

I attended this race as a fan, which meant I didn't have access to power sockets, WiFi, or anything that might have made covering the event even remotely easy. Hence the general lack of coverage.

In fact, the only reason I was able to cover qualifying was because we elected to skip going into the principality on Sunday, and spent the day in a beachside cafe in Nice that had free WiFi and the BBC on telly.

We watched Thursday's practice sessions from the grandstands, and decided that it would be impossible to follow qualies using the big screens in town. After all, laptimes are kind of important in qualifying if you want to know who's doing what..



Getting to know the Circuit de Monaco

Monaco is something of a schizophrenic circuit, loved for its history and precision, and disparaged for the potential for a procession and a race won in qualifying.

The jewel in Formula 1's crown, the track's challenges come from the tight track, narrow walls, and need for total control, not straight-line speeds, wheel-to-wheel racing, and overtaking manoeuvres.

But one of the biggest challenges in Monaco comes from timing – traffic here can ruin a qualifying session, and the narrow streets offer few opportunities to reclaim lost tenths. It is less important in practice than qualifying, naturally, but the shorter Monaco circuit and the performance differential between front-runners and backmarkers means the threat of traffic can strike at any time.

As a circuit of extremes, Monaco is home to the slowest corner on the F1 calendar – the Loews hairpin, which sees cars slow to a crawl on full steering lock – and one of the fastest: the kink in the tunnel. Complicating matters for the drivers is the blinding day-night switch as they roar from sunlight to darkened tunnel, and then back into the glare. And if that weren't challenging enough, the change in air pressure inside the tunnel can see cars lose up to 30 percent of their downforce.

Thanks in no small part to the twisty streets, 21 percent of a Monaco lap is run under braking, and any minor problems with the brakes are amplified a hundredfold. Due to the slow speeds required by the narrow circuit, keeping brakes up to temperature is vital – the lap might be brake-heavy, but without heat modern carbon-fibre brakes do not generate the levels of friction necessary to stop an F1 car.

While the brakes need to get hot and stay that way, engines need to be cool. Jenson Button's 2010 race ended on the second lap, when an engine bung left on an air-intake led to an overheating engine. Button had completed a run to the grid, a formation lap, and two racing laps, but that was enough stress on a boiling engine to make continuing impossible.

Even if human error isn't a factor, engine cooling is a problem. F1 cars rely on air flow for their cooling, and Monaco's slow lap speeds simply do not generate enough flow.

But the single most important factor in Monaco is downforce. Teams will run a Monaco-specific wing configuration designed to eke maximum downforce out of their cars while not compromising on speed.

Historically, the defining moment of the Monaco race weekend has been Saturday's qualifying session. Before 2011's rules came into play, with Pirelli tyres and the drag-reduction system making overtaking possible at processional tracks like the Circuit de Catalunya, it was considered borderline impossible for modern F1 cars to overtake on the narrow streets of the principality.

The Monaco Grand Prix has been won by the man on pole for six of the past seven years. Throughout the decade I am loath to call the noughties, the man who came out on top on Saturday afternoon was almost certain to top the podium on Sunday. But it was not always so.

Since 1990, the man on pole has won the Monaco Grand Prix ten times, or roughly half of the time. But that statistic belies the fact that overtaking

opportunities are limited, restricted by the very streets that make the historic event a nostalgic favourite. Between 1984 and 1993, there were only two winners at Monaco – Ayrton Senna and Alain Prost dominated the event, and a McLaren driver topped the podium on nine occasions.

Lewis Hamilton will be hoping to see a return to Monaco form for McLaren; the British driver has won in the principality, but has never claimed pole. Hamilton is looking forward to a brand new Monaco under the 2011 regulations, which he feels will shake up the action on track like nothing before.

“This year because I think we’ll see a different race from previous years,” Hamilton said. “I think a combination of DRS, KERS Hybrid and the tyres will really make the racing come alive, and I’d love to see some overtaking action and some hard racing this year. I think the DRS zone at Monaco is only around 300 metres, so it’s pretty short, and not really long enough to enable us to really get enough of a launch on the car ahead.

“I think the aerodynamics will only really start working properly once we’ve reached the braking zone for Ste Devote, so I don’t think we’ll see too many DRS-assisted overtaking moves next weekend,” he continued.

