NOVEMBER, 1992

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COMPETITION PLUS

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Summer Drag Nats!

Competition Electronics' TURBODYNO Part II

1992 ROAR TRUCK NATIONALS

Trinity Bul

From the Desk of:
Joel "Magic" Johnson

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**Left Turn Oval Car*



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Hole in face reduces drag but increases contact pressure for higher power and RPMs.
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Panasonic P-170 Cells

P-170 battery packs are the hot set-up f modified racing with 10 and 11 turn moto Joel "Magic" Johnson used them to w both ROAR on-road championships ***Trini Pushed***™ and ***Team Pushed***™ P-1 cells are conditioned and matched provide greater capacity and higher outp voltage.

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RC7982	RC10 Rear Tire
RC7983	JRX-Pro-T-Se Rear Tire
RC7984	RC10, JRX Front Tire

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RC4451 Small Heatsink $21.99
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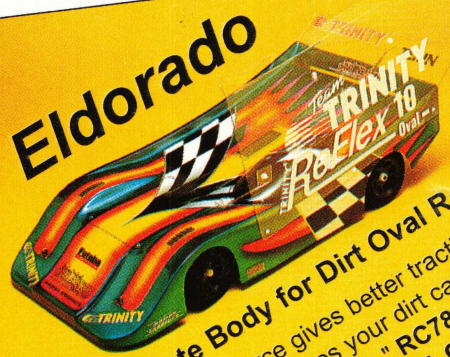

The Ultimate Body for Dirt Oval Ra
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Two New High-Tech Motors From Trinity

4.9 wet magnets, pre-set 5° timing, aligned bushings, high-temp composite end bells. **$28.00**

Psychotic Reaction™
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13 Turn, 35,000 rpm
Ground Zero™
RC 0777
15 Turn, 32,000 rpm

CU64 Copper Battery Bars Make The Difference



Ultra-low resistance copper bars are pre-bent to fit cells perfectly and are thick enough to carry high current for 9 and 10 turn motors. 8 pieces for 6 or 7 cell pack.

RC5105 8 bars	**$4.99**
RC5106 25 bars	**$11.50**

Monster Stock Jr.™ Fastes for NORRCA 92 or ROAR '90
Short length 27 turn, slotted a 4.9 wet magnets and 36°
RC1000 $28.00



tin Board

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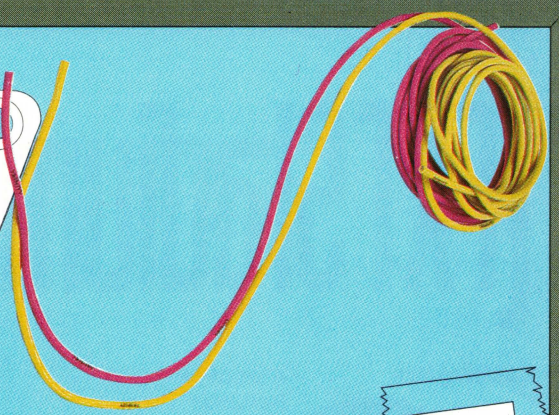

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Save your battery packs!
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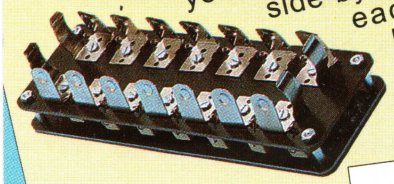
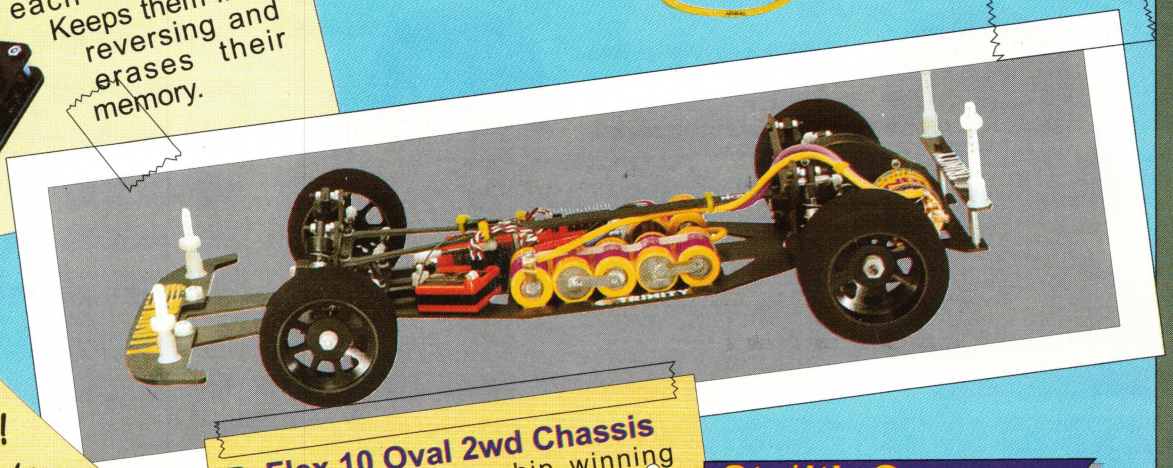


RC5900 $32.50



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National Championship winning design for the dirt oval. Graphite chassis, machined suspension arms, low-drag sealed drivetrain, adjustable geometry, rear mounted motor. comes with mounted foam tires, less body, motor and electrics.
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MM792	92 tooth	$3.99
MM795	95 tooth	$3.99
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MM790	95 tooth	$3.99
MM700	100 tooth	$3.99
MM705	105 tooth	$3.99
MM710	110 tooth	$3.99
MM715	115 tooth	$3.99
MM720	120 tooth	$3.99
MM725	125 tooth	$3.99

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$19.99

Put Spare Power In Your Pocket
This is the ideal inexpensive battery pack for the beginner racer.No bells or whistles that cost you money.Just the best price and the best quality. Assembled from Sanyo 1300 mAh cells,this pack has been produced to the closest tolerances on Epic EnergyLab's precision computer controlled welding system. Every weld is perfect and checked. Pure copper leads and industry standard battery connectors make this the best buy available.
This is the most battery for the bucks!

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RC7801 (.050 pinion and .093 4/40 screw tips)

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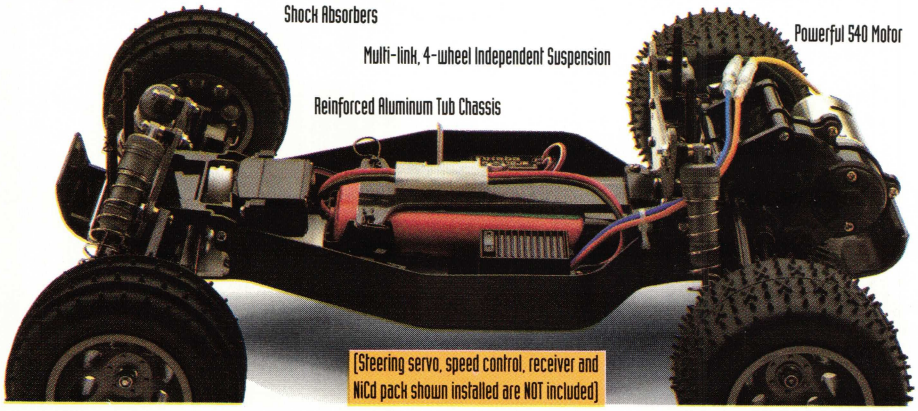

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NOVEMBER, 1992 Volume 11 No. 11

COMPETITION PLUS©

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THIS MONTH IN RACING

ABOUT THE COVER

Mark Pavidis had to be pretty happy with his performance at the ROAR Truck Nationals. He finished in the top spot in the Modified Truck Class using an Associated RC-10T and Reedy motor. The shower was courtesy of Brian Kinwald.

Photo By Bill McCall

MAILBOX

WHAT'S UP WITH ROAR?

For some time now I've been reading and hearing alot about ROAR. Well I thought it was about time I put some of my feelings and impressions down on paper for the record.

When I arrived in Savannah for the Truck Nats, I intended to find ROAR VP Gene Hustings and get the scoop right from the source. I was hoping to do one of those hard hitting "Murphy Brown" type of investigative reports. But since this was a VP I was dealing with I decided against that.

One of ROAR's biggest problems, (Can you pick just one?) has been communication. Or more accurately the lack of communication. In that area I have been fortunate to have access to several areas of information and I have had difficulty keeping up with all of it.

My duties with this magazine put me in touch with several of the manufacturers. Also, as the Assistant Sysop of CompuServe's Modelnet Forum, I have frequent contact with many people in the RC industry including a couple of ROAR regional directors. Up until the time the defecation hit the rotary oscillator, ROAR Administrator and Region 5 director John Thawley was a frequent contributor.

Through these contacts I feel I have gathered a pretty comprehensive, non-partisan view of what has happened and is going on. As I began talking with Gene, I got the impression he wanted all the details to be known but didn't want to point any fingers and continue the name calling that has occurred. For that reason and the other info I had gathered I decided to put away the tape recorder and just listen to what Gene had to say and to weigh what I knew with what I heard. I hope I can relate that to the rest of the ROAR members.

Those of you that have attended recent ROAR Nats know that 1992 was not the first time that Gene Husting has had a problem with the Administrator's office. One might get the perception that Gene had a personal vendetta. In several conversations with Gene and having read numerous things that Gene has written, I could find no evidence of that. I doubt the man has a vindictive bone in his body.

The single thing that might have been the straw that broke the camel's back was the ROAR check that was to cover the publishing of the last Revup bounced. You remember that Revup? It was the one that was 6 months late, contained old useless information, and included a year old financial statement.

For those of you who don't know, for a ROAR check to be sent out it must have been issued by the Administrator's office, signed by the treasurer, and the president. How can a treasurer sign a check he knows is no good? The answer to that is he didn't know. Which brings another question to my mind. Why is he the Treasurer? Prior to the closing of the Administrator's office, The President called for, and got a vote of no confidence on the ROAR Executive committee. The Treasurer is a member of that committee.

Gene would only say that then Treasurer Howard Finkleman was very cooperative in helping Gene get to the bottom of the ROAR financial picture.

For the record, the committee was dissolved when the ROAR officers and Region directors approved the measure by a majority vote. The official voting will be released when ROAR publishes its first "newsletter". I have seen the results and we will not only know the outcome, but we will know how everyone voted. While in this case that may not be that important, I have always failed to understand how ROAR can hold elections and not give the vote counts. In the future you will get that vote count. I think many of you will be surprised at just how much your vote does count. In many cases, a single club has and can sway an election. With published results I think that will change.

Many of you have been hearing a lot about that upcoming newsletter and the resurgence of ROAR. When will we see that newsletter? People who recently joined ROAR may see it soon. How about the rest of you? Thats an excellent question!

Do you remember during the last ROAR Presidential election there was a big stink about a certain manufacturer having access to the ROAR membership list? The President and Administrator of the time were outraged that someone was using ROAR property. Suddenly

when that group is no longer representing ROAR, no one can have the list.

Should ROAR start a new membership list? I would be in favor of the this plan. If that is the path that ROAR takes it is imperative that ROAR restore its ranks. To do that will take new members to join and old members to rejoin. The membership list can be built again as the new membership processing group gets into motion. If ROAR does start over with it's memberships I think it would be in the best interest of the organization to honor expired memberships for a given time as a gesture to get disenfranchised members to rejoin. Perhaps ROAR could reissue new memberships in return for the return of old cards. This way ROAR could rebuild its membership list.

While I have faith that ROAR is going to come back, why should you, the member, who has received so little in recent years, have enough faith to put money in the mail for a membership? In a word, "Don't." If you want to race in a ROAR affiliated race, I recommend that you wait to you get to that race to join or renew. And then pay by check! That way you will have a receipt and then a canceled check to prove your status as a ROAR member. I hope this kind of precautions are not needed for much longer.

Getting back to the ROAR checking account, after the first check bounced President Roy Weast refused to sign anymore checks until he saw a bank statement. (This sounds like it was a wise idea.) According to Gene this proved to be a big job for Roy. Roy's health was not at its best and he asked for Gene's help. Gene also mentioned that the job of president was taking up more than the 10 hours a week that Roy thought the job should. Gene found it impossible to get that bank statement without the help of the Executive committee. This brought about the no-confidence vote.

All this leads us to where we are now. And where is that? To be honest there is still a little confusion. Since most of the people who are attempting to bring ROAR back also have full time jobs and families this will be a slow and painful experience. But that doesn't have to be a bad thing. In talking to the new Treasurer about the subject of processing memberships and the Administrators office, she brought up some interesting points.

We were paying $40,000 a year plus expenses for the job of ROAR administrator to be done. While there is general agreement that this was too much, how much is too little? Perhaps we need to look closer at what we expect the position to be before we blindly sign another contract with someone. Perhaps this could be done as a part time job.

Finally, I would like to turn this letter back to what most of you see when you think of when you think of ROAR, the national events. The last few years have brought us some bad nationals and screwy rule making procedures. Gene has assured us that the ROAR committees will return and a new committee is being formed to make sure that ROAR selects suitable sights for events and they are run in a fair suitable manner. They are also formulating a booklet which will be a guideline for tracks that are given a Nationals. The booklet will have definite procedures for running and holding a premiere event. ROAR will also go back to the rotation system of holding Nationals. In this way every area will have an opportunity to participate in a Nationals close to them. Be patient, I'll be watching to see that happens.

Bill McCall
Columbus, OH

CORRECTIONS & ADDITIONS TO THE '92 1/12 WORLDS STORY

I just finished reading the write up on the 1992 1/12 IFMAR World Champs. I must say, I've seen many races but this was the best. Tony's driving was just fantastic!

However, in the Tech report you listed Steve Radecky as running an Associated Nissan; but in fact, he was running our new Nismo Nissan R91CP. Our part number 1002SL. Steve is one of our top 1/12 scale team drivers and making the finals at this Worlds was an accomplishment.

One other note worth mentioning was seven out of the ten "A" main drivers were running our Bud's Super Machine Front End (part number 5510) including the well deserved champion Tony Neisinger.

Bud Bartos
Bud's Racing Products

You're right on all accounts. It was a great race, Steve Radecky did drive one of your new bodies and it was definitely worth mentioning that 7 out of 10 finalists used your new front end.

-Ed.

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FINISH THE LAP YOU'RE ON

I DON'T KNOW WHERE rumors like this start, but I think we should put an end to this one right here. ROAR is not going "out of business". It seems silly that people actually believe this rumor, especially after the Nationals season we had (I say we because I am a member and a Region director). It is true that ROAR has had some financial difficulties and thus its members have not been receiving some of their benefits such as a Rev-Up, but things are getting better.

As you may have already learned, ROAR has elected a new executive committee, and many of the problems this new committee faced have already been solved.

Indeed, many of the committees which had all but been disbanded have new members heading them up. One such committee is the By-Laws committee. Their purpose will be to propose some changes and re-define some of the existing By-Laws. Other committees include the Battery committee, Electric Motor committee, Rules committees, and the Nationals committee.

The Nationals committee is one of the committees that will be very active this year in selecting proposed sights for the 1993 ROAR Nationals tour. They will also be formulating a Nationals manual to be given to all nationals track so they will be well informed of how ROAR expects the Nationals to be run. ROAR will also go back to the rotation system of holding nationals.

This year ROAR had the largest nationals program in their history. The Monster Truck Nats just completed had more than 400 entries, the Off-Road Nationals had more than 500 and 1/8 and 1/10 gas Nationals was the largest ever held with 208 entries! This is certainly not sounding like an organization going belly up.

Yes, ROAR has had its problems, and a few may still exist. Yet, I can't help but feel encouraged by what I've already seen. Changes are being made and it won't be long before ROAR is running smooth.

-Ed.

33rd Annual

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Each Class 2 Qualifiers Each Day
Mains Begin: Sun. • 11am
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2W MOD		
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4W Stock		
4W MOD		
Stock Truck		
MOD Truck		
Sprint Car		
East Coast		

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Late Fees: $5 Extra After November 15
Additional Stock Motors: $15
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Houston, TX 77014
Attn: Dome Race

Name: _____
Address: _____
City: _____ *State:* _____ *Zip:* _____
Phone: Daytime _____ ☐ *Oval* ☐ *Off Road* ☐ *Both*

Check Entries:
☐ 2W Stock ☐ 4W Stock ☐ MOD Truck
☐ 2W MOD ☐ 4W MOD ☐ Sprint Car
☐ Open Wheel ☐ Stock Truck ☐ East Coast MOD

* Cars in 2W Stock, MOD & 4W Stock, MOD full body only. Trucks must run truck bodies.

PIT BOARD

Epic Welcomes Tom Crowe

EPIC ENERGY LABS INC. would like to welcome aboard as Vice President of Marketing, Mr. Tom Crowe. Mr. Crowe who is originally from Jacksonville, Florida has been involved in the hobby industry for over twenty years. What once started out as a hobby for him many years ago, has turned into quite a profession. With the knowledge and market awareness that Tom has retained throughout the years, this will enable Epic Energy to be the forerunner in the industry.

