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Finding the Formula: The convoluted chronicle of the creation of the 1938 Formule Internationale

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Finding the Formula

The convoluted chronicle of the creation of the 1938 *Formule Internationale*

January 1st 1938 was the first day of a new *Formule Internationale*, the set of rules which governed Grand Prix racing. Until 1922 these rules had been determined by the sporting commission of the Automobile Club de France under the ultimate authority of the Association Internationale des Automobile Clubs Reconnus but on December 7th 1922 the AIACR had finally acted on a suggestion first proposed by the Royal Automobile Club de Belgique in 1904 and had taken greater direct control of the sport, establishing its own Commission Sportive Internationale (CSI), initially with delegates from France, Belgium, Great Britain, Italy, Austria, Spain and the United States. In order to understand how this new formula, mandated to be valid until the end of 1940, came into being it is worth summarising how it had evolved.

The rules for the final pre-war Grand Prix de l'Automobile Club de France in 1914 had specified cars of up to 4500cc, but even then there had been discussions on further reducing engine sizes to 3000cc. This limit was adopted for the 1920 Indianapolis 500 and when Grand Prix racing finally returned to Europe in 1921 the ACF had also specified a maximum capacity limit of 3000cc, with cars having to weigh a minimum of 800kg, but these figures were reduced to 2000cc and 650kg for the years 1922-25; in 1923 the United States also fell into line, enabling the AIACR to institute the first World Championship – a contest purely for manufacturers – in 1925. This 2 litre limit produced several outstanding Grand Prix cars, notably the Bugatti T35 and the Alfa Romeo P2, but higher speeds had prompted the CSI to reduce the maximum engine capacity for 1926 to just 1500cc, with a minimum weight of 600kg. This was a step too far, with the racing being dominated by just one manufacturer – Bugatti – and for 1927 the minimum weight was increased to 700kg; for this one year only single-seater bodywork was permitted, perhaps in an attempt to attract entries from America where the very fast slimline Miller 91 was beginning to dominate domestic racing. This time the major races all fell to Delage, but the financial cost of success had been so great that Louis Delage decided to close down the team and sell the cars. Sunbeam-Talbot-Darracq also withdrew, effectively leaving Ettore Bugatti's team with nobody to race.

This had created something of a vacuum and the CSI had reacted by abandoning capacity limits completely for 1928, specifying only that cars should have two seats and weigh between 550 and 750kg. Grand Prix races were to be over at least 600 kilometres (372.82 miles). This was presumably meant to tempt Alfa Romeo back to International racing, but the occasional appearances of the P2s – which turned the scales at just under the maximum – would be confined to their homeland. In fact, this formula was generally ignored, with most organisers writing their own rules and even the Grand Prix de l'Automobile Club de France being run to sports car regulations. 1929 was even worse, with cars required to weigh no less than 900kg, a minimum width of 100cm, ugly bolster fuel tanks and commercial fuel specified – this was modified to allow 30% benzene[1] for 1930, with that fuel supplied by the organizers.[2] By this time the formula was seen as irrelevant by virtually everybody and almost all races of any note were being run to regulations framed by individual national clubs, calculated to attract as large and varied an entry as possible – typified by the appearance of big sports cars like Mercedes Benz SSKLs and 4½ litre Bentleys in Grands Prix. Only the European Grand Prix at Spa-Francorchamps was theoretically run to the formula – and even this race was over only 596.56 kilometres.

Ironically, this effective interregnum had proved to be the saviour of Grand Prix racing, thanks in part to the rise of first Bugatti and later Maserati as manufacturers of racing cars for sale; previously Grand Prix cars had been built only in small numbers for factory use and then either retired or sold on to private entrants. Now, it was possible for anyone who had the money to buy a car to virtually the same specification as the latest factory models.

However, the roots of the *Formule Internationale* which came into force on January 1st 1938 can be traced directly to a meeting of the Indianapolis Motor Speedway Contest Board which took place just over nine years earlier on December 18th 1928. Although they had persisted with the 1½ litre limit after Europe had abandoned it the Americans, like the Europeans, were concerned about the cost of racing car development and the fact that cars were moving

1 Often incorrectly rendered as ‘benzol’ or ‘benzole’ in British sources, the latter probably due to the name of the National Benzole petroleum company. As early as 1908 an article in *Commercial Motor* had attempted to clarify the confusion between the terms benzin, benzine, benzene, benzol, benzole and benzoline.

2 Only enough fuel was provided to enable cars to maintain an average of 14 litres/100km – 20 miles per gallon.

further away from production models, so at this meeting they sought to redress the balance. The resulting regulations were

> *designed to return a type of car less expensive, less specialized and calculated to furnish experimental departments with more constant and tangible lessons of value in every-day motor car designing and building.* (qtd in Capps [1])

Initially only intended for the Indianapolis 500, starting from May 30th 1930, these new rules were swiftly adopted by the Automobile Association of America for their 1930 National Championship and published in the *AAA Contest Board Bulletin* on January 17th 1929. (Capps [2])

The most important elements of this American formula were a maximum engine size of 366ci (6 litres) with superchargers being restricted to two-stroke engines, a maximum of two valves per cylinder and a simple weight/capacity relationship of 7½ pounds to every cubic inch coupled with an absolute minimum dry weight of 1750 lb, effectively decreeing a minimum capacity of 233ci (3.82 litres). Track was to be between 54 and 60 inches and two-seater bodywork was mandatory, measuring at least 31 inches across at the base of the driver's seat – the riding mechanic's seat could be offset no more than 12 inches behind the driver's. Although this initially caused uproar among the American manufacturers, with claims that it would spawn 'freaks', it eventually produced the biggest field seen at Indianapolis for several years, with 38 starters in 1930.

So, after the failure of their 1928 and 1929 rules the CSI tried once more and on January 14th 1930 they announced – subject to final approval by the manufacturers – yet another new *Formule Internationale*, to be valid for the years 1931-33. In all but two respects this was almost identical to the AAA's new set of rules, but press reports indicated that even though it had apparently been agreed by the representatives of Austria, Belgium, France, Germany, Great Britain, Italy and Switzerland this had been without the help or approval of the United States delegate; it appears that the Americans wanted to move towards a ban on supercharging.

The alterations made by the Europeans were that engine sizes were to be limited to just five rather than six litres, again with superchargers restricted to two-stroke engines – but with no restriction on the number of valves per cylinder. Otherwise, they had simply converted almost all the American measurements to

metric, which produced some rather strange figures: 7½ pounds per cubic inch became 20.8 kilogrammes per 100cc and the minimum weight 794 kilos. In European terms this again effectively meant a minimum engine capacity of just over 3.8 litres, although smaller-engined cars could of course have run ballasted. The largest cars would thus have weighed at least 1040kg. The metric conversion was again obvious in the curiously exact minimum bodywork width of 78.7cm, although the mechanic's seat was to be not more than 30cm behind the driver's – 48mm less than the American rule; track was also marginally smaller, being specified at not more than 152cm and not less than 137cm, the exact conversions being 152.4 and 137.16. However, the CSI had added an extra rule that before every event all cars would also be required to prove that they were capable of achieving a speed of at least 137km/h (85mph). The conversion to km/h again gives a clue to its origins – 85mph was the set qualification speed for the 1930 Indianapolis 500; an average speed over four laps of a 2½ mile banked oval, which could hardly be compared to lap speeds on European autodromes or road circuits, let alone straight-line speed.

By the end of February the manufacturers were said to have agreed, but it seems that nobody – probably not even the CSI – had taken this seriously and they had just got on with racing since, when the commission reassembled on September 17th, the admittedly biased French press was loudly trumpeting the fact that their Grand Prix had – thanks to the ACF writing their own rules – assembled its finest field and delivered the best spectacle seen in years: even 'Casque'[3] of *The Autocar,* a sports car man who was no great lover of Grand Prix racing, and who had poured scorn on it in advance, was forced into a grudging admission that it had actually been a good race. The January 1931 formula was dropped even before its currency was due to begin, the commission having reviewed their position in the light of the fact that the manufacturers had not bothered building any cars to the various 1928-30 rules and showed no inclination to build any to the new ones either. The senior national clubs had been equally unenthusiastic and

3 'Casque' was the *nom de plume* of SCH 'Sammy' Davis (1887-1981), who had started his journalistic career at *Automobile Engineer* in 1907 after an apprenticeship in draughtsmanship at Daimler: he later kept his artistic hand in by drawing cartoons and driver portraits for *The Autocar*. A talented driver in trials, he was also one of the 'Bentley Boys' and raced extensively during the 1920s and early 1930s, sharing the winning Bentley at Le Mans in 1927 and the winning Austin in the BRDC 500 at Brooklands in 1931.

it seems that they had indicated that they too would ignore this formula, even though their representatives had created it!

So, after an abortive attempt to salvage something from the wreckage by – presumably at the suggestion of the Americans – canvassing their members regarding the abandonment of supercharging, the CSI had bowed to the inevitable and announced that there would be no *Formule Internationale* for the years 1931-33, but promising to set a new one for 1934-36. Two months later, the moribund World Championship which, although dutifully announced by the CSI at the beginning of each year, had not actually been awarded since 1927, was finally killed off. After a brief flirtation – at the suggestion of (depending on which source you believe) either Count Florio via the Reale Automobile Club d'Italia or Augustin Pérouse of the ACF – with the idea of reviving the Gordon Bennett Trophy competition for national teams, the AIACR also announced their new European Championship for Drivers[4] which would, after the cancellation of the Spanish Grand Prix, eventually take place over just three races – the Grands Prix of Belgium, France and Italy – all of which were to last no less than ten hours! This time limit was reduced to a mere five hours (but now with a ten hour maximum) in 1932: this time the three qualifying races were in France, Italy and Germany.[5] Alfa Romeo drivers won both championships: Ferdinando Minoia in 1931 and Tazio Nuvolari in 1932. In the latter year a parallel manufacturers' title was also won by Alfa Romeo, whose cars had triumphed in all three events. There was no championship in 1933 and time limits were finally abandoned in favour of a 500km minimum for all *Grandes Épreuves* except the Monaco Grand Prix.

