

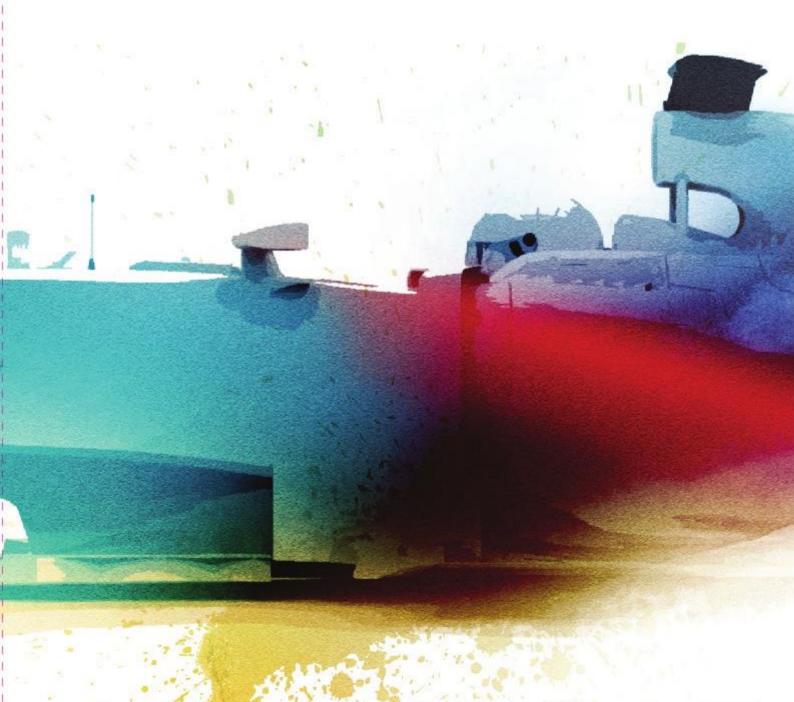
27-28-29 MARCH





Formula 1

KUALA LUMPUR 27-28-29 MARCH



MEDIA GUIDES 2015

formula one media

OFFICIAL MEDIA KIT





#### **2015 FORMULA ONE PETRONAS MALAYSIA GRAND PRIX**

#### **ORGANISING COMMITTEE**

Chairman : Dato' Mokhzani Tun Dr Mahathir

Chief Executive Officer : Dato' Ahmad Razlan Ahmad Razali

Secretary / PA to CEO : Erny Marlina Mohsen

Chief Commercial Officer : Sharmila Nadarajah

Chief Finance Officer : Eddy Rashdan Mohd

Head Of Operations : Mashithah Hashim

Marketing & Communications : Amiel Junita Nasir

Human Resource : Idawati Md Deros

Track & Sporting : Tham Hyok Hwei

Corporate Business Acquisition : Rasidah Surif

Security : Mohd Mulyodi Mansor

Media Centre : Nor Lina Ayob

Creative Services : Fara Ahmad Fuad

Broadcasting : Sayuthi Iskandar Saad

Website : Yasmeen Syahiera Raman

Event & Activities : Faisal Muhammad

Event Operations : Muhammad Nizam Omar

Ticketing & Customer : Yong Chee Kee

F&B : Shahrulazhar Kamaruddin

IT Support : Rames Sannathamby

Race Management : Fazli Mukhtar Affandi

Team Servicing : Kalaiwani Munusamy

Concert & Artist Management : Diah Talib



#### 2015 FORMULA ONE PETRONAS MALAYSIA GRAND PRIX

#### **LIST OF RACE OFFICIALS**

#### **NATIONAL OFFICIALS**

National Steward
Clerk of the Course
Deputy Clerk of the Meeting
Secretary of the Meet
Chief National Scrutineer
Chief National Medical Officer

Sophee Khoo Bin Abdullah

Jeff Amin Fazli Mukhtar Affandi Mashithah Hashim Erza Anas

Major Gen. Dato' Dr Mohd Zin bin Bidin

#### **F.I.A OFFICIALS**

FIA Stewards of the Meeting

Race Director
Safety Delegate
Permanent Delegate
Medical Delegate
Technical Delegate
F1 Head of Communications and Media Delegate

Observer

Safety Car Driver Medical Car Driver Paul Gutjahr

Radovan Novak Mick Doohan Charlie Whiting Charlie Whiting Charlie Whiting

Prof.Jean-Charles Piette

Jo Bauer

Matteo Bonciani Herbie Blash Bernd Maylander Alan Van Der Merwe

#### **SUPPORT RACES**

**National Stewards** 

Clerk of the Course Deputy Clerk of the Course Secretary of the Meet 1) Rosland Kamaruddin

2) Mohd Kurnia Abdol Sakor

Fazli b. Mukhtar Affandi Tham Hyok Hwei Haireen Wan Akmal B





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PLEASE NOTE THAT THIS TIMETABLE IS SUBJECT TO AMENDMENTS



#### **MEDIA FACILITIES**

#### **KEY MEDIA CENTRE PERSONNEL**

#### FIA F1 HEAD OF COMMUNICATION AND MEDIA DELEGATE

Matteo Bonciani

#### **NATIONAL PRESS OFFICER**

Nor Lina Ayob HP: 019 317 4555

#### **ASSISTANT NATIONAL PRESS OFFICER**

Muhammad Nur Aiman Bin Zaidi HP: 014 229 6025

#### PRESS CONFERENCE SCHEDULE

#### **Thursday, 15.00 hrs,** in the Press Conference Room:

For a maximum of six drivers, chosen by the FIA F1 Head of Communication and Media Delegate.

#### **Friday, 16.00 hrs**, in the Press Conference Room:

Six team personalities, chosen by the FIA F1 Head of Communication and Media Delegate.

#### Saturday, follow the qualifying sessions:

TV interview with top three drivers of the qualifying session

#### Saturday, after the unilateral interview, in the Press Conference Room:

Post-Qualifying Press Conference with top three drivers of the qualifying session

#### Sunday, following the podium celebrations:

TV interview with top three finishing drivers

#### **Sunday, after the unilateral interview**, in the Press Conference Room:

Post-Race Press Conference with top three finishing drivers

#### Note:

Photographers are kindly requested to use the steps that have been provided behind the row for the journalists.

All TV interviews and press conference will be transmitted into the Media Centre.





#### 2015 FIA Formula One World Championship® Race Calendar

01 2015 FORMULA 1 ROLEX AUSTRALIAN GRAND PRIX (Melbourne)	13 - 15 Mar
02 2015 FORMULA 1 PETRONAS MALAYSIA GRAND PRIX (Kuala Lumpur)	27 - 29 Mar
03 2015 FORMULA 1 CHINESE GRAND PRIX (Shanghai)	10 - 12 Apr
04 2015 FORMULA 1 GULF AIR BAHRAIN GRAND PRIX (Sakhir)	17 - 19 Apr
05 FORMULA 1 GRAN PREMIO DE ESPAÑA PIRELLI 2015 (Catalunya)	08 - 10 May
06 FORMULA 1 GRAND PRIX DE MONACO 2015 (Monte Carlo)	22 - 24 May
07 FORMULA 1 GRAND PRIX DU CANADA 2015 (Montréal)	05 - 07 Jun
08 FORMULA 1 GROSSER PREIS VON ÖSTERREICH 2015 (Spielberg)	19 - 21 Jun
09 2015 FORMULA 1 BRITISH GRAND PRIX (Silverstone)	03 - 05 Jul
10 FORMULA 1 PIRELLI MAGYAR NAGYDÍJ 2015 (Budapest)	24 - 26 Jul
11 2015 FORMULA 1 SHELL BELGIAN GRAND PRIX (Spa-Francorchamps)	21 - 23 Aug
12 FORMULA 1 GRAN PREMIO D'ITALIA 2015 (Monza)	04 - 06 Sep
13 2015 FORMULA 1 SINGAPORE AIRLINES SINGAPORE GRAND PRIX (Singapore)	18 - 20 Sep
14 2015 FORMULA 1 JAPANESE GRAND PRIX (Suzuka)	25 - 27 Sep
15 2015 FORMULA 1 RUSSIAN GRAND PRIX (Sochi)	09 - 11 Oct
16 2015 FORMULA 1 UNITED STATES GRAND PRIX (Austin)	23 - 25 Oct
17 FORMULA 1 GRAN PREMIO DE MÉXICO 2015 (Mexico City)	30 Oct - 01 Nov
18 FORMULA 1 GRANDE PRÊMIO DO BRASIL 2015 (São Paulo)	13 - 15 Nov
19 2015 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX (Yas Marina)	27 - 29 Nov



#### 2015 a threshold year for F1™ in Malaysia – SIC CEO anticipates changes in years to come

2015 is undoubtedly a threshold year for the Formula  $1^{\text{M}}$  Championship in Malaysia. Being the final year of the race under the current contract, it is a crucial time for race organisers Sepang International Circuit, as CEO Dato' Razlan Razali weathers the pressure of holding an unforgettable race while trying to seal the deal for more years to come.

Coming after 2014 when the F1<sup>TM</sup> Grand Prix in Malaysia was held in the wake of the tragic disappearance of flight MH370 and registered the lowest ticket sales since 2004 due to travel fears and the pall of sadness shrouding the nation, this year's race promises new delights alongside the theme 'Experience F1<sup>TM</sup> Like Never Before' with the aim of boosting ticket sales and garnering new audiences.

"When you plan any event, especially a large one, there will always be external factors involved that you have no control over. Even if you plan from A to Z, it won't all fall in place according to your plan. Ultimately, it is your ability to mitigate issues that arise that matters. Last year, we were challenged by the loss of MH370 and this year, the upcoming implementation of GST in Malaysia has led to a reluctance to spend on luxuries due to fears of a hike in cost of living, which unfortunately includes entertainment such as the  $F1^{TM}$  Grand Prix," says Dato' Razlan Razali.

Dato' Razlan reveals that it is in fact more difficult to hold the interest of local F1 audiences compared to loyal fans who come from overseas year after year, helped by the added appeal of Malaysia as a value-added tourist destination. After 17 years, local ticket sales have been falling, and his team have worked hard to offer new experiences to capture the interest of the public. This year, the Sepang International Circuit has been transformed into a family-friendly carnival with something for everyone in the family – from a Ferris wheel to rugged Xtrack activities, to F&B outlets and retail spaces. Families can enjoy a weekend outing to the race and end the day with a world-class concert.

"We have gone all out to make this year's  $F1^m$  Grand Prix attractive for the whole family. In terms of the race itself, we have noticed that the quieter V6 turbo hybrid engine is actually friendlier to young spectators, compared to the roar of the older V8 engines. The noise of the race is less stressful for young ears. There is less need for earmuffs and parents can explain the race to children on the spot," adds Dato' Razlan.

He admits that while the idea of holding a post-race concert has been a big hit from the start, they have since become a victim of their own success. These days, the choice of artiste at the concert has a strong influence on whether a member of the public buys a ticket to see the race live. "When we announced Lenny Kravitz as the headline act for the post-race concert this year, ticket sales were a little underwhelming, but the sales saw a boom once we announced South Korean pop groups Girls' Generation and SHINee as the new joint headliners. Lenny's cancellation has been a silver lining for us as we are able to introduce the race experience to a demographic that may not be your typical F1™ fan," Dato' Razlan says.

However, he cautions that it is wrong to depend on the artiste choice to boost ticket sales. "The F1™ should always be the highlight of the weekend, and the artiste is just secondary. This behavioural trend is frustrating for us as we want the focus to be on the race," he says.

Looking towards the future, Dato' Razlan says the F1<sup>m</sup> is currently facing an identity crisis. Viewers have increasing found it boring, and the outcome of the recent opening race of the F1<sup>m</sup> Grand Prix Championship in Australia has not helped change this perception. Interest is waning, and the predictability of the outcome does not inspire excitement and motivate more people to watch the



race. As the organisers of just one race, Dato' Razlan says that while individually SIC cannot do much, they can continue reminding the  $F1^{TM}$  management that something needs to be done.

Based on observations from other motorsports events, a local hero can do wonders for public interest and boost ticket sales tremendously. Recently, support for Daniel Ricciardo in Australia led to record tickets sales in his home race. Closer to home, Dato' Razlan cites MotoGP as an example. Besides the promise of a local hero, the importance of having dedicated lower tier championships also boosts interest and opens up the possibility of a local driver reaching the upper echelons of F1™.

"For any event, especially a sporting event, the passion of local support and the interest in the domestic market is crucial. For  $F1^{\text{TM}}$  in Malaysia, this is a challenge that we face. We do not currently have a viable local hero, and people have been asking when they can see a local hero among the  $F1^{\text{TM}}$  contenders. Looking at the extremely high entry barriers to  $F1^{\text{TM}}$ , particularly in terms of funding, it would be wonderful if there were lower tiers that follow the  $F1^{\text{TM}}$ , so that we might have a chance of placing a young Malaysian driver there, to create a glimpse of hope for a local hero. Then I can foresee Malaysians coming back to the circuit in droves for  $F1^{\text{TM}}$ ," Dato' Razlan shares.

