

# INTERNATIONAL COURT OF APPEAL (ICA)

of the

# FEDERATION INTERNATIONALE DE L'AUTOMOBILE

Appeal brought by the

Österreichischer Automobil-Motorrad und Touring Club – Oberste Nationale Sportkommission für den Motorsport (ÖAMTC-OSK)

on behalf of its licence-holder Infiniti Red Bull Racing against

the decision No. 56 dated 16<sup>th</sup> March 2014 of the Race Stewards of the 2014 Australian Grand Prix counting towards the 2014 FIA Formula One World Championship by which car No. 3 (Driver Daniel Ricciardo) was found to be not in compliance with the Technical Regulations and therefore excluded from the results of the race.

Case ICA-2014-01

Hearing of Monday 14th April 2014 in Paris



The FIA INTERNATIONAL COURT OF APPEAL ("the Court"), comprising Mr Harry Duijm (Netherlands), who was designated President, Mr Rui Botica Santos (Portugal), Mr Philippe Narmino (Monaco), Mr Antonio Rigozzi (Switzerland) and Mr Jan Stovicek (Czech Republic), met in Paris on Monday 14<sup>th</sup> April 2014 at the Fédération Internationale de l'Automobile, 8 place de la Concorde, 75008 Paris.

Ruling on the appeal brought by the Österreichischer Automobil-Motorrad und Touring Club – Oberste Nationale Sportkommission für den Motorsport ("ÖAMTC-OSK") on behalf of its licence-holder Infiniti Red Bull Racing (the "Appellant" or "Red Bull") against Decision No. 56 issued on 16<sup>th</sup> March 2014 by the Race Stewards of the 2014 Australian Grand Prix (the "Stewards") in Melbourne counting towards the 2014 FIA Formula One World Championship, by which the Stewards decided to exclude Red Bull's car No. 3 from the 2014 Australian Grand Prix for an alleged infringement of Article 5.1.4 of the FIA 2014 Formula One Technical Regulations (the "TR"), the Court heard the submissions and examined the witnesses produced by the Appellant and the FIA. It also heard the submissions presented by third party Mercedes AMG Petronas F1 team ("MAMG").

The following persons attended the hearing:

on behalf of Red Bull:

Mr Christian Horner (Team Principal) Mr Ali Malek QC (Attorney-at-law) Mr Michael Lazarus (Attorney-at-law) Ms Anastasia Fowle (Internal Legal Counsel) Ms Katie Tweedle (Communications Manager) Mr Adrian Newey (Chief Technical Officer, witness) Mr Paul Monaghan (Chief Engineer of Car Engineering, witness) Mr Jeff Calam (Research & Development Project Engineer, witness) Mr David Mart (Renault Sport F1 Mechanical Engineer, witness)

on behalf of the FIA:

Mr Jean-Louis Valentin (Secretary General for Sport) Mr Sébastien Bernard (Head of Legal Department) Mr Charlie Whiting (F1 Race Director) Mr Pierre Ketterer (Internal Legal Counsel) Mr Jonathan Taylor (Attorney-at-law) Mr Jamie Herbert (Attorney-at-law) Ms Delphine Camboulives (Lawyer) Mr Fabrice Lom (Head of Powertrain, witness)



On behalf of the third party MAMG: Mr Paul Harris QC (Attorney-at-law) Ms Caroline McGrory (Director of Legal and Commercial Affairs) Mr Oliver Rumsey (Senior Legal Counsel) Mr Evan Short (Race Team Electronics Leader, witness)

On behalf of the third party McLaren Racing Ltd ("McLaren") Mr Mark Hubbard (Senior Counsel) Mr Filippo Sappia (Trackside Systems Engineer)

On behalf of the third party Lotus F1 Team ("Lotus") Mr Alan Permane (Trackside Operations Director) Mr Nick Chester (Technical Director) Mr Andrew Ford (Team Principal)

On behalf of the third party Williams Grand Prix Engineering Ltd ("Williams") Mr Pat Symonds (Chief Technical Officer)

On behalf of the observer Sahara Force India F1 Team ("Force India") Ms Leslie Ross (General Counsel)

Also attending the hearing:

Mr Jean-Christophe Breillat (Secretary General of the FIA Courts) Mr Nicolas Cottier (Clerk of the FIA Courts) Mrs Sandrine Gomez (Administrator of the FIA Courts)

The parties filed their written submissions and, at the hearing of 14<sup>th</sup> April 2014, set out their oral arguments and answered the questions asked by the Court. The hearing took place in accordance with the adversarial principle, with the aid of simultaneous translation; no objection to any element of the hearing, notably the simultaneous translation, was raised by anyone.



