

= 1994 San Marino Grand Prix =

The 1994 San Marino Grand Prix (formally the 14 ° Gran Premio di San Marino) was a Formula One motor race held on 1 May 1994 at the Autodromo Enzo e Dino Ferrari , located in Imola , Italy . It was the third race of the 1994 Formula One season .

Tragic events at this race proved to be a major turning point in both the 1994 season , and in the development of Formula One itself , particularly with regard to safety . The race weekend was marked by the deaths of Austrian driver Roland Ratzenberger and of three @-@ time world champion Ayrton Senna in separate accidents . Other incidents saw driver Rubens Barrichello injured and several mechanics and spectators injured . In terms of driver fatalities , this was Formula One 's darkest weekend since two drivers were killed at the 1960 Belgian Grand Prix .

Michael Schumacher , driving for Benetton , won the race despite contact with Damon Hill (who dropped to the back of the field and battled back to finish sixth) . Nicola Larini , driving for Ferrari , scored the first points of his career when he achieved a podium finish in second position . Mika Häkkinen finished third in a McLaren .

The race led to an increased emphasis on safety in the sport as well as the reforming of the Grand Prix Drivers ' Association after a 12 @-@ year hiatus , and the changing of many track layouts and car designs . Since the race , numerous regulation changes have been made to slow Formula One cars down and new circuits incorporate large run @-@ off areas to slow cars before they collide with a wall . Senna was given a state funeral in his home town of São Paulo , Brazil , where around 500 @,@ 000 people lined the streets to watch the coffin pass . Italian prosecutors charged six people with manslaughter in connection with Senna 's death , all of whom were later acquitted . The case took more than 11 years to conclude due to an appeal and a retrial following the original verdict of not guilty .

As a result of increased standards in safety following this race , there was a 20 @-@ year gap between the deaths of Ratzenberger and Senna , and the crash of Jules Bianchi at the 2014 Japanese Grand Prix which led to his death the following year .

= = Report = =

= = = Background = = =

Heading into the third round of the season , Benetton driver Michael Schumacher was leading the World Drivers ' Championship with 20 points ; Jordan driver Rubens Barrichello was second on seven points , 13 points behind Schumacher . Behind Schumacher and Barrichello was Damon Hill in third place on six points , tied on points with Ferrari driver Gerhard Berger . Berger 's team @-@ mate Jean Alesi was fifth on four points . In the World Constructors ' Championship , Benetton were leading on 20 points and Ferrari were second on ten points , with Jordan third on seven points .

There were two driver changes heading into the race . JJ Lehto replaced Jos Verstappen at Benetton , the latter having replaced Lehto for the opening two races of the season due to an injury sustained by Lehto in pre @-@ season testing . Aguri Suzuki was replaced with Andrea de Cesaris at Jordan .

= = = Qualifying = = =

Drivers had two hours , split over two days , Friday and Saturday , to register the fastest possible time . The driver who could register the fastest time would start on pole position , giving them a headstart of eight metres over the second @-@ fastest driver , who started on the opposite side of the track . Third place would start eight metres behind the second @-@ fastest driver and on the side of the track where the first placed car is . This practice continues until twenty @-@ sixth place , and the twenty @-@ seventh and twenty @-@ eighth placed cars are not allowed to race .

===== Friday qualifying =====

On Friday , 29 April , during the first qualifying session to determine the starting order for the race , Rubens Barrichello , a driver for Jordan , hit a kerb at the Variante Bassa corner at 140 mph (225 km / h) , launching him into the air . He hit the top of the tyre barrier , and was knocked unconscious . His car rolled several times after landing before coming to rest upside down . Medical teams treated him at the crash site , and he was taken to the circuit 's medical centre before being transferred to Maggiore Hospital in Bologna by helicopter for routine tests and observation to be carried out . He returned to the race meeting the next day , although his broken nose and a plaster cast on his arm forced him to sit out the rest of the race weekend . Ten years after the incident , Damon Hill , who drove for the Williams @-@ Renault team at the time , described the feeling after the crash : " We all brushed ourselves off and carried on qualifying , reassured that our cars were tough as tanks and we could be shaken but not hurt . "

Despite a spin , Senna was the fastest driver at the end of Friday 's session with a time of 1 : 21 @.@ 548 , almost five @-@ tenths of a second faster than Schumacher and Berger . Senna 's teammate Damon Hill was seventh , having spun himself , over 1 @.@ 6 seconds behind Senna .