Touching on the status of the F1<sup>TM</sup> Grand Prix in Malaysia, he says his team is giving their all to securing the race for the coming years. While the nation awaits a local hero, the race is a priority for gaining global exposure and bringing in tourism revenue, as the F1<sup>TM</sup> remains one of the biggest events on the national tourism calendar. "We would want to negotiate for the F1<sup>TM</sup> to be held later in the year in Malaysia, to give us more time to promote the event and for the championship to build up more excitement. In the past, we have been at the tail end of the season – in 1999, Malaysia hosted the penultimate race and we hosted the final race of the championship in 2000, so we hope to return to the latter end of the F1<sup>TM</sup> calendar," says Dato' Razlan.

He adds that even with declining global ticket sales, the F1<sup>™</sup> Championship is still the biggest motorsports event in the world. Discussing the possibility of holding a night race in Malaysia, he expresses preference for a daytime race. "You can get the look and feel of the track better - we have a lot of greenery, gravel beds - we have the feel of a proper race track."

Beyond the  $F1^{TM}$ , Dato' Razlan says over the past 7 years, since he took on the role of CEO, SIC has maxed out the current potential of the track. His team has managed to achieve profitability, with the track usage hitting a 96% average every year. Nevertheless, profit margin growth has been only incremental, and there is a need to unlock the potential of the land.

"To take the circuit from great to awesome, we need to develop our 300 hectare land bank here. We are about 40 minutes from the Kuala Lumpur city centre, but this is not such a great hindrance, as people are willing to travel far nowadays. We need to give them the reason. When you build something good, people will come. Sepang is potentially the next hub in the Klang Valley, so we want to build something different, something that will inspire people to come daily. We can have theme parks, hotels, business premises, there's a lot of potential – we only need to make our dreams a reality," Dato' Razlan concludes.



#### **TEAMS/ DRIVERS LINE UP 2015**

DRIVER	NATIONALITY	CONSTRUCTOR				
Daniil KVYAT	Russian	Infiniti Red Bull Racing				
Daniel RICCIARDO	Australian	Infiniti Red Bull racing				
Kimi RAIKKONEN	Finnish	Scuderia Ferrari				
Sebastian VETTEL	German	Scuderia Ferrari				
Jenson BUTTON	British	McLaren Honda				
Fernando ALONSO	Spanish	McLaren Honda				
Pastor MALDONADO	Venezuelan	Lotus F1 Team				
Romain GROSJEAN	French	Lotus F1 Team				
Nico ROSBERG	German	Mercedes AMG Petronas F1 Team				
Lewis HAMILTON	British	Mercedes AMG Petronas F1 Team				
Marcus ERICSSON	Swedish	Sauber F1 Team				
Felipe NASR	Brazilian	Sauber F1 Team				
Sergia PEREZ	Mexican	Sahara Force India F1 Team				
Nico HULKENBERG	German	Sahara Force India F1 Team				
Felipa MASSA	Brazilian	Williams F1 Team				
Valtteri BOTTAS	Finnish	Williams F1 Team				
Max VERSTAPPEN	Dutch	Scuderia Toro Rosso				
Carlos SAINZ JR	Spanish	Scuderia Toro Rosso				









# Constructors' Championship 2015 FORMULA 1 ROLEX AUSTRALIAN GRAND PRIX - Melbourne

ENTRANT	AUS	MAS	CHN	BRN	ESP	MON	CAN	AUT	GBR	GER	HUN	BEL	ITA	SIN	JPN	RUS	USA	MEX	BRA	UAE	POINTS
Mercedes AMG Petronas F1 Team	43 <sub>1</sub>																				43
Scuderia Ferrari	15 <sub>3</sub>																				15
Sauber F1 Team	14 <sub>5</sub>																				14
Williams Martini Racing	124																				12
Infiniti Red Bull Racing	8 6 NC																				8
Sahara Force India F1 Team	<b>7</b> <sub>7</sub>																				7
Scuderia Toro Rosso	2 9 NC																				2
McLaren Honda	11 NC																				0



2015 FORMULA 1 PETRONAS MALAYSIA GRAND PRIX

KUALA LUMPUR 27-28-29 MARCH









#### **Drivers' Championship**

DRIVER	AUS	MAS	BRN	CHN	ESP	MON	CAN	AUT	GBR	GER	HUN	BEL	ITA	SIN	JPN	RUS	USA	BRA	UAE	POINTS
L. HAMILTON	NC	25	25	25 ,	25 ,	18 2	NC	18 2	25 ,	15 ,		NO	25	25	25 ,	25	25	18	50	384
N. ROSBERG	25			18 2			18 2	25		25		18 ,	18 ,		18	18		25	1	317
D. RICCIARDO	EX	NC		12		15 ,	25	4 8	15	8 ,	25	25		15 ,		6 ,	15 ,	NC	24	238
V. BOTTAS	10 5	4 8	4,		10 ,	NC	6 ,	15 3		18 2		15 ,		11			10	1 10	30	186
S. VETTEL	NC	15 ,		10 5	12 ,	NC	15 ,	NC		12		10	8		15 ,	4 .	6 ,	10 5	8 ,	167
F. ALONSO	12	12		15	8 6	12 4	8 6			10 5	18 2	6 ,	NO	12	NC	8 .	8 6	8 .	4 ,	161
F. MASSA	NC	6 ,	6,	15	13	6 ,	12	12 4	NC		10 ,	13	15 ,	10 ,	6 ,	11		15 ,		134
J. BUTTON	15	8 6	17	11	11	8 6	12	11	12	4 ,	1 10	8	4 ,	NC		12	12		20	126
N. HULKENBERG	8 ,	10 5	10 ,	8	1 10	10 5	10 5	2 ,	4 .	6 ,	NC	1 ,,	12	2 ,	4 ,	12	NC		16	96
S. PEREZ	1 10		15	2 ,	2 ,	NC	11	8 ,	11	1 10	NC	4 ,	6 ,	6,	1 10	1 10	NC	15	12	59
K. MAGNUSSEN	18 2	2 ,	NC	13	12	1 10	2	6 ,	6 ,	2 ,	12	12	1 10	1 10	14	10 5	4 ,	2		55
K. RAIKKONEN	6 ,	12	1 10	4 8	6 ,	12	1 10	1 10	NC	11	8 6	12	2,	4 .	12	2 ,	13	6 ,	2	55
J. VERGNE	4 ,	NC	NC	12	NC	NC	4 ,	NC	1 10	13	2 ,	11	13	8	2 ,	13	1 10	13	12	22
R. GROSJEAN	NC	11	12	NC	4 ,	4.	NC	14	12	NC	NC	NO	16	13	15	17	11	17		8
D. KVYAT	2 ,	1 11	11	1 10	14	NC	NC	NC	2,	NC	14	2 ,	11	14	11	14	15	11		8
P. MALDONADO	NC	NG	14	14	15	NC	NC	12	17	12	13	NO	14	12	16	18	2 ,	12	NC	2
J. BIANCHI	NC	NC	16	17	18	2,	NC	15	14	15	15	13	18	16	20					2
A. SUTIL	11	NC	NC	WC	17	NC	13	13	13	NC	11	14	15	NC	21	16	NC	16	16	0
M. ERICSSON	NC	14	NG	20	20	11	NC	18	NG	18	NC	17	19	15	17	19				0
E. GUTIERREZ	12	NC	NC	16	16	NC	14	19	NC	14	NC	15				15		14	15	0
M. CHILTON	13	11	13	19	19	14	NC	17	16	17	16	16	NC	17	18	NC				0
K. KOBAYASHI	NC	13	15	18	NC	13	NC	16	15		NC		17			NC			NG	0
W. STEVENS														- 14					17	0

2014 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX - Yas Marina







#### **2014 FORMULA 1 PETRONAS MALAYSIA GRAND PRIX**

Pos	No	Driver	Team	Laps	Time/Retired	Grid	Pts
1	44	Lewis Hamilton	Mercedes	56	1:40:25.974	1	25
2	6	Nico Rosberg	Mercedes	56	+17.3 secs	3	18
3	1	Sebastian Vettel	Red Bull Racing-Renault	56	+24.5 secs	2	15
4	14	Fernando Alonso	Ferrari	56	+35.9 secs	4	12
5	27	Nico Hulkenberg	Force India-Mercedes	56	+47.1 secs	7	10
6	22	Jenson Button	McLaren-Mercedes	56	+83.6 secs	10	8
7	19	Felipe Massa	Williams-Mercedes	56	+85.0 secs	13	6
8	77	Valtteri Bottas	Williams-Mercedes	56	+85.5 secs	18	4
9	20	Kevin Magnussen	McLaren-Mercedes	55	+1 Lap	8	2
10	26	Daniil Kvyat	STR-Renault	55	+1 Lap	11	1
11	8	Romain Grosjean	Lotus-Renault	55	+1 Lap	15	
12	7	Kimi Räikkönen	Ferrari	55	+1 Lap	6	
13	10	Kamui Kobayashi	Caterham-Renault	55	+1 Lap	20	
14	9	Marcus Ericsson	Caterham-Renault	54	+2 Laps	22	
15	4	Max Chilton	Marussia-Ferrari	54	+2 Laps	21	
Ret	3	Daniel Ricciardo	Red Bull Racing-Renault	49	Retired	5	
Ret	21	Esteban Gutierrez	Sauber-Ferrari	35	Gearbox	12	
Ret	99	Adrian Sutil	Sauber-Ferrari	32	Power unit	17	
Ret	25	Jean-Eric Vergne	STR-Renault	18	Turbo	9	
Ret	17	Jules Bianchi	Marussia-Ferrari	8	Accident damage	19	
Ret	13	Pastor Maldonado	Lotus-Renault	7	Power unit	16	
DNS	11	Sergio Perez	Force India-Mercedes	0	Gearbox	14	

Note - Bottas qualified 15th but was subsequently penalised three grid places for impeding during qualifying.



#### **2014 FORMULA 1 PETRONAS MALAYSIA GRAND PRIX**

Pos	No	Driver	Team	Q1	Q2	Q3	Laps
1	44	Lewis Hamilton	Mercedes	1:57.202	1:59.041	1:59.431	22
2	1	Sebastian Vettel	Red Bull Racing-Renault	1:57.654	1:59.399	1:59.486	20
3	6	Nico Rosberg	Mercedes	1:57.183	1:59.445	2:00.050	23
4	14	Fernando Alonso	Ferrari	1:58.889	2:01.356	2:00.175	22
5	3	Daniel Ricciardo	Red Bull Racing-Renault	1:58.913	2:00.147	2:00.541	20
6	7	Kimi Räikkönen	Ferrari	1:59.257	2:01.532	2:01.218	21
7	27	Nico Hulkenberg	Force India-Mercedes	1:58.883	2:00.839	2:01.712	23
8	20	Kevin Magnussen	McLaren-Mercedes	2:00.358	2:02.094	2:02.213	20
9	25	Jean-Eric Vergne	STR-Renault	2:01.689	2:02.096	2:03.078	23
10	22	Jenson Button	McLaren-Mercedes	2:00.889	2:01.810	2:04.053	22
11	26	Daniil Kvyat	STR-Renault	2:01.175	2:02.351		16
12	21	Esteban Gutierrez	Sauber-Ferrari	2:01.134	2:02.369		16
13	19	Felipe Massa	Williams-Mercedes	2:00.047	2:02.460		16
14	11	Sergio Perez	Force India-Mercedes	2:00.076	2:02.511		15
15	77	Valtteri Bottas	Williams-Mercedes	1:59.709	2:02.756		17
16	8	Romain Grosjean	Lotus-Renault	2:00.202	2:02.885		17
17	13	Pastor Maldonado	Lotus-Renault	2:02.074			8
18	99	Adrian Sutil	Sauber-Ferrari	2:02.131			7
19	17	Jules Bianchi	Marussia-Ferrari	2:02.702			8
20	10	Kamui Kobayashi	Caterham-Renault	2:03.595			8
21	4	Max Chilton	Marussia-Ferrari	2:04.388			8
22	9	Marcus Ericsson	Caterham-Renault	2:04.407			7
		Q1 107% Time		2:05.385			

Note - Bottas qualified 15th but was subsequently penalised three grid places for impeding during qualifying





#### **2014 DRIVERS POINT STANDING**

Pos	Driver	Nationality	Team	Points
1	Lewis Hamilton	British	Mercedes	397
2	Nico Rosberg	German	Mercedes	317
3	Daniel Ricciardo	Australian	Red Bull Racing-Renault	238
4	Valtteri Bottas	Finnish	Williams-Mercedes	186
5	Sebastian Vettel	German	Red Bull Racing-Renault	167
6	Fernando Alonso	Spanish	Ferrari	161
7	Felipe Massa	Brazilian	Williams-Mercedes	134
8	Jenson Button	British	McLaren-Mercedes	126
9	Nico Hulkenberg	German	Force India-Mercedes	96
10	Sergio Perez	Mexican	Force India-Mercedes	59
11	Kevin Magnussen	Danish	McLaren-Mercedes	55
12	Kimi Raikkonen	Finnish	Ferrari	55
13	Jean-Eric Vergne	French	STR-Renault	22
14	Romain Grosjean	French	Lotus-Renalt	8
15	Daniil Kvyat	Russian	STR-Renault	8
16	Pastor Maldonado	Venezuelan	Lotus-Renault	2
17	Jules Bianchi	French	Marussia-Cosworth	2
18	Adrian Sutil	German	Sauber-Ferrari	0
19	Marcus Ericsson	Swedish	Caterham-Renault	0
20	Esteban Gutierrez	Mexican	Sauber-Ferrari	0
21	Max Chilton	British	Marussia-Ferrari	0
22	Kamui Kobayashi	Japanese	Caterham-Renault	0
23	Will Stevens	British	Caterham-Renault	0
24	Andre Lotterer	German	Caterham-Renault	0





