

GOODYEAR TECHNICAL CENTER AKRON

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DATE: 12/6/05

TO: Ken Brown
Technical Director SCCA Ent.

CC: Eric Skirmants
President SCCA Ent.

FROM: Chris Johanning
Lead Engineer, Goodyear Racing

SUBJECT: SRF Wet Tire Program

Ken,

I understood from conversations at PRI that you have some concerns over our wet tire program for the Spec Racer. I wanted to address your concerns and explain our development plans for ensuring the wet tires meet everyone's expectations.

On the overall issue of carving wets, I have total confidence in Goodyear's ability to provide a tire of consistent high quality. Goodyear started a wet carve program in 1995, when I was in Formula One. It has since grown to include CART, ALMS, Formula Mazda pro series and SCCA formula classes in the late 1990's with substantial success. We have found this type of program offers significant benefits, the largest of which is design flexibility that would allow us to rapidly address any complaints without having to order timely mold modifications. The most crucial of all issues is the balance between hydroplaning and wear into drying conditions. While with our extensive experience on our carved wet pattern, Goodyear's philosophy has been to control this balance by net/gross, or the percent void. We have designed a conservative wet tire for moderate wet conditions. At this point we have offered a few sets for customer feedback at the January national events in Sebring, Homestead and Phoenix. This was not intended as a test, as much to gain any additional feedback if it should rain at those events. We have full expectations that they will fully like the wet tire and anticipate January production.

Some other concerns I have heard expressed were regarding our choice of wet compound, R-085. While I am not in a position to comment on Yokohama's compound technology. Goodyear's dry/wet history has been more product/application dependent. Our radial GSCS tires were more developed for street use and have a history of working well in dry and wet conditions. The majority of our race dry compounds, like A-400, require heat to provide high levels of grip, and we did not feel it was worth the risk to assume the SRF could achieve the heat level required for safe racing on the A-400 compound. Our wet compounds have been developed to offer significant improvements in wet traction, and we feel this allows us

to use higher net/gross ratios. This translates to a safer wet tire that lasts longer into drying conditions.

As for your second concern on this wet R-085 compound providing superior grip to the dry A-400, historically, we have not seen this. The R-085 compound loses grip as tire temperatures exceed 160 degrees. While this compound works extremely good in wet and damp conditions, it lacks the capacity to provide high temperature grip. I have never seen this compound out perform a dry compound that is up to operating temperature.

As for teams potentially shaving a wet tire to gain advantage over the dry, I can tell you that we have tested this several times in other SCCA classes to exploit any potential advantage via a carved intermediate program at various tread gages. These tests have all concluded unsuccessfully – We have not been able to consistently find an advantage to using R-085 in dry conditions. Furthermore, the current designed wet tire will be fully carved to near carcass depth. What this means is that a customer would have to shave a tire to a remaining tread depth of less than 2/100's of an inch to overcome the additional grooves carved in the tire. This would be further discouraged by the wet compounds natural tendency of higher wear rates in dry usage. We cannot envision any way this could be used to a team's advantage.

In summary, the only potential advantage we have historically observed to utilizing a wet tire on dry pavement is a very narrow window when the dry tire cannot achieve operating temperature of at least 140 degrees F. On very cold days (30-40 Deg ambient), we have seen instances when the wet tires will be *slightly* faster than some of our dry compounds on some slick race tracks.

If further concerns exist over our wet program we are happy to address them. As you know, we have an excellent distributor network available at almost all events which we are in full contact with. Furthermore, we have a team of six engineers that are expected to attend over 20 national events in 2006. We will promptly address any issues related to carved tire certification, or team modification of tires.

Best Regards,

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