Over the past six years Tom has developed several products relating to batteries. For example, saddle packs, truck packs, and special end caps. Tom has been a leader in setting up guidelines for matched batteries, which is expected as an industry standard. A crucial part of Tom's position with Epic Energy Labs will be attending major races, fly offs, and trade shows, just to mention a few, in order to keep our customers and consumers abreast of the latest technology stemming from Epic.

Debuting at the nationals was the new slam-jam body for the Losi LX-T, and the new Killer "T" body for the Associated RT-10T.

American Ingenuity & Swiss Precision Produce Fastest Time At 1992 ROAR Truck Nationals!

To be more specific, a meticulously designed, hand-wound motor, the new Peak Performance 14 Quad Modified teamed with the internationally esteemed Team Orion Matched Sanyo 1700 SCRC batteries to post the fastest time at the 1992 Roar Truck National Championship in Savannah, Georgia. Congratulations to Rick Vehlow who tested this new Peak Performance motor under the most strenuous circumstances, in the heat of this highly competitive event to out-qualify a field of the best racers in the U. S. As always, successfully tested Peak Performance modified motors are available for purchase everywhere.

PIT BOARD

New Hinge Pins

TECNACRAFT INTRODUCES THEIR titanium Hinge Pins for the Associated RC-10 Team Car and RC-10T Truck, and for the Losi JR-X2/JR-T, LX-T Truck and JR-X2 "SE".

After many requests, Tecnacraft has used the knowledge learned from their National and World Championship titanium Ti-Rods to make the best titanium Hinge Pins available.

Tecnacraft titanium Hinge Pins are made from the finest titanium alloy available, making sure that the closest tolerances are kept. They are then centerless ground to the perfect size and put through a special process which hardens them and gives them a super slick finish. This new aerospace hardening process also gives them a distinctive gold coloring.

Tecnacraft will guarantee all Hinge Pins against bending or breaking—no questions asked.

In Alcohol Funny (10 cell) Mark broke the MPH record (67.5), and the ET record with a 1.984 timing. In Top Fuel Funny (14 cells) he broke the ET record unofficially (he wheel standed in the finals and did not back it up) with a blazing . . .

Roar Monster Truck Nationals No Problem For Parma/PSE

Parma/PSE attends their first ever Roar Monster Truck National and walks away with a 2nd place finish in the Mod "A" Main and a 3rd place finish in the Stock "A" Main.

Rick Hohwart of Peak Performance chose the newly released Parma/PSE vortex wheels to place him in both "A" Mains. Rick used Parma/PSE vortex wheels because they are lightweight, very strong and they look great!

Parma/PSE vortex wheels are now available for the Losi LX-T and Associated RT-10T. All heads were turning to catch a glimpse of our latest bodies. Debuting at the nationals was the new slam-jam body for the Losi LX-T, and the new Killer "T" body for the Associated RT-10T.

Parma/PSE would like once again to thank the best drivers in the world for choosing Parma/PSE and to remind you "race what the world is racing"—the pros do!

PIT BOARD

Fastest In The World

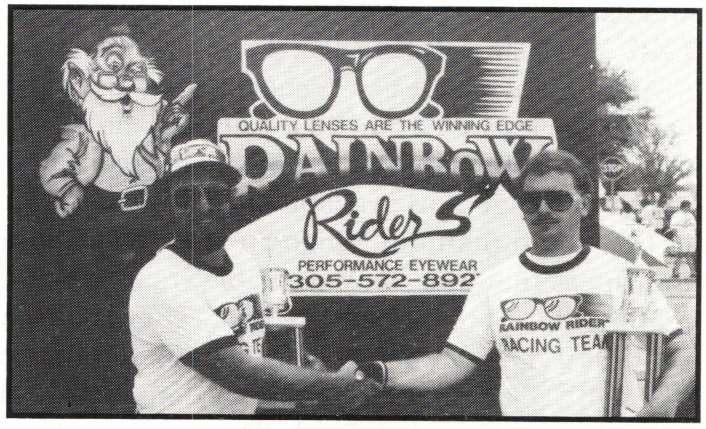
MARK SONZOGNI PROVED at the IDEA Fall Nationals at Drag City in Colton, CA that he definitely has the title of the king of the door slammers. Three weeks previous Mark blasted down the track at the Summer Nationals held at Kim's Pit Shop in NJ destroying the pro stock (8 cell full body) class ET record running the soon to be released Point Blank "Rare Earth" 9 turn modified motor.

In Colton, Mark came to run all 3 full body classes where he went on to top qualify all 3. In pro stock (8 cell) Mark turned a 1.987 second run at 66.8 mph which tied the mph record but fell slightly short of his own ET record. In Alcohol Funny (10 cell) Mark broke the mph record (67.5), and the ET record with a 1.984 timing. In Top Fuel Funny (14 cells) he broke the ET record unofficially (he wheel standed in the Finals and did not back it up) with a blazing 1.86 and broke the mph record at 70.2.

Mark also backed up his times by winning the Alcohol Funny Final and finishing second in Pro Stock after red lighting in the final.

Mark ran the newest Point Blank "Rare Earth" drag race modified motors to turn these fantastic speed and times. These Epic based modified motors were producing over 500 watts of power and will be available as you are reading this. Mark also used Protoform Pontiac bodies painted by Steve Korak exclusively.

Quality Lenses Are The Winning Edge



Rainbow Riders performance eyewear place 2nd in 1/10 Modified and 3rd in 1/12 modified at the 1992 On Road National Championships held in Orlando. Rainbow Riders performance eyewear sponsored the best appearing portion of this event. Many of the A and B Main winners were wearing Rainbow Riders performance eyewear.

Also - Region IV Race held in Naples - Rainbow Riders took 1 & 7 place in their Main using a 1/12 scale Delta Spider P-12 and, of course, Rainbow Riders Polarization Lenses!

Photograph of Rainbow Riders at the On Road Nationals held in Orlando 1992:
The bearded one is Evan B. Shenfeld, F.N.A.O. and the Unbearded (!) one is Tom Brewer.

PIT BOARD

Crash Protection For R/C Cars . . .

T.D. driver Dave Raber wins the "Cam Challenge Enduro" at P.C. Hobbies in North Carolina. Dave drove his car, with a handout motor, around this super speedway 1,281 times for a total of 100 actual miles! He proved The Protector crash protection bumper can provide racers with increased durability and less DNF's because of broken body posts or front suspension damage.

Dave turned this into a huge advantage of twenty eight (count 'em-28!) laps ahead of the field. Near the end his motor slowed but he still finished eight laps ahead of the nearest competitor. Congratulations Dave on a very impressive win and thanks for using one of our new charcoal colored Protectors on your way to the Winner's Circle.

. . . & Pit Tips From T.D.

Our first tip comes from the 1992 ROAR 1/10 oval stock champ, Frank Polimeda. Frank tells us because The Protector seals the air space between the front of the chassis and the body, on bumpy tracks his car would "catch air" over the bumps lifting the front of his car. To alleviate this problem Frank cut a 2" wide by 3/4" slot in The Protector just in front of the chassis. He cut the slot slanted back at a 45 degree angle so as air enters the slot it acts like a wing pulling down on the front end. Frank also tells us The Protector keeps the front of his body from lowering under the force of air at high speeds which allows him to run his body a little lower.

We have recently increased the size of the rear body post brace to 1"x 1"x 7" in response to racers telling us of other uses for this piece of stock included with The Protector. Our favorite was to use this piece as an additional brace on the front posts on top of The Protector. When used this way it can also be trimmed to set the front body height. This method definitely adds strength and takes all the jitter out of the front posts.

TRAXXAS TRX-1

THE TRAXXAS TRX-1 continues its winning streak by sweeping the Two Wheel Drive Stock Class at the ROAR Off-Road Nationals held in Dallas, TX. The TRX-1 scorched the competition with victories in the A, B, C, D and E Mains. Rick Vehlow led the charge by being the Top Qualifier (TQ) and winning the A-Main, making the TRX-1 the National Champion. Winning the stock class was an important victory demonstrating the truck's superior performance over other equally-powered cars. The TRX-1 also currently holds national championships in Australia, New Zealand and France, as well as the 2WD portion of the Reedy Race of Champs in England. Congratulations to the following TRAXXAS drivers for winning their main event: Rick Vehlow, Scott Rister, Keith Mackewich, Tommy Yazzi, and Mike Boekdrukker.

PIT BOARD

Associated Has Productive Races

1992 ROAR Truck Nationals

The Savannah Score Club hosted the ROAR Truck Nationals with a record 400 entries. They also ran one of the best Nationals.

Mark Pavidis ran away with the Modified class winning two of the three A-Mains. Mark's RC10T truck used Reedy motors and batteries.

Giving Mark a good close race was Rick Hohwart in another RC10T truck. Rick's 2nd place truck featured Peak Performance motors and Orion batteries.

1992 NORRCA Off-Road Nationals

Brian Kinwald wins the 2WD Modified Off Road Norrca Nationals—then he wins the Modified Truck Off Road Norrca Nationals. Brian used the RC10 car and RC10T truck, both Reedy powered, to win these two big events. There were six RC10's in the 2WD Main and five RC10T's in the Truck Main.

. . . has to be one of the greatest marriges in R/C History.



PIT BOARD

T/M Radial Caps

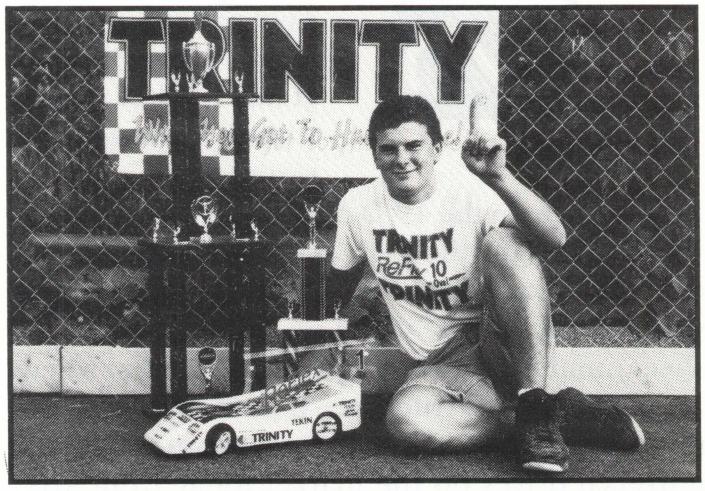
TEAM TRC'S MIKE BOYLAN gave the record a 1-2 knockout punch at Lake Whippoorwill International Speedway. First he shattered the existing mark. Then he came back a week later and lowered his new record even further.

Using TRC's T/M Radial Caps, Boylan had the competition running for cover as he obliterated the previous record with a breathtaking 44 laps/ 4:01.42 run. And that was just one of three runs Boylan made that were faster than anyone had ever gone at the Whipp.

Proving not only his consistency but that of his equipment as well, Mike came back the following weekend and lowered the mark down to a 44/ 4:01.10. Once again Mike chose TRC's T/M Radial Caps, the tires that hold the record not only at Lake Whippoorwill, but at virtually every other major oval-racing facility in the world.

When Mike Boylan feels the need for speed, he knows what it's going to take. A good car, excellent power, smooth driving, and great tires - TRC T/M Radial Caps. Your TRC Dealer's got 'em. Pick up a set today...and be fast about it.

Whistler Wins Texas Shoot Out!



Will Whistler the sole Team Trinity driver to travel to the NORRCA l/10th Dirt Oval Nationals had his job cut out for him, going head to head against full factory efforts from the West Coast. Will turned out to be the only Trinity Driver available to attend as everyone else was preparing for the Roar Nationals and the IFMAR World Championships.

Will, running his Trinity Horsepower Pushed Sanyo 1700SCRC batteries and ReFlex 10 car, easily was the top qualifier.

In the "A" Main it was again Whistler - the lone ReFlex car leading a string of custom works machines across the line in first place.

Thanks Will for a fantastic effort and a job truly well done.

SHOP TALK

Do You Want to Know What's Hot?

IT'S BEEN Awhile since we discussed what's hot in RC racing, so it's time to revive that forum.

Off-Road: Associated and Losi have been battling for the top spot for so long that they've missed the new comer in the 2WD group, Traxxas. While Traxxas and Associated were the two hottest cars this year, I give the edge to Traxxas' TRX-1 because of market value and performance. This car can put you in the winner's circle at any level of racing, while it's the most forgiving car to setup of the big three. In the 4WD category, it's the Yokomo "Works" leading the pack. What about trucks? Just one word, Losi. The Losi LX-T has dominated this year's truck events, if for no other reason than sheer numbers; you can't go to a truck event where at least half of the trucks are Losi. You want to put the power to the ground, then you want the hottest universal drives on the market today from MIP. They're the closest thing to frictionless I've found. They're Smooth! In the hottest tire category:

Front - Losi Ribbed

Rear - Pro-Line Fuzziest

At the off-road national events this year Losi led the way in 2WD with their "ribbed" front tires. How many years as the best is this now for these tires, while Pro-Line captured the spotlight with their "fuzzies" in All other categories. If you choose Associated TQ rims to mount your tires, you're among the thousands of other racers who have made the TQ rim the hottest rim going.

On-Road: Associated has dominated the On-Road events this year in both 10th and 12th scale. With the Associated 12LW taking the top spot at the IFMAR worlds, it stands to reason that it is the hottest car in 12th scale. It's a late comer from Trinity which has taken the top spot and the spotlight in 10th scale, the Evolution-10. It takes a lot to challenge Associated's 10L dominance but this is the car to do it. Its light weight and low center of gravity makes it a contender but Joel Johnson's IFMAR win makes it the hottest car in on-road. The tires of choice are still Atlantic-Gomme tires with Parma's PSE tires and rims running close. The tops in rims is your choice of "star" rims.

Paved Oval: There are several subcategories so lets start with the high banked super oval in the Whippoorwill class. Many high speed challengers have taken aim at Associated's dominance on the high speed oval but Associated continues to be the top performer in this category with their "Super Speedway" 10L. This car features a narrower rear end and chassis than comes on the standard 10L. With its LTO style and almost scale body, the SS10L owns Whippoorwill and the Thunderdrome

when Kent Clausen is driving. In the 12th scale category, look at Associated's 12LW, it's the hottest thing going. The hottest car in 10th scale is TRC's Lynx II. The Lynx II has placed more cars in the "A" at major events than any other car. TRC's "Pro Caps" are the tires preferred by most paved oval drivers.

Dirt Oval: If you race dirt oval, there is one name that stands out over the rest, "Custom Works". If you want the hottest car in 4WD, you want the Custom Works "Dominator". For 2WD racing, you want the Custom Works "Intimidator". If sprint car's are your bag, you want the Custom Works "Enforcer". These are the premier cars of this sport. Dirt Oval has been a mixed bag this year between loose tracks and hard packed tracks and tires have been a major issue. The Hot tires on hard packed tracks has been TRC's "Pro Caps" but on the loose packed tracks we go back to the off-road tires of choice, Losi ribbed fronts in 2WD and Pro-Line "Fuzzies" on the rear. "Fuzzies" are used on all 4 corners in the 4WD class.

Motors: Normally this is a category I would not give attention to since motors are chosen conditionally by the type of racing done, track conditions, driving style, and a tremendous amount of personal choice. I won't enter into a debate over which motor is the best when the contest is between Mike Reedy, Mike Walker, Tate McDaniels, Eric Soderquist, Mark Lowery, Al Carrigan or a host of others. I by choice have been a Reedy motor user for years but for the past year I've been giving a lot of attention to Specialized RC Motor-Works because of their consistency in motor performance. My attention in this category does not go to any of the modified motor subcategories but to stock where Trinity and its exclusive import of Epic stock motors has rewritten the record books. Simply stated, Epic is the best stock motor available today. It's Hot! It set the pace at all of the national events and it allowed the local and regional champions to compete against the best this sport has to offer. Note: Epic is available through other motor manufacturers who add their own

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Competition Electronics

By Jeff Palmer

TURBODYNO

Part II

Of course once the test is complete, you're going to want to see the results. The easist way . . .



IN THE FIRST ARTICLE, I talked a lot about how to operate the Turbodyno. In this article, I am going to discuss its built-in feature, so let's get started.

Standard Setups

Before getting into the details of each of the setup functions, let's spend some time exploring the 4 standard/default setups.

Setup 1-is for modified motors with 11 to 15 turns (winds) on each armature stack. Since, the 11-15 wind range covers the most widely used range of modified motors in 10th scale racing today, it's the #1 standard setup.

Setup 2-was designed for stock motors. I use this setup for my off-road motors.

Setup 3-is for modified motors in the 15-24 turn arena. I've found this setup most useful for 12th scale motors.

Setup 4-will load a motor in 5 amp steps starting at 7.5 amps with the next step to 10..15..20..25..30 amps.

This test gives you good comparative load values by which motors can be compared.