The lack of a set of constrictive rules even prompted some new car designs – Bugatti experimented with four-wheel-drive and both Alfa Romeo and Maserati built twin-engined machines for their own use – but the two outstanding cars of this period both came from Alfa Romeo: the 8C 'Monza' of 1931 and the tipo B of 1932.

4 Count Florio had previously promoted a so-called Championship of the Latin Countries for drivers between 1924 and 1926; the first title, over 1924/5, was determined on the results of the 1924 French and San Sebastian Grands Prix and the 1925 Targa Florio. This pattern was repeated in 1925/6. Meo Costantini of Bugatti won both titles.

5 The original intention had been to include four races; after the Belgian GP was cancelled it was replaced by the Spanish GP, but this too failed to take place.

Meanwhile, after their 1930 failure, the CSI were once more working towards a new formula for 1934-36 although the Automobile Club de France, working with the French manufacturers, were seemingly the only club to put forward a proposal: speculative reports before the CSI's meeting of October 14th 1932 suggested that new rules might even be introduced from January 1933, rather than 1934. The radical keystone of this ACF proposal was that there should be neither a minimum weight nor a maximum engine capacity, instead introducing the idea of a maximum weight limit to restrict engine size. This maximum weight was to be set at just 700kg including wheels and tyres but excluding fuel, oil and water, with two-seater bodywork mandatory.

After prolonged discussions the CSI presented their new *Formule Internationale* for implementation on January 1st 1934, to last until the end of 1936. The French proposals had been modified, but the basic principle remained intact, save only that the maximum weight had been increased and tyres were now excluded: cars were to weigh no more than 750kg and the rule specifying two-seater bodywork was again dropped, although the minimum body width and height at the cockpit was still a rather generous 85×25cm. *Grandes Épreuves* (again with the exception of the Monaco Grand Prix) would still be over a minimum of 500km. Based on existing cars like the Alfa Romeo tipo B, Bugatti T51 and Maserati 26, it was envisaged that this weight restriction would limit engine sizes to about 3 litres, thereby capping speeds as well. Although this excluded the more outlandish creations like the twin-engined Maserati V4 and V5 and Alfa Romeo tipo A and the four-wheel-drive Bugatti T53, the press were quick to point out that at least one of the existing cars was capable of over 240km/h (150mph). In *The Autocar* 'Casque' called it ‘a beautiful bombshell’, but claimed rather implausibly that it would produce cars ‘about the weight of an MG Midget and … a speed of 120[mph]’, which rather underestimated the potential, given that the Alfa Romeo tipo B tipped the scales at 740kg, while the ‘all-up’ weight of the latest J2 Midget was about 500kg. There was confusion too about whose initiative it was, since – even though he acknowledged that the original idea of a maximum weight had come from the French – he also claimed that both the Germans and the Italians were saying the other had framed the final regulations and even that the British had not been consulted at all!

But whoever was responsible for these new rules the members of the CSI had reckoned without the Germans. German participation in Grand Prix racing had up to now been sporadic (not helped by restrictions which meant they were barred from racing in France and Belgium for most of the 1920s), but the Nazi party was keen to use motor sport on both two and four wheels as an international propaganda tool in order to demonstrate the country's technical prowess. To this end, Hitler's government, which came to power in January 1933, offered subsidies to any German company which built a Grand Prix car; reliable figures are hard to come by, but between 1933 and 1939 the money provided directly by the Transport Ministry and indirectly through other sources probably covered only about one-fifth of the costs of developing the cars and running two racing teams. However, those subsidies were – at the very least – useful publicity and served to mask the vast contracts being awarded as Germany rearmed. Given their previous pedigree, Mercedes Benz's return to racing was almost inevitable, but the newly formed Auto Union (an amalgamation of DKW, Audi, Wanderer and Horch) also announced their intention to build a car, designed by Ferdinand Porsche. Mercedes Benz apparently received an initial amount for 1933 of 500,000 Reichsmarks[6] and Auto Union 300,000. Subsidies would also go to Auto Union's DKW motorcycle arm, as well as to BMW for both bike and sports car racing.

Almost as soon as the new Mercedes Benz and Auto Union cars appeared over the winter and spring of 1933-34, it was apparent that the CSI had badly miscalculated. New technology, an innovative design and the use of lightweight materials meant that the sleek new Mercedes Benz W25, with an engine which displaced almost 3.4 litres, made the existing Italian and French cars look instantly outdated. The revolutionary rear-engined Auto Union P-wagen already boasted an engine of no less than 4358cc – quite a bit more than the CSI had anticipated.

It was painfully obvious to both the French and Italians that they had been outmanoeuvred by the German teams. Bugatti – after a futile attempt to increase the engine capacity of their T59 – would withdraw from top-line Grand Prix racing in mid-1935, but both Alfa Romeo and Maserati – the former with state subsidies – would battle on. Neither would produce a car which could really rival the Germans, although the various Alfa Romeos were successful in secondary

6 Then about 152,500 US dollars/36,600 pounds sterling.

races. At the end of 1934, just after Rudolf Caracciola had set new Class C speed records[7] in a W25 at Gyón in Hungary, *The Motor* published a full-page cartoon showing a Mercedes Benz with '200mph' on the side which was hurtling over a crest towards 1935: running in vain pursuit of it was a bedraggled Old Father Time carrying a scythe with 'AIACR' inscribed on its blade. By this time the French had already tried and failed in an attempt to get the CSI to both ban supercharging and introduce a control fuel.

By the end of 1934, the next formula – intended to cover the years 1937-39 – was already being considered and on December 3rd the CSI, meeting in Paris, appointed a sub-committee to explore the available options. The commission's intention was to announce the new rules at their meeting in Berlin on May 8th 1935: this would have given the manufacturers nearly two years to prepare.

There was much discussion throughout Europe as to what form the new formula should take, with a return to minimum weights, smaller engines, circuit alterations, fuel restrictions and even supercharger bans all being suggested, but the most detailed and public proposal was that of the Automobile Club de France, which was already being discussed in the press by January 1935: the following month the French newspaper *l'Auto* published an article on it, complete with opinions from leading figures in the French motor industry.

Even though they had been the inspiration behind the already disliked idea of a maximum weight the ACF's suggested formula was merely a modification of the existing one. Races were still to be over a minimum of 500km and the 750 kilogram maximum weight would remain, with the important difference that it was no longer ‘dry weight’: within that maximum the cars would have to start the race carrying enough fluids – water, oil and fuel – to cover 300km, before which none of these could be replenished. The intention seems – once more – to have been to reduce the engine capacity of the cars by reducing their weight and also – as in 1930 – to introduce a fuel consumption element to the formula. Bodywork was again to be at least 85cm wide and 25cm high at the cockpit, the same as the existing rules, while that abandonment of ‘dry weight’ (as previously measured) meant that the cars would have to shed at least 100 kilograms: contemporary press reports suggested as much as 150. It is difficult to visualise what these cars might

7 197.261mph (317.460km/h) for the flying start kilometre and 196.721 mph (316.592km/h) for the flying mile.

have looked like or how the designers might have tackled even further weight savings, but one can imagine that there might have been some safety concerns.

The only other proposal known in any detail is that from the Reale Automobile Club d'Italia: the Italians suggested a reduction in the maximum weight to 700 kilos, coupled with a maximum engine size of 1500cc, mandatory two-seater bodywork and races of between 300 and 500 kilometres.[8]

As mentioned above, *l'Auto* had canvassed opinions from leading French designers when the ACF's proposal was made public. Ettore Bugatti was non-committal, arguing that new cars would be needed for 1937 anyway, so he was prepared to accept whatever weight limit was prescribed. Tony Lago of Talbot suggested both the banning of superchargers – only suitable for aircraft in his opinion – and a 2 litre maximum, but felt there was no need for either a minimum or maximum weight. Albert Lory – designer of the all-conquering Delage 15S8 which was about to enjoy a new lease of life in voiturette racing in the hands of Dick Seaman – disagreed, arguing for a maximum weight of just 700kg. Like the Italian designer Vincenzo Bertarione, who had created race-winning Grand Prix cars for Fiat and Sunbeam-Talbot-Darracq and was now working for Hotchkiss, he believed that a reduction in weight would also bring a reduction in speeds. *L'Auto* also quoted the leading French driver Robert Benoist as being violently opposed to the proposal: he objected to the fuel consumption element on the grounds that it smacked more of touring car racing and pointed out that it would be almost impossible to regulate without placing the cars in *parc fermé* once they had been weighed. In Benoist's opinion, the most likely outcome was that the Italian scheme would be adopted.

In Britain, Cecil Kimber of MG was also on record as being in favour of a 1500cc formula with a minimum dry weight of 600kg, while the British Racing Drivers Club wanted a maximum weight of 800kg, coupled with a maximum capacity of 2 litres. American journalist William F Bradley, the Continental Correspondent of *The Autocar* and European representative for Indianapolis, had also been among those consulted by *l'Auto*: he suggested that superchargers should be banned (like Tony Lago he thought they were only useful on aero-engines), engines should be limited to either 1500cc or 2 litres and that there was

8 The previous November, *The Motor* had reported that the Italians were going to propose an *increase* in the maximum weight and a maximum engine capacity of 2 litres.

no need for a maximum weight limit either. His *Autocar* colleague 'Casque', who thought that ‘practically everybody seems to favour 1½ litres’ passed this on as the official American view. The influential Anthony Noghès of the AC de Monaco suggested a minimum weight of 700kg, again combined with a 1500cc limit.

The CSI duly convened on May 8th, not in Berlin as planned, but in Paris: the commission's president *Chevalier* René de Knyff[9] had apparently declined to travel to Germany, so the meeting had been rearranged. *Motor Sport*, previewing the discussions, suggested it would be ‘Germany v The Rest’, the Germans apparently wanting the continuation of the existing rules with the other nations lined up against them, but all arguing for different formulae. Meanwhile, the sub-committee, meeting in Monaco on April 23rd, had concluded that the new formula should place no restrictions on cylinder capacity, supercharging or fuel, leaving the question of weight to be determined by the CSI: it will be noted that the only proposal which conformed to this was the one put forward by the French, all the others arguing for what would be a substantial cut in engine sizes. In a masterpiece of understatement *The Motor* called the sub-committee's conclusions – such as they were – ‘vague and non-committally worded.’