#### **2014 TEAM POINT STANDING**

Pos	Team	Points
1	Mercedes	701
2	Red Bull Racing-Renault	405
3	Williams-Mercedes	320
4	Ferrari	216
5	McLaren Mercedes	181
6	Force India-Mercedes	155
7	STR-Renault	30
8	Lotus-Renault	10
9	Marussia-Ferrari	2
10	Sauber-Ferrari	0
11	Caterham-Renault	0





**NOTES** 



27-28-29 MARCH



# MEDIA

formulaonemedia

OFFICIAL MEDIA KIT



#### **MEDIA CENTRE OPERATING HOURS**

Wednesday	1200 HRS- 2000 HRS
Thursday	0900 HRS- 2200 HRS
Friday	0700 HRS- 2300 HRS
Saturday	0700 HRS- 2300 HRS
Sunday	0700 HRS- Until last journalist leave

#### **MEDIA SHUTTLE OPERATING HOURS**

There will be two sets of Media Shuttle operations

1. Photo Shuttle around the service roads

Formula One Practice Sessions and Qualifying Sessions

- First departure 60 minutes before start of the session
- ➤ Pick up 5/10 minutes after checkered flag

#### **Formula One Race**

First departure 60 minutes before the starting time of the race

#### **Support Races Practice Sessions and Qualifying Sessions**

First departure 10 minutes before start of session

#### **Support Races-Race**

First departure 15 minutes before start of race

#### 2. Between Media Accreditation Centre (MAC)- Paddock Parking

Wednesday	1100 HRS- 1800 HRS (non-European Grands					
	Prix only)					
Thursday	0800 HRS- 1800 HRS					
Friday	0800 HRS- 1600 HRS					
Saturday	0800 HRS- 1200 HRS					
Sunday	Open for national press only (at the organiser's					
	discretion)					



#### **MEDIA FACILITIES**

#### MEDIA ACCREDITATION CENTRE

Location: Pass Collection Centre at Temporary Marquee, Circuit Entrance (Before Tunnel to the paddock)

#### MEDIA CENTRE LOCATION

The main entrance is located on the first floor of the pit building. It can be accessed via the staircase adjacent to Pit 10 from F1 Paddock.

#### **MEDIA PARKING**

Media representatives (National and International) with MEDIA CAR PASSES can follow the signs to the National or International MEDIA PARKING from F1 Paddock entrance. The official car-parking sticker must be permanently affixed to the windscreen of your vehicle to gain access to the designated parking lot.

Media Parking area for 2015 Formula One PETRONAS Malaysian Grand Prix™ has been designated at the PO PARKING area, which is situated on the right side before the tunnel as you enter the circuit.

#### **TELECOMMUNICATION SERVICES**

Telecommunication services will be provided through the Telecommunication Centre situated at the Media Centre.

Media members can deal directly with the Telecommunications Centre personnel at their Reception Area to arrange for their telecommunication lines. A subsidized price of **RM240** is being offered to media members for the internet.



#### **OTHER FACILITIES**

#### **Medical Centre:**

- · A single-storey building equipped:
- · X-ray room
- · Facilities for patients with burns
- · Doping control room
- · Observation Room
- · Laboratories
- · Waiting Room
- · Ambulance passage
- · Office

#### **Plant Building:**

· This building houses all mechanical and electrical centralized monitoring systems for the building and circuit facilities.

#### **Parking Bays:**

· Over 18,000 parking bays are provided around the circuit.

#### Helipad:

· There are helipads at both ends of the Medical Centre and Plant Building.

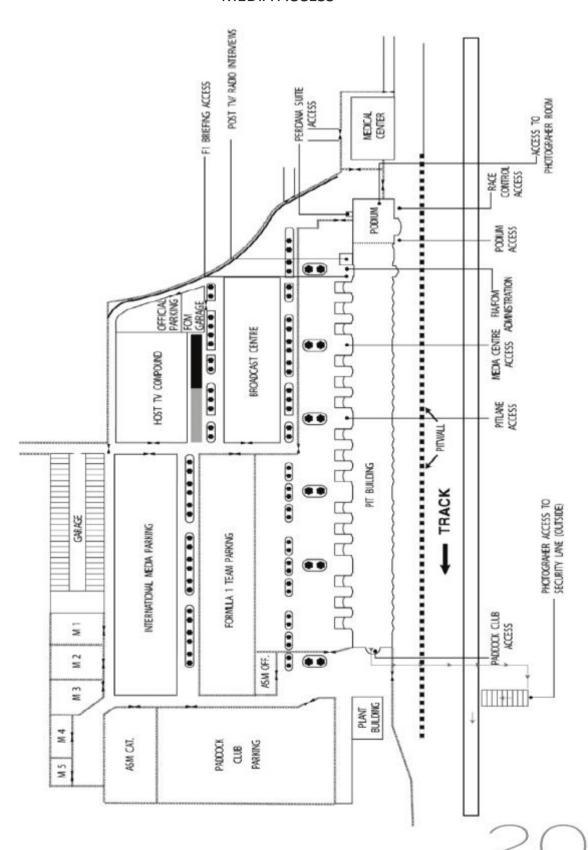
#### **Welcome Centre:**

· The Welcome Centre serves as the main nerve center of the operational activities of the circuit.

The two blocks (each 4-storey buildings) consist of a basement to store circuit equipment, first floor which has restaurant, bar, exhibition area and retail outlet facilities. It also contains various offices, classrooms, conference rooms and a mall that serves as a "bridge" to the Grandstand. The roof terrace is designed as a meeting and function area.

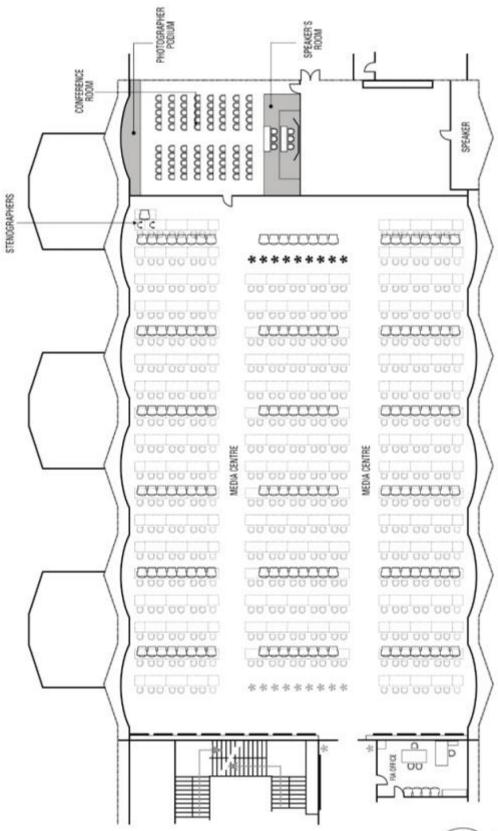


#### **MEDIA ACCESS**





#### **MEDIA CENTRE**







#### **CIRCUIT DETAILS**

Circuit: Sepang International Circuit

Venue: Sepang, Malaysia Race day: 27-29 Mac 2015

Circuit length: 5.543 km

Laps: 56

Race length: 310.408 km

Lap Record / Fastest Lap: Kimi Raikkonen – 1'32"22 (Lotus-Renault, 2012)

Direction: Clockwise

#### **FORMULA 1 RACE WINNERS**

1999 Winner Eddie Irvine, Scuderia Ferrari Marlboro

2000 Winner Michael Schumacher, Scuderia Ferrari Marlboro
 2001 Winner Michael Schumacher, Scuderia Ferrari Marlboro

2002 Winner Ralf Schumacher, Williams

2003 Winner Kimi Raikkonen, West McLaren Mercedes

2004 Winner Michael Schumacher, Scuderia Ferrari Marlboro
 2005 Winner Fernando Alonso, Mild Seven Renault F1 Team

2006 Winner Giancarlo Fisichella, Renault

2007 Winner Fernando Alonso, McLaren Mercedes

2008 Winner Kimi Raikkonen, Scuderia Ferrari Marlboro

2009 Winner Jenson Button, Brawn GP

2010 Winner Sebastian Vettel, RBR-Renault2011 Winner Sebastian Vettel, RBR-Renault

2012 Winner Fernando Alonso, Scuderia Ferrari

2013 Winner Sebastian Vettel, RBR-Renault

2014 Winner Lewis Hamilton, Williams-Mercedes

#### **Sepang International Circuit Sdn Bhd**

Jalan Pekeliling 64000 KLIA

Selangor Malaysia

Tel (+603) 8778 2200

Fax (+603) 87831000

Official website: www.sepangcircuit.com

General e-mail: ticket@sepangcircuit.com

2015

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### SEPANG INTERNATIONAL CIRCUIT SDN BHD RACE CALENDAR 2015

#### **MAIN RACES**

Event	Month	Date
Formula One Petronas Malaysian Grand Prix	March	27th March - 29th March
Shell Malaysia Motorcycle Grand Prix 2015	October	19th Oct - 25th Oct
Sepang 1000KM 2015	November	24th Nov - 29th Nov
Malaysia Merdeka Endurance Race ( Sepang 12 Hour )	December	4th Dec - 6th Dec

# MALAYSIAN SUPER SERIES <u>CARS</u>

EVENT	MONTH	DATE
Malaysia Super Series Cars Round 1	March	27th March - 29th March
Malaysia Championship Series (MCS) (known as MSS)	April	24th Apr - 26th Apr
Malaysia Championship Series (MCS) (known as MSS)	June	5th June - 7nd June
Malaysia Championship Series (MCS) (known as MSS)	August	28th Aug - 30th Aug
Malaysia Championship Series (MCS) (known as MSS)	November	6th Nov - 8th Nov





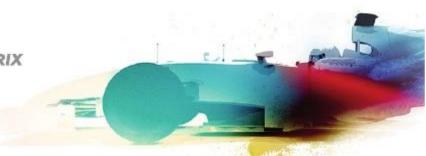
## MALAYSIAN SUPER SERIES BIKES

EVENT	MONTH	DATE
Malaysian Superbike Championship Round 1	May	9th May - 10th May
Malaysian Superbike Championship Round 2	August	1st Aug - 2nd Aug
Malaysian Superbike Championship  Round 3	September	12nd September
Malaysian Superbike Championship Round 4	September	13rd September
Malaysian Superbike Championship Round 5	November	20th Nov - 22nd Nov

#### **SEPANG DRAG BATTLE 2015**

EVENT	MONTH	DATE
Sepang Drag Battle Round 1	April	4th April
Sepang Drag Battle Round 2	May	30th May
Sepang Drag Battle Round 3	August	8th August
Sepang Drag Battle Round 4	October	10th October
Sepang Drag Battle Round 5	November	14th November



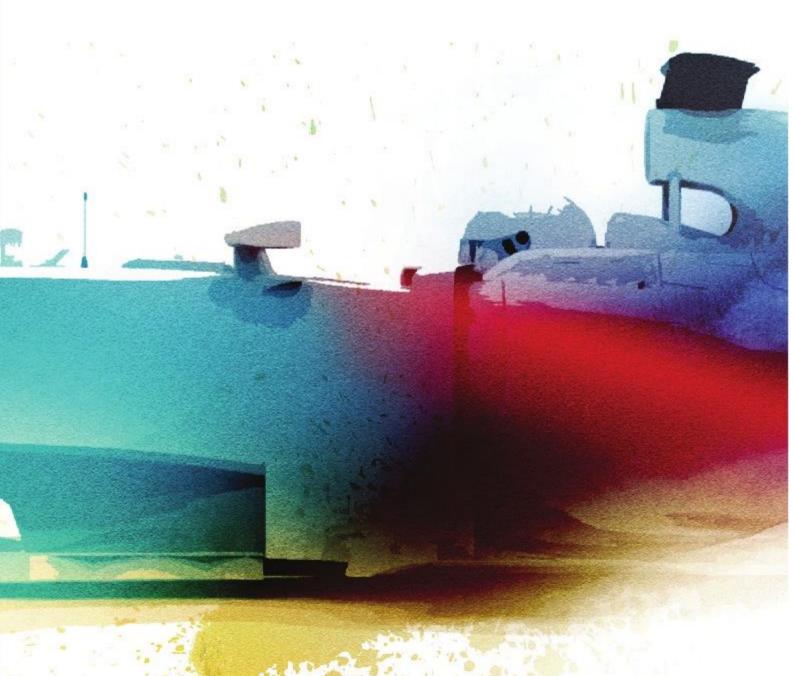


**NOTES** 



2015 FORMULA 1
PETRONAS
MALAYSIA GRAND PRIX

KUALA LUMPUR 27-28-29 MARCH



TEAM&DRIVER INFOMATION 2015

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OFFICIAL MEDIA KIT





#### **Red Bull Racing**

Full Team Name: Infiniti Red Bull Racing

Debut: Australia 2005

Base: Milton Keynes, UK

Team Principal: Christian Horner

Technical Chief: Adrian Newey

Drivers: Daniil Kvyat

Daniel Ricciardo

Test Drivers: Sebastien Buemi

Antonio Felix da Costa

Chassis: RB11

Engine: Renault

Tyres: Pirelli

First Season: 2005

World Championships: 4

Highest Race Finish: 1 (x50)

Pole Positions: 57

Fastest Laps: 44





#### **Daniil Kvyat**



Team Red Bull Racing

Nationality Russian

Podiums 0

Points 8

Grand Prix entered 19

World Championships 0

Highest race finish 9 (x3)

Highest grid position 5 (x2)

Date of Birth 26/04/1994

Place of Birth Ufa, Bashkortostan.