===== Saturday qualifying =====

Twenty minutes into the final qualifying session , Austrian driver Roland Ratzenberger failed to negotiate the Villeneuve curva in his Simtek ; he subsequently hit the opposing concrete barrier wall almost head @-@ on and was critically injured . Although the survival cell remained largely intact , the force of the impact inflicted a basal skull fracture . Ratzenberger , in his first season as a Formula One driver , had run over a kerb at the Acque Minerali chicane on his previous lap , the impact of which is believed to have damaged his front wing . Rather than return to the pitlane , he continued on another fast lap . Travelling at 190 mph (306 km / h) his car suffered a front wing failure leaving him unable to control it .

The session was stopped while doctors attended to Ratzenberger . After initially being taken by ambulance to the on @-@ circuit medical centre , he was airlifted to Maggiore Hospital in Bologna shortly after , the second driver to be admitted there during the weekend . The session was restarted approximately 25 minutes later , but several teams ? including Williams and Benetton ? took no further part . Later in hospital , it was announced that Ratzenberger had died as a result of his multiple injuries . His death marked the first Formula One race weekend fatality since the 1982 Canadian Grand Prix when Riccardo Paletti was killed . It had been eight years since Elio de Angelis died testing a Brabham car at the Circuit Paul Ricard . Professor Sid Watkins , then head of the Formula One on @-@ track medical team , recalled in his memoirs Ayrton Senna 's reaction to the news , stating that " Ayrton broke down and cried on my shoulder . " Watkins tried to persuade Senna not to race the following day , asking " What else do you need to do ? You have been world champion three times , you are obviously the quickest driver . Give it up and let 's go fishing . " Senna replied , " Sid , there are certain things over which we have no control . I cannot quit , I have to go on . "

Senna had qualified on pole position , having not set a lap time following Ratzenberger 's death . He was joined on the front row by Schumacher and Berger qualified in 3rd . Damon Hill was able to improve on his disastrous Friday session before the red flag , improving his time by one second and qualifying fourth as a result . A time posted by Ratzenberger before his fatal crash would have been sufficient for entry into the race starting from the 26th and final position on the grid ; Paul Belmondo and Barrichello did not qualify .

===== Race =====

===== First start =====

The race took place in the afternoon from 14 : 00 CEST (UTC + 2) , in dry and sunny weather . At the start of the race , J.J. Lehto stalled his Benetton on the grid . Pedro Lamy , starting from further back on the grid , had his view of the stationary Benetton blocked by other cars and hit the back of Lehto 's car , causing bodywork and tyres to fly into the air . Parts of the car went over the safety fencing designed to protect spectators at the startline causing minor injuries to nine people . Further back , Martin Brundle had a good start , overtaking two cars as well as Lehto , propelling him from thirteenth to tenth place .

The incident between Lehto and Lamy caused the safety car to be deployed , with all the remaining competitors holding position behind it while travelling at a reduced speed . During this period , as a result of travelling at slower speeds , tyre temperatures dropped . At the drivers ' briefing before the race , Senna , along with Gerhard Berger , had expressed concern that the safety car (itself only reintroduced in Formula One in 1993 and only the third time used since then , the other occurrences being the 1993 Brazilian Grand Prix and the 1993 British Grand Prix) did not go fast enough to keep tyre temperatures high . Senna was also worried by a procedure introduced at the 1994 Pacific Grand Prix , which was that the safety car would lead the grid on the formation lap , rather than letting the race leader choose the pace of the formation lap . The procedure was removed for this race .

Once the track was reported clear of debris , the safety car was withdrawn and the race restarted with a rolling start . Jonathan Palmer , commentating alongside Murray Walker for the BBC , remarked how quick Schumacher was , as his time in the warm @-@ up session on Sunday morning gave rise to speculation that he was going to make one pit stop and , therefore , race with a heavier car than Senna , who was planning to make two , as was conventional . Martin Brundle had told BBC presenter Steve Rider that McLaren were going to make two stops . On the second lap after the restart , with Ayrton Senna leading Michael Schumacher , Senna 's car left the road at the Tamburello corner , and after slowing from 190 mph (306 km / h) to 131 mph (211 km / h) , hit the concrete wall , with debris flying into the path of the other drivers .