Standard Setup	Designed Use
1	Modified Motors: 11-15 turns
2	Stock Motors
3	Modified Motors: 15-24 turns
4	Load Test. 7.5,10,15..30 amps

Each of the standard setups will have 6 steps defined. All of the setups use a constant voltage value of 5.0 volts. The first 3 setups are designed to load by torque. Setup 4 is designed to load by amperage. The following charts show each standard setup's step values:

Standard Setup	Step	TORQUE
1	1	1.5
	2	3.0
	3	4.0
	4	5.0
	5	6.0
	6	7.0

Standard Setup	Step	TORQUE
2	1	1.5
	2	3.0
	3	5.0
	4	7.0
	5	9.0
	6	11.0

Standard Setup	Step	TORQUE
3	1	1.5
	2	3.5
	3	5.0
	4	6.5
	5	8.0
	6	9.5

Standard Setup	Step	AMPS
4	1	7.5
	2	10.0
	3	15.0
	4	20.0
	5	25.0
	6	30.0

Crank It

Let's dyno a motor. Starting from the first screen, the recall setup l screen, hit start. This will recall standard setup #l for 11-14 turn modified motors. Press the INCR FUNC button until you see the MOTOR RUN screen.

```
RPM    000 V   .00
A  0.0 T  0.0 S1
```

Motor Run Screen

"RPM" stands for RPM, "V" for volts, "A" for amps, "T" for torque, and "S" for step. Couple the test motor to the slave motor via the aluminum coupler. The key word in the last sentence is ALUMINUM; DON'T over-tighten the set screw or you may strip the threads on the coupler. Solder the power leads to the motor. Did you notice that each power lead is actually two leads? The big wire is the power lead and the small wire is the measurement lead. Also note that the test motor is setting on a pair of silicone rubber pads and that there isn't a collar and thumb screw to hold the test motor in place, this is your job. All you want to do is keep the motor from twisting. Use your thumb and fore-finger and grab the middle of the motor, just above the silicone pads. Use your left hand, then with your right hand press START/STOP and hold on! The test will take about 24 seconds.

Getting Results

Once the last test step of setup 1 has been completed, the motor will turn off. During each step, the "TURBOdyno" measured amps, volts, RPM, and torque. The dyno will use this information to calculate watts and efficiency. Of course once the test is complete, you are going to want to see the results. The easiest way to do this is with the optional printer. Simply turn it on, set it on top of the main tan case behind the infrared port, hit the PRINT button, and kick back and watch it print

```
PRINTING MOTOR
STATISTICS
```

the results. If you don't have the printer, things get a little more complicated. At the completion of the test, you will still be on the MOTOR RUN screen. The cursor will be underneath the "1" in the lower right hand corner of the screen. Write down all of the information from the first screen and press the INCR SET button. This will put you on the next MOTOR RUN screen for the next step. Again, write down this information and press INCR SET, repeat this process until you have recorded all of the information from each step. Once all of the amp, volt, RPM and torque values have been recorded, press the INCR FUNC button until the AUXILIARY DATA screen appears.

```
WATTS OUTPUT xxx
EFFICIENCY XX S1
```

This means, that as the voltage going to the motor changes, the amperage load on the motor . . .

Auxiliary Data Screen

Again, use the INCR SET button to move through the step screens. As you display each step, record the output watts and efficiency percentage. Not difficult at all.

Setting Up Constant Values

One of the most powerful features of the "TURBOdyno" is its ability to set and save test settings. It will store up to 8 different tests. Each test can have up to 6 steps. The switch between steps can occur automatically or manually. To pick the step switch method, use the INCR FUNC button and go to the SELECT AUTO/MANUAL screen.

```
MANUAL STEP OR
AUTOMATIC STEP A
```

On this screen, you will need to decide if you manually want to change steps or if you want the "TURBOdyno" computer to change steps. Use the INCR SET button to flip between "A" and "M"; A for automatic and M for manual. If "A" is chosen, each step will last 4 seconds. If "M" is chosen the INCR SET button is used to switch between steps. In manual mode, each step will run until either the START/STOP or INCR SET button is pressed.

The last constant screen that needs to be discussed is the SELECT CONSTANT MOTOR AMPS/VOLTS VALUE screen.

```
CONSTANT MOTOR
AMPS        xx.xx

      or

CONSTANT MOTOR
VOLTS       x.xx
```

Constant Motor Amps/Volts Screens

The values set in the CONSTANT MOTOR screens interacts with the values chosen in the SELECT STEP VALUE TYPE screen, which will be discussed later. For comparison purposes, these numbers MUST be consistent between tests, therefore, set them and then forget them. It's the results you want. The most controversial number is the 5.00 volt setting. Most of us use 6 and 7 cell packs, so why not 7.20 or 8.40 volts? Good question. I run modified so I use 8.40 volts. It feels better. What ever value you pick, always use it. This will avoid mistakes. The CONSTANT MOTOR VOLTS value is used when the SELECT STEP VALUE TYPE selection is "T" (torque) or "A" (amps). This means that the voltage supplied to the test motor will always be 8.4 volts in my case, constant. If the SELECT STEP VALUE TYPE selection was "V", then the CONSTANT MOTOR AMPS value is used. This means, that as the voltage going to the motor changes, the amperage load on the motor will always remain constant. This is a great way to match motors to battery packs. Remember, the INCR SET button will change the digit value and the INCR FUNC and DECR FUNC buttons will move the cursor to the next or previous digit respectively.

Conclusion

So much for the easy stuff, next time we'll conclude this series with information on how to build and store your own tests and how to interpret your results.

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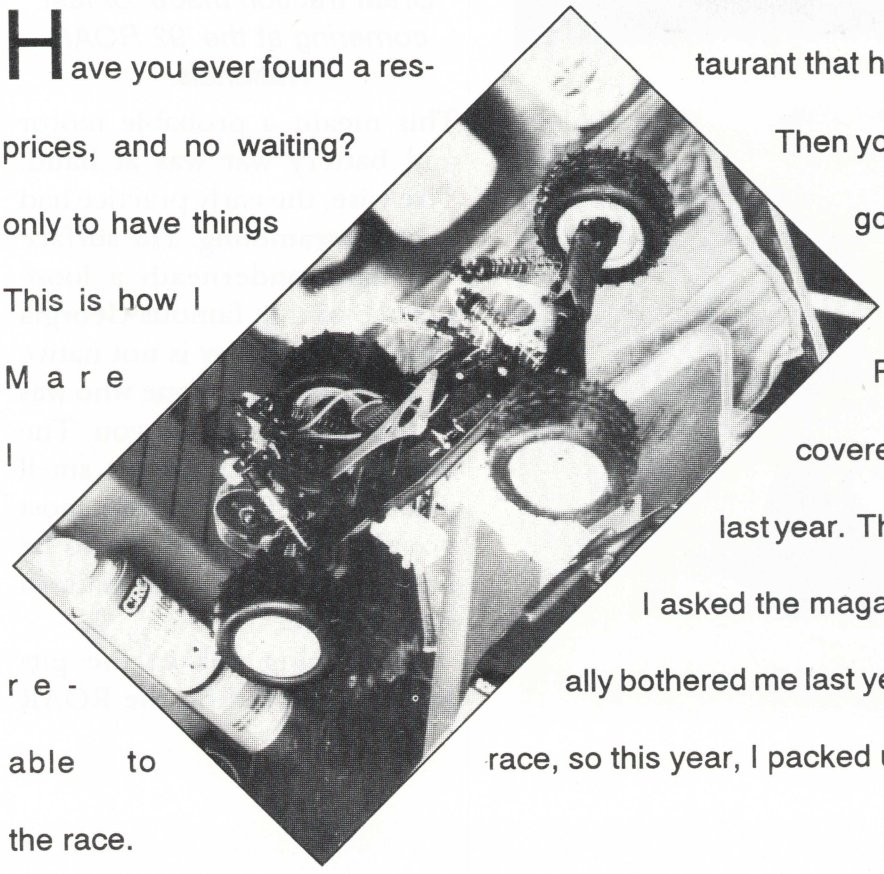
TRUCK NATS ROAR's

By Bill McCall

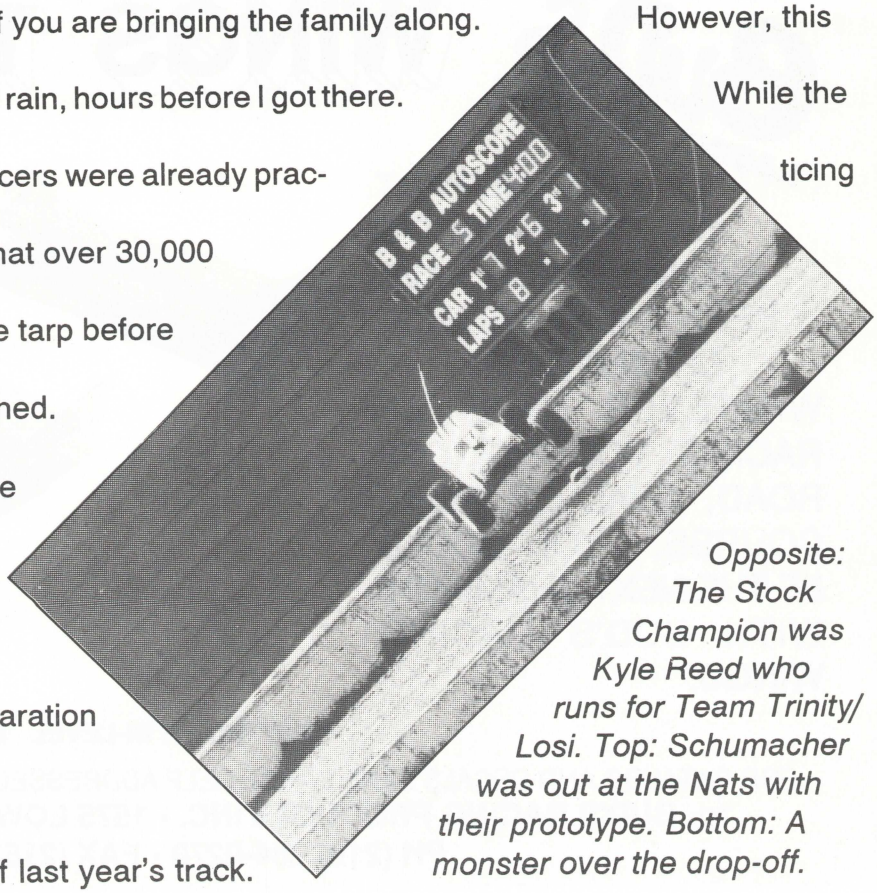


Have you ever found a restaurant that had wonderful food, terrific service, great prices, and no waiting? Then you bragged about this find to your friends, only to have things go totally wrong when you take them there? This is how I felt when I arrived at Savannah's Lake Mare Park, the site of the '92 ROAR Truck Nats. I covered the '91 ROAR Off Road Nats from here last year. The site and the club, so impressed me that I asked the magazine to send me back this year. It also re-ally bothered me last year, to be at such a superb site and not be able to race, so this year, I packed up the family and made a vacation out of the race.

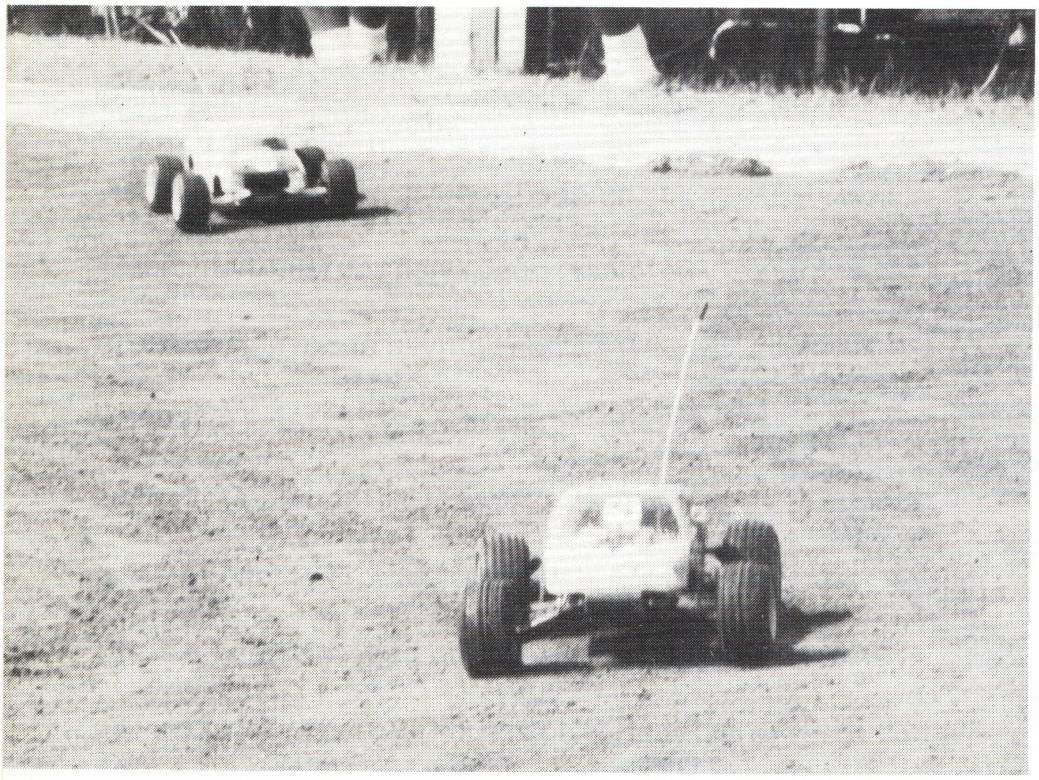


Lake Mare is the perfect place to race if you are bringing the family along. However, this year my arrival was preceded by over 3" of rain, hours before I got there. While the rest of the park was an unusable mess, racers were already practicing on the track. I was told by club officials that over 30,000 gallons of water had to be pumped off the tarp before it could be removed and the track examined. While the rest of the park was beyond the host club's (SCORE) control, the track was ready for practice in an amazingly quick time. Congratulations on good preparation and execution SCORE track crew!

The track was pretty much a repeat of last year's track.



Opposite: The Stock Champion was Kyle Reed who runs for Team Trinity/ Losi. Top: Schumacher was out at the Nats with their prototype. Bottom: A monster over the drop-off.



Great traction made for fast cornering at the '92 ROAR Nationals.

This meant a probable motor and battery war was at hand. Tire wise, the early practice had people scrambling. The surface was hard underneath a loose surface of that famous Georgia clay. (The red clay is not native to Savannah as anyone who was in the pits would tell you. The clay has a much better smell when wet!) One of the most popular tires turned out to be Losi's new diamond pattern step-pin tire.

The racing talk in the pits mainly centered on the ROAR

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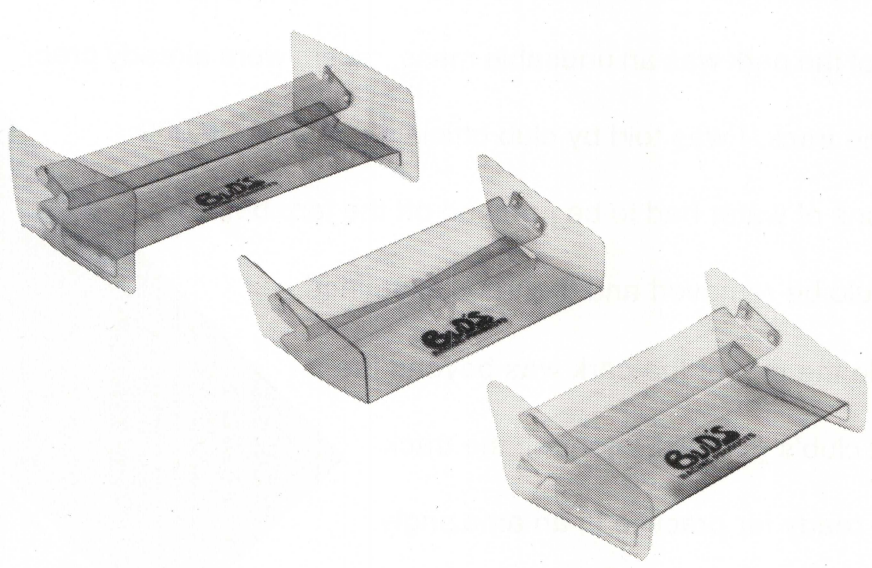

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Nats in Dallas. While there has been some talk about the resurrection of ROAR, Dallas, did little to inspire the racer's confidence. I headed off to find ROAR VP Gene Husting to see what he had to say and to find out for myself what is happening with ROAR. I hope you will read my letter on the status of ROAR in this issue.

Early rounds of qualifying would set the tone for the whole weekend. Clearly, Team Losi wasn't going to have an easy time walking away with a title that it alone has held. Traxxas made an even stronger appearance this year and had as good a shot at dethroning Losi as did Team Associated. The Peak Performance powered Traxxas trucks would place 2 drivers in the Mod A main along with a 3rd Traxxas truck driven by Gary Quest and powered by a Precision Motor. Associated had its Reedy powered RC-10Ts joined by a Peak Performance powered RC-10. This would prove to be a formidable challenge to the impressive Losi/Trinity Alliance. Schumacher was also there, but notable in its absence was the Kyosho team. Rumor has it that their new Triumph inspired truck wasn't ready. My inside source at Kyosho hinted that their disgust with the Offroad Nats in Dallas led to their being a no-show at Savannah.

In Stock Kyle Reed wasted no time in continuing his domination of this track by setting the TQ pace as well as the fastest single laps in both Stock and Mod. But it was Associated's Paul Wynn that held the early TQ mark for Modified.