#### **Daniel Ricciardo**



Team Red Bull Racing

Nationality Australian

Podiums 8

Points 268

Grand Prix entered 69

World Championships 0

Highest race finish 1 (x3)

Highest grid position 2(x2)

Date of Birth 01/07/1989

Place of Birth Perth.





#### Ferrari

Full Team Name: Scuderia Ferrari

Debut: Monaco 1950

Base: Maranello, Italy

Team Principal: Maurizio Arrivabene

Technical Chief: James Allison

Drivers: Sebastian Vettel

Kimi Raikkonen

Test Drivers Esteban Gutierrez

Jean-Eric Vergne

Chassis: SF15-T

Engine: Ferrari

Tyres: Pirelli

First Season: 1950

World Championships: 16

Highest Race Finish: 1 (x221)

Pole Positions: 207

Fastest Laps: 230



#### **Sebastian Vettel**



Team Ferrari

Nationality German

Podiums 66

Points 1618

Grand Prix entered 139

World Championships 4

Highest race finish 1 (x39)

Highest grid position 1 (x45)

Date of Birth 03/07/1987

Place of Birth Heppenheim



# RIX

#### Kimi Rikkonen



Team Ferrari

Nationality Finnish

Podiums 77

Points 1024

Grand Prix entered 213

World Championships 1

Highest race finish 1 (x20)

Highest grid position 1 (x16)

Date of Birth 17/10/1979

Place of Birth Espoo





#### McLaren

Full Team Name: McLaren Honda

Debut: Monaco 1966

Base: Woking, UK

Team Principal: Eric Boullier

Technical Chief: Tim Goss

Drivers: Fernando Alonso

Jenson Button

Test Drivers: Kevin magnussen

Chassis: MP4-30

Engine: Honda RA615H Hybrid

Tyres: Pirelli

First Season: 1966

World Championships: 8

Highest Race Finish: 1 (x182)

Pole Positions: 155

Fastest Laps: 152



#### **Fernando Alonso**



Team McLaren

Nationality Spanish

Podiums 97

Points 1767

Grand Prix entered 236

World Championships 2

Highest race finish 1 (x32)

Highest grid position 1 (x22)

Date of Birth 29/07/1981

Place of Birth Oviedo



# **Jenson Button**



Team McLaren

Nationality British

Podiums 50

Points 1198

Grand Prix entered 268

World Championships 1

Highest race finish 1 (x15)

Highest grid position 1 (x8)

Date of Birth 19/01/1980

Place of Birth Frome, Somerset – UK



Lotus

Full Team Name: Lotus F1 Team

Debut: Australia 2002

Base: Enstone, UK

Team Principal: Gerard Lopez

Technical Chief: Nick Chester

Drivers: Romain Grosjean

Pastor Maldonado

Test Drivers: Charles Pic

Chassis: E23 Hybrid

Engine: Mercedes-Benz

Tyres: Pirelli

First Season: 1981

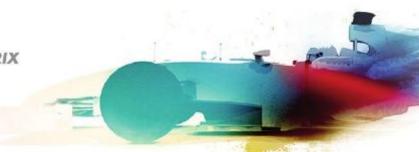
World Championships: 2

Highest Race Finish: 1 (x37)

Pole Positions: 51

Fastest Laps: 36





# **Romain Grosjean**



Team Lotus

Nationality French

Podiums 9

Points 236

Grand Prix entered 66

World Championships 0

Highest race finish 2 (x2)

Highest grid position 2 (x1)

Date of Birth 17/04/1986

Place of Birth Geneva, Switzerland



# **Pastor Maldonado**



Team Lotus

Nationality Venezuelan

Podiums 1

Points 49

Grand Prix entered 77

World Championships 0

Highest race finish 1 (x1)

Highest grid position 1 (x1)

Date of Birth 09/03/1985

Place of Birth Maracay





Mercedes

Full Team Name: Mercedes AMG PETRONAS F1 Team

Debut: Bahrain 2010

Base: Brackley, UK

Team Principal: Toto Wolf

Paddy Lowe

Technical Chief: Bob Bell

Drivers: Nico Rosberg

**Lewis Hamilton** 

Chassis: F1 W06 Hybrid

Engine: Mercedes-Benz PU106B Hybrid

Tyres: Pirelli

First Season: 2010

World Championships: 1

Highest Race Finish: 1 (x20)

Pole Positions: 27

Fastest Laps: 16





# **Nico Rosberg**



Team Mercedes

Nationality German

Podiums 26

Points 887.5

Grand Prix entered 166

World Championships 0

Highest race finish 1 (x8)

Highest grid position 1 (x15)

Date of Birth 27/06/1985

Place of Birth Wiesbaden









Team Mercedes

Nationality British

Podiums 70

Points 1486

Grand Prix entered 148

World Championships 2

Highest race finish 1 (x33)

Highest grid position 1 (x38)

Date of Birth 07/01/1985

Place of Birth Stevenage





Sauber

Full Team Name: Sauber F1 Team

Debut: South Africa 1993

Base: Hinwil, Switzerland

Team Principal: Monisha Kaltenborn

Technical Chief: Eric Gandelin

Drivers: Marcus Ericsson

Felipe Nasr

Test Drivers: Raffaele Marciello

Chassis: C34

Engine: Ferrari

Tyres: Pirelli

First Season: 1993

World Championships: 0

Highest Race Finish: 1 (x1)

Pole Positions: 1

Fastest Laps: 5





# **Marcus Ericsson**



Team Sauber

Nationality Swedish

Podiums 0

Points 0

Grand Prix entered 16

World Championships 0

Highest race finish 11 (x1)

Highest grid position 16 (x1)

Date of Birth 02/09/1990

Place of Birth Kumla





# Felipe Nasr





Place of Birth

Team	Sauber
Nationality	Brazilian
Podiums	0
Points	0
Grand Prix entered	0
World Championships	0
Highest race finish	0 (x0)
Highest grid position	0 (x0)
Date of Birth	21/08/1992

Brasilia





Force India	
Full Team Name:	Sahara Force India F1 Team
Debut:	Australia 2008
Base:	Silverstone, UK
Team Principal:	Vijay Mallya
Technical Chief:	Andrew Green
Drivers:	Sergio Perez
	Nico Hulkenberg
Nico Hulkenberg	
Chassis:	VJM08
Engine:	Mercedes-Benz
Tyres:	Pirelli
First Season:	2008
World Championships:	0
Highest Race Finish:	2 (x1)
Pole Positions:	1

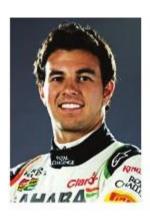
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Fastest Laps:





# **Sergio Perez**



Team Force India

Nationality Mexican

Podiums 4

Points 188

Grand Prix entered 77

World Championships 0

Highest race finish 2 (x2)

Highest grid position 4 (x2)

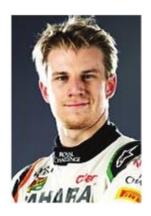
Date of Birth 26/01/1990

Place of Birth Guadalajara





# **Nico Hulkenberg**



Team Force India

Nationality German

Podiums 0

Points 232

Grand Prix entered 77

World Championships 0

Highest race finish 4 (x2)

Highest grid position 1 (x1)

Date of Birth 19/08/1987

Place of Birth Emmerich





# **Williams**

Full Team Name: Williams F1 Team

Debut: Argentina 1978

Base: Grove, UK

Team Principal: Frank Williams

Technical Chief: Pat Symonds

Drivers: Felipe Massa

Valtteri Bottas

Test Drivers: Alex Lynn

Susie Wolff

Chassis: FW37

Engine: Mercedez-Benz

Tyres: Pirelli

First Season: 1978

World Championships: 9

Highest Race Finish: 1 (x114)

Pole Positions: 128

Fastest Laps: 133





# Felipe Massa



Team Williams

Nationality Brazillian

Podiums 39

Points 950

Grand Prix entered 212

World Championships 0

Highest race finish 1 (x11)

Highest grid position 1 (x16)

Date of Birth 25/04/1981

Place of Birth San Paulo



# **Valtteri Bottas**



Team Williams

Nationality Finnish

Podiums 6

Points 190

Grand Prix entered 38

World Championships 0

Highest race finish 2 (x2)

Highest grid position 2 (x2)

Date of Birth 28/08/1989

Place of Birth Nastola





# **Toro Rosso**

Full Team Name: Scuderia Toro Rosso

Debut: Bahrain 2006

Base: Faenza, Italy

Team Principal: James Key

Drivers: Max Verstappen

Carlos Sainz Jr

Chassis: STR10

Engine: Renault

Tyres: Pirelli

First Season: 2006

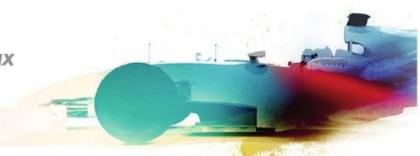
World Championships: 0

Highest Race Finish: 1 (x1)

Pole Positions: 1

Fastest Laps: 0





# **Max Verstappen**



Team Toro Rosso

Nationality Dutch

Podiums 0

Points 0

Grand Prix entered 0

World Championships 0

Highest race finish 0 (x0)

Highest grid position 0 (x0)

Date of Birth 30/09/1997

Place of Birth





# **Carlos Sainz Jr**



Team	Toro Rosso

Nationality Spanish

Podiums 0

Points 0

Grand Prix entered 0

World Championships 0

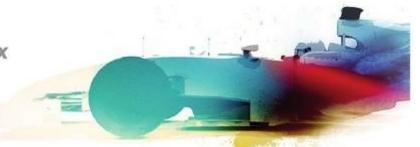
Highest race finish 0 (x0)

Highest grid position 0 (x0)

Date of Birth 01/09/1994

Place of Birth Madrid



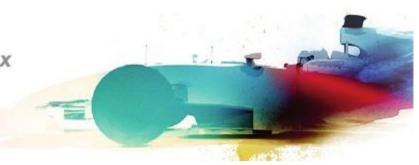


## **FORMULA 1 STATISTICS**

## THE WORLD CHAMPIONS - DRIVERS

Year	Driver	Nat.
2014	Lewis Hamilton	GBR
2013	Sebastian Vettel	GER
2012	Sebastian Vettel	GER
2011	Sebastian Vettel	GER
2010	Sebastian Vettel	GER
2009	Jenson Button	GBR
2008	Lewis Hamilton	GBR
2007	Kimi Räikkönen	FIN
2006	Fernando Alonso	ESP
2005	Fernando Alonso	ESP
2004	Michael Schumacher	GER
2003	Michael Schumacher	GER
2002	Michael Schumacher	GER
2001	Michael Schumacher	GER
2000	Michael Schumacher	GER
1999	Mika Häkkinen	FIN
1998	Mika Häkkinen	FIN
1997	Jacques Villeneuve	CAN
1996	Damon Hill	GBR
1995	Michael Schumacher	GER





1994	Michael Schumacher	GER
1993	Alain Prost	FRA
1992	Nigel Mansell	GBR
1991	Ayrton Senna	BRA
1990	Ayrton Senna	BRA
1989	Alain Prost	FRA
1988	Ayrton Senna	BRA
1987	Nelson Piquet	BRA
1986	Alain Prost	FRA
1985	Alain Prost	FRA
1984	Niki Lauda	AUT
1983	Nelson Piquet	BRA
1982	Keke Rosberg	FIN
1981	Nelson Piquet	BRA
1980	Alan Jones	AUS
1979	Jody Scheckter	RSA
1978	Mario Andretti	USA
1977	Niki Lauda	AUT
1976	James Hunt	GBR
1975	Niki Lauda	AUT
1974	Emerson Fittipaldi	BRA
1973	Jackie Stewart	GBR
1972	Emerson Fittipaldi	BRA





1971	Jackie Stewart	GBR
1970	Jochen Rindt	AUT
1969	Jackie Stewart	GBR
1968	Graham Hill	GBR
1967	Denny Hulme	NZE
1966	Jack Brabham	AUS
1965	Jim Clark	GBR
1964	John Surtees	GBR
1963	Jim Clark	GBR
1962	Graham Hill	GBR
1961	Phil Hill	USA
1960	Jack Brabham	AUS
1959	Jack Brabham	AUS
1958	Mike Hawthorn	GBR
1957	Juan-Manuel Fangio	ARG
1956	Juan-Manuel Fangio	ARG
1955	Juan-Manuel Fangio	ARG
1954	Juan-Manuel Fangio	ARG
1953	Alberto Ascari	ITA
1952	Alberto Ascari	ITA
1951	Juan-Manuel Fangio	ARG
1950	Guiseppe Farina	ITA



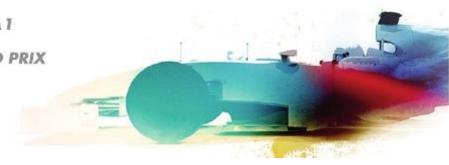


# **FORMULA 1 STATISTICS**

## THE WORLD CHAMPIONS - CONSTRUCTORS

Year	Constructor
2014-	Mercedes
2013	RBR-Renault
2012-	RBR-Renault
2011-	RBR-Renault
2010-	RBR-Renault
2009-	Brawn Mercedes
2008-	Ferrari
2007-	Ferrari
2006-	Mild Seven Renault F1
2005-	Mild Seven Renault F1
2004-	Ferrari
2003-	Ferrari
2002-	Ferrari
2001-	Ferrari
2000-	Ferrari
1999-	Ferrari
1998-	McLaren Mercedes
1997-	Williams Renault
1996-	Williams Renault
1995-	Benetton Renault





1994-	Williams Renault
1993-	Williams Renault
1992-	Williams Renault
1991-	McLaren Honda
1990-	McLaren Honda
1989-	McLaren Honda
1988-	McLaren Honda Turbo
1987-	Williams Honda Turbo
1986-	Williams Honda Turbo
1985-	McLaren
1984-	McLaren
1983-	Ferrari Turbo
1982-	Ferrari Turbo
1981-	Williams Ford
1980-	Williams Ford
1979-	Ferrari
1978-	Lotus Ford
1977-	Ferrari
1976-	Ferrari
1975-	Ferrari
1974-	McLaren Ford
1973-	Lotus Ford
1972-	Lotus Ford





1971-	Tyrrell Ford	
1970-	Lotus Ford	
1969-	Matra Ford (Tyrrell)	
1968-	Lotus Ford	
1967-	Brabham Repco	
1966-	Brabham Repco	
1965-	Lotus Climax	
1964-	Ferrari	
1963-	Lotus Climax	
1962-	BRM	
1961-	Ferrari	
1960-	Cooper Climax	
1959-	Cooper Climax	
1958-	Vanwall	



# **SPORTING REGULATIONS**

#### **2015 SEASON CHANGES**

While not on the scale of the 2014 shake-up, a number of new regulations come into effect for the 2015 season...