Although the Italian sporting newspaper *Il Littoriale* (a lunchtime title) published very brief details of the new formula in its edition of May 9th, most of the French daily press did not confirm them until May 10th, indicating that it was perhaps a long meeting which had continued too late into the night of May 8th to catch the following day's early editions. Only *l’Auto* had the story (probably pre-written, complete with approving comments from Ettore Bugatti) in its May 9th issue. But however long it took, the CSI had adopted the ACF's proposals in their entirety. *Le Figaro* quoted a letter from Louis Delage to the ACF setting out his opposition to it: diplomatically, the paper called it an ‘elegant compromise’, but cast doubt on the fuel consumption factor and concluded by hoping that the technicians would be able to solve ‘with honour’, the ‘delicate problem’ they had been posed. *Le Petit Journal* was unimpressed, stating baldly and with an implied Gallic shrug: ‘Maximum dry weight about 600kg; mechanical freedom for everything else.’ *Le Matin* suggested that it had been a unanimous decision, the

9 De Knyff was born in Antwerp, Belgium on December 10th 1865. A successful pioneer racing driver, he had retired from racing after the 1903 Paris-Madrid, becoming a French citizen in 1914. He had been president of the ACF’s sporting commission since 1899 and was also involved with the Union Motocycliste Française between 1913 and 1925. He died in Paris on May 29th 1955.

delegates having three goals: to continue metallurgical research, to reduce engine sizes and thus to limit speeds. This piece of flummery appears to have been part of both the French proposal and the official statement since it also appears on the front page of *l'Auto* on May 9th and *Motor Sport* made the same points in its brief and uncritical announcement of the new formula in its June issue. *L'Auto* seems to have been convinced that the ACF's proposal would be adopted in full, although they must have had to do a quick re-write of the story, since they only finally confirmed the exact formula on an inside page on May 10th.

As the German teams had already proved that total chassis weight was no barrier to increased engine capacity (in their ultimate forms the Mercedes Benz engine would displace almost 5.7 litres and the Auto Union a whisker over 6 litres) and historically the designers had always been at least one step ahead of the rule-makers, *Le Petit Journal* was not alone in its assessment. In effect, this could have meant scrapping all the existing Grand Prix cars, with the formula – initially at least – probably becoming based around 1500cc voiturettes with only ERA and Maserati having suitable existing engines: both firms also had 2.0 litre versions available, but neither company's chassis was within the weight limit. In Britain, Reid Railton suggested that the new formula would eventually produce cars of about 3 litres: Georges Roesch of Sunbeam-Talbot-Darracq concurred, but – unsurprisingly given his track record – said he would have preferred a formula specifying two or even four seats since 'the racing car of today is the touring car of tomorrow.' Cecil Kimber was more critical in both a letter to *The Motor* and an article in *The Autocar*, pointing out that – among other faults – the rules regarding replenishment of fluids in the early part of the race effectively meant that any car which suffered an easily-repaired holed radiator or oil tank would have to retire.

The other major decision of the May 8th meeting passed almost unnoticed: at the December 3rd 1934 gathering in Paris, the German representative Carl Otto Fritsch had suggested the revival of the European Championship for Drivers, which had not been contested in 1933 or 1934. This had been delegated to the Italians to formulate and by the end of March the Reale Automobile Club d'Italia had circulated the CSI members with their proposals, which had now been duly approved. The 1935 title would eventually be awarded to Rudolf Caracciola, who repeated the feat in 1937; Bernd Rosemeyer of Auto Union won in 1936.

Opposition to the new formula grew throughout the summer and the CSI were soon coming under pressure from the German and Italian teams, who wanted

– at the very least – more time to prepare; by default, this would mean that instead of introducing a new *Formule Internationale* for 1937-39, it would be delayed by a year until January 1st 1938. Syndicated interviews with both Tazio Nuvolari and Rudolf Caracciola were published in magazines all over Europe during the summer of 1935 and neither man could find anything good to say about the new formula: Nuvolari called it 'far from satisfactory … vague' and professed he would have preferred a 1500cc limit, even though that was by no means a perfect solution either, but at least it would have given the designers a definite target to aim at, as well as making Grand Prix racing attractive to more manufacturers. Caracciola, no doubt expressing the view of his Daimler-Benz masters, also declared himself to be in favour of 1500cc racing, but felt that it should become a 'second tier' of the formula, with the existing 750kg rules continuing, since they forced designers to produce the most efficient cars and engines of a given weight, while a 1500cc limit would encourage them to extract the maximum power from a limited engine size. A 1500cc 'junior formula' would also provide a valuable training ground for younger drivers.

Nuvolari also took a swipe at the French, finding it odd that 'the very nation which has stood aloof from racing for the last few years' had framed the new regulations, which had been accepted by the CSI despite vigorous opposition from the Germans who 'have raced under the present formula whole-heartedly, with success.'

Meanwhile, unable to beat the Germans for sheer speed, both the French and Italians had tried attacking on another front, with temporary chicanes being inserted at both Montlhéry and Monza in 1935 in an attempt to slow the silver cars, while the Belgians had gone even further in 1934 and contrived to have them stopped at the border by customs! In fact, after initial stumbles at the 1934 Avusrennen, when the cars were withdrawn as not ready, and the Grand Prix de l'Automobile Club de France, where Louis Chiron's Alfa Romeo won after the German cars all retired, the German teams would carry almost all before them until the end of the formula's currency, losing only three times in major races, the first defeat being when a combination of guile, determination and luck handed a win in the 1935 German Grand Prix to Tazio Nuvolari's Alfa Romeo. The following year Nuvolari beat them fair and square in the Peña Rhin GP in Barcelona and later outpaced an apparently unwell Bernd Rosemeyer in Budapest.

Nuvolari would also inflict a more minor defeat on the Germans during 1936, at Milan – a victory he repeated in 1937.[10]

An August 1935 letter from Ugo Gobbato of Alfa Romeo to the Scuderia Ferrari refers to the postponement of new rules for at least a year as being 'probable' and by the time the CSI next convened in Paris on September 25th, German and Italian opposition to the new formula had coalesced, so what should have been a routine meeting to determine the major events on the International Calendar for 1936 turned into what *Il Littoriale* called an 'interminable discussion' on the formula. The Italian delegates Arturo Mercanti and Aldo Daccò, backed by Leo von Bayer-Ehrenberg of Germany, proposed that the 750kg Formula should be extended by a year, apparently with the additional proviso that the ACF's formula agreed in May should be abandoned: once that 'interminable discussion' had finally ended, this was indeed the case and the CSI issued a terse statement to the effect that, because of the desires expressed by 'the most interested parties', they had suspended the introduction of the new *Formule Internationale* until January 1st 1938[11] and that further discussions would take place at their next meeting, scheduled for October 14th. An unimpressed Maurice Henry commented in *l'Auto* that the extension served only the interests of foreigners and wondered what the French delegates had been thinking when they approved the decision.

The CSI also announced the elevation of the Swiss Grand Prix to the exclusive list of *Grandes Épreuves* and a new set of regulations to govern sports car racing.

Suddenly, everything was up for grabs again, with the French plans apparently in ruins. However, it emerged that they had been playing a very duplicitous game. Despite having had their Formula proposal accepted by the CSI on May 8th, the ACF had continued with an alternative policy: by early 1935, they had already been making discreet enquiries of their member clubs and the French car manufacturers with a view to withdrawing from Grand Prix racing in 1936. In its stead they proposed introducing a national sports car formula, before returning to *Formule Internationale* racing for the next three-year period from 1937-39. There were several apparently valid reasons for this, not the least of which being that the French motor industry was still in deep depression and this could provide

10 Only Auto Union took part in the Milan races, even though their cars were entirely unsuited to the twisty Parco Sempione circuit.

11 *Motor Sport* called this 'no surprise' in their November 1935 issue.

a fillip for car sales. French national pride meant that they were loath to see their Grand Prix won by the Germans and it was becoming increasingly obvious that the state money lavished on the SEFAC (a national Grand Prix car project) was being poured down a very deep drain. It was too late to change the rules for the 1935 Grand Prix (entries had, as usual, closed in January and were in any case restricted to official factory teams) and it was important that the French public saw what their involuntarily donated[12] *Fonds de Course* money had been used for: as it turned out, the supremely ugly SEFAC would weigh in at no less than 931 kilos and would leave Montlhéry in disgrace. Bugatti – who had as yet received no government money and were reluctant to undergo further humiliation – were nevertheless persuaded to race, but left their arrival until the last possible moment, the car being wheeled straight through the scrutineering shed at five minutes to midnight on the night before the race and retiring after sixteen laps after circulating in last place with the bonnet off, revealing its vast iron-block T50 engine: most estimates say that the car weighed about 800kg ...

The French clubs and manufacturers had been generally receptive to the ACF's proposals and on October 12th 1935, after their usual meeting during the Paris Salon, the official announcement was made that the national club's 1936 Grand Prix[13] would be run over a distance of no less than 1000km for unblown open sports cars conforming to a new set of rules: a minimum of 20 completed examples; at least two forward-facing seats; mudguards, lights and other road equipment and running on a control fuel. In due course and after much internal debate these initial proposals would evolve into a new national sports car formula, the basis of which was a ban on supercharging, which was viewed as irrelevant to road cars and thus taking the sport further away from the classical notion that 'racing improves the breed'. A now apoplectic Maurice Henry thundered against the ACF's policy on the front page of *l'Auto*:

> *We do not have the right, in sporting terms, to suppress an international race under the pretext that we are in an inferior state. It's not the fault of foreigners that we don't have the weapons with which to fight.*

12 The *Fonds de Course* was financed by a levy on every driving licence.

13 Almost all the constituent clubs would fall into line and the only time the German Grand Prix cars would be seen on French soil in 1936 was when they were in transit to Monte Carlo and Barcelona, although Hans Stuck also used an Auto Union to take the first of what would be four successive victories at the La Turbie hillclimb.

