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## CORNER TIMING

How do you make your car faster and utilize practice time most efficiently? One way is to be aware of your corner times. By breaking down the track into segments you can quickly identify where you most need to improve the car.

Start by comparing your overall lap times to the faster guys that are out in the same practice session. Once you have identified the faster cars, time their corner speed at both ends of the speedway. Record the times for turns one and two and the times for turns three and four and compare the times of the competition to your times.

Often you will find that you are losing more speed on one end of the speedway than the other. You can then try to adjust the car and focus on that end of the speedway to get more speed.

The key is to be precise with a stopwatch so that you have reliable information. By measuring a smaller section on the track, rather than the entire distance, your timing errors are more pronounced. Be sure to have the crewmember with the best timing skills take the corner times. All corner times should be recorded and stacked next to the overall lap time for quick reference after the practice session.

Be sure to pick out a visible marker at the early entry of the turn and the late exit. Try to measure the whole corner. Save the corner times and write down your timing marker points so that you can refer to the data the next time you are at the same track. Be sure to stand in the same spot each time and strive to have a clear view of your timing area.

After obtaining reliable data you can then make some decisions on how to adjust your car. Many tracks feature corners that are different from one end to the other. You will need to decide which end is the key to the fastest overall lap time. The faster cars usually point this out for you. If the fast guys really haul through one end then the odds are you will need to do the same. While the fast guys usually point this out make your own decision. If you find a better way around you will have an advantage.

For this exercise we will look at turns one and two as being the key to more overall lap speed. Turns three and four are important but we have a little room for compromise as in our hypothetical situation most passing seems to happen out of turn two. We would then make the decision to ride through three and four and try to get the most out of one and two.

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# Tech

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Your driver gives you feedback that says that the car is not bad in three and four but it is tight in the middle of one and two. A review of your corner speed times shows that the fast guys have you beat by two tenths in the segment between the entry of turn one and the exit of turn two. You also notice that you are down two tenths on overall lap time.

With your newfound knowledge you can make a more aggressive change to free up the car in the center of turns one and two and compromise a bit in three and four. Let's say you decide to add some stagger to help the car through the middle of one and two. Your driver likes the change and your corner segment times verify that you have found the missing speed. Many times the driver will report that the car still feels fine on the other end of the speedway. Your newfound speed lowers your overall lap time and all is well in our hypothetical situation.

If the other end were hurt too badly by your adjustment you can take the feedback and make a less aggressive adjustment or utilize the new data and try something else that will help both ends.

The benefit of using the corner speed information is that it allows you focus on the area that is hurting you the most. You can get to work on the bigger problem earlier in the practice session while your tires are still fresh. You will create more time to focus on the area where you can make the biggest gain. You will also get better feedback from the driver as he can concentrate on the most important end for better feedback.

If you can make the proper adjustments your driver will have an easier time during the race, as the car will be quick in the "right spot" making passing and maneuvering through traffic easier. Having the car quick in the "right spot" is key to winning races. Many times a driver can post a good overall lap time but he gets a jet of speed in an area where there is only one groove. In order to pass the driver would have to go through the car in front. Recording corner speeds can help you to get your jet of speed in the optimal passing zones on the track allowing the driver to pass either high or low. Recognition of optimal passing zones is key to winning more races. Whether you rely on the fastest cars to point out the optimal passing zones or you find the secret on your own the corner speed times will assist you in finding the best overall package. **NOTE: The information in this last paragraph is a big deal.**