#### **Power units**

Each driver is restricted to four power units during the season, although that will be increased to five (as in 2014) if the number of races as originally scheduled exceeds 20. Should a driver exceed the total, a grid penalty (see below) will be imposed.

### Power unit penalties

The replacement of a complete power unit no longer results in an automatic penalty; instead penalties are applied cumulatively based on the individual components of each power unit. Unlike in 2014, grid penalties no longer roll over to the next event. If a driver is unable to take their full grid penalty, the remainder will be applied as a time penalty for the relevant Grand Prix, on the following basis:

1-5 grid places: five-second time penalty 6-10 grid places: drive-through penalty

11-20 grid places: ten-second stop-and-go penalty

More than 20 grid places: a time penalty

## **New penalties**

In addition to the five-second penalty introduced for 2014, race stewards also have the option to hand out ten-second penalties for minor infringements in 2015.

#### **Points**

Double points will no longer be applied for the season finale in 2015.

### **Standings restarts**

A proposal for standing restarts has been rescinded, meaning safety-car restarts will follow the same procedure as in previous years.

## **Virtual Safety Car**

In a bid to improve safety, particularly in the event of double waved yellow flags, a virtual safety car system designed to ensure drivers slow sufficiently has been introduced for 2015. This can be used to neutralise a race without having to introduce the safety car itself.



## **Race suspensions**

For 2015, drivers must proceed slowly into the pit lane, rather than back onto the starting grid, in the event of a race suspension.

### Clearing the grid

A driver will be forced to start from the pit lane if any member of his team, or any relevant equipment, remains on the starting grid after the 15-second signal has been shown.

#### **Unsafe releases**

For 2015, unsafe releases will be met with an automatic ten-second stop-and-go penalty for the relevant driver. Additional penalties may be imposed at the stewards' discretion.

### Safety car lapped drivers

As was the case in 2014, lapped cars may unlap themselves behind the safety car; however, the safety car will no longer need to wait until said drivers have caught back up to the back of the field before leaving the track. Instead, the safety car is free to pull back into the pits on the following lap after the last lapped car has been waved through.

#### Suspension

Any suspension systems fitted to either the front or rear wheels may only react to direct changes of load applied to the relevant section. Front-and-Rear Interconnected Suspension (FRIC) will therefore be formally outlawed.

#### Gearbox

Teams will no longer be able to re-nominate gearings during the season - they could do it once in 2014.

#### Minimum weight

The minimum weight has been increased slightly for 2015 - without fuel, each car must weigh at least 702kg.

#### Nose designs

New regulations, brought in to improve safety and also restrict strange and ugly solutions, mean nose designs become more uniform. 2014 layouts like the anteater and twin tusk will no longer be legal.

#### **Cockpit safety**

The Zylon anti-intrusion panels on both sides of the survival cell have been extended upwards to the rim of the cockpit and alongside the driver's head.



#### In-season testing

There will be two in-season two-day tests, down from four in 2014. Two of the four days in total must be reserved for young drivers.

### **Car Livery**

Teams must run their two cars with essentially the same race livery throughout the season and must seek prior approval for any major changes.

In addition there are a number of requirements that apply to liveries for all cars and teams. Every car must carry its driver's race number, which must be clearly visible from the front of the car, and the driver's name must appear on the external bodywork of the car. The team's name or emblem must also appear on the nose of the car.

To help distinguish between a team's two cars, the onboard cameras which sit on top of the main rollover structure are coloured differently. On the first car it must remain as it is supplied to the team (black) and on the second car it must be predominantly fluorescent yellow.

### Classification

A commonly asked question is how drivers can be given a placing in the official race results even though they retired before the end of the race. The explanation can be found within the FIA regulations regarding classification.

These state that any driver who completed at least 90 per cent of the race distance will be classified, whether or not he was running when the winner took the chequered flag.

If a race is stopped before the full distance and a result is declared, the classification will reflect the race order at the end of the lap two laps prior to that on which the race was stopped (see 'Suspending and resuming a race'). For example, if a race is stopped on lap 60, the classification will be as it was at the end of lap 58.

## **Drag Reduction System**

Use of the Drag Reduction System (DRS) overtaking aid (which alters the angle of the rear wing flap to reduce drag) is strictly controlled.

Drivers are free to activate the DRS as they wish within the designated DRS zones during practice and qualifying, but during the race they may only activate it when they are within one second of the car in front (indicated to him via a dashboard light) at the DRS detection



The DRS is disabled (resetting the rear wing flap to its original position) the first time the driver uses the brakes after activation.

In race conditions the DRS is available for use after two laps, but the race director may choose to suspend its use in poor weather conditions or if there are yellow flags in the DRS activation zone.

#### **Driver Changes And Additional Drivers**

Teams may use up to four drivers during a season, all of whom may score points in the championship. A driver change may be made with the permission of the stewards any time before the start of qualifying. The new driver must use the engine and tyres allocated to the original driver.

On top of this, in each of Friday's two practice sessions teams may run up to two additional drivers, though each team is still limited to two cars. Any holder of a Super License may run as an additional driver, but stewards must be informed of a team's plans before the end of initial scrutineering on the Thursday prior to practice.

## Fuel usage and refueling

Cars may use no more than 100kg of fuel in each race (with the power unit regulations stipulating that fuel flow must not exceed 100kg/hour). Drivers exceeding the fuel limit during a race will be immediately excluded from the race results.

Teams may only refuel cars in their respective garages; however they may only do it at a rate of 0.8 litres per second and may not add or remove fuel from a car during a race.

## Licenses, driving protocol and penalties

All drivers must have an FIA Super License to be able to compete in Formula One racing and the only way to get one is to meet strict performance standards.

There are strict rules governing on-track behaviour and race stewards have the power to impose various penalties on a driver committing an offence during a race or practice session. Offences include jumping the start, causing an avoidable accident, unfairly blocking another driver, impeding another driver when being lapped or speeding in the pit lane.

Drivers may not leave the track without a justifiable reason, i.e. cutting a chicane on reconnaissance laps or in-laps to save time and fuel, and more than one change of direction to defend a position is not permitted. If a driver has moved off -line to defend a position,



they may move back towards the racing line but must ensure there is at least one car's width between his own car and the edge of the track.

The two most common types of penalty in a race are the drive-through penalty, the five-second time penalty and the ten-second time penalty. In the case of the former, the driver must enter the pits, drive through the pit lane at the pit-lane speed limit and rejoin the race without stopping. Depending on the length of the pit lane this can cost a driver a significant amount of time.

More severe are the five- and ten-second time penalties (also commonly known as a stop-go penalties) where the driver must not only enter the pits, but must also stop for five/ten seconds at his pit before rejoining the race. During this time the driver's team are not permitted to work on the car or change the car's tyres.

In the case of all three penalties, a driver has three laps from the time his team is notified in which to enter the pits. Failure to do so may result in a black flag and the driver being excluded from the race.

The only exception is when the penalty is awarded during the final three laps of the race. In this case the driver may continue and complete the race. Five seconds will then be added to his total race time in lieu of a five-second time penalty, 20 seconds for a drive-through penalty, or 30 seconds in place of a ten-second time penalty, all of which are likely to drop him considerably in the final race standings.

In extreme cases stewards may choose to enforce tougher penalties. They can drop a driver any number of grid positions at the next Grand Prix (so, for example, if the driver in question goes on to qualify on pole, a ten-place penalty would for drop him to 11th). They can also impose time penalties, reprimand a driver, exclude him from the results, or suspend him from the next race.

Any driver receiving three reprimands during a season will automatically receive a ten-place grid penalty for the current or next event, but only if two or more of the reprimands were for driving infringements. The stewards may also impose penalty points on a driver's Super License. If a driver accrues 12 penalty points in a 12-month period they will have their Super License suspended for one race.

#### **Officials**

At every Grand Prix meeting there are seven key race officials who monitor and control the activities of the stewards and marshals to ensure the smooth and safe running of the event in accordance with FIA regulations.

Five of the seven officials are nominated by the FIA. These are the race director (currently Charlie Whiting), a permanent starter and three additional stewards, one of whom is nominated chairman and one of whom is an experienced former driver. The additional stewards must be FIA Super Licence holders.



The other two key officials are nominated by the National Sporting Authority (ASN) of the country holding the race. These are the clerk of the course and an additional steward (who must be a national of the host nation). Both must be FIA Super Licence holders.

The clerk of the course works in consultation with the race director, who has overriding authority. The race director directs the clerk of the course on how to instruct the stewards during the various practice, qualifying and race sessions.

The race director and the clerk of the course, as well as the FIA technical delegate (currently Jo Bauer), must all be present at the event from 10am on Thursday (Wednesday in Monaco) onwards.

The race director, the clerk of the course and the chairman of the stewards must all be in radio contact while cars are on track. Furthermore, at these times the clerk of the course must be in the race-control headquarters and in radio contact with all of the marshals' posts.

#### **Parc Ferme**

Parc ferme is an enclosed and secure area in the paddock where the cars are weighed and any other checks deemed necessary by race officials are made. Teams must leave their cars here from within three and a half hours of the end of the qualifying on Saturday until five hours before the start of the formation lap on Sunday.

However, the cars are deemed to be under parc ferme conditions for a much longer period - from the time they first exit the pits during qualifying until the start of the formation lap immediately prior to the race.

Under these conditions, the work teams may carry out on their cars is limited to strictly-specified routine procedures, which can only be performed under the watchful eye of the FIA Technical Delegate and race scrutineers. Fuel may be added to the cars, tyres changed and brakes bled. Minor front wing adjustments are also allowed, but little else. These controls mean that teams cannot make significant alterations to the set-up of a car between qualifying and the race.

The only exception to this is when there is a "change in climatic conditions", for example a dry qualifying session followed by a wet race, or vice versa. In this case the FIA will give the teams permission to make further appropriate changes to their cars.

At the end of the race, when the cars have passed the chequered flag, they must be driven straight to the post-race parc ferme without delay or assistance from marshals. The only exception is for the winning driver who may perform an act of celebration before reaching parc ferme, providing he does it safely and without calling into question the legality of his car.



#### Pit-lane procedures

The pit lane at every circuit is divided into two lanes. The lane closest to the pit wall is known as the 'fast lane', whilst the lane closest to the garages is the 'inner lane'.

The FIA allocates garages and an area in the 'inner lane' where the teams may work, and within each space is one position - or pit box - where pit stops may be carried out during practice sessions, qualifying and the race.

Apart from drying or sweeping, teams are forbidden from improving the grip of their pitstop position. Personnel are only allowed in the pit lane immediately before the stop and must withdraw to their garages as soon as their work is complete. It is also the team's responsibility to release a car from its stop only when it is safe to do so.

During practice, refuelling is only permitted in a team's garage. The driver may remain in the car, but the engine must be stopped. During all refuelling or fuel handling operations personnel working on the car must wear protective fire-resistant clothing and an assistant carrying a suitable fire extinguisher must be present.

Teams are free to alter their cars' fuel loads at will during practice and qualifying, but since 2010 adding (or removing) fuel during a race has been forbidden.

There is a pit-lane speed limit of 80km/h at all Grands Prix except Australia, Monaco and Singapore, where due to track configuration the limit is 60km/h.

#### **Points**

The top ten finishers in each Grand Prix score points towards both the drivers' and the constructors' world championships, according to the following scale:

1st: 25 points 2nd: 18 points 3rd: 15 points 4th: 12 points 5th: 10 points 6th: 8 points 7th: 6 points 8th: 4 points 9th: 2 points

10th: 1 point

(The only exceptions to this is when a race is suspended and cannot be restarted, in which case if less than 75 percent of the race distance has been completed half points are awarded, and if less than two laps have been completed, no points are awarded.)