## **REMINDER OF THE FACTS**

- 1. In December 2012, the FIA World Motor Sport Council approved the new 2014 FIA Formula One Championship technical regulations developed by the FIA Technical Working Group and proposed by the FIA F1 Commission; these: (a) required the replacement of the 2.4-litre normally-aspirated V8 engines (as they existed at that time) with 1.6-litre V6 turbocharged engines, revolving to a maximum of 15,000 rpm, with 120 kW of additional power generated by the Energy Recovery System; and (b) introduced a limit on total fuel consumption of 100 kg per race.
- 2. The new regulations also introduced a new limit on instantaneous fuel flow, i.e. on the rate at which fuel may flow into the engine's fuel injectors. The limit ("the Fuel Flow Limit" or "FFL") is linked to rpm but with a maximum rate of 100 kg/h (at 10,500 rpm and above).
- 3. The FIA approved a methodology for policing this rule using a sensor, referred to as a fuel flow meter or "FFM SENSOR", to measure a car's fuel flow rate ("FFR"). In this context, the FIA selected the Gill's Ultrasonic Sensor to be a sensor that meets the FIA's standards of accuracy and reliability. This sensor uses ultrasonic technology to measure the fuel flow rate as it passes through the sensor on its way out of the fuel tank, and transmits these measurements on a real-time basis to the FIA and to the relevant team.
- 4. The accuracy of each sensor manufactured by Gill is verified before use by a calibrator company approved by the FIA. To date, only one company, namely Calibra, is approved by the FIA to calibrate the sensors. Calibra has developed a bench test with the FIA to meet the specifications required by the latter.
- 5. The calibration of each sensor is specific to the fuel specified by the relevant team. A calibration table is built and programmed into the sensor and a calibration check is then completed; this consists of a series of lap simulations. The tolerances of measurement are  $\pm -0.5\%$ .
- 6. Two practical issues were identified by the FIA during the development and testing of the FFM SENSOR. In some cases, the FFM SENSOR would stop providing any FFR at all or the FFM SENSOR would include a significant negative offset from actual FFR due to the fact that the FFM SENSOR initialises at an incorrect level and, as a result, understates the actual FFR.
- 7. As a solution to the first issue, namely when the FFM SENSOR stops, the system automatically switches to a back-up method using FFR estimates generated by the engine's fuel flow model, which is corrected for accuracy by applying the differential recorded between the FFR measurements reported by the sensor before it failed and the FFR estimates being generated by the model over the same period.



- 8. When the FFM SENSOR "offsets" the issue can be cleared by re-setting the system. If this is not possible, for instance because the issue happens in qualifying or during the race, the FIA will then measure the fuel flow by switching to a back-up system, i.e. using the FFR estimates generated by the fuel flow model, corrected by reference to the differential between the most recent valid sensor FFR measurements values and the FFR estimates from the model in the same period.
- 9. Prior to the beginning of the 2014 season, the FIA issued two Technical Directives ("TD"): TD/031-13 (Fuel Flow Sensors) and TD/016-14 (Fuel Flow Monitoring), explaining how the sensor system would operate in practice and giving directions as to what would happen if a particular sensor stopped producing proper readings. As explained in these TDs, either the system would switch automatically or the FIA would approve a switch to the back-up solution, i.e. using the fuel flow model estimates of FFR, corrected by reference to the difference between the most recent valid sensor FFR measurements and the FFR estimates from the model over the same period.
- 10. The Renault Sport engine, with which Red Bull's car No. 3 is equipped, uses software that estimates the rate of fuel flow into the injectors based on a calculation.
- 11. Red Bull had two calibrated FFM SENSORs for its car No. 3, namely the FFM SENSOR No. 73 and the FFM SENSOR No. 139. During the Australian Grand Prix, car No. 3 was equipped with FFM SENSOR No. 73, which was checked by the FIA once it had been installed in the car.
- 12. In the first two practice sessions of the Australian Grand Prix, the FFM SENSOR reported the averaged FFR at just under 100 kg/hr (98.9 to 99.5) for runs 2 and 3 of the first practice, increasing to just over 100 kg/hr (100.2 to 100.6) for run 4, and then staying at around that level (100.4 to 101.0) for the whole of the second practice.
- 13. The FFM SENSOR No. 73 was replaced by the Appellant with FFM SENSOR No. 139 for the third practice session and for the qualifying session. In the meantime, following discussions between Mr Fabrice Lom, FIA's Head of Powertrain, and Mr. David Mart, Renault Sport F1 Mechanical Engineer, the Appellant had turned the engine settings back to the original settings. As the FFM SENSOR No. 139 failed to work at all, no sensor measuring was made on the Appellant's car No. 3 in either the third practice session or in the qualifying session.
- 14. Both Mr Lom and Mr Charlie Whiting, FIA F1 Race Director, told the Appellant that it had to put a FFM SENSOR back in its car No. 3 for the race, which the Appellant did. Should the FFM SENSOR not function properly, Mr Lom instructed the Appellant verbally and by an email that it would have to apply a correction factor of 1.015 to the estimates of fuel flow rate produced by the Renault