“However, I think the tyres will probably give us the greatest scope for excitement and the best chance of passing. While I don’t think the Super-Soft and Soft compounds will be as critical around Monaco as they were at a place like Turkey, I still think the drop-off we encounter as the tyres go off should create opportunities for overtaking. And I don’t think the marbles will be as bad as people fear, because they tend to occur at the exits of high-speed corners, and Monaco is generally quite a low-speed track, so I don’t think we’ll see the build-up that we saw at somewhere like Turkey’s Turn 8, for example,” he concluded.

The current configuration of the Circuit de Monaco has been in use since 2004, when Piscine, Rascasse, and the pitlane exit were all modified, and measures 3.340km. Presuming it runs for the full distance, the grand prix will last for 78 laps, bringing the total distance run to 260.520 kilometres.

The group of past Monaco winners currently racing in F1 is larger than you might think: Mark Webber (2010), Jenson Button (2009), Lewis Hamilton (2008), Fernando Alonso (2006, 2007), Jarno Trulli (2004), and Michael Schumacher (1994, 1995, 1997, 1999, 2001).

The group of previous pole sitters is equally large, and shows that most – but not all – races have been won from the head of the pack: Mark Webber (2010), Jenson Button (2009), Felipe Massa (2008), Fernando Alonso (2006, 2007), Jarno Trulli (2004), and Michael Schumacher (1994, 1996, 2000).

Fastest laps at the Circuit de Monaco have been claimed by Sebastian Vettel (2010), Felipe Massa (2009), Fernando Alonso (2007) Michael Schumacher (1994, 1997, 2004, 2005, 2006), and Rubens Barrichello (2002).

The current lap record at the Circuit de Monaco is Michael Schumacher’s 2004 time of 1:14.439s, set at an average speed of 161.528kph.

In related news, HRT could lead to the biggest Monaco shake-up in recent history if team boss Colin Kolles’ letter to FIA technical delegate Charlie Whiting bears fruit.

In the aftermath of the Spanish Grand Prix, Kolles told the BBC: “The only reason why we are not considering [lodging a protest in Barcelona] is because we were not really involved in any sporting decision today. But it is clear that the other cars are illegal. We agree absolutely with Charlie Whiting’s view [that the blown floor has gone too far] and – by the way – we are not the only ones who agree. I think that if this is not going to be stopped before Monaco then we have no other choice [but] to make a protest.

“The point is that it has been very clearly stated that it is not corresponding to the regulations,” he continued. “We have studied this, very carefully. You cannot influence the aerodynamics with hot exhaust gasses, you cannot influence the aerodynamics by any movement like gas pedals or moving devices on the engine, or whatever. So this is illegal and it brings the other teams a huge advantage.”

Another factor that could shake up the action in Monaco is the current debate over the safety of using the DRS in qualifying. While the DRS zone for Sunday’s race will be strictly regulated, Saturday is a free-for-all, and drivers can choose when and where to activate the device.

In the run-up to the race, some drivers complained that allowing free DRS use in Monaco – especially in the tunnel – would be madness, and potentially dangerous. But Whiting rubbished those claims in a special media briefing during the Barcelona race weekend.

“I’ve spoken to the drivers a few times about [DRS use], and it was quite clear that the majority of them did not want to use it in Monaco,” Whiting said. “However, there is no evidence to support the theory that it is unsafe in Monaco. Obviously, we are not waiting for an accident to happen, but there is simply no evidence to support the theory that it is going to be dangerous.

“As it has been introduced as an overtaking aid, it would be somewhat perverse not to allow it in the place where you need overtaking the most,” Whiting continued. “There is no reason not to use it in Monaco as far as we can see. That is the long and the short of it. As far as we are concerned it’s a device that’s open to anyone to use legally at any race. That is what it is there for.”

But the FIA could yet change its mind if they think the DRS is unsafe on the principality’s narrow streets, Whiting said.

“If we think there is a problem, then we can stop its use. If there was something that we felt was wrong and dangerous, then we would stop it. But we can do that with any part of the car, so it’s not unusual.”

F1 Monaco Blog – Q1 in Monaco

Ah, Monaco. Land of plenty, whether you’re talking yachts, cash, or sunburn. Your scorched reporter has walked the track, collected marbles, and swooned over the Lambos and Ferraris parked outside the Casino.

But my holiday experiences are irrelevant. We’re here for one thing, and one thing only: to watch the world’s most expensive cars try their chances

around the twisty streets of the world's most expensive square mile. (I assume. That's not actually a fact.)

There's no real form going into qualifying, in that no one man has dominated the practice sessions. Fernando Alonso has done his usual thing of driving like a bat out of hell around the twisty streets of the principality; he has something to prove this year. Not only must he make up for last year's accident, but the declining fortunes of the Scuderia mean that the Spanish driver has the weight of a nation's expectations on his shoulders this weekend.