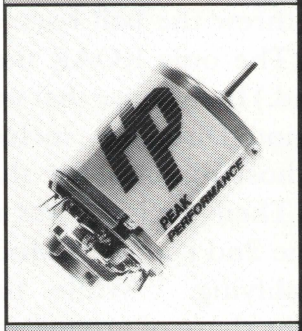
Kyle would hold on to the Stock TQ title while Modified became a dogfight between Traxxas Rick Vehlow, Associated's Pavidis, Wynn and Rick Hohwart. Losi's top performer in Modified was the defending ROAR Mod Truck Champ Jack Johnson who qualified 5th.

There was some small confusion in the 2nd round of Modified qualifying that had many racers thinking a repeat of the Dallas Nats was about to happen. Midway through the Modified heats, the rain moved in and ended the race day early Friday evening. The second round of Stock had already been completed. But half the 2nd Mod heats did not get run.

Racers showed up early Saturday morning to see how the situation would be handled. While the SCORE track crew worked feverishly to restore the track, the race director Phil Hurd and his staff scrambled for ROAR input on how to proceed. They initially turned to Mike Reedy, who had to remind them that he held no current authority position with ROAR.

The initial decision was to start the Modified qualifiers right where they left off. After that was completed the day's scheduled qualifiers would run. My own qualifier would have been one of the first run that day. As the track quickly returned to shape, it was clear that the track would be faster for the last half

STOCK MOTORS '93



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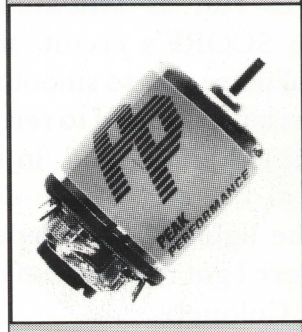

"MACHO STOCK"
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• ROAR LEGAL 24º
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of the round than what it was for the first. Anybody who has ever run a race knows that any decision is going to anger a large percentage of the racers. After taking some flack, the SCORE officials threw the ball back at ROAR. (The only ROAR they could find.) In this case that was two Region Directors, including the host director for that region. Their decision was to cancel the 2nd round of Modified qualifying. While this brought its share of groans and complaints, it probably was the fairest decision possible if the time that it would take to rerun the entire Mod round was a factor.

That left the third and fourth rounds to run as scheduled. Much to SCORE's credit, the day's qualifiers went so smoothly that it was later decided to rerun the Modified 2nd round, in its entirety at the end of the day under the lights. That happen to be where I got my best run in. (Thanks Colonel)

After all the qualifying was completed, here is how the teams lined up for the National title fight.

Stock

TQ - Kyle Reed/Losi Truck
2nd - Scott Hughes/Losi Truck
3rd - Mark Pavidis/Assoc. Truck
4th - Bryan Peterson/Losi Turck
5th - J. R. Mitch/Losi Truck
6th - Ron Rossetti/Losi Truck
7th - Rick Hohwart/Assoc. Truck
8th - Todd Lewis/Losi Truck
9th - Jack Johnson/Losi Turck
10th - Gil Losi, Jr./Losi Truck

Modified

TQ - Rick Vehlow/Traxxas/Peak
2nd - Mark Pavidis/Assoc./Reedy
3rd - Paul Wynn/Assoc/Redline
4th - Rick Hohwart/Assoc./Peak
5th - Jack Johnson/Losi/Trinity
6th - John Walters/Traxxas/Peak
7th - Scott Hughes/Losi/Twister
8th - Gary Guest/Traxxas/Precision
9th - Jon Anderson/Losi/Trinity
10th - Bryan Peterson/Losi/Trinity

At this point it might be worth mentioning that for the qualifying rounds that SCORE used the IFMAR starting system. This involves each truck starting one at a time. The computer then runs a separate clock for each racer. Each racer then has a full 4 minutes to run. Their time starts when they cross the starting line. This makes for very clean starts and good qualifying. It does add slightly to the length of the race day, but in my opinion, it's worth it for big races.

Also from IFMAR, the national championship would be decided by a 3 "A" main system in which a driver would receive points for where they finished in each "main." Then the computer would take the best two out of three point totals and decide the national championship. The only problem with that format is that it can be less exciting for the crowd to watch if they don't know who the winner is. A good scoring program such as B&B Autoscore and a good announcer can alleviate that problem though. In this case SCORE had both. Before the start of the mains I had a chance to take a tour of the pits and see what was new and gauge racers attitudes towards a multitude of things. Stopping in the Schumacher pit I got a sneak peak at a new toy they had hidden behind all the trucks. Schumacher has been hard at work developing their new entry into the fast growing 10th scale gas market. This car looks light and fast! It will come with a .15cc engine and will accept standard 10th scale tires and wheels. It will also easily covert from an oval configuration to a road car. Early tests at the Whip really has these guys excited. According to Schumacher, the kit is nearly ready to ship. It is waiting on last minute packaging and documentation details.

I found the Losi camp feverishly working to hang onto the

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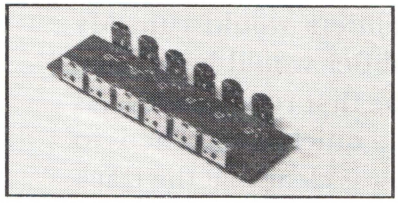

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title that they have held for 3 years now. I tried to speak to Gil Jr. but he didn't have much of a voice. When I asked if that was because of sitting for days in a swamp or yelling at the team, I got a lot of laughter from the rest of the team. I guess the answer was the latter.

I did get to ask Gil one question that was on my mind. I wondered if the new plastic chassis that is now the mainstay of their fleet was an accidental discovery. (Remember it premiered on the entry level Junior 2 model.) Gil emphatically replied, "NO!" While they knew they have something special they decided to introduce this intrepid new design on a new model in case it wasn't well received. It didn't take long for racers to migrate to the design and the rest is history. When I indicated that he must have some pretty shrewd marketing people Gil added, "That's my Dad."

Also in the Losi camp I found Joel Johnson, who was driving an

Rick Hohwart had to be happy with this nationals. Not only did he have a strong run at both titles, but his driver, Rick Vehlow, was TQ in the Modified class.



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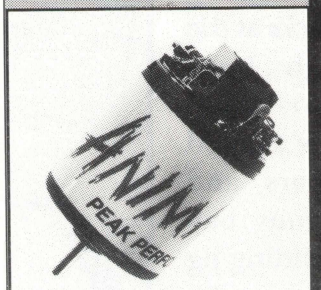

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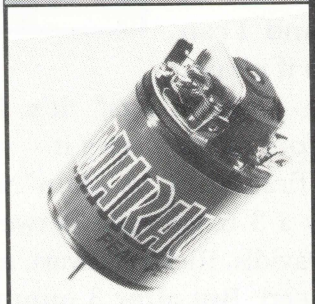
PP-96 11 DOUBLE "PHANTOM"
PP-63 12 TRIPLE "AVENGER"
PP-57 14 QUAD "SAINT"
* TQ '92 ROAR TRUCK NATS.'*



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PP-62 12 QUAD "MARAUDER"
PP-99 13 DOUBLE "HI-TORQUE"
PP-90 13 TRIPLE "RICK'S PICK"
PP-98 13 QUAD
PP-55 14 DOUBLE "WILD THING"
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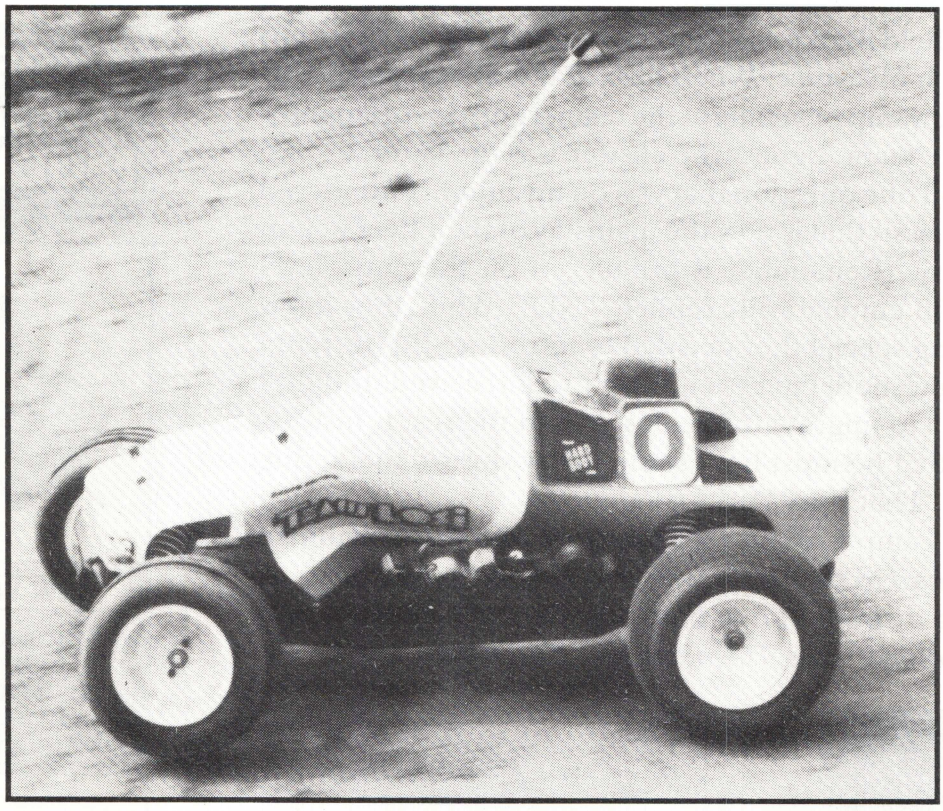
LXT, hard at work building battery packs. Most racers wouldn't dream of hand building their packs at the race sight, but I have to admit the new shaped buss bars and the Trinity battery building jig sure made the job look easy. (I'm sure Joel's soldering skill helps.) Having also talked to Joel last year in Cleveland I can tell you if it says, "Magic Motorsports" it's because Joel himself uses it.



The first Stock "A Main" was quickly a 3 truck race between Mark Pavidis, Rick Hohwart, and Kyle Reed. But after 3 minutes Kyle looked to be too far back. At this point chances looked pretty good for Associated to knock Losi off a throne it has held for three years. In an exciting finish, Hohwart, who had to play catch up, made one mistake just as he nearly caught Pavidis. Mark held on for the win with Hohwart 2nd and Reed 3rd.

The second "A main" was more to the liking of Losi fans as Kyle Reed dominated from the start. Two more Losi drivers finished behind him. Rick Hohwart took 4th to stay in the title hunt. First main winner Pavidis was a distant 9th.

While no driver was mathe-

Everbody was taking shots at the "Magic Man" Joel Johnson of Team Trinity.

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matically eliminated after two rounds, the odds were in the favor of both racers who had a win. Another win would guarantee the title for either Pavidis or Reed. Rick Hohwart could also easily take the title with a win in the 3rd heat due to his strong finishes. Gil Losi and Jack Johnson had to hope for a win and poor performances by Pavidis, Hohwart, and even teammate Reed to get the individual honor.

The race quickly turned into a fast paced battle between Losi's Reed and Associated's Pavidis with Losi's Jack Johnson a distant third. Suddenly Johnson became a rocket and closed on the leaders. In almost no time, it was a 3 truck race again. As Johnson, who did have a legitimate shot at the title, although an outside one, made his move to the inside of Pavidis, the two of them tangled. The decidedly Anti-Losi crowd booed and moaned loudly. For the rest of the day Johnson would be the villain in many minds. That moment sealed Kyle Reed's third straight national title in Savannah.

Here is how the racer's points totals added up for the ROAR Truck Stock title:

1st - Kyle Reed, 200 points
2nd - Mark Pavidis, 198
3rd - Rick Hohwart, 196
4th - Scott Hughes, 195
5th - Jack Johnson, 194
6th - Gil Losi, Jr., 193
7th - J.R. Mitch, 192
8th - Todd Lewis, 188
9th - Ron Rosetti, 187
10th - Bryan Peterson, 187

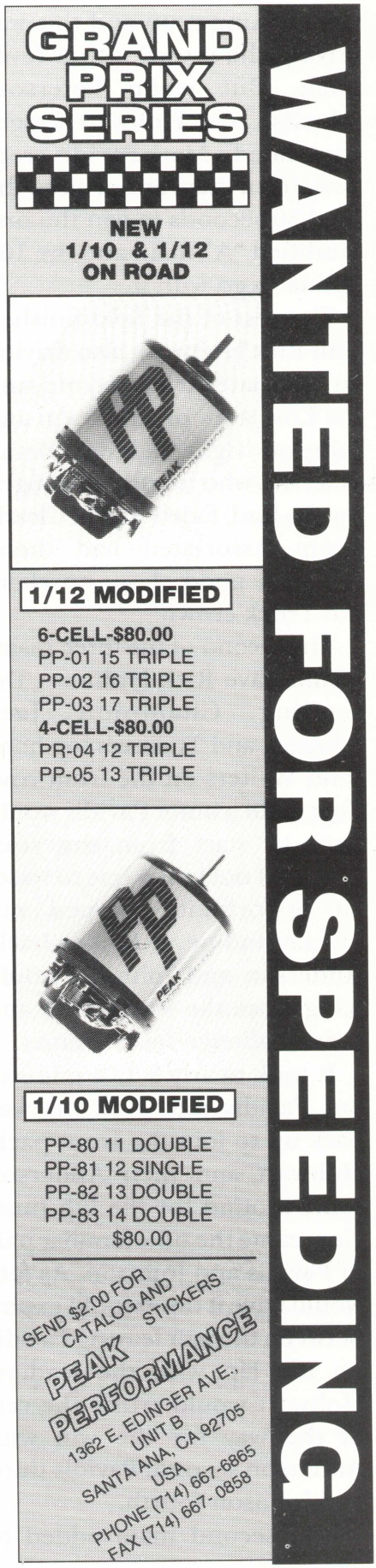
Note: Positions in which point totals were tied were decided by total laps and then run times.

Despite a strong effort from Associated, Losi had won another truck title. As I mentioned it, the crowd was decidedly anti-Losi. I think that had to do more with wanting to see somebody else win for a change than any feelings against the Losi team itself.

Before I go into the details of the Modified "A" mains, let me add a personal note about one of the lower mains. I happened to get seated into what would be one of the closest finishes of the weekend with a great bunch of drivers. I would like to thank James Radford (1st) and Tim Raskin (3rd) for making my (2nd) weekend complete with one of the most exciting races I have taken part in. Note to James: I hope I get a rematch sometime soon.

The first of the Modified "A" mains was quickly a 4 truck race. Halfway through the first lap Pavidis came up on Jack Johnson and blew by him so quick over the table top that Jack may not have seen him. It seemed to me that it was Mark's way of saying, "Not this time!" Pavidis led Johnson, Anderson, and Peterson after one lap. After about a minute Bryan Peterson managed to move up to second, bringing Rick Hohwart along to join in the fight. Local favorite Johnny Walters of Traxxas moved up as high as 4th for a time.

For the middle part of the race the 2nd, 3rd, and 4th spots



were mixing it up and this was driving the crowd into a fever pitch. But while Peterson, Johnson, and Hohwart fought Associated's Mark Pavidis crept away from them and cruised the final 30 seconds to win the first Modified "A" main and the 100 points to go with it.

The rest of the field finished with Rick Hohwart, also driving an Associated truck second, and the Losi team of Anderson and Johnson right behind. Bryan Peterson who briefly challenged for the lead, faded to 8th. Clearly Team Associated had themselves in good shape to claim the Truck crown.

The second of the three mains would have Rick Hohwart, Defending Champion Jack Johnson, and Traxxas's top hope John Walters on the front row. First main winner Pavidis would have to start from the rear. Hohwart not being one to waste an opportunity jumped out quickly and never looked back. Anderson and Johnson would hang close the whole race and even challenge several times.

It took nearly 3 1/2 minutes but Pavidis did work his way back up to join the front pack. Hohwart and then Anderson came around for the 9th time. Next came the now familiar pair of Pavidis and Johnson. As fate would have it time would expire between the pair leaving Pavidis on the lap with the leaders. Hohwart would cruise the rest of the way for the win with Anderson second, Pavidis third and Johnson fourth.

The second main added to Associated's chances of an upset win. Hohwart and Pavidis both had two strong performances. Losi's chances now were solely on the shoulders of Jon Anderson. Jack Johnson still had an outside chance.

Losi's chances would quickly be decreased by one as Johnson didn't make it off the starting grid. Jon Anderson made a valiant effort but 3 Traxxas drivers came alive in the last main and formed a shield between him and the 2 Associated drivers, each with a main win under their belt.

Running behind Pavidis and Hohwart was the Traxxas trio of Walters, Guest, and Vehlow. For Traxxas to win Walters would have to pass both leaders and then hope the earth would open up and swallow the Associated drivers. But it wasn't to be for Traxxas or Losi as the race neared the end it was an all Associated battle between Pavidis and Hohwart. But motor bragging rights were still up for grabs with the Peak Performance team hoping to add to an impressive weekend going toe to toe with the world famous Reedy motor team.

