

I don't feel that old but I do have to admit that the first dragster I drove was started by pushing it down the fire up road with a pick up truck. The car was pretty simple and I remember that the only thing we monitored on the whole car was the oil pressure. Mounted on an aluminum bracket right on the back of the blower (remember it was a front motor car) was a gauge so I could see when it had oil pressure, and hit the mag switch to fire it up!

As you might expect, a lot has changed since then. The equipment is better, the cars are faster and we now have a wealth of recorded data to review following each run down the race track. On each run, cars equipped with Data Acquisition Systems record events from the run and provide crew chiefs with information about the run that a few years ago simply wasn't available. In the past all information about a run came from the E.T. slip, the crew chief's observations, the driver's observations and finally an inspection of parts of the car itself.

The crew would look at spark plugs, bearings, clutch discs and a few other items and determine what to do next. It was to say the least, a bit crude.

Today the data acquisition systems record a lot. Various pressures, rpms, stress loads, temperatures, time and more.

At a recent event I took a friend of mine into John Force's technology center and he was amazed. It was wall to wall computer work stations. Austin Coil, Bernie Federly, John Medlen and Jim Prock each have their own array of computer screens that are all linked together. Following a run a total of a hundred years of crew chief experience carefully analyze the information from Force's team of cars so that they can make the correct decisions for the next round. My friend said it looked like "mission control" at NASA.

Now I'm sure you get the idea that this info is important to tuning the car but I don't think as many people

know how important this recorded information is when it comes to "tuning the driver".

At our Alcohol Funny Car and Alcohol Dragster classes at our School we spend more time sitting at the computer screen analyzing the driver's performance following the run than we spend at any other single activity. We have used RacePak Data Acquisition for the past two decades for many reasons including its accuracy and easily navigated screens. To train drivers without data feedback would be very difficult.

A driver's perception of what happened is not always accurate and sometimes the driver has no recall at all. If the driver is not shown on a computer screen exactly what they did with the throttle, clutch, brake, shift points, etc. they sometimes will refuse to acknowledge a mistake if merely told about it. However when a driver can see the data they then believe and will be much more willing to work on the problem.

As an example, a while ago we had two drivers that appeared to be doing equally well but one driver was consistently .02 quicker in 60' than the other. Both drivers drove in similar conditions over the course of a few days, they both weighed the same and the difference was not stage position. However one driver was quicker in 60'... every time.

Careful analysis of the RacePak data showed us that the exact use and timing of clutch and throttle made the difference and caused one driver to actually be faster than the other. It's much better to discover this driver problem than to endlessly chase the tune-up. Likewise when shift points are the topic drivers often will have different opinions about when they shifted relative to the shift light setting. Again we can look at the data; compare the shift light setting to the shift point then show them their reaction to the light. Additionally we can then show them what the early or late shift did to the performance of the car by

analysis of clutch slippage, drive shaft speed, cylinder temperatures and more.

Some drivers may feel like they are being overanalyzed by this system. I don't. This information should be looked at as helpful... and necessary. If you don't monitor what you are doing you'll have a very tough time improving your skills.

If you've been racing for a while you probably already have the equipment I'm talking about, if you don't or you're just getting started you can buy a base system and upgrade it with bells and whistles later... but it's pretty important that you learn how to read the information so you can "tune the driver" in addition to "tuning the car".

If you need a "tune-up" or would like to step up to a faster car give us a call... come and see us for a personal analysis... we'd love to help.