At 14 : 17 local time , a red flag was shown to indicate the race was stopped and FIA race doctor Sid Watkins arrived at the scene to treat Senna . When a race is stopped under a red flag cars must slow down and make their way back to the pit lane or starting grid unless notified of a restart . This protects race marshals and medical staff at the crash scene , and allows easier access for medical cars to the incident . Approximately 10 minutes after Senna 's crash , the Larrousse team mistakenly allowed one of their drivers , Érik Comas , to leave the pits despite the circuit being closed under red flags . Marshals frantically waved him down as he approached the scene of the accident travelling at " pretty much full speed " . Eurosport commentator John Watson described the incident as " the most ridiculous thing I have ever seen at any time in my life " . Comas avoided hitting any of the people or cars that were on the circuit but after going over towards Senna 's accident scene , he was so distressed at what he saw that he withdrew from the race .

The pictures shown on the world feed (supplied by host broadcaster RAI) of Senna being treated were considered by the BBC (the corporation responsible for broadcasting the San Marino Grand Prix to viewers in the United Kingdom) to be too graphic , disturbing and upsetting for general viewing at the time (around 13 : 20 GMT) , and the BBC abandoned RAI 's world feed to focus on their own camera in the pit lane . BBC commentator Murray Walker has frequently talked about how upsetting it was to have to talk to viewers whilst attempting to avoid any and all mention of the distressing images shown on RAI . Referring to the number of times the incident was replayed on the world feed , Ferrari team principal Jean Todt stated that " even if you didn 't want to watch it , you could barely fail to " . Senna was lifted from the wrecked Williams , and after approximately fifteen minutes of on @-@ site medical attention , was airlifted directly to Maggiore Hospital in Bologna , becoming the third and final driver to be admitted there during the weekend . Medical teams continued to treat him during the flight . Thirty @-@ seven minutes after the crash , at 2 : 55 pm local time , the race was restarted .

== == Second start == ==

Regulations meant that the original sixth lap would be deleted and the race would be restarted from the beginning of said lap . The first five laps would be added to the second part of the race and the overall result would be decided on aggregate . The race ran to a total of 58 laps , five from the first section and 53 from the second section .

On the second formation lap , Heinz @-@ Harald Frentzen stalled his Sauber whilst attempting to leave the grid and was forced to start from the pitlane . The other cars started from the grid in the order they were at the point the race was stopped . Michael Schumacher had a poor start and Gerhard Berger took the lead on track (but Schumacher still led the race overall due to the amount of time he was ahead of Berger before the race was stopped) . Hill , from third , made contact attempting to overtake Schumacher at the Tosa corner , dropping Hill to the back of the field and was forced to make a pitstop in order to fit a new nose cone . Hill battled back to finish in sixth position .

A very fast Schumacher took the lead on track on lap 12 when Berger ran wide , before relinquishing the race lead overall to Berger when he made his first pitstop , confirming that his pace both before and after the red flag was down to him running a three @-@ stop strategy , therefore racing with a lighter car . Berger pitted at the end of lap 15 for his first of two scheduled stops , before retiring a lap later with handling problems . Häkkinen led his first ever laps of a Formula One World Championship race , before pitting at the end of lap 18 . Following the first series of pit stops , Schumacher resumed the race lead .

Schumacher 's extra pace as a result of his lighter fuel loads meant he was able to pull out enough of a gap to Häkkinen which enabled him to make an extra pit stop . Häkkinen 's pace was very slow , allowing Nicola Larini to leapfrog him when the second round of pit stops were made .

On lap 48 , Michele Alboreto came in for a pit stop , but as he left , the rear @-@ right wheel came loose from the Minardi as it left the pit lane , striking two Ferrari and two Lotus mechanics , who were left needing hospital treatment .