Condemnations of the decision poured in from all sides – from Mercedes, Auto Union, Maserati and Scuderia Ferrari and from French drivers too. Most of the few club officials who were prepared to go on record were generally supportive of the ACF, although Raymond 'Toto' Roche of the AC de Champagne said he would have preferred both a sports car race *and* a Grand Prix and Maurice Michelot of the AC de Bourgogne called it 'lamentable'.

The ACF's announcement had presumably been carefully timed, coming just a couple of days before the CSI's final meeting of the year, but they had been outmanoeuvred by the other members of the Commission, whose own announcement of the extension of the formula had immediately doubled their intended one-year sabbatical: although there had been no prior official announcement of the French withdrawal, it had been an open secret in the racing world that plans were being laid to run the Grand Prix for sports cars in 1936. One might imagine that between September 26th and October 11th there may have been some anguished meetings in the ACF's offices in the Place de la Concorde, debating the wisdom of continuing on their intended course.

The CSI met as scheduled on October 14th, seemingly with no firm ideas as to how to proceed; a report in the Spanish newspaper *El Mundo Deportivo* reveals that there were no fewer than five alternative proposals put forward. Austria's delegate was the most imaginative, suggesting that the maximum weight should be reduced to 700kg, superchargers should be banned and fuel should be composed of at least 50% standard pump petrol. Colonel Mervyn O'Gorman and Colonel Frederick Lindsay Lloyd, the representatives of Britain's RAC, wanted a return to a maximum capacity of two litres, coupled with a minimum weight of 800kg: this was the same proposal suggested by the BRDC in March. Again as previously, Monaco wanted a 1500cc limit, with a minimum dry weight of 700kg.

The most liberal view came from Romania, whose delegate Prince Petru Ghika[14] proposed that either the 750kg formula should be extended or simply abandoned completely, returning to *Formule Libre.*

But what *El Mundo Deportivo* called the 'prevailing view' was the submission from the Italians, who had abandoned their previous proposal. Again

14 Prince Petru Ghika-Brigadier (1877-1942) was a diplomat and a distant relative of the Ghika brothers – Ionel and Gheorghe Ghika Cantacuzino – who raced a Chrysler at Le Mans in 1928, finishing 4th. Ionel (1904-32) was better-known as an aviator.

supported by Germany, they expressed their desire for an extension of the 750kg formula until the end of 1937, but they apparently made no other suggestions as to what form the new *Formule Internationale* should take.

The only real decision to emerge from this meeting was the final confirmation of the International Calendar for 1936: the discussions on the new formula having been inconclusive, the CSI deferred it until February 1936, when it was hoped agreement could be reached in time to implement the new rules for 1938.

On December 7th and 8th, at the suggestion of the CSI, members of the Bureau Permanent International des Constructeurs d'Automobiles met at the Hotel Baur au Lac in Zurich to try to agree a common proposal which they could present to the Commission.

The meeting was chaired by *Direktor* Carl Schippert of Mercedes Benz, who was accompanied by team manager Alfred Neubauer and racing director Max Sailer. Auto Union were represented by Hans Stuck and their new team manager Karl Feuereissen, while Ettore Bugatti represented his own eponymous company. Also present were Vittorio Jano of Alfa Romeo and the journalist and speedboat racer Aldo Daccò who spoke for Scuderia Ferrari: there was also a newcomer in the shape of the British ERA concern, represented by its founder Raymond Mays. ERA had been building cars for less than two years and had so far restricted itself to 1500cc voiturettes, although Mays had long harboured an ambition to build a British Grand Prix contender. Maserati do not seem to have been represented. Ominously for French hopes, none of these companies were in the business of building unsupercharged racing cars; nevertheless, the ACF were now lobbying hard for a return to a minimum weight/maximum capacity formula and even – in an ideal world – a complete ban on supercharging.

First to speak was Ettore Bugatti: *Le Patron* was without doubt the elder statesman of the group, but professed that, while he was not entirely satisfied with the current formula, he could suggest nothing other than a further reduction in the maximum weight – to 700kg. This would not have been what the ACF would have wanted to hear, but Bugatti was not a man who could conceive of unsupercharged Grand Prix cars, any more than the Germans could.

And it was Mercedes Benz and Auto Union who spoke next: both teams declared that they wished to see the current formula continue. Unsurprisingly,

given the German-Italian unity displayed in Paris, they were backed by Jano of Alfa Romeo – although he did express his firm's reservations about the cost of building and racing the current Grand Prix cars. This *caveat* seems to have been by way of an introduction to the Scuderia Ferrari proposals, which were the next item on the agenda.

On behalf of the Scuderia (and by extension Alfa Romeo) Daccò suggested that the current formula should be extended for two or three years, giving the manufacturers time to build new cars to one of three possible new formulae:

1 Maximum dry weight 600kg, 2000cc unsupercharged, 1350cc supercharged.
2 Maximum dry weight 700kg, 3000cc unsupercharged, 2000cc supercharged.
3 Maximum dry weight 800kg, 4000cc unsupercharged, 2700cc supercharged.

In all cases, this definition of dry weight excluded fuel and oil but included wheels and tyres while bodywork was to be two-seater, with a minimum width of 85cm. Daccò claimed that all these options would favour unsupercharged cars and also enable the use of series production components and even stock chassis, thus cutting costs.[15] *Motor Sport* reported that Daccò's proposals had received an 'enthusiastic hearing', which is probably damning with faint praise. *The Motor* suggested Mercedes Benz and Auto Union were 'highly sceptical' and *The Autocar*, adding Bugatti to the dissenters, thought that 'undoubtedly it was put to the meeting in a way that almost carried conviction.' As none of the other teams present were prepared to support him a 'polite reception' is probably a better description: unsurprising, given Alfa Romeo's then-current model range! They would have also been extremely unlikely to have supported the abandonment of *monoposto* bodywork.

During the meeting, it emerged that there was a consensus among all the teams that – whatever the CSI might decide in February – the 750kg *Formule Internationale* should be extended not just until the end of 1937 but ideally even

15 This was almost certainly a sop to the French, but later in the meeting all present would express their firm opposition to the idea of any sort of sports car formula, due to the difficulty of framing regulations to exclude thinly-disguised racing cars. Alfa Romeo had probably also considered the likely effects of the economic sanctions imposed on Italy by the League of Nations after the invasion of Abyssinia.

to the end of 1938. As part of this, Mays, supposedly supported enthusiastically by Neubauer,[16] was claimed in the British press to have proposed that 1500cc voiturette races should be included as part of the programme at as many Grands Prix as possible during the years 1936, 1937 and 1938, by which time the manufacturers should have been able to ascertain which class – Grand Prix or voiturette – was more relevant to the development of production cars. Other reports say Neubauer wanted three – or even five – further years of the 750kg formula and also repeated Caracciola's suggestion of a few months earlier that 1500cc cars should become a 'junior formula', adding weight to the theory that this was official Daimler-Benz and (by extension) German policy. 1500cc (and 1100cc) cars had provided some excellent racing during the summer of 1935 – particularly at Dieppe and Bremgarten – and after the Dieppe race *Motor Sport* had published an enthusiastic editorial in their praise: while it did not see the class as a prospective substitute for 'proper' Grand Prix racing it did see it as ‘the finest possible training ground’ for future Grand Prix drivers.

The meeting ended with no agreement on a formula proposal and Schippert was able to summarise it only by recording that the manufacturers required two years notice of any change of formula in order to build new cars and that the majority of teams currently competing were therefore in favour of further extending the current formula until the end of 1938. They reserved judgement on the relevance of sports car racing until after the forthcoming French Grand Prix, but also wished to point out that they considered Grand Prix racing was too expensive! Finally, there was a proposal that the Bureau should be allowed three representatives on the AIACR's Technical Commission. Two names were suggested: Schippert and Bugatti, with an Italian ‘to be nominated’. A second meeting was expected to take place in January.

Although only Bugatti had been represented in Zurich other ideas were now coming out of France: the influential journalist Charles Faroux[17] of *l'Auto*

16 Mays was an inveterate self-publicist and the probable source of the reports in all the British magazines, all of which misspell Feuereissen's name as 'Feuerstein'. Sixteen years later, Mays would completely omit this meeting from his autobiography (which glosses over the entire ERA Grand Prix project), even though John Lloyd's semi-official history of the *marque* – published two years earlier – includes it.

17 Faroux (November 20th 1872-February 9th 1957) was undoubtedly the most powerful motoring journalist in France between the wars. He is widely regarded as the originator of the Le Mans 24 Hours – although it was not really his idea – and he filled the post of its race director from 1923 to 1956. In addition to writing for *l'Auto* he was editor-in-chief of the magazines *La Vie*

was still in favour of banning superchargers, the use of control fuels, two-seater bodywork, allied to a theoretical minimum engine capacity of 2 litres (in practice 2½ litres) and a scale of minimum weights which increased from 750kg in steps of 50kg per 500cc up to 4½ litres but effectively excluded larger engined-cars:

750kg	2000-2500cc	900kg	3501-4000cc
800kg	2501-3000cc	950kg	4001-4500cc
850kg	3001-3500cc	2000kg	over 4500cc

Four French manufacturers who had not been represented in Zurich – Hotchkiss, Delahaye, Talbot and Amilcar – took this further. They were also in favour of a ban on supercharging and a control fuel as near as possible to ordinary pump petrol, but reworked the weight/capacity idea first suggested in 1930 for the abortive 1931-33 rules into an innovative formula which related engine size to a minimum weight, allowing smaller cars to compete on theoretically equal terms. This envisaged a minimum capacity of 1100cc at which size the car should weigh not less than 600kg and a maximum capacity of 4000cc, allied to a minimum weight of 900kg: this was about 110kg more than the 1931-33 rules would have allowed for the same capacity!

