategies on the Williams pit wall couldn't help the team.

"We opted for a two-stop strategy today," Barrichello said. "Others did three, but I don't think that made a difference. The car isn't performing as well as it should."

Sam Michael, who is rumoured to be close to losing his job as technical director for the team, was equally unimpressed. "There is nothing satisfying about finishing out of the points," he said. "There were stages during the race when our performance was respectable so we need to focus on those areas and improve our qualifying pace."

While tyres impacted everyone's race this afternoon, it was a lack of tyres – or the lack of a single tyre, I should say – that had the biggest effect on Toro Rosso. Jaime Alguersuari was forced to retire from the race after his first pit stop, when the team forgot to attach his right rear wheel to his car. Tricycles are banned in Formula 1, and Alguersuari opted to pull over rather than return to the pits.

Teammate Sebastien Buemi had a more successful afternoon, in that he finished the race, but the lack of points was disheartening given that both drivers started in points-scoring positions. Buemi was on a three-stop strategy this afternoon, thanks to an extra change for a new front wing, but his day was hampered by a poor start and only went downhill from there.

"I don't really know what happened at the start," Buemi said, "as I had a poor start even though from my point of view I think I did everything right, so I would like to see the data, because I had a lot of wheelspin. After that, I got passed by Heidfeld and then, at a certain point, I started to feel a lot of understeer, to the point where it was getting very difficult to drive the car, so we decided to change the front wing. That meant an extra pit stop and from then on my race was compromised."

It was a red-letter day for Lotus. For the first time in the history of Tony Fernandes' incarnation of the brand, a Lotus driver overtook an established team on pure pace. Heikki Kovalainen finished the race ahead of Williams driver Maldonado and Sauber's Melbourne hero Sergio Perez, and Jarno Trulli's fastest lap of the race was quicker than that of Fernando Alonso.

The gap to the mid-field may not be fully bridged yet, but Lotus are well on their way to running with the middle of the pack.

One aspect of Lotus' success this afternoon was that both drivers were on a two-stop strategy. And while some teams struggled on a two-stopper, Trulli and Kovalainen were not forced to push so hard that they destroyed their tyres. A mature and considered performance from both men showed Fernandes' decision to hire two veterans instead of saving money on rookies was the right one in the long term.

Virgin and HRT tend not to attract much attention – or affect the outcome of the race – from their position at the back of the grid. But it is worth noting that Narain Karthikeyan managed to pull off a one-stop strategy this afternoon. It might not have catapulted him into the points in the style of Perez in Melbourne, but it certainly shows a light touch with rubber. Tyre degradation was a bigger concern for Virgin, where Jerome D'Ambrosio managed two stops to Timo Glock's three.

It goes without saying that we wouldn't have had such a thrilling race on last year's ever-durable Bridgestones. Pirelli were asked to deliver rubber that would spice up the racing, and they have filled their brief and then some.

Motorsport director Paul Hembery talked about the tyres' influence on the race in his summary of events.

"The races just seem to keep on getting better and better this year," Hembery said. "I think nobody watching really knew how it was going to finish until the very end, which is exactly what we wanted to achieve when we started our Formula 1 project. We saw an interesting split of strategies, with McLaren managing to make three stops work for Hamilton but Red Bull coming very close to winning with just two.

"Compared to Malaysia we experienced a lot less degradation," he continued. "with some drivers managing to get 20 laps or more out of the hard tyre. We didn't experience an excessive amount of the toffee-like 'marbles' out on track and it was clear that this race was won and lost on tyre strategy. The end result was that all the leading runners were very close together at the finish, and the people who had looked after their tyres best took the top results. It's hard to imagine how we can top this at the next grand prix in Turkey, but we're certainly going to try to have something just as good."