Hohwart stayed close and closed several times but didn't get close enough to find any opportunities. Finally on the last lap with time already expired Hohwart went all out to catch Pavidis. The effort was too much as Rick brushed a board and lost precious time. I'm sure it added to Mark's sense of accomplishment to win the title by beating a fine driver like Hohwart.

Here is how the point totals ended for the Modified Trucks:

1st - Mark Pavidis, 200 Points
2nd - Rick Hohwart, 100 Points
3rd - Jon Anderson, 197 Points
4th - John Walters, 194 Points
5th - Jack Johnson, 194 Points
6th - Gary Guest, 191 Points
7th - Paul Wynn, 190 Points
8th - Bryan Peterson, 188 Points
9th - Scott Hughes, 188 Points
10th - Rick Vehlow, 188 Points

Note: Positions in which point totals were tied were decided by total laps and then run times.

To wrap up the action from Savannah and the '92 ROAR Truck Nats, let me again give my personal thanks to SCORE for making the event such a pleasure for me and all ROAR members. As a member of the new ROAR Nationals committee let me tell clubs that are interested in hosting a Nationals event to take a look at the SCORE club, they do a lot of things right.

One thing SCORE did do again this year was to have permanent marshals. At the '91 Offroad Nats they did a good job. When I arrived for the Truck Nats I noticed that this year's crop of marshals were very young. Being over 30 I tend to not have much faith in today's teenagers and adolescents. Don McLain led this young crew and they did an outstanding job. With over 300 trucks running an average of 8 times around the track for 5 runs that weekend this meant that each turn marshall had over a thousand opportunities to make a mistake. Those of you who read my

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article on turn marshalling in the July issue know that this is an important subject to me.

A special hello and thanks go out to Don and Jane McMillen. Don and Jane are a retired couple who travel the country in their pickup pulling a fifth-wheel mobile home. A few years ago they saw their first RC race and found a new purpose for their travels.

I first met them at the '90 Truck Nats in Columbus, Ohio. They are a terrific couple and are good representatives for the RC community. Jane did give me an ear full of information on the racer's point of view of the Dallas Nats. But noteworthy here in Savannah was the fact that the McMillen's won the biggest door prize of the weekends. That was a brand new Associated RC-10T truck. (The National Champion model I can now add). Although they are now sponsored by Traxxas, the McMillen's felt rather than simply declining the prize they asked that it be given to a young local racer who was just starting out. A rather generous and thoughtful act if you ask me.

Results

Stock Truck
A Main Final
1st - Kyle Reed
2nd - Mark Pavidis
3rd - Rick Hohwart
4th - Scott Hughes
5th - Jack Johnson
6th - Gil Losi, Jr.
7th - J. R. Mitch
8th - Todd Lewis
9th - Ron Rossetti
10th - Bryan Peterson
B Main
lst - Jon Anderson
2nd - John Walters
3rd - Chris White
4th - Gary Guest
5th - Rick Vehlow
6th - Cliff Lett
7th - Paul Wynn
8th - Carlos Gonzales
9th - Joel Johnson
10th - Jason Foster
C Main
1st - Mike Dunn
2nd - Brian Kinwald
3rd - Jay Halsey
4th - Jason Ruona
5th - Chris Rahe
6th - Tom Owens
7th - J.D.Beckwith
8th - Jimbo Evans
9th - Steve Dunn
10th - Todd Handel
D Main
1st - Brent Wallace
2nd - James Ward
3rd - Jason Brown
4th - Ken Sciabaras
5th - Mike Marshall
6th - Kris Valambhia
7th - Scott Roberts
8th - Jim Myers
9th - Derek Furutani/DNS
10th - Scott Rister/DNS
E Main
lst - Quincy Hughes
2nd - Greg Hodapp
3rd - Keith Mackewich
4th - Aaron Biner
5th - Mike Hamilton
6th - Anthony Andrews
7th - Charles Johnson
8th - Jimmy Johnson
9th - Chris Smith
10th - Peter Maiolo
F Main
1st - Bubba Johnson
2nd - Tyrone Clark
3rd - Tim Vause
4th - Alan Gilmore
5th - Joe Morettini
6th - Edwin McTureous
7th - Allan Richards
8th - Keith Manton
9th - Scott Moody
10th - Dwayne Combs
G Main
1st - Mike Mellin
2nd - Frank Derzak
3rd - Allan Abess
4th - Jeff Retey
5th - Ben Faulk
6th - Chris Doseck
7th - David Martin
8th - John Kolaski
9th - Ed Devlin
10th - Keith Tessmer/DNS
H Main
1st - John Abatto
2nd - Jeff Lynn
3rd - David Czerniejewsk
4th - Larry Wilson, Jr.
5th - Tod Paterson
6th - David Hill
7th - Rick Kelso
8th - Joe Weeman
9th - Don McMillan
10th - Jeff Ingle
I Main
1st - Mike The Painter
2nd - Tim Clark
3rd - Vaughn Williams
4th - Will Barrett
5th - Danny Wight
6th - Todd Waters
7th - Ricardo Wright
8th - Max Whitley, Jr.
9th - Robert Schoeneman
10th - Bubba Lee
J Main
1st - Aldo Ruiz
2nd - David Timmerman
3rd - Bob Bean
4th - Eugene Brownlee
5th - Tracy Carver
6th - Tracey Proctor
7th - David Longobardo
8th - Larry Stinson
9th - Ken Rogers
10th - Trey Kessler
K Main
1st - Charles Berg
2nd - Brent Darroch
3rd - Mike Sharpe
4th - Anthony Kelly
5th - Eric Prevost
6th - Harry Meikle
7th - Greg Fetters
8th - Glenn Harkey
9th - Phil Wright
10th - Danny Brooks/DNS
L Main
1st - James Johnson
2nd - Adam Gutierrez
3rd - Paul Rowe
4th - Matthew Fuel
5th - Joel Ferguson
6th - Chris Dippel
7th - David Honbarger
8th - Kelly McGraw
9th - Wanue Dodson
10th - Keith Hatfield/DNS
M Main
1st - Jay Stiffler
2nd - Rich Christoff
3rd - Lawerence Riggins
4th - Matt Van Pelt
5th - Al Bella
6th - Curtis Wright
7th - Terry Murphy
8th - Pat Rossiter
9th - Jeff Harris
10th - Jimmy Mills
N Main
1st - Raul Jimenez
2nd - Edward Weaver, Jr.
3rd - Ronald McDavid
4th - Stan Gordon
5th - Jerry Wynn
6th - Charles Brown
7th - Clint Mitchell
8th - Randy Woods
9th - Donald Hill
10th - Billy Brown
O Main
1st - Tem Raskin
2nd - Don Knapp
3rd - Adam Drake
4th - Jason Venezia

5th - Heath Mottin
6th - Robert Seferian
7th - Joe Brown
8th - Patrick Lowery
9th - David Mottin
10th - Kevin Orton/DNS

P Main
1st - Terry Leblanc
2nd - Bill Fraden
3rd - Jane McMillan
4th - Dirk Bullock
5th - Bob Brown
6th - Todd Hicks
7th - Bob Serra
8th - Larry Pollack
9th - Jody Womack
10th - Steve Mott/DNS

Q Main
1st - James Owen
2nd - Brian Stricklin
3rd - Michael Lontakos
4th - Allen Powery
5th - Jimmy Sharpe
6th - Robby Atchison
7th - Larry Mitchell
8th - Harold Thomas
9th - Kerry Houston
10th - Daniel Dejarnette

R Main
1st - Robert Lamb
2nd - Allan Metz, Jr.
3rd - James Radford
4th - Scott Gardner
5th - Jim Mazurek
6th - Ross Bell
7th - David Carrigg
8th - Richard Arrington
9th - Brannon Thompson
10th - Clay Walker/DNS

S Main
1st - Kenneth Garrett
2nd - Mike Declaris
3rd - Mike Suit
4th - Mark Fried
5th - Mike Judd
6th - Leroy Carrigg
7th - Jackson Reynolds
8th - Stan Sova
9th - Mark Carlson/DNS
10th - Tim King/DNS

T Main
1st - Philip Elisio
2nd - Sharon Bean
3rd - Steve Sisson
4th - Casey Furman
5th - Butch Otis
6th - Robert Lynn
7th - Ted Migchelbrink
8th - Paul Box
9th - Mike Amborski
10th - Douglas Parker/DNS

U Main
1st - Ray Gravley
2nd - David Genchur
3rd - Larry Eller
4th - Raymond Norris
5th - Kathy Carrigg
6th - Caroline Hildeth
7th - Mark Crowell
8th - John Colebeck/DNS
9th - Jonathan Morgan/DNS
10th - Bryan Wright/DNS

Modified Truck

A Main
1st - Mark Pavidis
2nd - Rick Hohwart
3rd - Jon Anderson
4th - John Walters
5th - Jack Johnson
6th - Gary Guest
7th - Paul Wynn
8th - Bryan Peterson
9th - Scott Hughes
10th - Rick Vehlow

B Main
1st - Gil Losi, Jr.
2nd - Brian Kinwald
3rd - Greg Hodapp
4th - Cliff Lett
5th - Jason Ruona
6th - Chris White
7th - Brent Wallace
8th - Kyle Reed
9th - Jason Foster
10th - Ron Rossetti

C Main
1st - Mike Dunn
2nd - Tyrone Clark
3rd - Aaron Biner
4th - Steve Dunn
5th - Carlos Gonzales
6th - Edwin McTureous
7th - J.D.Beckwith
8th - J.R.Mitch
9th - Chris Rahe
10th - Bret Reelfs

D Main
1st - Scott Roberts
2nd - Mike Hamilton
3rd - Jay Halsey
4th - Derek Furutani
5th - Jason Brown
6th - Brad Reelfs
7th - Ruffy Rios
8th - Joel Johnson
9th - Quincy Hughes
10th - Joe Freitas

E Main
1st - Charles Johnson
2nd - Frank Derzak
3rd - Tim Vause
4th - Larry Wilson, Jr.
5th - Jimmy Johnson
6th - Bubba Johnson
7th - James Ward
8th - Allan Abess
9th - Ken Sciabaras
10th - Chris Dosec

F Main
1st - Alan Gilmore
2nd - Todd Lewis
3rd - David Hill
4th - Joel Whitaker
5th - Dave Harrison
6th - Mike The Painter
7th - Mike Mellin
8th - Keith Mackewich
9th - Scott Moody
10th - Tony Hines/DNS

G Main
1st - Tom Bach
2nd - John Abatto
3rd - Joe Morettini
4th - Jimbo Evans
5th - David Czerniejewsk
6th - Scott Rister
7th - Jim Myers
8th Jeff Retey
9th - Vaughn Williams
10th - Dwayne Combos

H Main
1st - Tom Owens
2nd - Ben Faulk
3rd - Anthony Andrews
4th - Jason Venezia
5th - Tyree Phillips
6th - Kris Valambhia
7th - Aldo Ruiz
8th - Will Barrett
9th - Alex Gilmore
10th - Jeff Ingle

I Main
1st - Tim Clark
2nd - Ricardo Wright
3rd - Keith Manton
4th - David Honbarger
5th - Chris Smith
6th - David Timmerman
7th - Charles Berg
8th - Robert Huffman
9th - Paul Rowe
10th - Danny Brooks/DNS

J Main
1st - Scott Huffman
2nd - James Johnson
3rd - Keith Hatfield
4th - Tod Paterson
5th - Tracey Proctor
6th - Don McMillan]
7th - Ed Devlin
8th - Terry Murphy
9th - Paul Jimenez
10th - Kevin Orton

K Main
1st - Ken Rogers
2nd - Peter Maiolo
3rd - Don Knapp
4th - Sean Morningstar
5th - Rick Kelso
6th - Bob Bean
7th - John Kolaski
8th - Joe Weeman
9th - John Colebeck
10th - Al Bella

L Main
1st - Bubba Ryan
2nd - Danny Wight
3rd - Brent Darroch
4th - Jeff Harris
5th - Max Whitley, Jr.
6th - Eric Prevost
7th - Phil Wright
8th - Robert Shoeneman
9th - Mike Swan/DNS
10th - Mark Sutherin/DNS

M Main
1st - Allan Richards
2nd - Randy Woods
3rd - Greg Fetters
4th - Phil Nichols
5th - Anthony Hines
6th - Pat Rossiter
7th - Larry Stinson
8th - Mike Lontakos
9th - David Martin
10th - Todd Handel

N Main
1st - Mike Marshall
2nd - Jeff Lynn
3rd - Tracy Carver
4th - Anthony Kelly
5th - Matt Van Pelt
6th - Jerry Wynn
7th - Ronald McDavid
8th - Paul Thibodeau
9th - Jimmy Sharpe
10th - Edward Weaver, Jr.

O Main
1st - Tpdd Waters
2nd - Rich Christoff
3rd - Bob Novak
4th - Mike McBride
5th - Bubba Lee
6th - Jane McMillan
7th - Lawerence Riggins
8th - Allen Powery
9th - Todd Hicks
10th - Glenn Harkey

P Main
1st - Adam Drake
2nd - Chris Dippel
3rd - Matthew Fuel
4th - Harold Thomas
5th - David Longobardo
6th - Stan Gordon
7th - Wayne Dodson
8th - Joe Brown
9th - Harry Meikle
10th - Brian Stricklin

Q Main
1st - Donald Hill
2nd - Butch Otis
3rd - Bob Serra
4th - Bob Brown
5th - Joel Ferguson
6th - Mike Reedy
7th - James Owen
8th - Doug Laurent
9th - Keith Tessmer
10th - Jimmy Mills

R Main
1st - James Radford
2nd - Bill McCall
3rd - Tem Raskin
4th - Dirk Bolack
5th - Craig Reynolds
6th - Travis Dupree
7th - Patrick Lowery
8th - C.W.Gripper
9th - Bryan Thibodeau, Jr.
10th - David Mottin

S Main
1st - Ross Bell
2nd - Warren Clapp
3rd - Jim Mazurek
4th - Mike DeCarlis
5th - Mike Amborski
6th - Bill Fraden
7th - Tim King/DNS
8th - Pat Schwab/DNS
9th - Jonathan Morgan/DNS
10th - Jason Clark

CP

TRAXXAS

BLUE EAGLE LS

N.O.R.R.C.A. NATIONAL CHAMPION

The Traxxas Blue Eagle LS Top qualified and went on to win first, second, and third in the Truck class at the N.O.R.R.C.A. 1992 Dirt Oval Nationals. Two of the Traxxas trucks turned in the only 30 lap runs. Now that's fast! The Blue Eagle LS has the low 2.72 final drive ratio which allows the hottest and fastest motors to be used. No other truck has it!

FEATURES INCLUDE: 100% GRAPHITE CHASSIS WITH 30-DEGREE KICK/ HARD-ANODIZED, TEFLON-COATED, T-6 ALUMINUM OIL DAMPERS/ EXTERNALLY ADJUSTABLE BALL DIFFERENTIAL/ SLIPPER CLUTCH/ PRO-TRAX TIRES/ BELLCRANK STEERING/ TURNBUCKLES/ NYLON AND T-6 ALUMINUM CONSTRUCTION/ LOW-SLUNG STADIUM BODY/ COMPLETE TUNING AND ADJUSTMENT CAPABILITIES



R.O.A.R. & N.O.R.C.C.A. NATIONAL CHAMPION



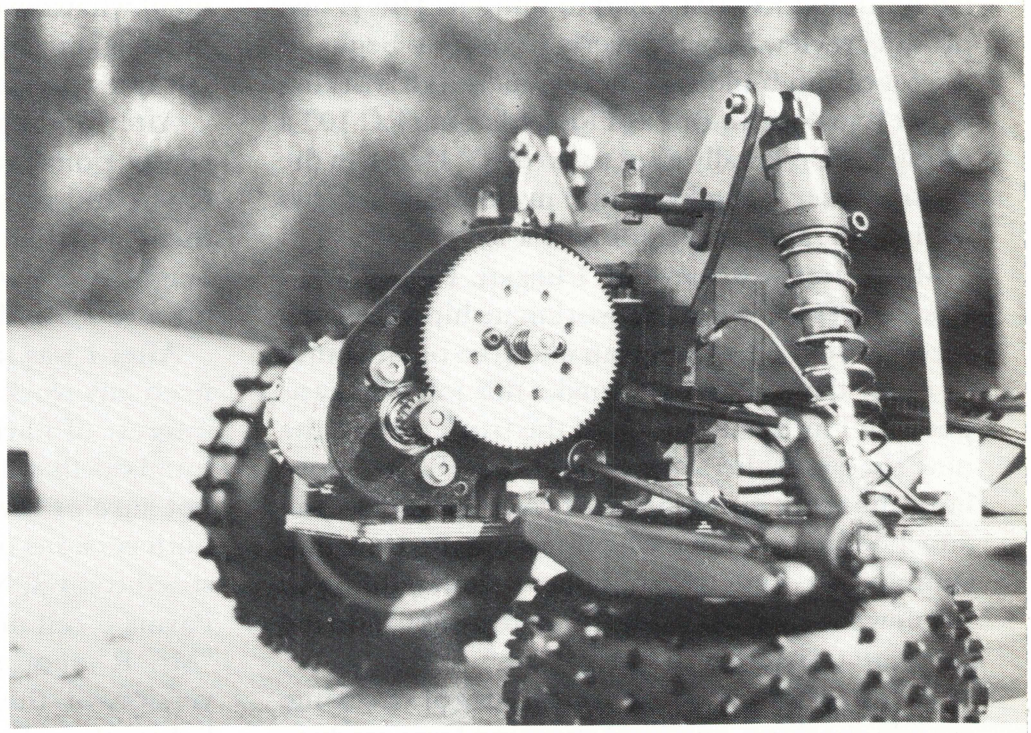
TRX-1

R.O.A.R. NATIONAL CHAMPION

The Traxxas TRX-1 swept the Stock class at the R.O.A.R. National Championships by winning 1st in the A through E mains. Racing against equally-powered competitors the TRX-1's superior transmission and suspension gave it the advantage necessary to win. The TRX-1 also holds current National Championships in France, Australia, New Zealand; and also won the 2-WD portion of the Reedy Race of Champions in Great Britain.