The second meeting of the Bureau took place in Paris on February 1st 1936: all the previous participants except ERA were present – plus Giuseppe Acutis, president of the Associazione dei Costruttori di Autoveicoli, the Italian motor manufacturers' federation, representing Maserati – and by the end of the day they had arrived at an agreement. Although the Italians had persisted with their suggestion of a formula matching 4000cc unblown cars against supercharged cars of 2700cc, the members of the Bureau seem to have noted the two French proposals since their recommendation which went forward to the CSI was somewhat different.

After a presentation on behalf of the Bureau by Carl Schippert of Mercedes Benz and Ferdinand Porsche of Auto Union, the new *Formule Internationale* was duly announced in Paris on February 13th. On the face of it the CSI and the Bureau had finally been persuaded to revert to the tried and tested format of a minimum weight allied to a maximum engine capacity, but had declined the opportunity to ban superchargers, while instead adopting and

Automobile and *Nouvelle Revue Automobile* and president of l'Association des Journalistes Sportifs from 1920 until his death. His son René, who also wrote for *La Vie Automobile* as R Charles-Faroux, was killed during the German attack on France on June 10th 1940.

adapting the weight/capacity element of the French manufacturers' proposal and coming up with a solution which they hoped would please both lobbies, although the specific reinstatement of the start date of January 1st 1937 would have been less than enthusiastically welcomed by the manufacturers, given their preference for two years notice of any change and previous declaration that they would ideally like the 750kg formula extended until the end of 1938.

In simple terms, unblown engines were limited to a maximum of 4500cc, with a minimum chassis weight of 850kg. However, when it came to supercharged cars, the engine capacity ratio had been fixed at 13:10, which meant that blown engines were limited to 3460cc, again with a chassis weight of 850kg. Entries from smaller cars were also encouraged, by means of a sliding weight/capacity scale, which theoretically allowed unblown cars of as little as 1000cc to compete on level terms: the 13:10 ratio equated these to blown cars of 770cc. At this level, the cars could theoretically weigh as little as 400 kilos. Unfortunately, the CSI neglected to scale down bodywork sizes to accommodate these smaller-engined cars, still specifying a minimum body width at the cockpit of 85cm.

The new formula had come as something of a surprise to the RAC in Britain, who complained they had been given virtually no time to consider it and investigations by *The Autocar* revealed that other countries had been similarly 'caught napping' through no fault of their own. The Society of Motor Manufacturers and Traders in Britain had had just eight days to contact any interested companies to hear their views and Colonel Mervyn O'Gorman, the RAC representative on the CSI, had been deeply involved with the Monte Carlo Rally when word reached him: the date of the meeting was apparently only set when the CSI received the Bureau's February 1st proposals and he was consequently unable to attend. There was also implied criticism of ERA, as the only British company which knew what was happening. 'Casque' of *The Autocar* called the *affaire* 'a perishing mess', suggesting that the whole procedure was flawed and that the indecent haste with which everything had been settled – without any reference to or participation from Britain and other nations – went against the very ethos behind the formula itself, which was to attract more manufacturers to Grand Prix racing. Despite the short lead-in time for the new formula, the general impression was that the Bureau had in effect become a tail wagging the CSI dog: the manufacturers should of course be consulted, but they

should not be allowed to write the formula themselves – which was what appeared to have happened.

Additionally, 'Casque' was almost incandescent in print when he discovered that as part of the new formula the CSI were also trying to sneak through new sports car regulations which – apart from slightly higher weight limits – would have allowed thinly-disguised Grand Prix cars to compete. A month or so later, Colonel O'Gorman and Colonel Lindsay Lloyd were said to have comprehensively demolished the sports car regulation proposals at a regular AIACR meeting 'by weight of logical argument' and – at least according to 'Casque' – thereby cast doubt over the whole legality of the proposed new formula. Strongly-worded complaints had already been sent from Pall Mall to both the AIACR and the Bureau, but the row seems to have simmered throughout the spring and summer of 1936; the formula proposals were still on the table, but the main opposition – on different grounds – was now coming from France.

Surprisingly, *Motor Sport* suggested that the new rules bore similarities to a change in the American so-called 'Junk Formula', which had been provisionally announced by the AAA Contest Board in March 1935 and then confirmed in August, and which was due to be implemented for 1936. The AAA's focus was very much on dirt track racing, but this amendment was specifically related to the Indianapolis 500 and both rescinded the ban on superchargers and removed restrictions on the number of carburettors and valves per cylinder, while at the same time reducing the fuel allowance for the 500 from 42½ to 37½ gallons. Quite how this could have been related to the new formula is unclear, since the fuel consumption element suggested by the French proposals had now disappeared, while American cars (blown or unblown) could still run engines of up to six litres! *Motor Sport* therefore seems to have misunderstood, but it can be seen as a first indication that the authorities at Indianapolis were quite prepared to cut their big race adrift from the mainstream of US racing – as will be seen later, there were other elements in play too.

Returning to Europe in February 1936, it was immediately obvious to most observers that the CSI had – once again – badly miscalculated. The 13:10 ratio was widely derided (not just in France) as unworkable, given that it had been tried and found wanting at Le Mans as far back as 1931, while even a quick 'back of the envelope' calculation showed that the power-to-weight ratio required for the

proposed smaller capacity cars to compete with larger ones was almost certainly unachievable when the bodywork regulations were taken into account.

From the beginning, the formula attracted what *Motor Sport* called 'violent criticism', especially from French quarters, whence influential voices were soon being raised in protest, attacking the proposals on two fronts – the unfairness of the ratio between blown and unblown engines and the CSI's failure to place any restrictions on fuel, which had been a major factor in the Germans' success. *The Autocar* called the weight scales 'arbitrary' and the general opinion was that the straight-line weight/capacity graphs produced should more properly be curves with a greater penalty for the larger-engined cars, since this meant that the relationship between capacity and brake horsepower unfairly favoured them. Unsurprisingly, there was no such criticism from Germany, where the attitude must have been that the new formula would mean continued success.

The French opposition was spearheaded by Charles Faroux, the only dissenting French voice of any note being that of Ettore Bugatti – a man who was, as we have seen, fully convinced of the necessity of supercharging Grand Prix engines – and who pronounced himself 'highly satisfied' with the new *Formule Internationale*. This opinion was no doubt reinforced by his hopes for the new aluminium block version of his T50 engine, which could be produced in a convenient 3449cc variant. All he needed was a competitive chassis to put it in ...

Even within France, there were differences of opinion amongst the manufacturers, who were now counting on being able to use the sports cars they were building for 1936-37 – or at least developments of them – in Grands Prix in 1938. The most conservative view came from Louis Delage, who felt that 4500cc was too high a maximum for the unblown cars, but in any case argued they should be matched against blown cars of just 2360cc and that a control fuel should also be used – he was also in favour of using chicanes to slow the cars further and even that the cars should be as near production models as possible.

Charles Weiffenbach[18] of Delahaye was more circumspect, contenting himself with a gentle protest that the ratio was too much in favour of the blown cars: having just received an order from his most valued customer for a team of new unsupercharged Grand Prix cars he presumably didn't want to rock the boat

18 Although always known as 'Monsieur Charles', his real name was Joseph Fréderic Weiffenbach.

too much. Like Louis Delage, he would have also preferred a control fuel, even suggesting that ordinary pump petrol could be used.

Finally, Tony Lago of Talbot who, for now at least, had no plans to build a Grand Prix car, elected for a limit of 2250cc on blown cars if 'laboratory' fuels were permitted or the CSI's proposal of 3460cc, providing only pump fuel was used. He seems to have also abandoned his previous opposition to superchargers.

Incidentally, it should not be inferred that the French were the only ones who found fault with the new formula. A sceptical *Motor Sport* headlined their announcement of it as ‘Formula pros and cons’, suggesting that the Italian teams' proposal of 2700cc would be a better limit for the blown cars and even that unsupercharged engines had no place in Grand Prix racing, concluding in rather world-weary fashion that

> *we do not think the constructors of the modern GP car will have great difficulty in deciding that their present cars, reduced in engine size to 3460cc and strengthened with an extra 100 kilos of weight, are the ideal machines for future Grand Prix races.*

The ACF, armed by Faroux with sheaves of evidence mainly derived from Le Mans and still reserving the right to veto the whole formula, now went on the offensive, arguing for both fuel restrictions and a ratio of 17.5:10, which would have limited the blown cars to 2570cc: this was even less than the AC de l'Ouest's 16:10 ratio (2812cc) which was envisaged for the 1936 Le Mans race.[19]

The CSI, for their part, responded that – if they really wanted to – the manufacturers could build more efficient and powerful unblown cars. Not unnaturally, the French answer – from a country beset by industrial and political strife and whose motor industry was still in deep depression – was that this was unaffordable.

So, the saga dragged on throughout the spring and summer of 1936, much as the Battle of Verdun had done two decades before, with the CSI in the role of the besieged fortress and the French mounting occasional futile assaults from their entrenched position.

19 Cancelled due to industrial unrest.

Meanwhile, the existing manufacturers were becoming increasingly concerned as, the longer this war of attrition continued, the less time they would have to finalise their plans for 1937: in short, they had no idea what size cars they were supposed to be building. It will be recalled that even though the CSI had postponed the start of the new formula until 1938 back in September 1935, they had reversed this decision in February 1936. Although this went almost unremarked at the time *Motor Sport* – which as noted above had described the extension as ‘no surprise’ the previous November – had noticed and published a long analysis in August which, even though it was entitled 'The Grand Prix Formula for 1937-1939: can it develop the smaller racing car and the unsupercharged engine?' confined itself to an examination of the existing blown cars. The anonymous writer (probably Kent Karslake), while admitting that even though some of the most efficient existing smaller cars like the works Austins and ERAs were capable of matching or even exceeding the biggest on a simple power/weight basis argued – correctly – that they were really unsuited to the demands of Grand Prix racing, with its 500km races on fast open road circuits. In addition, the minimum weights specified were seen as unachievable for the smaller cars, especially given the requirement that bodywork should be at least 85cm wide: the compact and potent 750cc Austin racers look almost like toys when placed alongside a Mercedes Benz W125 or even an ERA and scaling up their bodywork to fit the regulations would have simply destroyed their performance. In practice, the smallest cars could never have been competitive in really long races, since they could carry much less fuel and would thus have needed to pit more often and although the Austins were often to the fore in British road races of 150-200 miles, this was mainly due to the class handicap system which – depending on which method was used – meant they either had to cover a slightly shorter distance or were given a head start. An analysis of the unblown cars' chances was promised for the following month’s issue, but never appeared.