model, as calculated on the basis of the most recent FFM SENSOR data from the second practice session and in application of the procedure set out in TD/016-14.

- 15. During the race, according to the readings of the FFM SENSOR No. 73, the Appellant's car No. 3 was exceeding the FFL and reported higher FFR than those estimated by the Renault model. It appeared that the Appellant did not apply the correction factor indicated by the FIA. The FIA warned then the Appellant that car No. 3 was exceeding the FFL and told them to reduce its FFR.
- 16. The Appellant then asked its driver to apply the correction and to turn the engine's settings down. Since, according the Appellant, this caused a loss of power of 0.4 seconds per lap, an internal discussion took place within the Appellant's team, and after just seven laps, most of them having taken place while the safety car was on the track, the Appellant instructed its driver to turn the FFR back up. The FFM SENSOR No. 73 then showed an FFR above 100 kg/h until the end of the race.
- 17. Based on the above, the Appellant's car No. 3 was referred to the Stewards for exceeding the FFL. The Appellant argued that the FFM SENSOR's readings were faulty and that it was, therefore, entitled to ignore them and to rely only on the Renault model's data.
- 18. The Stewards rejected this argument and, referring to the aforementioned Technical Directives, argued that the Appellant should have applied the correction factor indicated by the FIA.
- 19. Based on the foregoing, the Stewards, having heard Red Bull representatives, decided, on 16<sup>th</sup> March 2014 at 1.55 pm (CET), to exclude Red Bull's car No. 3 from the race results of the Australian Grand Prix for a breach of Article 5.1.4 of the Formula One Technical Regulations and issued the decision No. 56 (the "Decision")

## **PROCEDURE AND REQUESTS OF THE PARTIES**

- 20. Red Bull lodged an appeal (the "Appeal") before the Court, via its ASN, the ÖAMTC-OSK, on 20th March 2014, at 11.27 am (CET), against the Decision.
- 21. In its grounds of appeal, received by the Court on 31<sup>st</sup> March 2014, the Appellant contends that the Court should:
  - find that Red Bull did not breach Article 3.2 of the FIA Formula One sporting regulations or Article 5.1.4 of the FIA Formula One Technical Regulations during the 2014 Australian Grand Prix;



- order that the Decision be set aside;
- order that the original second placing of Daniel Ricciardo ("the Driver") be reinstated;
- order that the driver and constructor points applicable to the said second placing be reinstated;
- order that the FIA be required to pay the costs of the appeal as defined by Article 18.2 of the Judicial and Disciplinary Rules of the FIA ("JDR").
- 22. The FIA, in its grounds in response received by the Court on 9<sup>th</sup> April 2014, invites the Court to confirm the Decision on all points and to order Red Bull to pay the costs of the appeal.
- 23. MAMG requested to take part in the present proceedings as a third party, as provided for in Article 17.8 iii) JDR, which was admitted by the President of the Hearing in its decision dated 28<sup>th</sup> March 2014. In this capacity, MAMG requested in its submissions, received by the Court on 9 April 2014, that the Court not only confirms the penalty imposed on the Appellant but that a more severe sanction of a ban of no less than three races, plus a disqualification for a further 6 months, suspended for a year, be imposed on Red Bull.
- 24. McLaren, Lotus and Williams also applied to be considered as third parties, and these applications were granted by the aforementioned decision of the President of the Hearing; none of the three third parties submitted any written observations, and none took any active part in the hearing.
- 25. Force India applied, in accordance with Article 18.4 b) JDR, only to be authorized to attend the hearing with the status of observer; this was granted by the aforementioned decision of the President of the Hearing.