Both Red Bull drivers are fast, as you'd expect. With a 1-2 finish in 2010, and a clean run of poles this season, most pundits are operating under the assumption that it will be same old, same old today. And well it might. But that magic of Monaco lies in the fact that anyone can make a tiny error that will ruin his afternoon. No one is immune.

As action kicks off for Q1, it is hot, hot, hot on the streets of Monaco. The tyres are shedding enough rubber that I was able to collect an entire Pirelli's worth just walking through the tunnel last night. The Italian tyre supplier have brought the soft and super-soft compounds this weekend, but the silky smooth tarmac means that degradation is negligible, and some teams might be able to run on a single-stop strategy come Sunday. Sauber are strong contenders for the one-stops.

And they're off! Cars are beginning to filter out onto the track, and Q1 is underway. The early part of the session is hardly worth writing about, as times change too frequently and it's only in the final moments that we know who's in and who's out.

With the session half run, those men at risk of dropping out are those who have yet to set a time. After his morning crash, Nico Rosberg is still in the garage, and might not be able to run this afternoon. There's still plenty of time in which to get on track and set a time, but with each minute that passes, the lesser his odds.

Joining Rosberg in the garage are HRT drivers Narain Karthikeyan and Tonio Liuzzi, neither of whom have made it out.

And as I typed the above, Rosberg left his garage. His first lap was good enough for P5, which changes the dynamic of the session for the backmarkers who might have hoped to make it through to Q2.

Seven minutes left, and the dropout zone is comprised of Heikki Kovalainen, Jaime Alguersuari, Sebastien Buemi, Timo Glock, Jerome D'Ambrosio, Narain Karthikeyan, and Tonio Liuzzi. The McLaren pair are looking good at the top of the pile, but there are no prizes for winning Q1.

Buemi pushes Adrian Sutil down into the dropout zone, but the German driver saves himself at the cost of his teammate. Sergio Perez and Jarno Trulli are at risk of dropping out should the men below them improve, and the HRT pair are sitting pretty in the garage, unlikely to do any running in qualifying. Given that they're unlikely to trouble Q2, saving tyres might be the best strategy for the team.

And that's it. With the session over, the dropout zone is comprised of the usual suspects and Jaime Alguersuari.

Dropout zone

18. Heikki Kovalainen (Lotus)
19. Jarno Trulli (Lotus)
20. Jaime Alguersuari (Toro Rosso)
21. Timo Glock (Virgin)
22. Jerome D'Ambrosio (Virgin)
23. Narain Karthikeyan (HRT)
24. Tonio Liuzzi (HRT)

F1 Monaco Blog - Q2 in Monaco

No surprises from Q1, then. At least, no surprises for anyone other than Jaime Alguersuari. One of the midfield has to join the backmarkers in the Q1 dropout zone, and this time it was the turn of the paddock's youngest racer.

This is where it starts getting interesting. The short lap in Monaco means that the difference between success and failure is measured in thousandths of a second, not tenths or hundredths. Anyone could run wide, lose that vital time, and find himself out of position in the middle of the pack.

But with the session now firmly underway, there aren't many surprises on track. The Red Bulls, McLarens, Mercedes, and Ferraris are quick, and everyone else is at risk of dropping out. Quelle surprise.

There are some minor surprises as the session reaches its midpoint, however - the Renaults aren't in the top ten, and the Williams are. But that's not as much of a surprise as you might think. In his GP2 days, Pastor Maldonado was an absolute demon in Monaco, and Rubens Barrichello is hardly a journeyman driver.

There is time for everything to change, of course, but the fact that the Renaults are struggling is a comedown for the team. Robert Kubica was one of the delights of the 2010 Monaco Grand Prix, and expectations were high. But with the team's radical exhaust, and the known issues with engine cooling in the principality, it's not illogical that Renault are having difficulties this afternoon.

Less than a minute remaining, and the dropout zone is made up of Paul di Resta, Sebastien Buemi, Nick Heidfeld, Adrian Sutil, Kamui Kobayashi, Rubens Barrichello, and Vitaly Petrov. But with the number of cars out on track, that could all change. Based on the sector times, however, it's not looking likely...

And that's it. Out are Petrov, Barrichello, Kobayashi, di Resta, Sutil, Heidfeld, and Buemi.

