

Suzuka Dream Cup 2003



Aurora Report

Saturday 26th July, 2003

The morning weather was clear sunny and cool, just perfect for a solar car race. We could see the surrounding mountains clearly. We arrived at the Suzuka race track at 7.00am and found that most other teams were already there assembling their cars for the real business, racing.



Charging the solar cells



David Fewchuck, next to the Aurora Solar Car

In fact we had to pinch ourselves to realise that today the changes and improvements to the car had to stop.

Tom Nomura, head of the TIGA team, arrived early to greet us. He brought a mobile phone for our solar car drivers' use in case they had an accident somewhere out of reach of our radio communications. The radio is badly affected by the hills and the size of the Suzuka track. Contact between the pits and the solar car was effective for about one fifth of the track. The same is true for the telemetry which is vital for running the car efficiently and for analysing what goes on in the sophisticated electrical and electronic systems. The telemetry allows us to watch the important readings for the car. All from the comfort of the pits.

The TIGA team needed to make final adjustments to their borrowed solar panel but did seem to finally achieve the expected output. Peter Pudney was on hand to offer some advice but TIGA knew what they were doing.

An untimed practice session was scheduled from 8.00am and Kon was given his first chance to see the whole track from the ground-hugging solar car vantage point. He was learning the course and drove extremely cautiously. His best time was a bit over 6 minutes, or 2 minutes more than the fastest cars. Already the battle that was expected to take place between the two champion Osaka cars, TIGA and OSU, was clearly on. Kanazawa and Tamagawa were also shaping up well.

At 9.00am the official timed practice began. Damien the Hamilton hot-shot was strapped in and off he went

amongst the fastest cars of the race. He too got his first look at the total track and had to compress his learning to just several laps. But he did and shortly returned a time of 4 min 49 secs which in the end was the eleventh fastest. That was it for the official timing session and we commenced the final preparations for the 4 hour race. Damien had to be fed and wasn't expecting to be the first driver in the race. We enjoyed pushing the car out on to the grid, even to take the 11th position. At 12.55pm we all left the grid and Damien was on his own.

The race started. Damien moved to third place during the first lap and was letting this superiority get to his head. On lap 2 he lost control and spun the car making the transition from 70km/h to minus 30km/h in seconds. While this was pretty exciting in itself it triggered a breakage of the panhard rod bracket which locates the chassis in the car. Over the next few laps the handling of the car worsened, there were more tyre rubbing sounds and steering in a straight line became difficult. By lap 8 Damien had to come in to see what was wrong. We were shocked to find that the panhard rod bracket had broken and a major repair was required if we were to stay in the race. Farmer Jack McArthur fixed it. Drilling holes through the chassis he attached two makeshift plates to re-create the mounting point and 20 minutes later Aurora 101 was back on the track, buried in nineteenth place.



Fixing the broken panhard rod bracket



The Aurora solar car finishing it's last lap

We made the mandatory driver change on lap 25 and Kon settled in to make his mark on the race. He did. In the remaining 19 laps he clawed back to an eventual 7th place, getting Aurora 101 to achieve a total of 43 laps. This was one lap better than Aurora achieved last year. Towards the end of the day's racing Kon clocked 2 laps at 4min 40 secs, just as fast as the race leaders and faster than the race record lap created last year by Adrian Marziano of 4 min 58 secs. This year's Suzuka race is fast.

So the results for the first 4 hour heat had TIGA leading OSU with 49 and 48 laps respectively. Aurora101 is in seventh position with 43 laps and itching to run faster in the second heat tomorrow.

We left the pits at midnight after making a better job of the panhard rod repair, adding cooling fans to the motor controller and checking the motors.

We ate pizza for dinner priced at five times the cost in Australia.

We are optimistic about our chances tomorrow.

Damian's Diary

Today started early as usual, but for a change I was one of the first ones ready. I was mixed between being excited and terrified about the race today. The first drive of the day was the official practice session. Kon was the driver and got round with no trouble. Most of his laps were a little over 6 minutes. At this stage the car was running well, so we had time to sit around, this is not a common feeling on solar car. We didn't know what to do with ourselves.

But that didn't last. Later in the morning was the qualifying session. I drove for this stint, It was the first time that I had ever had the car so fast round corners, it was really scary. I was out there for almost fifty minutes, which gave me a bit of a feel for the track. My best qualifying time was 4 minutes, 49.5 seconds which placed us eleventh on the grid. When I got out I was exhausted, then I found out that I was going to be driving the first leg of the race. In the three hours between qualifying and the start of the race I went to the toilet at least twenty times. By the time I was on the starting grid I felt like collapsing from heat exhaustion, peeing and throwing up at the same time. I got a terrible start and by the first corner I had moved from eleventh down to thirteenth or fourteenth place.

Over the first three laps I gradually got into a better line and started improving my times. Until midway through the fourth lap. I entered a sharp right hander too fast and could not steer through it. The car headed off onto the ripple strip, and in an attempt to pull it back onto the road I steered hard right. Just as I was coming back on to the bitumen the wheels locked up and the car spun 180 degrees. When I realised what had happened I slowly limped off the track, let a few fast cars through and then rejoined the race. I continued on cautiously for a few laps, the spin had caused something to come loose and the wheels rubbed on the spats every time I turned left. Three laps later, the rubbing was now happening when I turned right too. Not long later my steering became loose and I had to pit in.

In the pits It was discovered that the connector to the panhard rod had snapped off, causing the chassis to move from side to side when I went round corners. Fifteen minutes later I was back out on the track. Luckily the rest of my drive was uneventful and by the time I got out I had completed 25 laps, my best time was 4 minutes 47 seconds and we were in tenth place. Kon was in to finish the day, when he got out there he absolutely flew he got up to seventh place with a best lap time of 4 min 4. More importantly, he stayed on the road. For the whole day we did 43 laps and are sitting only one lap behind sixth place with plenty of energy left in the batteries.

Tonight we will be up pretty late making a more permanent bracket for the panhard rod but should be fine to race tomorrow. I can't wait.