### ADMISSIBILITY

- 26. The Court acknowledges that the Appellant filed its Appeal in conformity with the JDR, which is undisputed.
- 27. The Court also finds that it has jurisdiction in the matter.
- 28. Therefore, the Court declares the appeal admissible.

## ON THE SUBSTANCE

- *a)* Arguments of the parties
- 29. The Appellant does not contest that the FFM SENSOR No. 73 fitted in the fuel tank of its car No. 3 reported an excessive FFR during the race in Melbourne.



However, it does claim that this FFM SENSOR No. 73 provided unreliable measurements.

- 30. The Appellant's opinion on the inaccuracy of the FFM SENSOR No. 73 is based on the fact that it reported an increase in car No. 3's FFR during the first practice session, whereas such an increase was not reflected in the Appellant's own estimates of its car No. 3's FFR. The Appellant adds that other factors indicated that its estimates were correct and that the FFM SENSOR No. 73's measurements were incorrect. According to the Appellant, its own estimates showed that car No. 3 had not exceeded the FFL during the race.
- 31. The Appellant also submits that the Decision is ill-grounded because the Stewards assumed that the FFM SENSOR measurements must be conclusive unless the FIA has agreed that they are unreliable and has given its permission to use alternative data, which, according to the Appellant is not provided for in the Technical Regulations but only in the FIA Technical Directives which are not legally binding.
- 32. The FIA stresses that FFL must be determined by a homologated FFM SENSOR fitted into the car's fuel tank. The FFM SENSOR is calibrated under the FIA's supervision and is fitted and operated under the control of the FIA and in accordance with its strict requirements.
- 33. According to the FIA, where the rules of the sport establish a strict performance limit, as provided for in Article 5.1.4 TR, compliance with this limit must be determined by the officially controlled, uniformly applicable method specified by the FIA in the Technical Directives. Competitors cannot just pick and choose the method which suits them.
- 34. Noting that the Appellant accepts that the FFM SENSOR fitted in its car No. 3 measured FFR levels that were in excess of the regulatory limit, the FIA argues that this was because the Appellant disregarded the FIA's express warning to turn the engine's fuel flow rate down in order to comply with that limit.
- 35. The FIA then adds that the Appellant's own estimation of its car No. 3's FFR in Melbourne also showed that that car exceeded the FFL during the Australian Grand Prix.
- 36. The FIA also argues that it never admitted that FFR estimates produced by the engine's fuel flow model could be used to determine compliance with the FFL. The estimates are only back-up solutions to be used under limited circumstances controlled by the FIA and only if the model estimates are corrected based on the differential between the last valid sensor data and the model estimates for the same period.



- 37. This is the only way, according to the FIA, to ensure the accuracy and fairness of the measurement and, where necessary, to protect the integrity of the sport.
- 38. MAMG developed several points in its written observations and at the hearing, which can be summarised, in essence, as follows:
  - 1. The Appellant proves to be inconsistent when, on the one hand, it admits that the FFM SENSOR is the most accurate, and indeed the primary, measure for checking the FFL and on the other hand, it argues that its own estimates are more relevant in the present case.
  - 2. The Appellant's measurement method is not reliable because pre-race measurements differ from the post-race measurements. The difference of 0.14% put forward by the Appellant is only a difference between the levels of inaccuracy. On top of that, the test provided by the Appellant to demonstrate the accuracy of its method, does not replicate race conditions, such as fuel burning or vibrations, and is, therefore, imperfect.
  - 3. The Appellant's measurement method is not based on physical means but purely on a software model that depends on input data, which cannot be checked by the FIA.
  - 4. The Appellant's data do not show all the relevant variables, and the four variables shown by the Appellant in order to validate its measurement method are not even equal.
  - 5. If the Appellant is correct, this would mean that every team could ignore the TD and the FIA measurement systems; for instance, the measurements of the car's weight and many other measurements that are made before, during or after a race.
  - 6. Ultimately, according to Article 17.9 JDR, the Court has the power to increase the penalty imposed on the Appellant, because the evidence provided in the appeal proceedings enables it to see much more clearly than the Stewards.
- b) Conclusions of the Court
- 39. The Court finds that the main issue in this case is whether or not the Appellant's car No. 3 exceeded the FFL set under Article 5.1.4 during the race.
- 40. Article 2.7 TR provides: "it is the duty of each competitor to satisfy the FIA Technical Delegate and the stewards of the meeting that his automobile complies with these regulations [the 2014 Formula One Technical Regulations] in their entirety at all times during an Event".