Meanwhile, the French authorities had been discovering that if their compatriots were less than enthusiastic on seeing their beloved blue *bolides* defeated on French soil they were perhaps even less keen on watching sports cars driven by mostly second- and third-rate drivers. To be fair, some of the racing – especially at Montlhéry and Reims – had been excellent, but crowds were vastly down at all the races, hitting the clubs where it hurt most: in their bank accounts.

Eventually, on September 22nd, after their pre-Paris Salon meeting, the weary and embattled members of the CSI announced once more that the introduction of the new formula would be postponed until 1938.[20] Before this meeting, there had even been suggestions that it might be scrapped completely, with Grand Prix racing switching instead to 1500cc supercharged cars, again perhaps from as early as January 1938. By now 'Grande Vitesse' (Rodney Walkerley) of *The Motor* was obviously fed up with the whole process, commenting drily after the postponement that

> *... one wonders if the International Sporting Commission [will] get so far as to adopt a new Grand Prix formula to follow on the existing one, and if anyone will bother to build a car in accordance therewith.*

The CSI had seemingly called the French bluff and presented them with two unpalatable options, both of which involved the further prolongation of the 750kg formula which they had inspired in 1932 but now detested so much and – at the very least – a second year of unpopular and unprofitable sports car racing. That the French disliked the new formula was obvious, but the prospect of 1500cc Grand Prix racing would have been equally abhorrent, not least because no French company had built a really successful new blown 1500cc car since Albert Lory's Delage 15S8 of 1927; Bugatti's T51A had enjoyed a brief dominance of voiturette racing in the fallow years of 1933-34, but had quickly been eclipsed by ERA and Maserati.

So, no doubt very reluctantly, the ACF raised the flag of truce, abandoned their trench and crossed No Man's Land to finally come to an agreement with the Commission. On October 10th, a further statement was published: the February proposals were to stand, save only that the ratio was now to be 15:10, limiting the blown cars to 3000cc, rather than 3460cc (and still a long way from the ACF's goal of 2570cc). Fuel was still unregulated – presumably the suggestions of Messrs Lago, Delage and Weiffenbach had been sacrificed on the altar of compromise. But within a few days, the press – no doubt in the light of what they had seen during the course of 1936 – were attacking this revised formula too: on October 23rd the Swiss *Automobil Revue* suggested it was 'condemned to failure' and that a simple 2:1 ratio would be more appropriate. By the end of the month,

20 In his book *The French Sports Car Revolution*, Anthony Blight suggested that the decision to extend the 750kg formula had first been taken at this September 22nd 1936 meeting, but he had overlooked the announcement made the previous year and reversed in February.

there were already rumours that – because of the new formula – neither Belgium nor France would hold a Grand Prix in 1938.[21]

But although they finally had a decision, the constructors were probably less than pleased with the outcome, since even now they had only fifteen months to complete their new cars, which might well have already been designed with 3.46 litre engines in mind.

The revision of the maximum capacity for blown cars cascaded down the capacity/weight scale, meaning that supercharged cars of as little as 666cc were now eligible for Formula races. But, as pointed out by many – not least in the *Motor Sport* article referenced above – the smaller blown cars were already being expected to be built down to what were seen as unachievably low weights: this revision made the disparity 13.3% worse. As an illustration, the minimum weight at 1500cc was now 561 kilos: 1937's two leading voiturettes, the ERA C-type and Maserati 6CM, weighed 735 and 600 kilos respectively, the ERA's extra bulk being partly compensated by its slightly more powerful engine; depending on the state of tuning both cars produced somewhere between 170 and 180bhp. Even the tiny Austins in their existing form – which weighed in at about 460kg – were more than 40 kilos 'overweight'!

The 2 litre version of the ERA engine reputedly produced 240bhp when fitted with a Zoller supercharger, but the car still weighed about 80 kilos over the formula's specified minimum weight for 2 litre cars. *Motor Sport*, reprising its August 1936 article in November 1937, pointed out that the continuation of a straight-line graph meant that in terms of the ratio of engine capacity to minimum weight the blown 3 litre cars had the benefit of 3.53cc per kilogramme, whereas at 2 litres the figure was 3.04cc and at 1 litre 2.15cc. The 15:10 ratio meant that for 1 litre unblown cars the figure was exactly 2.5cc per kilo and for the 4½ litre cars 5.29cc.

Three months after the CSI's announcement, on January 18th 1937, the Contest Board of the American Automobile Association, meeting in New York, announced that the Indianapolis 500 and the other races which made up the AAA's National Championship would, from 1938, be run for cars conforming to the new *Formule Internationale*, an historic decision which reunited European and

21 The Belgian Grand Prix would not be held in 1938, but this was actually due to reconstruction of the Spa-Francorchamps circuit.

American racing after a decade apart. The optimism of the Americans is evident in this extract from the *Chicago Tribune*'s report:

> *Officials predict that the action taken by the American Automobile Association will encourage American racers to invade European countries and at the same time will attract more foreign entries to the annual 500 mile race held in Indianapolis. It also will draw more foreign drivers into the road races, which will be held again at Roosevelt Raceway and in Los Angeles.*
>
> *"When their cars have been adjusted mechanically American drivers will be on a par with their foreign rivals," a prominent AAA official said following today's meeting. "It also will make it possible for foreign drivers to compete effectively in the long race at Indianapolis."*

But there was still one more surprise to come: unbelievably, in late 1937, only weeks before it was due to come into effect, alterations to the forthcoming *Formule Internationale* were still being proposed. On September 30th, *l'Auto* reported that representations had been made at the CSI's first autumn meeting on September 23rd for the 85cm minimum bodywork width regulation to be either reviewed or – ideally – scrapped completely, due to the way it disadvantaged the smaller-engined cars; the committee had looked favourably on the request, but had resolved to refer it to the Bureau Permanent International des Constructeurs d'Automobiles first. Whatever happened subsequently seems to have caused not a little confusion, but what is certain is that on October 17th *l'Auto* further reported that, having consulted the Bureau, the CSI had decided at their meeting two days previously that the rule would stand.

Just two days later, on October 19th, *The Motor* published an article by Humphrey Cook of ERA, looking forward to the prospects for 1938. In the course of this article Cook mentioned his misgivings about the new formula's bodywork regulations, which had compelled the company to build a larger and heavier car than they would have liked. So that was seemingly that.

However, by December 3rd, the situation – at least at ERA – had apparently changed: on that date *The Autocar* published an article by John Dugdale, recording a visit he had made to Bourne, in which he reported that the 85cm cockpit width rule had been completely scrapped – at the initiative of the Bureau Permanent International des Constructeurs d'Automobiles! In a supplementary

piece 'Casque' suggested that – given that body widths were ultimately dictated by the physical size of the engine rather than that of the driver – this was not necessarily an ideal solution, advocating a sliding scale linked to the existing weight/capacity rule.

Subsequently, ERA supporters received an unwelcome Christmas present later in the month: in their December 24th issue, *The Autocar* reported – under the headline 'Practical Joke Department' – that the rule had been reinstated, due to objections from America where – or so it was dubiously claimed in both *The Autocar* and (later) *Motor Sport* – several drivers had already built new cars for 1938. *The Autocar* added that ‘in England and Germany the skeletons of the new cars' bodies had been altered, so now they've got to be altered back again’. Dugdale claimed that this unwanted diversion meant that ERA had abandoned their original chassis design and designed, built and scrapped two frames, although his comments about the Germans can surely be no more than speculation. *The Motor*, not apparently having any sources with which it could check this, had merely rehashed *The Autocar*'s articles on December 14th and January 4th.

Once the dust had settled, the RAC issued an official statement on the matter: 'Casque"s comments – despite having previously reported that the CSI had assented to the alteration – paint this as having been another case of the tail wagging the dog and claim the Bureau had sent the rule change out on their own initiative, without prior reference to the AIACR. Given the above reports in *l’Auto*, this is rather difficult to believe and one can only conclude that ERA had misinterpreted some correspondence from the Bureau. Again according to 'Casque', in Britain only ERA had been aware of the change and that it ‘obviously places that firm in a difficulty’: this was something the cash-strapped company could ill-afford, but it would turn out that they were not the only ones to have been inconvenienced by this affair, since it was later reported in *Motor Sport* that Arthur Hyde had built a narrower body for his Alfa Romeo tipo B, which had also had to be scrapped.

The American Connection

Although no American races were run to *Formule Internationale* rules, the Indianapolis 500 had *Grande Épreuve* status and the American Automobile Association was of course represented on the CSI: since 1930, the Indianapolis 500 and the AAA National Championship had been run to the so-called 'Junk

Formula' outlined above which favoured stock-block engines of up to 6 litres and this had been further modified when supercharging was banned completely from January 1st 1931. The CSI also seem to have been seeking a compromise with the Americans because in February 1930, in what may have been a last throw of the dice to again set up a world-wide formula, they had – apparently after a request from Bugatti and Bentley – contacted the Indianapolis Contest Board to ask them to consider reducing the 1931 capacity limit to 5 litres and rescinding the restriction on valves per cylinder to bring the '500' in line with the European races: Indianapolis Speedway Vice-President T E 'Pop' Myers[22] had previously visited Europe to drum up entries and returned home claiming that anything up to half the 1930 field could be European. He would be sadly disappointed, since all the manufacturers who built suitable engines fitted them with four valves per cylinder and only Maserati would venture across the Atlantic with a couple of 26Bs, neither of which achieved much.

In 1933, the AAA had begun to experiment with fuel consumption limits and these would continue in 1934, 1935 and 1936, the amount of fuel allowed being gradually reduced. The addition of oil during the race was also banned in 1933 – although cars were allowed to start with up to six US gallons on board.[23]

As noted above, Indianapolis rules for 1936 similar to the CSI's February 1936 proposals had originally been announced in March 1935 but later apparently partly scrapped – a combination of this and the CSI's failure to agree a new formula may very well explain why the AAA Contest Board abandoned their previous fuel restriction rules and evolved their unique 1937 regulations before adopting the new *Formule Internationale* for 1938.