For example, if in a given race Daniil Kvyat finishes second for Red Bull and team mate



Daniel Ricciardo fifth, then Kvyat and Ricciardo score 18 and ten points respectively towards the drivers' championship, while Red Bull score 28 points (18 plus 10) towards the constructors' championship.

The drivers' and constructors' championship titles are awarded to the driver and constructor who score the most points over the course of the season. In the case of a dead heat for a championship place then the driver or constructor with the higher number of superior race results will be awarded the place.

## Practice and qualyfying

At each Grand Prix meeting all race drivers may participate in two one and a half-hour practice sessions on Friday (Thursday at Monaco), a one-hour session on Saturday morning and a qualifying session on Saturday afternoon. While individual practice sessions are not compulsory, a driver must take part in at least one Saturday session to be eligible for the race.

Saturday's qualifying session, designed to take about an hour, is split into three distinct parts, each with multiple drivers on track simultaneously, and each with the drivers running as many laps as they want:

Q1: All 22 cars may run laps at any time during the first 18 minutes of the hour. At the end of the first 18 minutes, the six slowest cars drop out and fill the final six grid places. However, any driver whose best Q1 lap time exceeds 107 percent of the fastest time set during that session will not be allowed to take part in the race.

(Under exceptional circumstances, which could include setting a suitable lap time in a practice session, the stewards may allow the driver to start the race. Should there be more than one driver accepted in this manner, the grid order will be determined by the stewards.)

Q2: After a seven-minute break, the times will be reset and the 16 remaining cars then will then run in a 15-minute session - again they may complete as many laps as they want at any time during that period. At the end of the 15 minutes, the six slowest cars drop out and fill places 11 to 16 on the grid.

Q3: After a further eight-minute break, the times are reset and a final 12-minute session will feature a shootout between the remaining 10 cars to decide pole position and the starting order for the top 10 grid places. Again, these cars may run as many laps as they wish.

If a driver impedes another driver during qualifying, his times may be cancelled or he may be given a grid penalty.



#### Race distance

Formula One races are, with one exception, all of near identical distance. However, the differing average speeds of the various circuits mean that some races invariably take longer to complete than others.

The regulations state that the distance of a Formula One race is the least number of laps exceeding 305 kilometres. For example, the Spanish Grand Prix at Barcelona's Circuit de Catalunya is 66 laps long as this is the number of laps required to surpass the 305-kilometre threshold.

The only exception to this rule is the Monaco Grand Prix, where the race distance is the least number of laps exceeding 260 kilometres.

However, if any race exceeds two hours in duration, the leading driver will be shown the chequered flag at the end of the lap during which the two-hour mark elapsed, regardless of the number of laps completed.

### Race start procedure

Prior to every Grand Prix the teams and drivers must adhere to a very strict starting procedure. This gets underway 30 minutes before the formation lap when the pit lane is opened.

Drivers are then free to complete a reconnaissance lap of the circuit before taking up their grid positions. If a driver wishes to complete additional reconnaissance laps he must pass through the pit lane each time in order to bypass the grid.

The pit lane closes 15 minutes prior to the formation lap. Any drivers still in the pit lane at this time will have to start the race from there.

Ten minutes before the start the grid must be cleared except for team technical staff, race officials and drivers. With three minutes to go all cars must have their wheels fitted (any car not complying will receive a 10-second time penalty).

With a minute to go all cars must have their engines running. All personnel must then leave the grid at least 15 seconds before the green lights come on to signal the start of the formation lap.

Any driver who has a problem immediately prior to the green light must raise his arm to indicate this. Once the rest of the field has moved off marshals will push the car into the pit lane.

During the formation lap no practice starts are allowed. Overtaking is also forbidden unless passing a car that has slowed due to a technical problem. Passed cars may in turn reovertake in order to regain their grid position if the problem is resolved during the course of





the formation lap.

However, any driver who is still on the grid when all other cars have moved off on the formation lap, but then subsequently gets away, may not re-pass cars to regain his grid position, but must instead start from the back.

Once all cars have safely taken up their grid positions at the end of the formation lap five red lights will appear in sequence at one-second intervals. These red lights are then extinguished to signal the start of the race.

If a driver has a problem on the grid immediately prior to the start he must raise his arm and the start will be aborted. A new formation lap, which will count towards the race distance, will then be completed.

The only exceptions to these start procedures are connected to the weather. If it starts to rain in the three minutes prior to the start then the abort lights will come on and the starting procedure will revert to the 10-minute point to allow teams to change to appropriate tyres.

If the weather is exceptionally bad the race director may choose to abort the start and resume the starting procedure only when conditions have improved. Alternatively, he may decide to start the race behind the safety car.

### Safety car

The safety car's main function, as its name implies, is to assist in maintaining safe track conditions throughout the Grand Prix weekend. It is driven by an experienced circuit driver and carries an FIA observer who is in permanent radio contact with race control.

If an accident or incident occurs that is not severe enough to warrant suspending the race, but which cannot be dealt with under yellow flags, then the safety car will be called on to the circuit to slow the cars down.

It will come on to the circuit with its orange lights on and all drivers must form a queue behind it with no overtaking allowed. The safety car will signal backmarkers to pass by using its green light until the race leader is immediately behind it.

If the incident that brought out the safety car has blocked the pit straight, the clerk of the course may direct the safety car to lead the field through the pit lane. Cars are free to stop at their pit garage should this happen.

When the safety car is ready to leave the circuit it extinguishes its orange lights, indicating to the drivers that it will peel off into the pits at the end of the current lap. The drivers then continue in formation until they cross the first safety-car line where green lights will indicate that they are free to race again.



In exceptional circumstances, such as in extremely poor weather, a race may begin behind the safety car, which will put its orange lights on ten minutes before the start to indicate this. When those lights switch to green the safety car will lead the field around the circuit in grid order.

Overtaking on this first lap is not allowed, unless a car has a problem getting away from the grid, in which case the delayed driver may repass cars in order to regain his original position. (If he fails to regain that position before the end of the lap, he must pit and rejoin the race once the field have passed the pit exit.) The safety car will peel into the pits at the end of the lap and drivers are free to race once they have crossed the first safety car line immediately prior to commencing the next lap.

No overtaking is allowed if the safety car is on track on the final lap of a Grand Prix. All laps completed behind the safety car count as race laps.

## Scrutineering and weighing

A team of specially appointed scrutineers has the power to check cars at any point during a Grand Prix weekend to ensure that they fully comply with technical and safety regulations.

Every car is initially examined on the Thursday of a race meeting (Wednesday at Monaco) and a car cannot take part in the event until it has passed scrutineering. A car must be reexamined by scrutineers if any significant changes are made to it by the team or if it is involved in an accident.

In addition to scrutineering, cars are also weighed during the Grand Prix weekend to ensure that they comply with minimum weight requirements (691kg). Cars taking part in Q1 and Q2 are called in at random to be weighed, while all cars participating in Q3 are weighed after the session. Classified finishers are weighed again after the race.

Any competitor failing to meet the minimum weight may lose their qualifying times or be excluded from the race results unless this is due to the accidental loss of part of the car.

#### Space cars, engines and gearboxes

FIA regulations state that teams may have no more than two cars available for use at any one time. Spare cars are not allowed, though teams may bring additional chassis which can be built up in the event of a race chassis being damaged beyond repair.

If a driver switches car between qualifying and the race then he must start the race from the pit lane. A change of car is not allowed once the race has started.

There are also restrictions on power unit (engine and associated Energy Recovery Systems) and gearbox use. Each driver may use no more than five power units during a championship season.



The power unit is deemed to consist of six separate elements, of which five of each are available to each driver per season before they are penalised. The elements are the engine, the motor generator unit-kinetic (MGU-K), the motor generator unit-heat (MGU-H), the energy store (ES), turbocharger (TC) and control electronics (CE). Should a driver use more than five of any one component he faces a penalty ranging from a five-place grid drop, a 10-place grid drop, or (if the entire power unit has to be changed) starting the race from the pit lane.

If the grid penalty imposed cannot be taken in full at one event, the remainder of the penalty is carried over to the following event. For example, if a driver qualifies 15th and is then given a 10-place grid penalty he'll be dropped seven grid places to 22nd and last at that meeting and then the remaining three grid places from wherever he qualifies at the next event.

Each driver may use no more than one gearbox for six consecutive events. Every unscheduled gearbox change will require the driver to drop five places on the grid at that meeting. Every subsequent unscheduled gearbox change will require the driver to drop five places on the grid. Gearbox ratios are fixed for the season (for 2014 only teams may renominate ratios once), but teams may change gears or dog rings at any time during an event providing that the FIA technical delegate is satisfied that there is physical damage to the parts in question.

If a driver fails to finish a race due to reasons beyond his or his team's control, he may start the next meeting with a different gearbox without incurring a penalty.

### Suspending and resuming a race

If a race is suspended because of an accident or poor track conditions then red flags will be shown around the circuit. When this happens, the pit exit will be closed and all cars on track must proceed slowly to grid without overtaking and then stop in staggered formation with the first car to arrive taking up pole position. Any driver pitting after the red flag signal will be given a drive-through penalty.

The safety car will then be driven to the front of the queue. While the race is suspended team members may come onto the track to work on the cars, but refuelling is not allowed.

Cars that were already in the pits when the red flag signal was given may be worked on there. These cars can re-join the cars on the grid in the position they were in at the time of the race suspension.

At least a ten-minute warning will be given before the race is resumed behind the safety car, which will lead the field for one lap before pulling into the pits. As usual, overtaking behind the safety car is forbidden, unless a driver is delayed when leaving the grid, forcing others to pass. In this case, the delayed driver may repass those cars in order to regain his original position. If he fails to regain that position before the end of the lap, he must pit and rejoin



the race once the field have passed the pit exit.

If for whatever reason it is impossible to resume the race, the rules state that "the results will be taken at the end of the penultimate lap before the lap during which the signal to suspend the race was given".

No race may exceed four hours in length, regardless of suspensions.

#### **Testing**

As the sport's technical demands have grown in recent years, so too has the importance of testing. But with the FIA ever mindful of rising costs, since 2009 teams have been limited to 15,000 test kilometres during a calendar year. Promotional events (of which each team is allowed two per season up to a maximum distance of 100km each) do not count towards this tally.

Testing can only take place with one car per team at FIA-approved sites and cannot take place outside of Europe without the agreement of a majority of the teams. Ahead of a session, teams must inform the governing body of their schedule so that an observer can be appointed if deemed necessary. All cars must be fitted with the standardised, FIA-approved Electronic Control Unit and have successfully passed all FIA-mandated crash tests.

Three team tests of no more than four days are permitted between January 20 and ten days preceding the first race of the season. Four tests of no more than two consecutive days are also permitted at circuits where an event has taken place, but must commence no less than 36 hours after the end of said event.

All competitors must observe a factory shutdown period of 14 consecutive days in August, during which time their wind tunnels and Computational Fluid Dynamics (CFD) facilities must not be used for Formula One activities.

From 2014 onwards there are heavy restrictions on wind tunnel testing, both in terms of what may be done and how long it may be done for. As before, the scale models used may be no larger than 60 percent and speeds are limited to 50 metres per second. Similar restrictions also apply to CFD simulation work. There are also revised limitations to the amount of running teams can do with previous or historic cars.

### **Tyres**

Formula One racing features a single tyre supplier, with all teams using identical Pirelli rubber. The advantages of this (over multiple tyre suppliers) include closer racing and reduced testing and development costs.

At each Grand Prix every team is given access to two specifications (or compounds) of dryweather tyre. Unless conditions are wet, drivers must use both specifications during the



race. The specifications can be visually differentiated by the colouring of the sidewall lettering: super soft - red; soft - yellow; medium - white; hard - orange.

Over the race weekend, each driver has access to 13 sets of dry-weather tyres (seven of the harder 'prime' specification and six of the softer 'option' specification), four sets of intermediate tyres and three sets of wet tyres.

One set of 'prime' tyres may only be used during the first 30 minutes of Practice One and must be returned to the tyre supplier before Practice Two. One further set of primes must be returned before Practice Two and one set of each specification must be returned before the start of Practice Three.

This leaves a driver with nine sets of dry-weather tyres (four prime and five option specification) for the rest of the event, but one set of each spec must be returned to the tyre supplier before the start of Saturday's qualifying session.

Furthermore, one set of 'option' tyres may only be used during Q3, by those cars that qualified for Q3, and must be returned to the tyre supplier before the start of the race. One set of 'option' tyres, which were allocated to cars which did not qualify for Q3, may only be used during the race. At the start of the race the cars that took part in Q3 must be fitted with the tyres the driver used to set his fastest Q2 time.

At certain events, teams may be given an extra set of 'primes' or 'options' for use in P1 and P2 for evaluation purposes. Teams will be given at least a week's notice when either of these scenarios is to occur.

Teams are free to use wet tyres as they see fit during qualifying and the race. However, during the preceding practice sessions, they may only be used if the track has been declared wet by the race director. If P1 and P2 are both declared wet one set of the tyres normally returned before the start of P3 may be retained by each driver but must be returned to the tyre supplier before the start of qualifying. If a race is started behind the safety car due to heavy rain, the use of wet tyres is compulsory. Wet tyres are denoted by blue sidewall lettering, with green for intermediates.