Dropout zone

11. Vitaly Petrov (Renault)
12. Rubens Barrichello (Williams)
13. Kamui Kobayashi (Sauber)
14. Paul di Resta (Force India)
15. Adrian Sutil (Force India)
16. Nick Heidfeld (Renault)
17. Sebastien Buemi (Toro Rosso)

F1 Monaco Blog - Q3 in Monaco

This is what it all boils down to, folks.

We might have the all-new, all-overtaking Formula 1 of 2011, but Monaco is as narrow as it ever was. Overtakes are more likely to happen as a result of tyre strategy and drivers succumbing to pressure, and not as a result of anyone's magic paddle.

Pole here is more important than at any other track on the calendar. And the ten men currently fighting it out on track – or prepping themselves in the garage – know that. Which is why the track now resembles Piccadilly Circus on steroids. Traffic is the bugbear, and finding the perfect gap can be the difference between Monaco life and death.

All of the strong contenders have had a moment at the top of the boards, and the gaps between them are a matter of tenths. Sebastian Vettel goes fastest half-way through the session, but in his wake is Lewis Hamilton, who has been fastest all afternoon. The McLaren driver has yet to set a time, and when he does cross the line it is as slow as can be. The combination of traffic and yellow flags put paid to the session.

But it's now a red flag, courtesy of Sergio Perez. The Mexican driver is in the barriers, but hasn't moved. Hopefully he is uninjured, but it was a hefty shunt into the tyre wall, and there's not yet been any sign of movement. The ambulance has just turned up.

Perez ran wide coming out of the tunnel, clipped the Armco, and then smacked sideways into the barrier with wheels and carbon fibre flying.

With only two minutes and some change remaining when – if – the session restarts, it looks almost certain that Vettel will remain on pole. No one has time to complete an outlap and a flier, even on Monaco's short streets. It could be done by the skin of your teeth, but the amount of traffic makes it hardly worth the effort.

No news yet on Perez' condition. He is surrounded by medical staff, and there is an ambulance at the ready. Whatever the medics are doing, they are doing behind screens, affording the young driver some privacy in his hour of need.

Perez is now being moved into the ambulance, where he will be taken to the trackside medical centre. He is still under the sheet, but that appears to be for reasons of privacy, and not anything more sinister.

Jenson Button (photo by Vodafone McLaren Mercedes)The marshalls are moving the car. Looking at it as the crane begins to lift, there is no way Perez will be able to take part in tomorrow's race, even if he is physically capable of doing so. With no spare car available, just the most basic of chassis skeletons, Sauber would be hard pressed to get a working model ready for Sunday.

According to the drumbeats of the internet, Perez is conscious and talking. Both good signs. But there is no more news as yet on his overall condition. What a ghastly day for the young Mexican, to go from the highs of Q3 in Monaco to the inside of an ambulance in a matter of moments.

The trackside TV director keeps showing replays of the accident. Enough is enough. Perez' parents will be watching this footage, either trackside or somewhere else in the world, and the last thing they need to see is endless repeats of their son's crash. Focus on the harbour, or something. I'm sure there's a pretty lady in a bikini on a yacht who would love to be on telly.

And they're off again. Hamilton, who has yet to set a time, is the first man out of the pits. Pastor Maldonado also needs to set a time.

With only seconds remaining of the session, pole belongs to Vettel.

Provisional grid (unofficial)

1. Sebastian Vettel (Red Bull)
2. Jenson Button (McLaren)
3. Mark Webber (Red Bull)
4. Fernando Alonso (Ferrari)
5. Michael Schumacher (Mercedes)
6. Felipe Massa (Ferrari)
7. Lewis Hamilton (McLaren)
8. Nico Rosberg (Mercedes)
9. Pastor Maldonado (Williams)
10. Sergio Perez (Sauber)*
11. Vitaly Petrov (Renault)

12. Rubens Barrichello (Williams)
13. Kamui Kobayashi (Sauber)
14. Paul di Resta (Force India)
15. Adrian Sutil (Force India)
16. Nick Heidfeld (Renault)
17. Sebastien Buemi (Toro Rosso)
18. Heikki Kovalainen (Lotus)
19. Jarno Trulli (Lotus)
20. Jaime Alguersuari (Toro Rosso)
21. Timo Glock (Virgin)
22. Jerome D'Ambrosio (Virgin)
23. Narain Karthikeyan (HRT)
24. Tonio Liuzzi (HRT)

* Given the serious nature of Perez' crash, he is unlikely to participate in Sunday's race. It has yet to be confirmed, but the drivers below P10 will probably each move up one slot.