European and American motor racing had been increasingly different worlds since the end of the 2 litre *Formule Internationale* and by the mid-1930s there was a small but influential American lobby group which cast envious eyes towards the success of European road racing: this group included the likes of 'Pop' Myers, Art Pillsbury of the AAA and the owner of the Indianapolis Motor Speedway, the veteran driver and Great War air ace Eddie Rickenbacker. In the United States, the sport was in flux, with an increasing focus on spectacular dirt

22 Myers' forenames were Theodore Ethbert, but he was universally known as 'Pop', an epithet he had received from press agent Heinie Schuart at the age of just 36 in 1910, referring to his prematurely greying hair.

23 Equivalent to five Imperial gallons – 22.7 litres.

track racing on short ovals, which provided short term profits for promoters but meant that American racing became increasingly insular, introspective and regionalised with the AAA's National Championship becoming less and less influential. There was an abortive road race project at Nassau on Long Island in July 1933 and in August of that year the classic Elgin Road Race was briefly revived with events for both open-wheel and stock cars. The same month, an announcement was made that a new 100-mile road race near Los Angeles would close the AAA season in December: in fact this did not take place until December 1934, on a roughly B-shaped 2-mile dirt-surfaced track at Mines Field near Los Angeles Municipal Airport.

Attention now turned to the possibility of artificial road circuits and in due course, plans were laid to attract the European Grand Prix teams across the Atlantic, with no fewer than seven new events being envisaged over two years, the first of which was to be the Vanderbilt Cup on the new Roosevelt Raceway at Mineola on Long Island, New York on July 4th 1936, followed by a United States Grand Prix on the same track on October 12th. These two races appeared on the AIACR's International calendar, which was agreed at the September 25th 1935 CSI meeting in Paris, but would not be officially announced by the Contest Board until they met in New York on February 17th 1936. It seems almost certain that they had also intended announcing their adoption of the new *Formule Internationale* at this meeting: unfortunately, events had overtaken them and they would have had barely two days to assess the CSI's latest proposals.

In March, the Vanderbilt Cup would be switched to the later date, with the proposed Grand Prix disappearing. A German press report from early April, sourced to Mercedes Benz, suggests that further races were proposed in both Florida and California and on July 6th, the rest of the schedule would emerge, when the construction of a second artificial road circuit was announced: Mines Field was to be revamped under the name Los Angeles Raceway with the track extended to either 3.033 or 3.38 miles (reports vary), with the inaugural event scheduled for November 29th 1936. February 23rd 1937 would see a 500-mile race in Los Angeles, the series continuing with two further visits to Roosevelt Raceway on June 26th, again for a 500-mile race to be called the Pan American Cup, and on September 6th (Labor Day) for the second Vanderbilt Cup. Finally, there was to be a second 500-mile race in Los Angeles on November 28th. I have found no other trace of any planned Florida event and this may actually be a

confusion with the Daytona Beach stock car races which used a course that was a mixture of sand and sealed road surfaces – while on November 17th 1936 *Automobil Revue* claimed that there was yet another autodrome planned, this time in the vicinity of Chicago.

There were also plans for a further 300-mile race on August 1st 1937 on another artificial road circuit to be built within the Texas State Fairgrounds in Dallas: this was to be held in conjunction with the Greater Texas and Pan-American Exposition and run on an approximately 2 mile track. Promoted by George C Marshall, who was also responsible for the Los Angeles Raceway project, this foundered after the leading drivers indicated they were unwilling to race over such a long distance. Marshall countered their suggestion of a 200 mile event with a proposal to reduce it to 250 miles but after postponing it until September 5th he was later compelled to cancel it, having failed to reach an agreement.[24]

'Outside the loop' was the classic Indianapolis 500 on its usual Memorial Day date, for which the 1937 regulations (see below) had already been agreed.

But even as the 1937 International Calendar was being published, further cracks began to appear in this plan. On September 28th 1936 (even though construction had allegedly started earlier in the month) it was announced that the Los Angeles Raceway would not now be built at Mines Field, having been relocated to a site between Los Angeles and Long Beach and now expected to be a 2½ mile circuit: the November race seems to have been quietly dropped and the February event postponed until March 28th, but by January 1937 the whole Los Angeles project had been abandoned for reasons never made clear, even though they had just received the Contest Board's official sanction for a race in October – another apparent date change. On January 8th *The Autocar* ascribed this to 'inevitable labour troubles' and the following day Eddie Rickenbacker of the AAA was quoted as hoping the new track would now open in 'late Fall'. A fortnight later *The Autocar* further informed its readers that 'not all trouble concerns labour': in early 1936 the city of Los Angeles had actually identified the site as their preferred option for a single large airport (it then had three – at Mines Field, Burbank and Glendale) and would finally buy the extra land to expand it in late

24 The Exposition itself was something of a failure, attracting only 2 million visitors – just one-third the number who had visited the Texas Centennial Exhibition on the same site in 1936.

1937, so perhaps the track's developers had simply sold up when it became clear the site had no real future. Los Angeles International Airport now covers the original Mines Field Airport and oval dirt track – plus the 400-acre site on which the Raceway was to be built.

Meanwhile, the Roosevelt Raceway authorities switched the Pan American Cup to Labor Day and rearranged the date for the Vanderbilt Cup as well.

It was only when the European cars and drivers arrived in October 1936 that most of the Americans realised just how much they *didn't* know about road racing. The twisty loose-surfaced Roosevelt Raceway – designed by Art Pillsbury, who was better known for his work on board tracks and dirt ovals – wasn't ideal for either their track-bred cars or the Grand Prix machines (although the ERA voiturettes performed remarkably well), but the sheer power, better brakes and superior engineering of the visitors' cars meant that they went home with the silverware and the lion's share of the prize money, Tazio Nuvolari winning easily for Alfa Romeo/Scuderia Ferrari. The race had effectively been *Formule Libre*, admitting both the *monoposto* Grand Prix cars and the Indianapolis machinery by means of supplementary regulations to the AAA formula, and it seems that the 1937 Los Angeles Raceway and Dallas events were to be run to the same rules.

Reference was made above to the re-admission of supercharged engines at Indianapolis for 1936: in fact only one driver (Overton 'Bunny' Phillips with an old Bugatti T35B) had even attempted to qualify – and failed. Yet it should surely have been obvious from the outset that a reduction in fuel allowances did not sit well with the greater consumption of blown cars and this was amply demonstrated when no fewer than seven normally-aspirated cars ran dry during the last 20 laps. The need to conserve fuel had prompted the development of even more exotic and expensive brews, which were blamed for a number of engine failures and damage to engine blocks during both qualifying and the race. The drivers, led by 1936 winner Louie Meyer, were vocal in their criticism, so this would have been very much on the minds of the Contest Board members when they met in Detroit on June 26th 1936 to set the rules for Indianapolis for 1937: yet again, they had been frustrated by the continued delays in Europe as at this point the CSI's second proposal was still on the table and under siege from the French and it was by no means certain when the new *Formule Internationale* would be agreed, let alone implemented. So, even though the AAA were probably indicating privately that they would adopt the CSI's formula as soon as it was practicable, in public they

had to come up with new regulations for their premier race. Their solution was simple: to abandon all fuel consumption restrictions, but prohibit anything other than standard pump fuel. They also increased the amount of oil allowed to 6¼ US gallons[25], although its replenishment was still prohibited.

Nevertheless, there would still be no European participation at Indianapolis in 1937. That obligatory use of pump fuel and a continued insistence on two-seater bodies and riding mechanics meant that their Grand Prix cars were ineligible. The race was also scheduled to be run on the day after the first major event of the year in Europe on the revamped AVUS circuit with its new high banking: missing this would have been unthinkable for the German teams. Nine supercharged cars would qualify for the Indianapolis race, with Ted Horn bringing his blown 3.0 litre Miller-Hartz home in third place, just behind the unsupercharged 4.2 litre Offenhauser-powered cars of Wilbur Shaw and Ralph Hepburn.

So, it must have been a great relief to the Contest Board when they announced their adoption of the new *Formule Internationale* in January 1937: it was something they had probably wanted to do since June 1935! The following month it was reported in Europe that ‘an American team’ would be selected to race in the *Formule Libre* Tripoli Grand Prix later in the year: like so many trans-Atlantic motor racing projects before and since, this sank without trace.

But even though the original intention had been to bring both European-style racing and the European teams across the Atlantic, the compact stadium-type circuits designed by the Americans were nothing like the open roads, park and road circuits or autodromes of Europe and had found favour with neither the locals nor the visitors. The American fans, used to the spectacular tail-sliding style of dirt-track racing and the sheer thundering speed of Indianapolis, found very little to interest them and despite their success the Europeans too had been critical of the Roosevelt Raceway: they didn't like either the loose surface or the succession of slow infield corners and the track was redesigned and resurfaced with a mixture of concrete and asphalt sections for the second running of the Vanderbilt Cup – which actually took place on July 5th 1937, close to the date originally envisaged for the Pan American Cup and again with a *Formule Libre* field made up of a mix of European and American cars, but this time with German

25 5.2 Imperial gallons – 23.66 litres.

participation. The race was won by Bernd Rosemeyer's Auto Union after a thrilling duel with Richard Seaman's Mercedes Benz. Only one further meeting was held – on September 25th 1937, when the amateurs of the Automobile Racing Club of America were invited to race on a shortened version of the track.

In January 1938, the veteran American racer George Robertson, now Vice-President of the corporation which ran the Roosevelt Raceway, wrote an article for *Popular Mechanics* explaining the new formula and talking up the chances of American drivers, suggesting that anything up to fifteen new cars were under construction, but in fact the few which were eventually completed would be destined never to race on tracks outside America.