Unless wet tyres have been used, drivers must use both dry tyre compounds during a race and failure to do so will see them excluded from the results. Or if the race is suspended and can't be restarted, 30 seconds will be added to the elapsed race time of any driver who hasn't used both compounds.

All tyres are given a bar code at the start of the weekend so that the FIA can closely monitor their use and ensure that no team is breaking regulations.



## **TECHNICAL REGULATIONS**

## **Bodywork and dimensions**

The size and dimensions of Formula One cars are tightly controlled by the regulations. They must be no more than 180cm wide. The length, height and shape of the car are effectively governed by other specific parameters. For example, bodywork between the front and rear wheel centre lines must not be more than 140cm wide.

The strict regulations mean that the teams inevitably end up with very similarly sized cars. A typical car will be in the region of 463cm long, 180cm wide and 95cm high.

With the exception of the rear wing (see below), moveable bodywork is not allowed. Furthermore, any system, device or procedure which uses driver movement as a means of altering the aerodynamic characteristics of the car's bodywork is prohibited.

Cars may be equipped with moveable rear wings which allow the driver to control the wing's angle of incidence (within specified limits) from the cockpit (commonly known as a Drag Reduction System, or DRS). However, during the race the system is electronically governed and is only available when a driver is less than one second behind another car at pre-determined points on the track. The system is then deactivated once the driver brakes. In combination with ERS, this is designed to boost overtaking.

Certain sections of bodywork, such as the front wing endplates, are required to be sufficiently thick to prevent tyre damage to other cars.

Bodywork that flexes excessively could in theory be used to gain an aerodynamic advantage. Therefore specific sections of the bodywork, such as the front wing, must be sufficiently rigid to pass the FIA's ever more stringent deflection tests.

### **Brake system**

Formula One cars must have one brake system operated through a single brake pedal. However, the system must comprise two hydraulic circuits - one for the front wheels and one for the rear. Should one circuit fail the other must remain operational. Anti-lock braking systems (ABS) are not allowed - brake pressure must be controlled by the driver's physical input only and not by any other system. The only exception is the electronic rear brake control system, introduced in 2014 to compensate for the extra power being generated under braking by Energy Recovery Systems (ERS).

Each wheel must have no more than one brake disc of 278mm maximum diameter and 28mm maximum thickness. Each disc must have only one aluminium caliper, with a maximum of six circular pistons, and no more than two brake pads.

The size of the air ducts used to cool the brakes is strictly controlled and they must not protrude beyond the wheels. The use of liquid to cool the brakes is forbidden.



#### Car cosntruction

The construction of Formula One cars and the materials used are strictly controlled by the regulations to maximise their safety.

The main structure of the car comprises a safety cell which contains the cockpit plus the flexible fuel cell, which is housed immediately behind (but separated from) the driver.

This safety cell must meet minimum size requirements and must have an impact-absorbing structure immediately in front of it. The design of the car must also include an additional impact-absorbing structure at the rear, behind the gearbox, and on the flanks of the car.

The car must have two roll structures to protect the driver in the event of the car overturning. One must be immediately behind the driver's head, the other at the front of the cockpit, immediately ahead of the steering wheel.

The car and its survival cell must pass several strict impact, roll and static load tests before the car is allowed to take to the track.

### Cockpit

The size of a Formula One car's cockpit opening must comply with strict specifications. Compliance with these specifications is tested by lowering a specially made template into the cockpit.

In addition to this, the cockpit must meet numerous other requirements. A driver must be able to get in and out of the car without removing anything other than its steering wheel. Once strapped into the car with all his safety gear on, he must be able to remove the steering wheel and get out within five seconds, and then replace the steering within a further five seconds.

The car's survival cell structure, designed to protect the driver in the event of an accident, must extend at least 300mm beyond the driver's feet, which must not be forward of the front-wheel centre line.

#### **Eectrical systems**

The electrical and software systems of all cars are inspected by the FIA at the start of the season and the teams must notify them in advance of any subsequent changes. All teams must use the same FIA-specification Electronic Control Unit (ECU) for controlling power unit and gearbox.

All software must be registered with the FIA, who check all the programmable systems on the cars prior to each event to ensure that the correct software versions are being used. Electronic systems which can automatically detect the race start signal are forbidden.



In the event of an accident, each car carries an accident data recorder and is also fitted with a warning light which is connected to the FIA data logger. The light, which is situated on the top surface of the car, in front of the cockpit, illuminates automatically, thus giving rescue crews an immediate indication of the accident severity.

In the cockpit, every car must have a track signal information display (usually integrated into the steering wheel), which informs the driver of circuit conditions via red, blue and yellow lights (corresponding to the colours of the track marshals'flags).

### **Fuel**

Formula One cars run on petrol, the specification of which is not that far removed from that used in regular road cars. Indeed, the FIA regulations state that the rules are "intended to ensure the use of fuels which are predominantly composed of compounds normally found in commercial fuels and to prohibit the use of specific power-boosting chemical compounds."

All fuel must comply with strict requirements and prior to each race the teams must supply the FIA with two separate five-litre samples for analysis and approval. Additional samples can then be taken during the event to ensure that there is no discrepancy between the fuel being used and that previously supplied in the samples.

### Fuel system and refuelling

The fuel tanks on Formula One cars comprise a single rubber bladder. These must be made of materials approved by the FIA and must be manufactured by certain approved companies.

The tank must be situated directly behind the driver and directly ahead of the engine. All fuel lines must be self-sealing in the event of an accident and no lines must pass through the cockpit.

The fuel tank must be encased within a crushable structure that forms part of the car's safety cell. This structure must be able to withstand very high impact loads as specified in the regulations.

The FIA may take a one-litre fuel sample from any car at any time during a Grand Prix meeting to check that the fuel being used is legal.

## Impact testing

Formula One cars must pass strict impact tests to ensure they meet the necessary safety standards before they are allowed out on track. The tests must be carried out under FIA guidelines and in the presence of an FIA technical delegate.



The cars undergo a front, side and rear test. The tests focus on the car's survival cell, which must be left undamaged by the impacts. All structural damage must be limited to the car's impact absorbing structures, for example, the side-pods, the nose etc.

The car's steering column must also pass an impact test, which simulates the unlikely event of a driver's head striking the steering wheel. The column itself must deform to absorb the majority of the impact and the wheel's quick release mechanism must not be damaged.

### Oil and coolant systems and charge air coding.

The design and location of the oil tanks on Formula One cars are strictly controlled to minimise the risk of oil leaking in the event of an engine failure or an accident. Oil may not be added to cars during the race.

The car's coolant header tank must have an FIA-approved pressure release valve. The car's cooling systems (including the charge air cooler connected to the turbocharger) must not make any use of the latent heat produced by the cooling process.

Coolant and oil lines are not allowed to pass through the cockpit. They must also be fitted so that any leaked fluid cannot find its way into the cockpit.

### **Power Unit and ERS**

A Formula One car's power unit consists of a 1.6-litre turbocharged V6 engine which operates in conjunction with an Energy Recovery System (ERS). The engine must have six cylinders in a 90-degree formation, with two inlet and two exhaust valves per cylinder and a single turbocharger. They are rev-limited to 15,000rpm, have a fuel flow limit of 100 kilograms/hour and produce around 600bhp. They must also have a single tailpipe exhaust.

The other part of the power unit - ERS - provides an additional 160bhp or so per lap via two clever motor generator units (MGU) that convert mechanical and heat energy to electrical energy and vice versa.

The first MGU (known as MGU-K, where the K stands for kinetic) converts kinetic energy generated under braking into electricity. Under acceleration 120kW of this electricity, which is stored in batteries in the Energy Store (ES), can then be used to power the MGU-K which is connected to the crankshaft of the engine and in turn helps propel the car.

The second MGU (known as MGU-H, where the H stands for heat), is connected to the turbocharger and converts heat energy from exhaust gases into electrical energy. The energy can then be used to power the MGU-K or be retained in the ES for subsequent use. In total, ERS has twice the power of the pre-2014 KERS (120kW compared to 60kW, a maximum of 4MJ per lap compared to 0.4MJ per lap) and provide it for nearly ten times as long (approximately 33 seconds per lap as opposed to six).



For safety, each car is fitted with ERS status lights which warn marshals and mechanics of the car's electrical safety status when it is stopped or in the pits. If the car is safe, the lights - which are situated on the roll hoop and the rear tail lamp - will glow green; if not, they glow red. The lights must remain on for 15 minutes after the power unit has been switched off.

The overall weight of the power unit must be a minimum of 145kg. The ES must be installed wholly within the survival cell and must weigh between 20kg and 25kg.

The materials used in the manufacture of the engine and its components are strictly controlled by the regulations. The crankcase and cylinder block must be made of cast or wrought aluminium alloys - the use of composite materials is not allowed. The crankshaft and camshafts must be made from an iron-based alloy, pistons from an aluminium alloy and valves from alloys based on iron, nickel, cobalt or titanium.

Formula One cars do not have their own, onboard starting systems. Separate starting devices may be used to start engines in the pits and on the grid. If the engine is fitted with an anti-stall device, this must be set to cut the engine within ten seconds in the event of an accident.

### Roll structure testing

All Formula One cars must pass strict roll structure tests to ensure that the driver is adequately protected should the car turn over during an accident.

### Safety equipment

All cars must be fitted with a fire extinguishing system that will discharge into the co ckpit and engine compartment. It must be operable by the driver and must function even if the car's main electrical circuit fails.

There must also be a switch to trigger the system from outside the cockpit. Its location on the bodywork is indicated by a red letter "E" inside a white circle.

There must be a circuit breaker switch in the cockpit that the driver can use to cut all the car's main electrical circuits. This is marked on the dashboard by a red spark in a white-edged blue triangle. There must be an additional switch that marshals can operate from a distance with the use of a special hook. This switch is located at the base of the car's main roll-over structure.

All cars must have two rear-view mirrors, whose size and location must comply with strict requirements. Drivers must demonstrate to the FIA the effectiveness of the mirrors by identifying special letter and number boards placed at various distances behind the car whilst seated in the cockpit.

Seatbelts are compulsory in Formula One racing. Drivers must wear two shoulder straps,



one abdominal strap and two straps between the legs. These must comply with strictly specified FIA standards.

All cars must have a red light on the rear of the car in a specific location defined by the FIA regulations. The driver must be able to switch this light on at any time. This is usually done in poor weather conditions in order to make the car more visible to following drivers.

The cockpit of the car must be padded to protect the driver in the event of an impact. In particular, the areas immediately behind and to the sides of his head, and above and to the sides of his legs.

In order to easily extract a driver from a car in the event of an accident its seat must be removable with the driver in place and his seatbelts fastened. The seat must be secured by no more than two bolts, which can be released using a standard tool issued to all rescue crews.

### Static load testing

In addition to impact tests, Formula One cars, and in particular the survival cell that houses the driver, must also pass static load tests. These ensure that the structure of the car meets minimum strength requirements.

The survival cell is tested, as is the nose and the rear impact structure of the car. In addition, the floor below the fuel tank and the cockpit, and the rim of the cockpit must also pass strict tests. All of these requirements help to make Formula One cars safer than ever before.

As with impact tests, cars must pass static load tests before they can take to the track.

### Suspension and steering systems

Formula One cars must have conventional sprung suspension. Any system, such as active suspension, that can alter the suspension or its geometry while the car is moving is forbidden.

The suspension members must have a symmetrical profile for the majority of their length. This is to prevent designers using them as aerodynamic devices.

Each wheel must be tied to the body of the car by two tethers, each contained within a separate suspension member and with its own attachments at either end. The tethers must meet specific tensile strength requirements and are designed to stop the wheels coming loose from the car in the event of an accident or suspension failure.

Power steering systems are allowed, but these must not be electronically controlled or powered. Four-wheel steering is forbidden. The car's steering wheel, steering column and steering rack all have to pass an FIA impact test.



### Television cameras and timing transponders

Throughout the Grand Prix weekend all cars must be fitted with at least five housings for cameras which are used to provide on-board TV footage.

The positions of the housings are specified in the regulations and the one mounted on top of the air box immediately behind the driver's head must always contain a camera.

All cars must also be fitted with two timing transponders supplied by the officially appointed timekeepers. These transponders allow the timekeepers to record every lap time of every car throughout the weekend.

### **Transmission system**

Formula One cars use semi-automatic gearboxes. The regulations stipulate they must have eight forward gears, plus reverse. Each team must nominate the eight forward gear ratios at or before the first race of the season. For 2014 only, teams are allowed to re-nominate these ratios once during the season, at which point the original nomination becomes void.

Constantly Variable Transmission (CVT) systems are not allowed and cars may have no more than two driven wheels. Transmissions may not feature traction control systems, nor devices that help the driver to hold the clutch at a specific point to aid getaway at the start of the race.

For safety reasons all cars must have a means of disengaging the clutch that is operable from outside the cockpit by marshals. This control is usually situated just ahead of the cockpit opening and is marked on the car's body by a red letter 'N' within a white circle.

### Weight

Cars must weigh at least 691kg (including the driver but not fuel) at all times. Cars are weighed with dry-weather tyres fitted.

Teams may use ballast to bring cars up to weight but it must be firmly secured to the cars. Ballast may not be removed or added during a race.

For 2014, weight distribution on the front and rear wheels has been fixed.