- 41. According to the clear wording of Article 2.7 TR, the burden of proof as to a car's compliance with the TR is borne by the competitor and not by the FIA.
- 42. In that perspective, the Court finds that if the TD are not legally binding *per se*, the issuance of TD 031-13 and TD/016-14 must be understood in the context of Article 2.7 TR, and must also take into account the need for the competitors to know how they can satisfy their obligations towards the FIA Technical Delegates and the stewards of the meeting as to the proof that their car is compliant with the TR.
- 43. As Article 2.7 TR provides that any competitor must, at any time, be able to prove that his car is compliant with the TR, a competitor who follows the procedures set out in TD/016-14 and TD/031-13 will obviously have satisfied the FIA Technical Delegate that his car does comply with the regulations as set out in Articles 5.14 and 5.15 of the F 1 SR, assuming, of course, that the measurements indicated by the sensor homologated by the FIA or the back-up system with the correction factor did not show that the car exceeded the limit set in that article.
- 44. If a competitor decides not to follow the TD, he has to accept the risk that the evidence he intends to bring as an alternative to that foreseen by the TD will not satisfy the Technical Delegate, the Stewards or, should the matter come before it, the International Court of Appeal.
- 45. The Court notes that the Appellant obviously knew the risk of not following the TD and accepted it. Indeed, this is reflected in the transcript of its conversation over the intercom produced under No. 48 of the Appellant's written grounds of appeal, where Mr Monaghan, Chief Engineer for the Appellant, said that he would defend before the Stewards the Appellant's decision not to follow TD/016-14 and to rely on the estimates of its fuel flow model.
- 46. The Court must now decide whether the evidence brought forward by the Appellant proves that the Appellant's car No. 3 complied with Article 5.1.4 TR at all times.
- 47. The Court notes first that the Appellant does not contest that the FFM SENSOR No. 73 indicated that the FFR of its car No. 3 exceeded the 100 kg/h provided for in Article 5.1.4 TR.
- 48. The Court then refers to TD/016-14, as well as to the documentation submitted by the FIA and to the witness statement of Mr Lom, Head of Powertrain at the FIA.
- 49. The Court notes that the FFM SENSOR No. 73, just like all other FFM SENSORs, is an official device homologated by the FIA.
- 50. In this context, the Court also took due note that neither the technology nor the calibration were disputed in the present case.