TRX-1 FEATURES: 100% GRAPHITE CHASSIS WITH 30-DEGREE KICK/ HARD-ANODIZED, TEFLON-COATED T-6 ALUMINUM OIL DAMPERS/ EXTERNALLY ADJUSTED DUAL BALL BEARING DIFFERENTIAL/ SLIPPER CLUTCH/ PRO-TRAX TIRES/ BELLCRANK STEERING/ TURNBUCKLES/ NYLON AND T-6 CONSTRUCTION/ AERODYNAMIC BODY/ COMPLETE TUNING AND ADJUSTMENT CAPABILITIES.

CopyrightTraxxas Corp. 1992. 12150 Shiloh Rd., Dallas, TX. 75228. Bodies shown are custom painted.



DA Graphite's
RC-10T Accessories

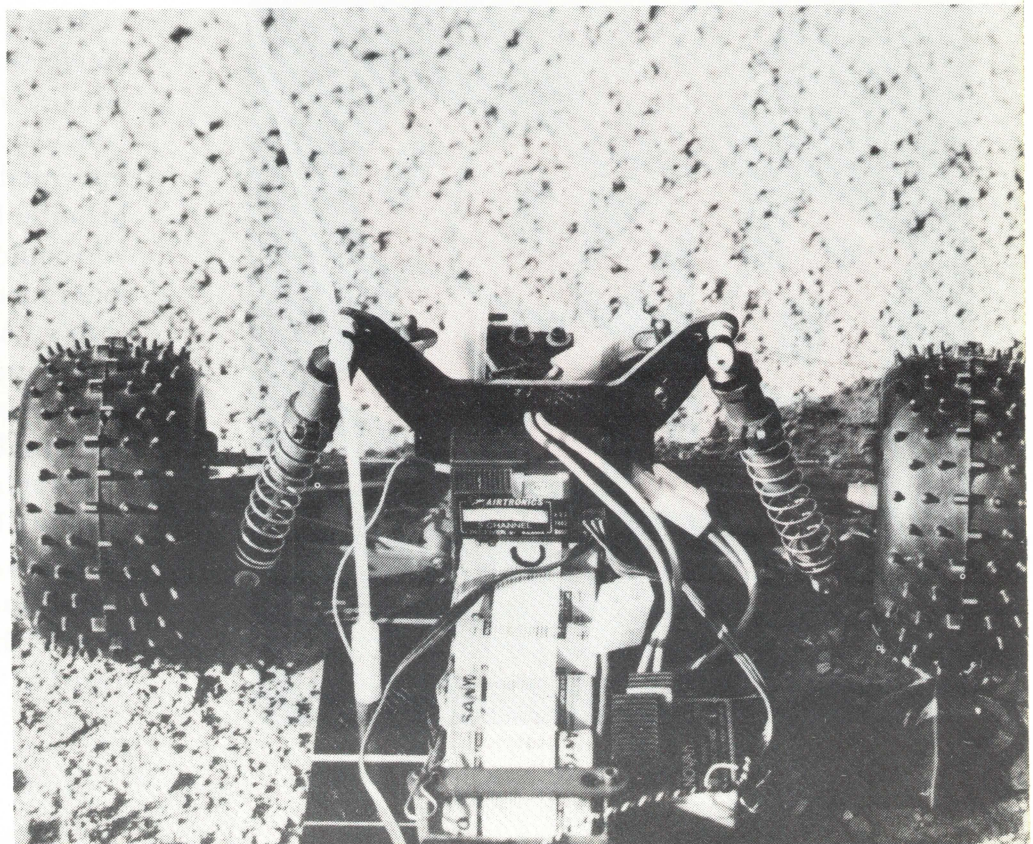
By Bill McCall

This month's review is specifically about the line of products that DA Graphite, out of the San Diego area, produces specifically for the Team Associated's RC-10T truck. But as I worked on the project it became more a review of the company itself as much as these particular products.

The main item in the collection is, of course, the wood core graphite chassis. Next, in terms of size anyway, was the graphite motor plate, the sturdy shock towers and finally the graphite transmission brace. In the buggy arena much discussion has occurred over which is better the aluminum tub or the graphite chassis. Both chassis' have their supporters.

It is hard to argue with the success of Associated's team drivers, using the tub, in recent races. In the truck arena things become a little less clear. A buggy, by ROAR and NORRCA standards, must weigh in at no less than 52 ounces. (3 1/4 pounds) Trucks, while operating with the same motors and batteries have to weigh in at a 60 ounce minimum. (3 3/4 pounds) At some point, there is no return on weight loss as strength and chassis integrity is lost as well. However, since the equipment is basically the same, I feel weight is more critical for truck racing.

But before I could weigh in



Top: Using the graphite motor plate on your 10T will save you a good deal of weight. Bottom: The front and rear shock towers are light, strong, and fit perfectly.

my modified RC-10T I had to build it. This is one product review I wasn't overly anxious to begin. It is a lot of fun building a new vehicle and working to get it just right. But as I looked at my RC-10T I thought, "Do I really want to do this?" I work in the electronic service industry and my motto has always been, "If it ain't broke, don't fix it."

Motto not withstanding I began. Right away I was impressed with the workmanship of all the pieces. Every part was clean and free of any burrs or other flaws. Trying to make this job as easy as possible I moved as much of the truck over to the new chassis at the same time. I was able to move both the front and rear arms with the shocks still attached in one move while moving the transmission and steering assembly next while adding in the new shock towers. The final step was to add the graphite transmission brace.

Within a couple of leisurely hours of checking, double checking, and final checking I was ready to put the wheels back on. It was after finding everything fit perfectly and that the conversion was basically effortless that I realized an important part of the project. The truck needed no adjustment whatsoever. When you look at the geometry involved to achieve this, it is safe to conclude that DA does precision work.

After adding the servo and making sure the center point was set, I quickly observed that the toe-in and camber angles were just where I left them. Further examination noted that the ride heights were where they had been on the aluminum version of the truck.

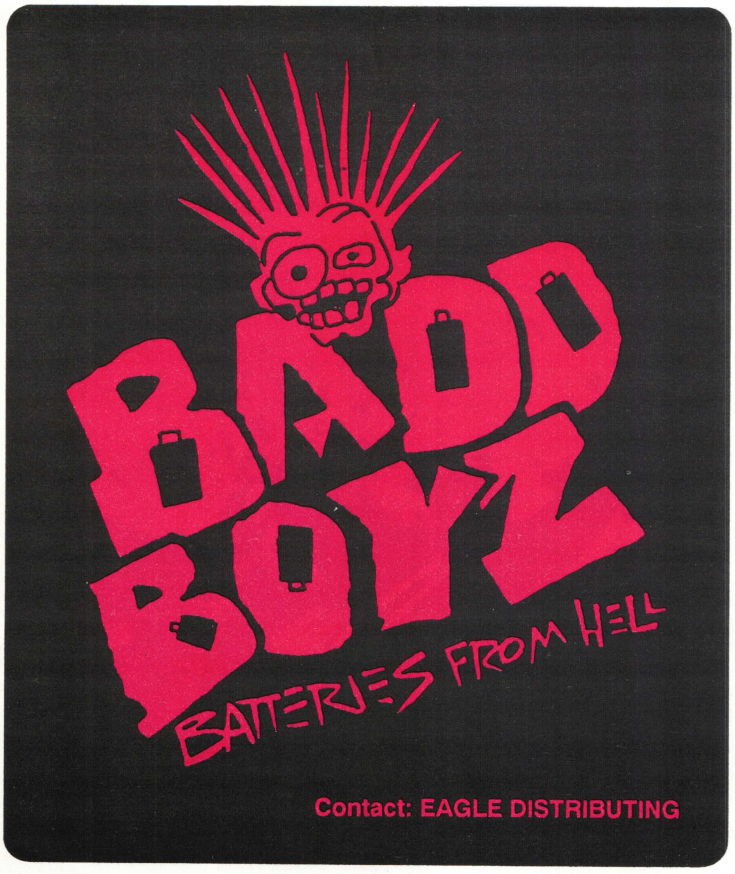
After I was satisfied that the basic setup didn't need any work I headed to the scale. Now in the interest of fairness to DA, I can't give the exact numbers that the truck weighed in at because I am not sure of my scale's accuracy. But I did weigh both versions of truck with the same Novak M1xc speed control, NER2X receiver, Futaba S-148 servo, Parma 6 cell matched 1400 SCR pack and Reedy "Mr. R" motor. My scale showed the graphite version of the truck came in nearly 2 ounces lighter than the aluminum truck. That should put the truck in at around 60.9 to 61.4 ounces. I'll let you know exactly after the ROAR Truck Nats.

On the track the truck handled just like it should. While I have always been happy with the way I've been able to make the RC-10T run, I had no complaints about the new graphite setup. If I had to point out a negative, the inside of your truck will get dirtier without the tub chassis.

After building and running the graphite conversion it was time to sit down and evaluate the cost/benefit of this package. My conclusions are that if you are a novice to intermediate skilled driver, put your money in better batteries, ESCs or tires. Or perhaps you could spend your money on race entries and practice. But if you are a regular in your club's "A" mains and are looking for that something to give you that slightest edge, maybe you need to call Dave at DA Graphite. His number is (619) 562-6123.

What is it all this going to cost you? Well, to quote Bob Andrews of Cougar Mountain Products.

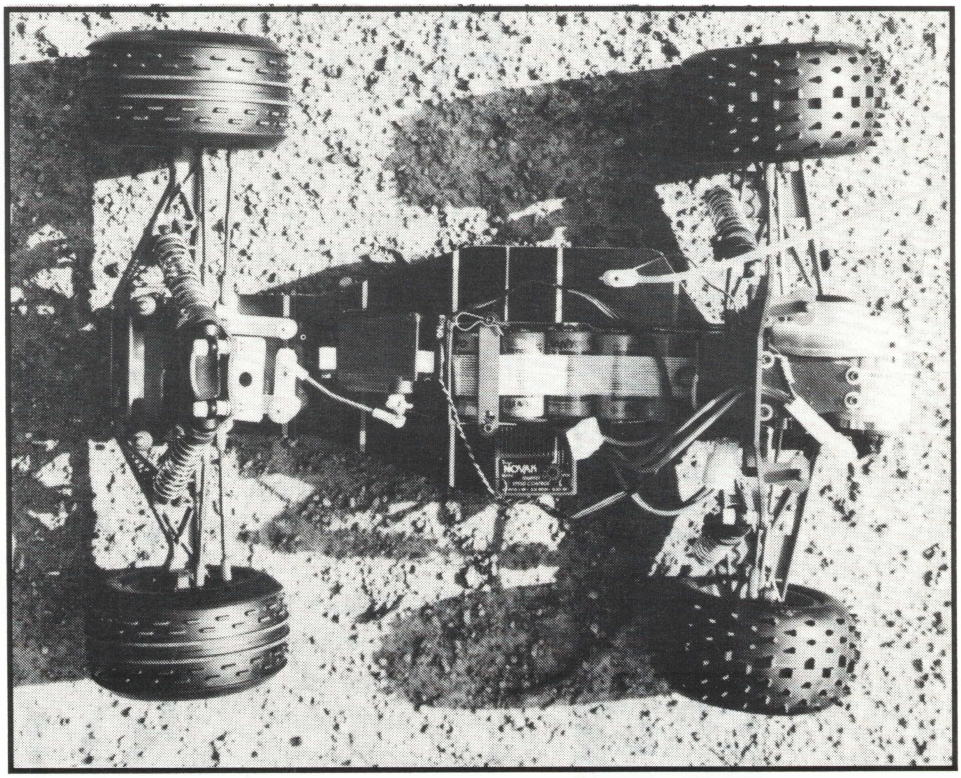
Bob may not have been the original author of this statement but it is where I first heard it, "Speed costs, how fast do you want



to go?" Here is the retail prices of all the custom graphite equipment used in this project:

Custom Graphite Chassis $123.50
Front Shock Tower $19.95
Rear Shock Tower $14.95
Motor Plate $19.95
Transmission Brace $13.95

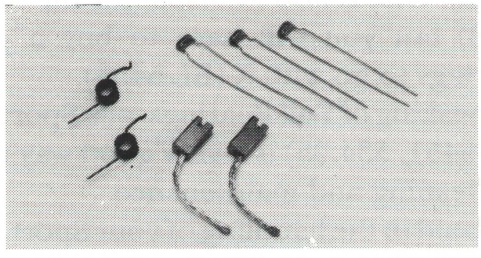
These prices may seem a little high, especially if you compare them to off the shelf aftermarket parts. But we are talking about here is custom crafted and engineered parts. If truck racing isn't your thing but are looking for an edge over your competition consider giving Dave a call and see what he can do for you. After finishing the truck I called Dave and had him make me a new chassis for my Associated 12L. (Watch out Calandra!)



Overall view of the entire graphite package; chassis to transmission brace.

★ New High Performance ★ Motor Products from Team Class!

Oval Performance Kit — #7502 — used by Chris Schneider to win the stock division at the Michigan 500. This kit contains super heavy black brush springs and a pair of our legendary soft Venturi brushes. Also included are three high frequency capacitors for your motor. Retail $6.99.



Liquid Horsepower — #7505 — used by ROAR National Champions Frank Calandra and Willy Decker. This is a revolutionary commutator and brush additive that leaves the competitors in the dust, searching for speed. Use to clean and condition, as well as power additive. Retail $4.99.

TEAM Class News

Less Radio Interference with Team Class Wire Retainers!!

Now available from Team Class are small micro wire retainers designed to keep servo, battery and motor wires in place. These small wire clips will anchor wires away from your receiver and antenna, especially important with today's high frequency speed controls. The result - less radio interference and a neater race car. Hot pink color!

Part #3303
Retail Price $3.25

Pietras and Calandra Dominate the ROAR Region 1 Offroad Championships!! 303 Entries!! Team Class 1 - 2 Sweep!!!

Team Class Not to be denied!

Class Recreational Products
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Utica, NY 13502
Telephone: (315) 724-8052
Fax: (315) 732-2034

INSIDE THE INDUSTRY

BO Knows R/C

Racing Your '91 Sport

BOLINK'S '91 Sport is the best low-priced car in the R/C on-road industry. It is a strong, simple car that can provide many hours of fun—and many accessories are available to update or improve the performance of this car.

Maintenance for the best performance of this car is basic and easy. Most important—remember to keep all moving parts clean and lubricated. Running the car without cleaning and/or lubricating the front and rear axle bushings will cause them to wear out quickly. Also the front kingpins and steering blocks should be cleaned and re-lubricated with the silicone included in the kit. The same goes for the rear suspension dampener. The diff also will need to be disassembled and cleaned fairly often, if you're running on a dirty or gritty surface.

It would be nice if BoLink's Sport included all the really neat accessories we'll talk about adding, but if it did, it would sell for about twice the price that it goes for!

We'll describe accessories for your Sport starting with the ones that will do the most good for the least amount of money, then head in the direction of the more expensive "trick" parts.

To improve the handling of your Sport, there are a couple of really cheap items to improve the front end. The first is a Kingpin Brace (BL-5192, $3.95). It goes between the kingpins and adds rigidity. To help adjust the steering, try our Sport Spring Set (BL-5143, $4.95). It contains 5 pairs of different springs from Soft to Extra Firm. The springs will allow you to soften the front suspension for more steering or stiffen it for less.

To make it easier to adjust the toe in your Sport, try our Adjust-A-Link Tie Rod Kit (BL-5287, $8.00).

To replace the nylon set screw hub that goes on the rear axle, use an aluminum one (BL-3514, $7.50). One is also available for the diff side (BL-3518) but you will have to buy a pair of ball bearings to go with it (BL-5453).

Speaking of Ball Bearings, our Sport bearing set (BL-5451, $34.95) is a very good way to cut down on cleaning and maintenance.

To aid in the handling of your Sport, add a Wing Kit (BL-2741-S, $8.95). It will give you lots more rear traction, especially at higher speeds, and it is adjustable.

If you want to make a major change in the rear suspension to make it more adjustable for different surfaces, we have a kit to convert the rear suspension to be like the Super Sport's for $39.95 (BL-5075). It contains a pivot ball, thin T-plate, two

shocks and all hardware.