Towards the end of the race , all eyes were on the battle for third place , as Häkkinen 's pace was so slow that Karl Wendlinger was catching him in the Sauber , aiming to give Sauber their first podium finish . However , Häkkinen was able to resist Wendlinger 's challenge and finish in third place , with Wendlinger fourth . Ukyo Katayama finished fifth for Tyrrell and Hill was able to battle back to finish sixth , the last of the points @-@ scorers .

Michael Schumacher won the race ahead of Larini and Häkkinen , giving him a maximum 30 points after 3 rounds of the 1994 Formula One season . It was the only podium finish of Larini 's career , and the first of just two occasions when he scored world championship points . Karl Wendlinger rode back to the pits on Häkkinen 's McLaren after Wendlinger 's car broke down on the slowing @-@ down lap . At the podium ceremony , out of respect for Roland Ratzenberger , who had died the day before , no champagne was sprayed .

= = = Post @-@ race = = =

In the press conference following the race , Schumacher said that he " couldn 't feel satisfied , couldn 't feel happy " with his win following the events that had occurred during the race weekend . Two hours and 20 minutes after Schumacher crossed the finish line , at 6 : 40 pm local time , Dr. Maria Teresa Fiandri announced that Ayrton Senna had died . The official time of death was given , however , as 2 : 17 pm local time , meaning that Senna had been killed instantly . The autopsy recorded the cause of death as head injuries likely caused by an impact from a wheel and suspension . BBC Television commentator Murray Walker described it as " the blackest day for Grand Prix racing that I can remember " .

Later that day in the United States , word of Senna 's death reached Talladega , Alabama where NASCAR was running the Winston Select 500 at Talladega Superspeedway . ESPN , which televised the San Marino Grand Prix for the American audience , had race commentator Bob Jenkins relay word to the viewers during the race . During the postrace festivities , race winner Dale Earnhardt (who would meet a similar fate seven years later) dedicated the victory to Senna .

On 3 May , the FIA called a meeting at the request of the Italian Automobile Club to review the

events of the Weekend . Later on , the governing body announced new safety measures for the next round in Monaco which included the entry and exit of the pitlane to be controlled by a curve to force cars to run at a reduced speed , no team mechanic would be allowed onto the pit lane surface except for pit stops and a draw would be arranged to determine the order in which cars make pit stops and be limited to emergencies with cars not taking on new tyres or allowed to refuel .

Senna was given a state funeral in São Paulo , Brazil on 5 May 1994 . Approximately 500 @, @ 000 people lined the streets to watch the coffin pass . Senna 's rival Alain Prost was among the pallbearers . The majority of the Formula One community attended Senna 's funeral ; however the president of the sport 's governing body , the FIA , Max Mosley attended the funeral of Ratzenberger instead which took place on 7 May 1994 in Salzburg , Austria . Mosley said in a press conference ten years later , " I went to his funeral because everyone went to Senna 's . I thought it was important that somebody went to his . "

The 1994 Imola layout , which had been in place since 1981 , was never again used for a Formula One race . The circuit was heavily modified following the race , including a change at Tamburello ? also the scene of major accidents for Gerhard Berger (1989) and Nelson Piquet (1987) ? from a high speed corner to a much slower chicane . The FIA also changed the regulations governing Formula One car design , to the extent that the 1995 regulations required all teams to create completely new designs , as their 1994 cars could not be adapted to them . The concern raised at the drivers briefing the morning of the race , by Senna and Berger , would lead to the Grand Prix Drivers ' Association reforming at the following race , the 1994 Monaco Grand Prix . The GPDA , which was originally founded in 1961 , had previously disbanded in 1982 . The primary purpose of it reforming was to allow drivers to discuss safety issues with a view to improve standards following the incidents at Imola . The front two grid slots at the Monaco Grand Prix that year , which were painted with Brazilian and Austrian flags , were left clear in memory of the two drivers who had lost their lives , while both Williams and Simtek entered only one car each . Additionally , a minute of silence was observed before the race .

In October 1996 FIA set about researching a driver restraint system for head @-@ on impacts , in conjunction with McLaren and Mercedes @-@ Benz . Mercedes contacted the makers of the HANS (Head and Neck Support) device , with a view to adapting it for Formula One . The HANS device was first released in 1991 and was designed to restrain the head and neck in the event of an accident to avoid basal skull fracture , the injury which killed Ratzenberger . Initial tests proved successful , and at the 2000 San Marino Grand Prix the final report was released which concluded that the HANS should be recommended for use . Its use was made compulsory from the start of the 2003 season .