### Wheels and tyres

Formula One cars must have four, uncovered wheels, all made of the same metallic material, which must be one of two magnesium alloys specified by the FIA. Front wheels must be between 305 and 355mm wide, the rears between 365 and 380mm. With tyres fitted the wheels must be no more than 660mm in diameter (670mm with wetweather tyres). Measurements are taken with tyres inflated to 1.4 bar. Tyres may only be inflated with air or nitrogen.



# **F1 TEAMS ADDRESS**

## **RED BULL RACING**

Red Bull Racing, Bradbourne Drive, Tilbrook, Milton Keynes, MK7 8BJ, United Kingdom.

## **FERRARI**

Ferrari SpA, Headquarters and Factory Via Abetone Inferiore n. 4, I-41053 Maranello (MO).

## **MCLAREN**

McLaren Technology Centre, Chertsey Road, Woking, Surrey, GU21 4YH England.

## **LOTUS**

Lotus F1 Team, Whiteways Technical Centre, Enstone Brackley, United Kigdom.

## **MERCEDES**

Mercedes AMG Petronas F1, Reynard Park, Brackley Northampshire, NN13 7BD.

## **SAUBER**

Sauber Motorsport AG, Wildbachstrasse 9, CH-8340 Hinwil, Switzerland.



## **FORCE INDIA**

Sahara Force India F1 Team, Dadford Road, Silverstone Northamptonshire, NN12 8TJ United Kingdom.

## **WILLIAMS**

Williams F1, Grove Wantage, Oxfordshire, OX12 ODQ, United Kingdom.

# **TORO ROSSO**

Scuderia Toro Rosso SPA, Via Spallanzani, 21, 48018 Faenza (RA), Italy.



27-28-29 MARCH





### **MALAYSIAN SUPER SERIES**

## SUPPORT RACE FOR 2015 FORMULA 1 PETRONAS MALAYSIA GRAND PRIX

Pitting top drivers from Malaysia and its neighbouring countries, the Malaysian Super Series (MSS) car competition kicks off its 14th season in grand style - joining the festivities and excitement of the 2015 Formula 1 PETRONAS Malaysia Grand Prix™ as one of its support races.

A platform for Malaysian drivers and racing teams to enhance their competition skills as well as to unearth new talents, the MSS is also an affordable series that provides a perfect avenue for racing enthusiasts to enjoy the sport. Initially starting off as a combined championship for cars and bikes, the series has grown in strength and support, especially after SIC – the promoter and organiser of the MSS – decided to incorporate one of the rounds as support races for world class events – the car competition at the F1 weekend and the bike competition at the World Superbike Championship Malaysia Round later this year.

To inject further excitement this year, SIC decided to split the five rounds this year into two endurance weekends and three sprint events including the one contested during the Formula 1 weekend.

The series remains a competition of two categories – the Touring Production for cars between 1601cc to 1900cc, and the Malaysian Touring Car class for cars between 1401cc and 1600cc. Best friends Damien Dielenberg and Tommy Lee will be gunning a hat trick this season in defending their Touring Production crown while an Indo-Malaysian partnership of Fitri Eri and Mark Darwin will be seeking a second crown in 2015.

## **MALAYSIA SUPER SERIES - 2015 CALENDAR**

Round 1 - 27 – 29 March 2015 (Sprint)

Round 2 - 24 - 26 April 2015 (Endurance)

Round 3 - 5 - 7 June 2015 (Sprint)

Round 4 - 28 – 30 August 2015 (Endurance)

Round 5 - 6 - 8 November 2015 (Sprint)

Ends



### **TOURING CAR INTERNATIONAL SERIES**

### SUPPORT RACE FOR 2015 FORMULA 1 PETRONAS MALAYSIA GRAND PRIX

Sepang International Circuit (SIC) – home of the 2015 Formula 1 PETRONAS Malaysia Grand Prix™ is creating history, as it hosts the opening round of the newly-created Touring Car International Series, which has strong prospects to prosper and grow into a leading international series like the World Touring Car Series.

Following the staging of the opening round in Sepang, the TCR International Series' 12-round first season will also support two other rounds of the Formula 1 Championship – in Shanghai, China in April and at Marina Bay in Singapore in September.

Designed to be a new low-cost touring car series, the TCR International Series takes a different approach while still supported by the manufacturers. In TCR, the manufacturers will homologate the cars, building the cars themselves or through a recognised partner, but the teams will run the cars, unlike other international touring car series where the manufacturers also run their own teams and support customer programmes as a secondary function.

TCR is envisioned as a secondary market between the national championships and a means to provide opportunities to compete at affordable costs, so that the drivers can gain experience competing at an international level to improve and move up to other championships.

Cars are required to be built by manufacturers or recognised partners to ensure sufficient standardisation and benchmarking, and to maintain affordability. Competing teams will also be able to use tuning kits authorised by the manufacturers, to meet the benchmarks.

As at January this year, manufacturers that have confirmed their participation for the TCR Series include SEAT, Volkswagen, Ford and Honda, with teams run by Target Competition (SEAT), Liqui Moly Team Engstler (Volkswagen), WestCoast Racing (Honda) and Paolo Coloni Racing (TBC)

### **CALENDAR 2015**

Round 1: Sepang, Malaysia - 29 March 2015

Round 2: Shanghai, China - 12 April 2015

Round 3: Valencia, Spain - 3 May 2015

Round 4: Algarve, Portugal - 10 May 2015

Round 5: Monza, Italy - 24 May 2015

Round 6: Salzburgring - 31 May 2015

Round 7: Sochi Autodrom, Russia - 21 June 2015

Round 8: Buenos Aires, Argentina - 26 July 2015

Round 9: Codegua, Chile - 9 August 2015

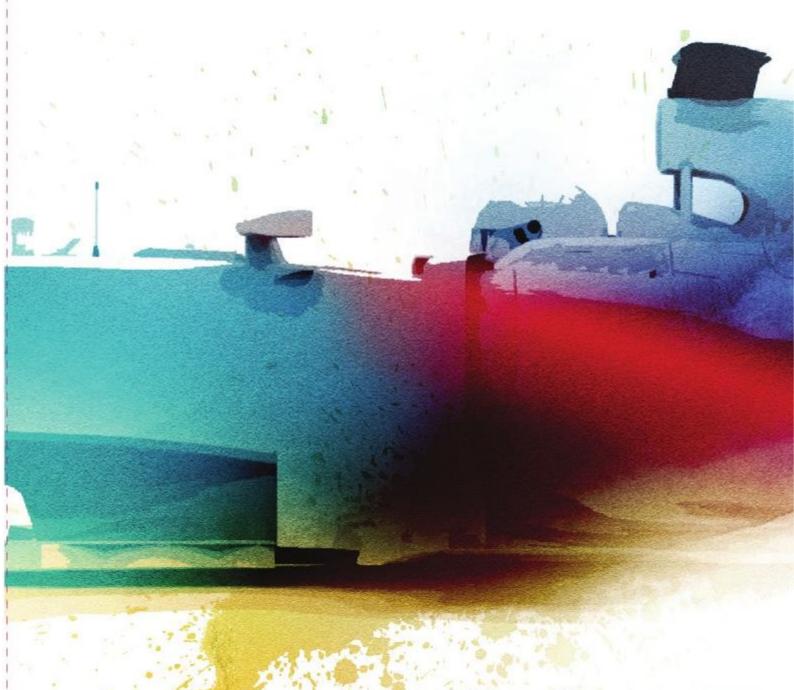
Round 10: Marina Bay, Singapore - 20 Sep 2015

Round 11: Buriram, Thailand - 25 Oct 2015

Round 12: To Be Announced - 22 Nov 2015

Ends





MAPS

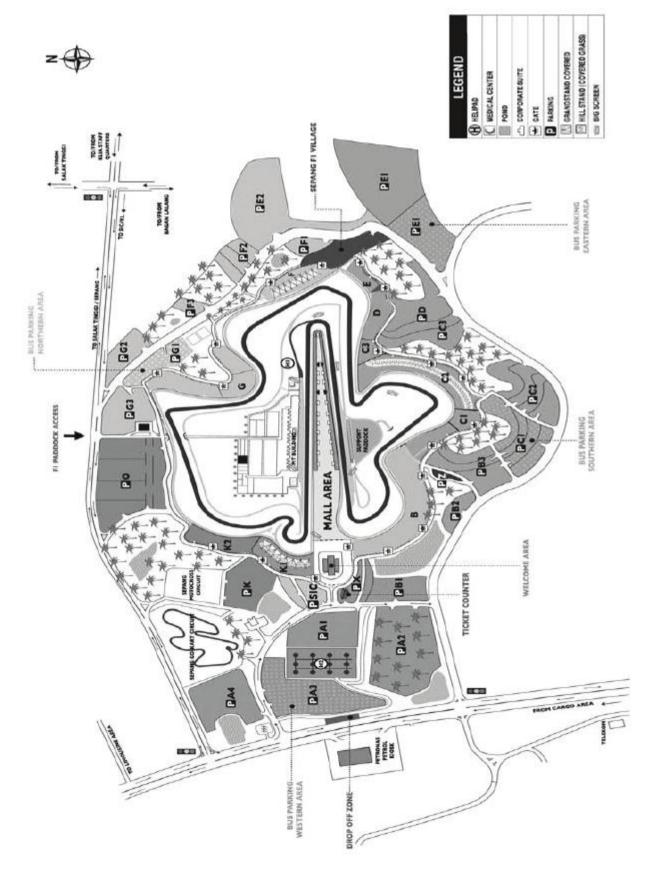
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# **SEPANG CIRCUIT – GENERAL INFORMATION**

The Sepang International Circuit is 5.543 kilometers long. The Sepang Circuit is the most spectacular race circuit in the Eastern hemisphere. Built at a cost of US\$120 million, the Sepang Circuit was fully completed in November 1998. Its first racing event taking place on the 12th December, which was the Proton 300km Merdeka Race. The circuit actually consists of one circuit within another. The main race track being 5.543km and the other option being 2.805km.

Some of the most spectacular features of the circuit are the smooth and sweeping chicane capable of negotiating at speeds in excess of 200kph. The fastest part of the circuit is the straight between T15 and T1 or usually known as the home straight. Speed can reach up to about 350kph. Spectators would be advised to wear ear plugs especially on the grandstands. The pits consist of many spectacular features such as built-in team office and conference area.

In a typical F1 Grand Prix, it runs for a total of 56 laps. The track has almost no gradients and includes two very long straights where speeds are in excess of 180 mph. The track is known as a car breaker and any car with a reliability problem will most probably not see the end of this race. There are many places for overtaking on this circuit and this often leads to very compelling racing.

Being one of the best circuits in the world, its facilities are rated superb by drivers and experts. In 1999, the inaugural Malaysian Grand Prix attracted 80,000 spectators and an estimated television audience of 300 million, and earned Malaysia more than USD\$140 million in foreign exchange. The debut race will always be remembered for a controversial Ferrari disqualification, when Irvine and Schumacher finished 1st and 2nd, only to have their points taken away over a disagreement about the size of the F399's bargeboards. The points were eventually reinstated after an FIA hearing in Paris, just prior to the final race of the 1999 world championship.

The Sepang Circuit is located about 60km from the capital city of Kuala Lumpur and about 15km from the Kuala Lumpur International Airport (KLIA). The circuit is linked to the city & the airport with an excellent highway system. Travelling by road on the expressway will approximately takes about 40 minutes from the city to the circuit.

Street signs are clearly visible on the highway.



# **SPECTATORS AREA**

#### Main Grandstand:

· The unique double frontage Main Grandstand, which accommodates 30,000 spectators, is equipped with numbered seats. It is devided into two sections; the North Wing and the South Wing, each with a Lower level and an Upper level.

### **Lower Level:**

- · 9 rows of seating
- · 18 Corporate Boxes
- · 11 retail outlets
- · Toilets
- · Prayer rooms

## **Upper Level:**

- · 5 rows of seating
- · 18 Corporate Suites
- · 42 Speaker cabins
- $\cdot$  The Canopy Tower at the end of the Main Grandstand is a 3-storey tower with capacity for 1,100 spectators.

### **Natural Stands:**

• There are 4 natural Stands situated around the Circuit. They can accommodate 100,000 spectators at any one time. Spectators will enjoy the racing thrills from any vantage point.

## PIT BUILDING SPECIFICATIONS

## **Ground Floor:**

- · 350m length, 24m to 30m in width
- · 30 pit garages each with an area of 8m wide, 24m deep
- · 15 team rooms
- · Photographers areas
- · 2 prayer rooms
- · parc ferme enclosure 155m3
- · Scrutineering Bay 155m3
- · Storage area
- · 2 tunnels for under circuit external access, 6m wide

## **Mezzanine Floor:**

- · Race Control Room, 64m2
- · Time Keeping Room, 55m2
- · 12 Offices, for the FIA and FOA
- · 2 Conference Rooms
- · Main Office Rooms
- · Winners Podium
- · Interview Room
- · Media Centre (for approximately 500 journalists)



· Hospitality area with freight elevator

## **Second Floor:**

- · Royal Lounge and garden
- · Hospitality area

## Points of interest:

Earthworks have included the movement of approximately 9,000,000m3 of soil approximately 10,000m2 of aluminium cladding was used 10,000 palm trees have been planted around the circuit and parking areas. SIC built their own asphalt and concrete plant plants along with a workers village, up to 2000 workers worked on the circuit at the same time

## **SEPANG F1 CIRCUIT ARCHITECT:**

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