BoLink also makes a variety of bodies that fit the Sport. Our Wind Tunnel Tested stock car bodies all create different effects for handling. Our '91 T-Bird (BL-2325) is the quickest, but has the least downforce. Our '92 Lumina (BL-2323) has a little more, and our '92 Pontiac (BL-2320) will give more steering yet.

If you want to make a big change for tuning your car's performance, try the Aluma-Lite Pod Kit (BL-5194, $37.95). It is a one piece rear pod with adjustable axle height. The two main advantages of the kit are it provides a better heat sink for the motor, and the adjustable axle height is a very useful tuning tool. If you raise the rear of the car by lowering the rear axle in the pod, you will transfer more weight to the front of the car and have more steering. If the car is loose in the rear, moving the axle up in the pod will give more rear bite. The pod comes with 3 sets of adapters to give 5 different axle heights.

Another high performance item is a graphite rear axle (BL-5754B). Not only does it reduce car weight, it reduces the weight that the motor has to turn. It must be used with ball bearings and aluminum diff hub.

If you really want to make your Sport different two new conversion kits are available.

The first (BL-5077) $49.95 contains our truck tires, in addition to a special axle and hubs that make a Sport 11 inches wide - and really Monstrous!

If you want to go the other way we have a kit that makes the Sport narrow enough to fit our superspeedway bodies (BL-5078) $32.95. It contains 4 special tires and a slightly narrower front axle plate.

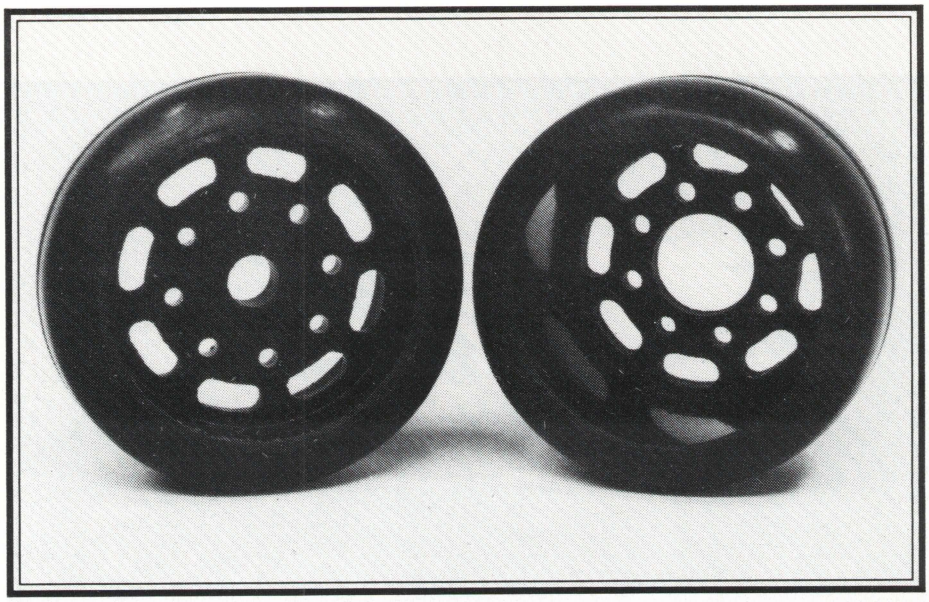
Besides all of these Sport accessories and hop-up items. BoLink has a wide variety of foam tires in all the popular compounds and the finest selection of bodies that range from stock cars to the original classics, road race bodies and more. See your local hobby shop today.

Rick Jordan

ALL NEW "Magnum PRO-10 Radials" From T.M. R/C Racing Components

All new full wrap around capped tires. The same rubber used on full size race cars. Magnum PRO-10 radials are mounted on all new carbinite wheels.

MAGNUM
PRO-10 Radials are available in 3 compounds (Red - Gold - Silver) and 3 sizes, so you can pick the amount of stagger needed for a particular track, (Left - Standard - Right). Also available are new Magnum light weight rear tires for high banked high speed tracks. T.M. R/C Racing Components Magnum PRO-10 radials will also accept T.M.'s popular turbo-wheel caps for less wind resistance.
When you need to put the power to the road look to Magnum PRO-10 radials.



T.M. R/C RACING COMPONENTS

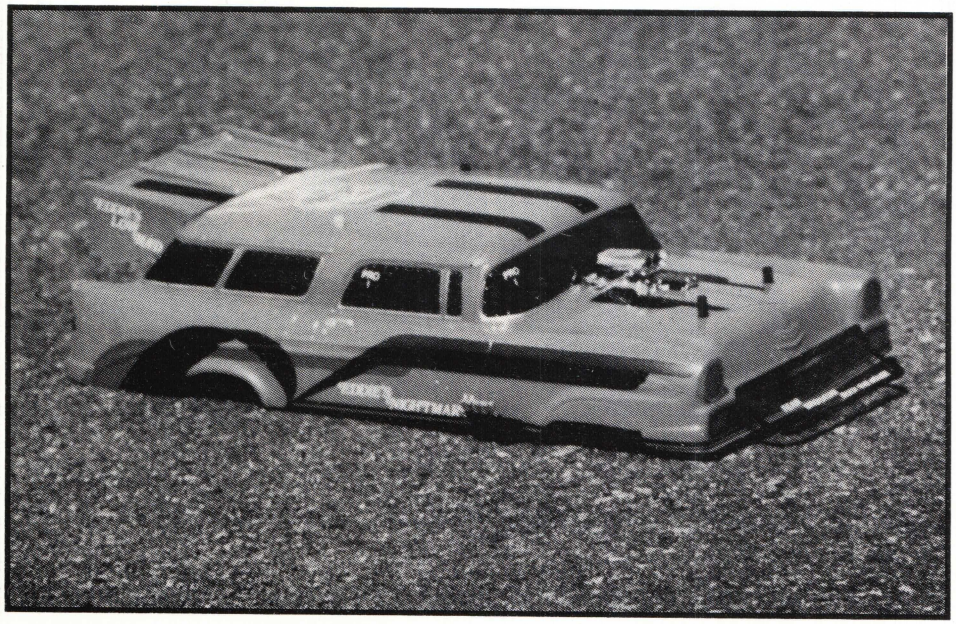
49679 Leona Dr. Chesterfield, MI 48051 (313) 949-3506 FAX: (313) 949- 3506

Straight Line Fever

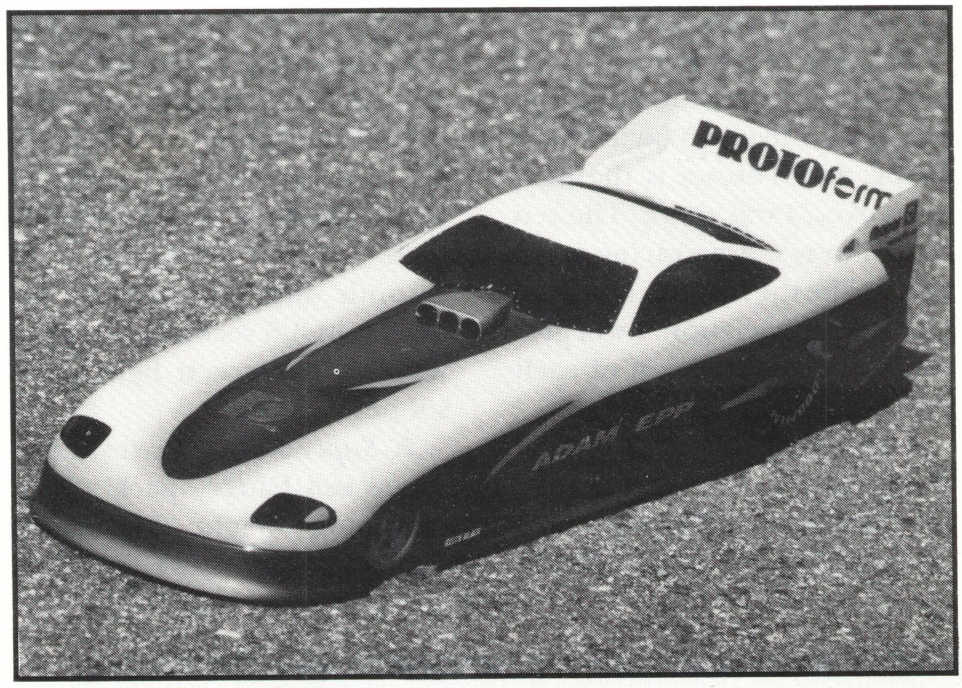
International Electric Drag Association
1992 Summer Nationals

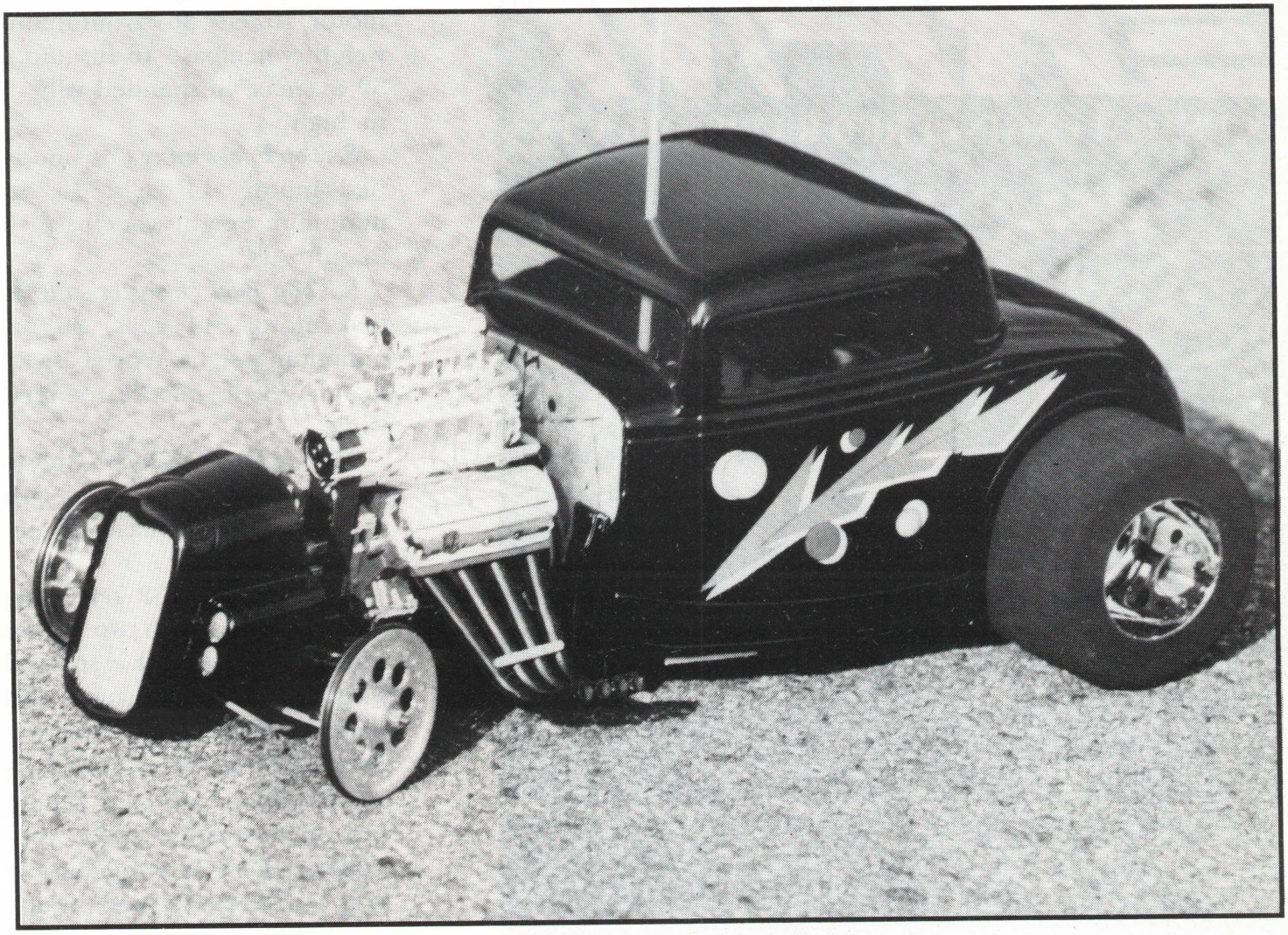
By Bob Crane

THE CHRISTMAS TREE, 132 feet from start to finish. 1.766 seconds at 74.11 miles per hour from a standing start. 20 Cells, cobalt motors, tire goop, R/C drag racing. The Summer Nationals was held on August 20-23 in Totowa, New Jersey. Kim and Tony Frank of Kim's R/C Pit Stop Hobby Shop in Totowa and their staff hosted the three day event. R/C drag racing? Yes,



Top: A super detailed Parma 34 Ford Hemi-Coupe by Donna and Mike Complitano of Belleville, NJ. Bottom: Adam Epp's Protoform Dodge "Stealth" funny car. The hottest drag body around! Opposite: "Eddie's Nightmare II" won best concours. Car was painted by Eddie Diaz. Body is '56 Chevy Nomad.





it is really catching on!

This was my first drag racing event to cover for the magazine and since I live in Wayne, New Jersey, and Totowa is the next town over, I was there. The ten classes in r/c drag racing is set up just like the NHRA, National Hot Rod Association. I will give you a brief description of each class.

1. Bracket Racing - any 10th scale electric car, any motor, any number of batteries anything goes. The only rule in bracket is that you cannot run faster than 2.5 seconds for the 1/4 mile and 1920 and older bodies on the car. Bracket racing is a handicapped event. If your "Big Foot" truck does the scale 1/4 mile (132 feet) in 12 seconds and my on road car does it in 3.6 seconds then you will get the green light a lot sooner than me.

2. Super Stock - any stock motor, 6 cell battery pack 42 oz. minimum weight. Wheelbase max. 9 in. min./11 in. max. American sedan body or coupe, no wings, spoilers only.

3. Econo-Dragster - two wheel drive only, stock motor, 7 cells. Wheelbase 16 in. min./30 in. max. 36 oz. min. weight. Newer car bodies, no wings, spoilers only.

4. Pro-Stock - modified motor, 8 cells, 36 oz. minimum weight. Wheelbase 9 in. min./11 in. max.

5. Super Comp - modified motor, 14 cells, two wheel drive, 36 oz. minimum weight.

6. Alcohol Funny Car - modified motor, 10 cells, 36 oz. minimum weight wheelbase 9 in. min./14 in. max.

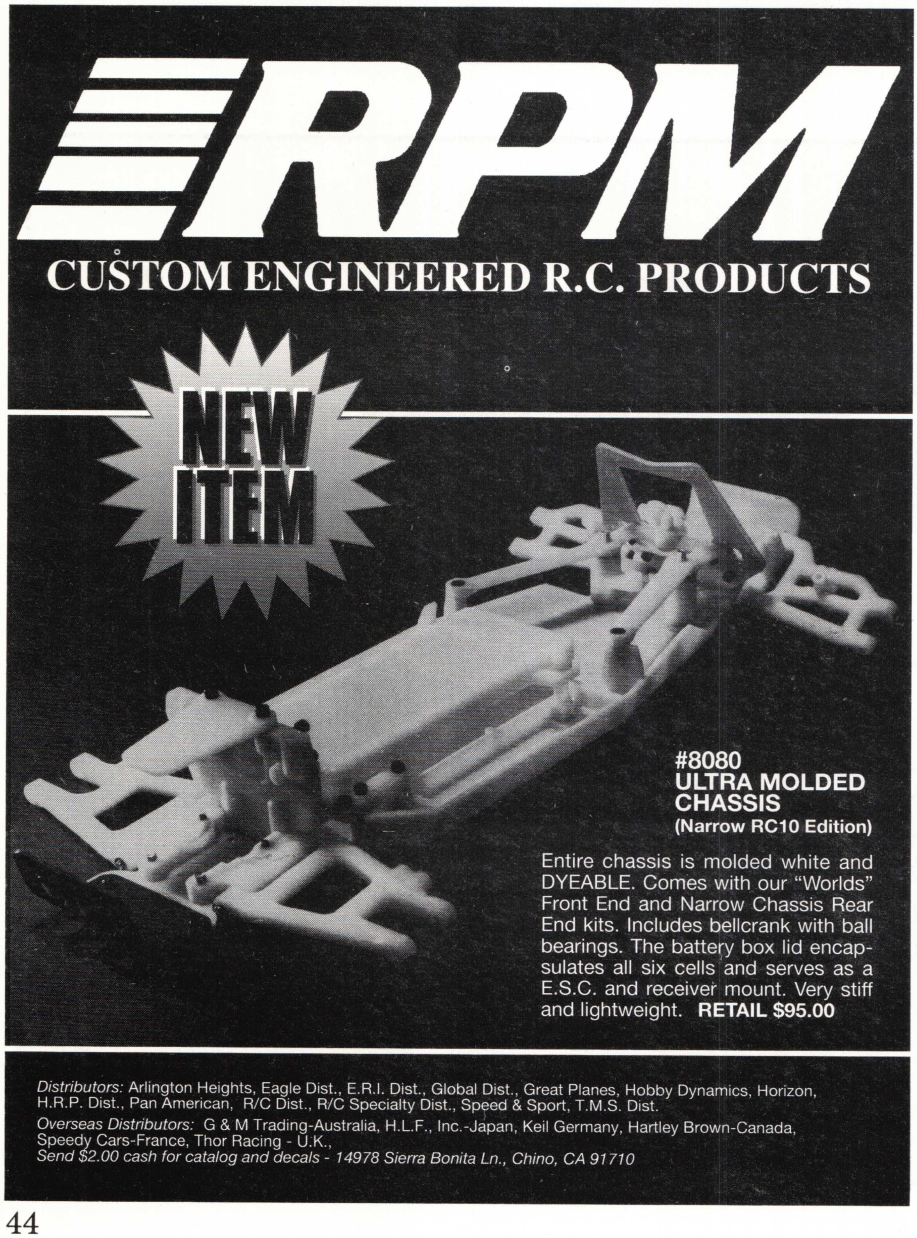
7. Alcohol Dragster - modified motor, 10 cells, 36 oz. minimum weight wheelbase 16 in. min./30 in. max. Suspended wing 8 in. high.