Unfortunately for the Americans, the new *Formule Internationale* had come too late: spectator numbers had been low for both races – not helped by a two-day rain delay to the 1937 event which meant it was eventually run on a Monday. Naively, Roosevelt Raceway had applied for and been granted Monday July 4th (Independence Day) as the date for the 1938 Vanderbilt Cup: it soon became clear that most of the Europeans had no intention of entering, since this was the day after the French Grand Prix, now expected to return from the fading glories of Montlhéry to the fast and sweeping open roads of Reims. There had been a similar date clash in 1937 between the American race and the Belgian Grand Prix, the German teams and Scuderia Ferrari having split their efforts between the two and rather devalued the Spa race by sending their team leaders to Long Island, so in December 1937, fearful that this date clash might affect their race, the French newspaper *l'Auto* contacted all the teams, amid rumours – presented in the Italian *Il Littoriale* as fact – that the Grand Prix might be postponed until July 17th, a date which the AC de Champagne – which as noted above actually had ambitions for a 24-hour sports car race – had secured for a two-day fixture on the Reims-Gueux circuit. Alfred Neubauer of Mercedes Benz, Karl Feuereissen of Auto Union and Nello Ugolini of Scuderia Ferrari all insisted that missing the Reims race was unthinkable. All three promised to send three cars, as did Meo Costantini of Alfa Romeo: the reason for this apparent duplication of Italian efforts would become clear when the almost simultaneous announcement that Scuderia Ferrari was to be closed down was made. Bugatti, Maserati and Talbot all confirmed that they too would race in France. Only Écurie Bleue, Lucy Schell's quasi-works Delahaye team, had sent entries for the American race, for

René Dreyfus and Gianfranco Comotti, apparently against the wishes of ‘Monsieur Charles’.

A July 17th date for the Grand Prix de l'ACF would have clashed with both the Swiss Motorcycle Grand Prix and a big voiturette race at Varese in Italy. It was also just a week before both the German Grand Prix at the Nürburgring and the UMF's French Motorcycle Grand Prix in Nice, and on December 19th the ACF – presumably bolstered by the teams' assurances – confirmed that the Grand Prix would move to Reims from Montlhéry and would also retain its July 3rd date. Nevertheless, on January 18th 'Casque' told his readers in *The Autocar* that ‘rumours that the Vanderbilt Cup is to be abandoned may be discounted.’ But by the next issue he had apparently remembered that the French Grand Prix was ‘clashing badly with the Vanderbilt Cup.’ Faced with this potential disaster, the Americans struggled on, but in March 1938 the Roosevelt Raceway went bankrupt, its original backers losing a total of $1 million. With it went any hope that Formula racing would establish itself in the United States.

In July, despite an announcement made at the end of May by a Los Angeles amusement park owner called Frank C Hulbert that he had secured a ten-year lease on the track and would be promoting a 300-mile stock car race there on Labor Day, Roosevelt Raceway would reopen under new owners as a midget racing venue, before closing again at the end of September 1938 after suffering both a betting scandal and a fatality during a race. It was next used the following June, as what the press scornfully dismissed as a ‘two-bit parking lot’ for the crowds attending the Westchester Cup polo matches at nearby Meadow Brook. On August 12th 1939 the track hosted the national midget racing championship: this was the final race meeting ever run at Roosevelt Raceway and ironically attracted the biggest crowd ever seen there, estimated variously at anywhere between fifty and sixty-three thousand. Another promised stock car race scheduled for September 9th 1939 was initially postponed and then cancelled and finally, in early 1940, the site was sold and redeveloped as a harness racing track, featuring a more traditional type of horse power. Twenty years later, the Vanderbilt Cup would be revived for Formula Junior cars and run on a temporary circuit laid out on the harness racing track's car park.

Returning to Europe once more, the 1938 Grand Prix season turned out to be something of a damp squib, with Mercedes Benz being the only team who were truly ready to race for most of the season. The unblown Delahayes were

quickly outclassed after early season wins at Pau and Cork: Alfa Romeo spread their efforts across three designs (the 308, 312 and 316) to the detriment of all of them; the new Maserati 8CTF lacked development; the promised ERA GP car failed to appear at all; Bugatti withdrew mid-season in order to avoid further humiliation and Auto Union, whose car was well behind schedule, were also somewhat rudderless after the deaths of Bernd Rosemeyer and Ernst von Delius and the departures of Ferdinand Porsche, Luigi Fagioli and Hans Stuck – a situation which only began to be rectified in mid-July after the arrival of Tazio Nuvolari and the return of Stuck.

On September 23rd 1938 – twelve days after Nuvolari had taken Auto Union's first victory of the year in the Italian Grand Prix – the CSI convened in Paris for its usual pre-Salon meeting. The main business was as also as usual: to determine the main structure of the International calendar by confirming the dates of the *Grandes Épreuves* and *Épreuves à Priorité*. Less usually there was apparently a preliminary discussion of the possibility of some sort of modification of the existing *Formule Internationale*, less than a year into its three-year term: according to *Motor Sport* the meeting was addressed by Laury Schell of Écurie Bleue, who called for the introduction of 'more or less pump fuel', a request vetoed by Germany. *Le Figaro*, in its issue of September 24th, reported that further consideration of the formula was postponed until their next meeting, due on October 14th, during the Paris Salon itself. However, the September 25th issue of *Le Matin* put it rather more strongly, claiming that because of 'the deplorable results produced by the application of this formula' it had been decided 'as a matter of urgency' to review the formula in conjunction with the Bureau Permanent des Constructeurs, with a view to replacing it; according to *l'Auto*'s report of the previous day, this meeting was to take place on October 7th, with 'definitions of superchargers and two-stroke engines' also being on the agenda for discussion. Charles Faroux, writing in *l'Auto* on September 28th, poured cold water on the chances of the review changing anything, pointing out that if just one constructor objected – he had Mercedes Benz in mind – then there would be no chance of any change before the scheduled end of the Formula on December 31st 1940, when he confidently expected a 1500cc formula to succeed it. He also returned to a familiar French theme, advocating a control fuel, but adding the suggestion that race lengths should be increased by twenty per cent to 600 kilometres and refuelling banned, with cars compelled to start with enough fuel to last the whole race. This, he further suggested, would add a fuel consumption

element to racing, his justification being that this could translate into more efficient engines for road cars.

Events in Munich, which enforced the postponement of the Donington Grand Prix and the rearrangement of the dates for the Paris Salon, also seem to have caused the cancellation of that October 7th meeting between the CSI and the constructors, and it was instead incorporated into the scheduled CSI gathering on October 14th. Once the full International Calendar had been finalized the main topic of discussion was the *Formule Internationale*. As predicted by so many, this new formula had not really changed anything and the French were once more on the attack, attempting to persuade the commission to maintain the 4500cc maximum for unblown engines but to immediately reduce the ratio between unblown and blown engines to 17:10 or even 18:10, which would have capped supercharged cars at 2650cc or 2500cc. It was even rumoured that they had once more suggested banning superchargers completely, although *Le Figaro* was at pains to point out that the Germans were just as capable of building all-conquering 4½ litre cars as they were of building blown 3 litres; both teams were widely believed to have conducted tests on unblown engines, although probably only Mercedes Benz had actually done so.

In the end, the CSI decided to maintain the *status quo*, re-affirming that the formula would continue until the end of 1940 and – as promised in September – also publishing definitions of four- and two-stroke engines, especially regarding supercharging. A deeply disappointed *l'Auto* – which printed the names of the committee, presumably so their readers would know who to blame – declared bitterly that

> *For another two seasons there is no hope that the French* marques *will trouble their foreign rivals.*

Unable to let sleeping dogs lie, even after the decision, on October 20th Charles Faroux published yet another diatribe in *l'Auto*, calling for a 2:1 ratio, a control fuel and (implicitly) a ban on refuelling.

Such was the uncertainty that during the Paris Salon the Vicomte de Rohan-Chabot, the President of the AIACR, had found it necessary to give an interview to the French press regarding the future of the sport and while there was no dispute about the technical prowess involved in building Grand Prix cars there was also a general concern about the lack of 'real racing'. This was typified by an

article by 'Casque' published in *The Autocar* in December 1938, in which he also argued forcefully in favour of a 1500cc formula, suggesting that it should start as early as 1940 on the grounds that there were precedents for this in the past: presumably he was referring to the demise of the previous 1500cc formula, but this had really atrophied rather than being killed off early and had been replaced with something which proved to be even less successful. A similar article in *Motor Sport* in January 1939 suggested rather pessimistically that Grand Prix racing might collapse 'like a pricked blister'. Even the Germans were said to be disillusioned, seeing their victories as hollow, there being no opposition to speak of and – as things stood – no prospect of any either. Even so, later in the year, in an interview given to Maurice Henry of *l'Auto*, addressing rumours that Mercedes Benz were about to announce their withdrawal from Grand Prix racing, Alfred Neubauer expressed his view on this and other subsequent developments in these terms:

> *It is not us who wishes to abandon the sport. But we are afraid that the sport is abandoning us!*

There can be no doubt that at the end of 1938 there was still disquiet about the formula, but it should be noted that (apart from those definitions of two- and four-stroke engines) there were as yet no formal moves to nominate a successor which would be valid from January 1941 onwards – despite that 1935 declaration of the Bureau that they required at least two years to prepare.

Nevertheless, 'Casque''s article, along with various other reported comments at the time, has contributed to suggestions by some writers that the CSI intended to introduce a 1500cc *Formule Internationale* from 1940 onwards. This is not the case, although it has its roots in a more complicated story, as I intend to show in a subsequent article.

Overall, the 1938-40 *Formule Internationale* can be seen – primarily through circumstances beyond the control of the AIACR and the CSI – as a missed opportunity to once more create a truly international sport, an ambition symbolised by the AIACR's decision to hold their summer congress in Washington DC in June 1939, with closer trans-Atlantic cooperation high on the agenda. Thus, it should also be viewed as a much more important part of the development of the sport than is generally suggested or acknowledged.

Three months to the day after that congress opened, German forces rolled over the Polish border; the consequences of that would of course dictate that the original three-year currency of the 1938 *Formule Internationale* would be extended until the end of 1946 in Europe, while it would remain valid in the United States – in a slightly modified form – until 1956.

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