Senna was the last driver for twenty years to die in a Formula One accident , until the death of Jules Bianchi in 2015 from injuries sustained at the 2014 Japanese Grand Prix . However , three trackside marshals were killed during those years as a direct result of such crashes : Paolo Gislimberti at the 2000 Italian Grand Prix , Graham Beveridge at the 2001 Australian Grand Prix and Mark Robinson at the 2013 Canadian Grand Prix .

To date , this is the last time that an Italian driver scored a point for Ferrari .

= = Trial = =

Italian prosecutors brought legal proceedings against six people in connection with Senna 's death . They were Frank Williams , Patrick Head and Adrian Newey of Williams ; Fedrico Bendinelli representing the owners of the Autodromo Enzo e Dino Ferrari ; Giorgio Poggi as the circuit director and Roland Bruynseraede who was race director and sanctioned the circuit . The trial verdict was given on 16 December 1997 , clearing all six defendants of manslaughter charges . The cause of Senna 's accident was established by the court as the steering column breaking . The column had been cut and welded back together at Senna 's request in order for him to be more comfortable in the car .

Following the court 's decision , an appeal was lodged by the state prosecutor against Patrick Head and Adrian Newey . On 22 November 1999 , the appeal absolved Head and Newey of all charges ,

stating that no new evidence had come to light (there was missing data from the black box recorder on Senna 's car due to damage , and 1 @. @ 6 seconds of video from the onboard camera of Senna 's car was unavailable because the broadcaster switched to another car 's camera just before the accident) , and so under Article 530 of the Italian Penal Code , the accusation had to be declared as " non @- @ existent or the fact doesn 't subsist " . This appeal result was annulled in January 2003 , as the Court of Cassation believed that Article 530 was misinterpreted , and a retrial was ordered . On 27 May 2005 , Newey was acquitted of all charges while Head 's case was " timed out " under a statute of limitations . The Italian Court of Appeal , on 13 April 2007 , stated the following in the verdict numbered 15050 : " It has been determined that the accident was caused by a steering column failure . This failure was caused by badly designed and badly executed modifications . The responsibility of this falls on Patrick Head , culpable of omitted control " . Even being found responsible for Senna 's accident , Patrick Head was not arrested , as the verdict was delivered past the Italian statute of limitation for manslaughter .

= = Launch control controversy = =

Liverpool Data Research Associates (LDRA) were called in to investigate allegations of cheating using banned driving aids , such as traction control and launch control , both prohibited at the start of the year . The top three cars of Michael Schumacher , Nicola Larini and Mika Häkkinen were investigated and their teams were asked to surrender their systems ' source code to the company . Larini 's team , Ferrari , complied in light of allegations that they were cheating , but Schumacher and Häkkinen 's teams , Benetton and McLaren refused , claiming copyright reasons . After being fined \$ 100 @, @ 000 by the FIA , both teams complied eight days after the race . LDRA discovered that McLaren were running a programme that permitted automatic gearshifts but the car was declared legal .

= = = Benetton = = =

Benetton sent an alternative suggestion to the company on 10 May 1994 , accepted by LDRA five days later . Tests on the car were to be carried out on 28 June 1994 , but were cancelled . The tests eventually took place on 6 July 1994 . LDRA found the tests unsatisfactory . Benetton therefore complied with the original request , the source code , on 18 July 1994 . Analysis of the software found that it included launch control , a banned aid . Benetton stated that " it can only be switched on by recompilation of the code . " However LDRA found this to be untrue ; launch control could be switched on by connecting a computer to the gearbox control unit . Benetton conceded that this was possible but this " came as a surprise to them " . To switch the system on , the user is presented with a menu with 10 visible options . " Launch Control " was not visibly listed as an option , however , should the user scroll down to option 13 , launch control could be enabled . Benetton did not make any explanation .

= = Classification = =

= = = Qualifying = = =

= = = Race = = =

= = Championship standings after the race = =