- 51. After having carefully considered all the evidence submitted by the parties and assessed the divergent expert witness evidence presented at the hearing, the Court is not satisfied that the Appellant did establish that car No. 3 did not exceed the FFL of 100kg/h during the race.
- 52. The Court considered in particular the fact that the Appellant's fuel flow model, as is the case for the other F1 competitors, is not another piece of equipment in the engine measuring the rate of fuel flow together with the FIA homologated FFM SENSOR. Indeed, a fuel flow model does not measure, but rather estimates the rate at which fuel flows into the injectors based on how the engine is expected to perform. It is, therefore, based purely on a software calculation.
- 53. The nature and function of the fuel flow model were not actually disputed by the Appellant.
- 54. The Appellant submits that the results produced by its fuel flow model prove that the measurements made by the FFM SENSOR No. 73 are unreliable.
- 55. The Court finds it worth stressing that in doing so, the Appellant does not rely on an FIA homologated methodology for measuring fuel flow but only on its own methodology, as it decided not to follow the procedures of TD/016-14.
- 56. As evidence of the reliability of its fuel flow model, the Appellant provided a series of graphs. According to the Appellant, these graphs show that no changes were indicated in the FFR of its car No. 3 based on its fuel flow model, whereas FFM SENSOR No. 73 had shown changes. It is the Appellant's view that these discrepancies prove that FFM SENSOR No. 73 is inaccurate.
- 57. The Court noted that several graphs actually showed that parameters had changed from one lap to the other and that one cannot, therefore, conclude that the fuel flow model did not change notably during the various practice runs. On top of this, it appears that not all parameters leading to the determination of a car's FFR were shown in the graphs.
- 58. The Court also noted with interest the remark made by Mr Short, Race Team Electronics Leader for MAMG, regarding the impossibility of reading some of the data shown on the graph, because they were hidden by the "noisy signal" emitted by the vibrations of the engine during the runs.
- 59. The Court, as regards to the Technical Regulations, noted that according to Article 2.7 *in fine* TR "*no mechanical design may rely upon software inspection as a means of ensuring its compliance.*" In other words, the Appellant, who decided not to follow the TD/016-14, cannot in any case simply rely on a software model to prove the compliance of its car No. 3 with Article 5.1.4 TR.



- 60. Finally, the Court notes that the Appellant compares the data from its fuel flow model against the data from the FFM SENSOR No. 73 related to runs made during practices before the race, in order to prove the conformity of its car No. 3 with Article 5.1.4 TR during the race.
- 61. Based on all the above, the Court finds that the Appellant did not prove that its fuel flow model estimates the fuel flow (very) accurately and/or more accurately than the FFM Sensor 73 and does not find any element in the present case that could prove that the Appellant's car No. 3 did not exceed the fuel mass flow limit of 100kg/h set out in Article 5.1.4 TR.
- 62. Considering the evidence based on the measurements made by the FFM SENSOR No. 73 during the race in Australia, and with reference to Article 2.7 TR, the Appellant therefore failed to convince the Court that its car complied with Article 5.1.4 TR at all times during the F1 2014 Australian Grand Prix. Now that car No. 3 exceeded the FFL during the race, the driver has been excluded from the race results in accordance with the provisions of Article 29.5 of the F1 sporting regulations.
- 63. The quantum of this sanction is not disputed by the Appellant, who did not request that the sanction imposed by the Stewards be mitigated.
- 64. In addition, and considering the technical issues at stake and the fact that this was the first official race under this new technology, the Court does not find that the Appellant's attitude in Australia was fraudulent.
- 65. Based on the foregoing, the Court finds that the penalty imposed on the Appellant by the Stewards is proportionate and that the Decision must be upheld.
- 66. The Appeal is thus rejected.

## COSTS

67. Considering that the Appeal was rejected, the Court leaves it to the Appellant to bear the costs in accordance with the provisions of Article 18.2 JDR.

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### ON THESE GROUNDS,

THE FIA INTERNATIONAL COURT OF APPEAL, ruling on the appeal brought by the Österreichischer Automobil-Motorrad und Touring Club – Oberste Nationale Sportkommission für den Motorsport (ÖAMTC-OSK) on behalf of its licence-holder Infiniti Red Bull Racing against the decision No. 56 dated 16<sup>th</sup> March 2014 of the Race Stewards of the 2014 Australian Grand Prix counting towards the 2014 FIA Formula One World Championship by which car No. 3 (Driver Daniel Ricciardo) was found to be not in compliance with the Technical Regulations and therefore excluded from the results of the race:

- 1. Declares the appeal admissible;
- 2. Rejects the appeal;
- 3. Upholds the contested Decision No. 56 of the Race Stewards by which they decided to exclude Infiniti Red Bull Racing's car No. 3 from the results of the 2014 Australian Grand Prix;
- 4. Orders the competent Sporting Authority to draw, as appropriate, the consequences of this ruling;
- 5. Orders the conservation of the appeal deposit paid to the Court by Infiniti Red Bull Racing;
- 6. Leaves it to Infiniti Red Bull Racing to pay all the costs, in accordance with Article 18.2 of the Judicial and Disciplinary Rules of the FIA;
- 7. Dismisses all other motions or prayers for relief.