8. Top Fuel Funny Car - modified motor, 14 cells, 36 oz. minimum weight wheelbase 11 in. min./14 in. max.

9. Top Fuel Dragster - modified motor, 14 cells, 36 oz. minimum weight. Wheelbase 21 in. min./30 in. max. Suspended wing.

10. Top Fuel Unlimited - modified motor, 20 cells, no weight restrictions wheelbase 23 in. min./no max.

The track is 132 feet long (scale 1/4 mile) with two 10 foot wide lanes. The track is sprayed with a mixture of sugar and water to insure good traction for all 132 feet. Since most drivers use micro switches for on and off, instead of speed controllers, there is large bubble wrap barriers at the end of each



Stock Car Style & Nitro-Fueled Power



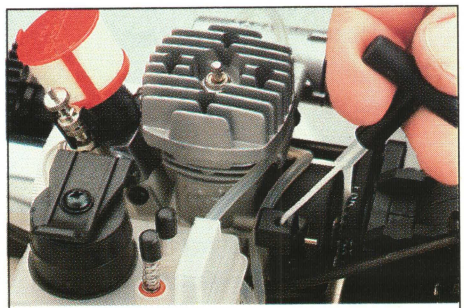
Length: 19", Width: 9.75", Height: 5", Weight: 2.6 lbs. Requires: 2-channel radio, fuel & 4"D" batteries for glow starter.

Kyosho's 1/10 scale Thunderbird puts 'em together!

If the sounds of stock cars and the sharp, sweet smell of nitro quicken your pulse, you're ready to drive the hottest new ride on the R/C circuit ... Kyosho's gas Thunderbird.

Engineered for excellence and set up for speed, the T-Bird has all the performance "goodies" a stocker could want.

Tough aluminum chassis. Fully-independent suspension, specially lowered for oval. Working oil shocks. Foam tires, already mounted and trued on genuine stock car-style wheels. A ground-hugging Lexan® Ford T-Bird body for stable cornering and blistering straightaway speed. And a vinyl decal sheet that groups sponsor logos for easy application *and* provides extra detailing (like hood pins, windshield clips, driver's side net and more) at no extra cost.



Recoil starting on the installed O.S. .12 CZ-R engine gets you on-track fast. And with the T-Bird's flip-top fuel tank and fuel bottle, you can "pit n' git" in just seconds!

And it's all powered by a 30,000 RPM O.S. .12 CZ-R that'll send the T-Bird screaming around the track like a rocket sled on rails.

You won't need a pit crew to build it, either. The shielded gear box and engine come factory-installed. Kyosho's instructions explain the rest, making building as fast and as smooth as Bill Elliott on a sunny Sunday afternoon.

There's a glow plug wrench and glow driver for fast, clean starts ... a flip-top fuel tank and fuel bottle for lightning fast pit stops ... and lots of solid speed in between.

With a fill of fuel and a pull on the recoil starter, you're ready to take the line ... and leave the rest behind.

Kyosho's 1/10 scale gas Thunderbird. For a free brochure and the location of the nearest dealer, call **1-800-682-8948, ext. 1072.**

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lane to snag the cars and not damage them.

Kim and Tony use the "Dragmaster" timing system. This system features infra-red light beam staging. When you place your car on the starting line, the nose of your car breaks the light beam and a red light goes off on the christmas tree. Simply pull your car back until the light goes off and you are staged.

As the three amber starting lights on the christmas tree advance toward the green, judgment time is at hand. If you "Red Light" or foul before the green light goes off in your lane, then you are disqualified for that run. 132 feet away is the finish line and another infra-red beam of light. As your car passes through that beam, the red light on the christmas tree in one of the lanes will light up, proclaiming the "Winner". The Dragmaster system also gives you a printout of your run, with E.T. (elapsed time), lane, miles per hour and reaction time to the lights. Kim and Tony even have night racing lights hooked up for those long race nights.

The Protoform 1992 Dodge "Stealth" funny car body and 1992 Grand Prix Pro Stock - Pro Modified bodies dominated the nationals. Combined with the Protoform "Mega" deck Pro/Mod spoiler, these bodies are really sleek and cheat the wind. Dale Epp, owner and designer of the Protoform bodies worked for 10 years at General Motors and one summer with Goodyear Racing. By the way, the Dodge "Stealth" funny car is the winningest drag body ever!! Look for a future product review on the Protoform body line.

Wild paint jobs, fast cars and the smell of burning rubber (yea right!), what a weekend. In every class there is an "A" side and a "B" side. Like the A main and the B main. Friday was for time trails and on Saturday the eliminations began. Sunday afternoon was reserved for final eliminations.

Let's get on with the winners.

Bracket/A - Ryan Weeks/2.53 E.T.
49.76 MPH/Fine Design/Trinity
Bracket/B - Ray Borges/3.28 E.T.
40.10 MPH/Laser Lite/Fine Design
Super Gas/A - Tom Girgenti/2.47 E.T.
52.85 MPH, Fine Design/Trinity
Super Gas/B - Daryl Thompson/2.51 E.T.
50.88 MPH/Fine Design/Trinity
Super Stock/A - Corbit Marshburn/3.08 E.T.
40.38 MPH/TRC/Lightspeed
Super Stock/B - Larry Lanenklos/3.12 E.T.
35.88 MPH/AJ's/AJ's
Econo Rail/A - Jim Edwards/2.85 E.T.
41.07 MPH/Fine Design/Trinity
Econo Rail/B - Brian Brown/2.78 E.T.
41.07 MPH/Scratch
Pro Stock/A - Chester P./2.04 E.T.
64.32 MPH/Fire Fox/Fine Design
Pro Stock/B - James Belt/2.12 E.T.
64.32 MPH/Fine Design/Fine Design
Super Comp/A - Chester P./1.94 E.T.
70.29 MPH/Fine Design/Fine Design
Super Comp/B - Nelson Llorens/ 1.96 E.T.
66.84 MPH
Alcohol Funny/A - Bob Smith/2.13 E.T.
59.28 MPH/Fine Design/Fine Design
Alcohol Funny/B - Ryan Koreck/2.22 E.T.
59.28 MPH
Alcohol Rail/A - Terrance Holt/2.01 E.T.
59.28 MPH/Fine Design/Fine Design
Alcohol Rail/B - Scott Capano/2.25 E.T.
51.26 MPH/Fine Design/AstroFlight
Top Fuel Funny/A - Ron Goca/2.02 E.T.
60.87 MPH/AJ's/AJ's
Top Fuel Funny/B - Elicca Saunders/2.07 E.T.
58.27 MPH/Scratch/AstroFlight
Top Fuel/A - Derrick Roth/1.85 E.T.
68.1 MPH/Fine Design/Fine Design
Top Fuel/B - Pat Scire/2.69 E.T.
33.5 MPH/Scratch/AstroFlight
Top Fuel Unl/A - Derrick Roth/1.76 E.T.
74.11 MPH/Fine Design/Fine Design
Top Fuel Unl/B - Daryl Thompson/1.94 E.T.
65.55 MPH/Fine Design/Fine Design

The following national records were broken at the Summer Nationals.

Super Comp - Chester P. - 71.77 MPH
Pro Stock - Mark Sonzongi - 1.961 E.T.
Pro Stock - Terrance Holt - 66.84 MPH
Top Fuel Unlimited - Derrick Roth - 1.739 E.T.
Super Stock - Cindy Sonzongi - 41.82 MPH
High MPH - Chris Fine - 76.6 MPH
Low E.T. - Derrick Roth - 1.739 E.T.

I would like to thank Kim and Tony Frank and their entire staff for running such a fine event. The atmosphere was festive with checkered race flags all over, manufacturers banners, food vans and a parts shop. Next year promises to be bigger and better. Join the fun of r/c drag racing. I plan to do a kit review on a Fine Design car, some scratch built articles and how to set up your dragster with Terrance Holt.

Kim's R/C Pit Stop Hobby Shop holds electric 10th scale drag racing every Sunday. Her shop is fully stocked with on-road, off-road and drag racing kits, parts and accessories. She offers custom building and custom painting services. Call Kim for more information and tell her you read about it in "Competition Plus".

Till next time...Tight Cornering!!!

Kim's R/C Pit Stop
357A Union Blvd.
Totowa, NJ 07512
201 942-5955

2 NEW "IQ" PRODUCTS

NOW AVAILABLE at your Hobby Dealer from the POWER specialists

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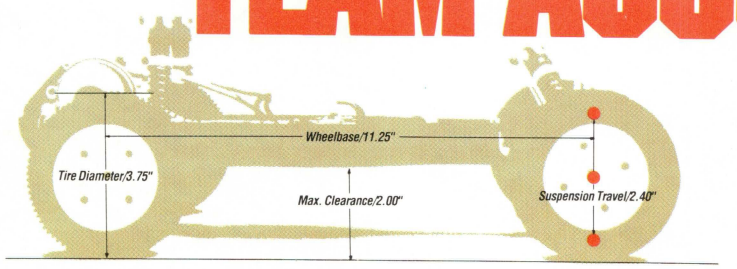

WE GAVE EVERYONE ELSE A HEAD START AND THE RC10T STILL WON ITS FIRST RACE!

When our RC10T prototypes were first rolled out to the Florida Winternationals we were up against the top truck teams from all over the world. And most of the competition had the benefit of over a year of development.

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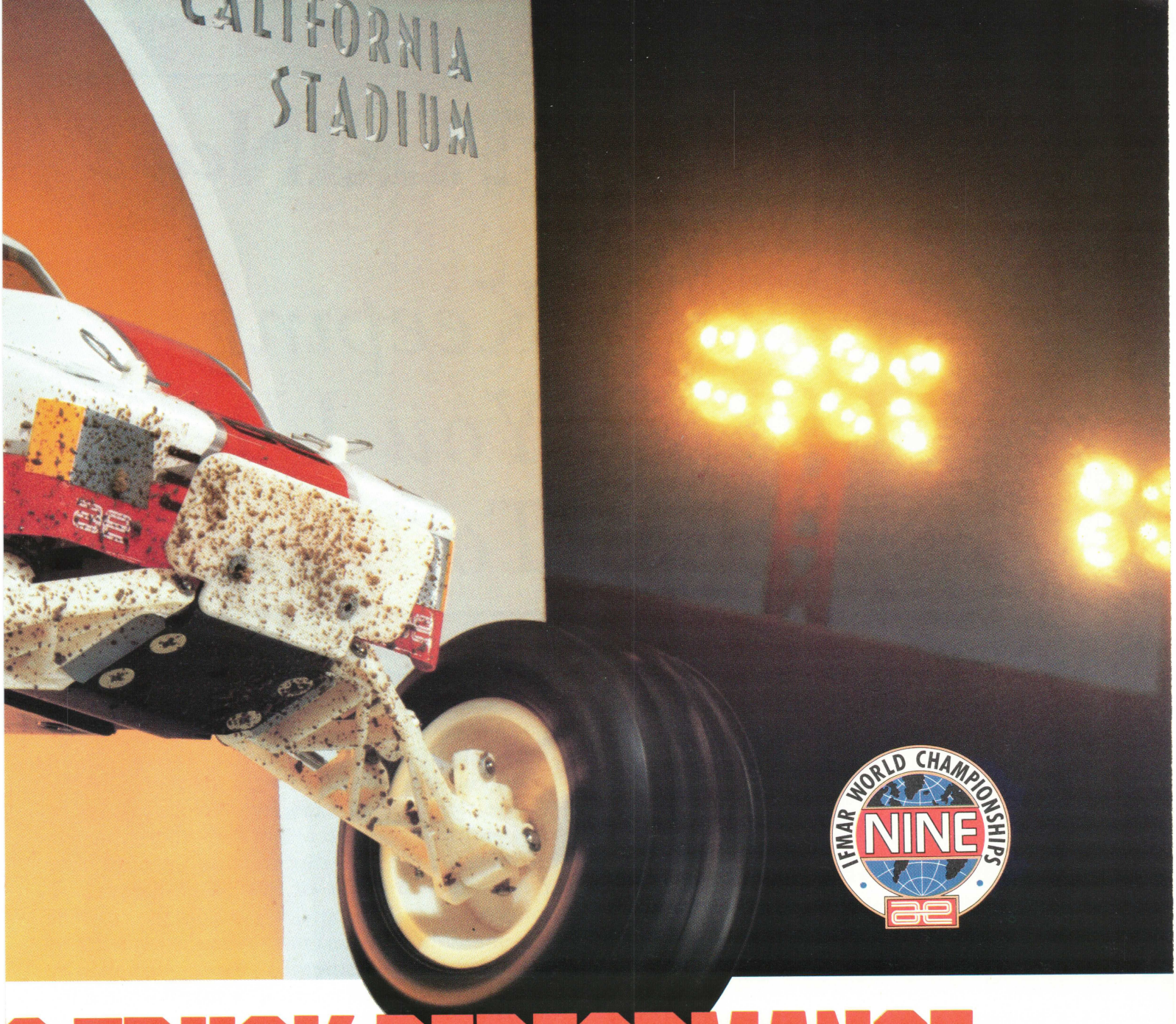
What makes the new RC10T a winner from the start is what has produced an unparalleled nine IFMAR World Championships for the Team. Every component of every Associated race car is engineered and competition-tested until there is no competition....it's the very best.

More specifically, the RC10T uses experience gained with our 2-Time World Champion RC10. In fact , the RC10T shares only the alloy tub, Stealth transmission and shocks with that legendary racer. No compromises were made. Our R&D team worked closely with ROAR specifications to produce the fastest, best handling and most reliable stadium truck available.

THE RC10T HAS WHAT IT TAKES TO OUTHANDLE THE COMPETITION.

The RC10T handles better, because its front and rear track are wider for higher cornering speeds. The longer wheelbase and special,



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narrow one-piece bulkhead make the 10T more stable. Teflon-coated shocks and extra suspension travel keep you in control over the rough stuff. Our special, lightweight stadium pickup body, vacuum-formed in clear Lexan® tops it all off, and we've even tossed in a bonus pair of trick, narrow front wheels and tires.

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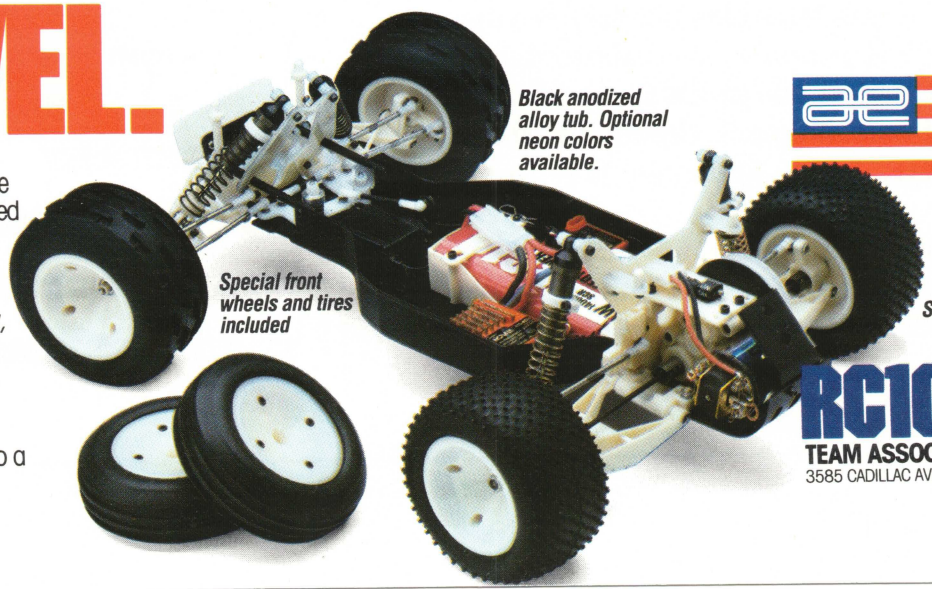


RC10T

TEAM ASSOCIATED

3585 CADILLAC AVENUE/COSTA MESA, CA 92626

INSIDE THE INDUSTRY

TEKINews

Keeping You Up To Date

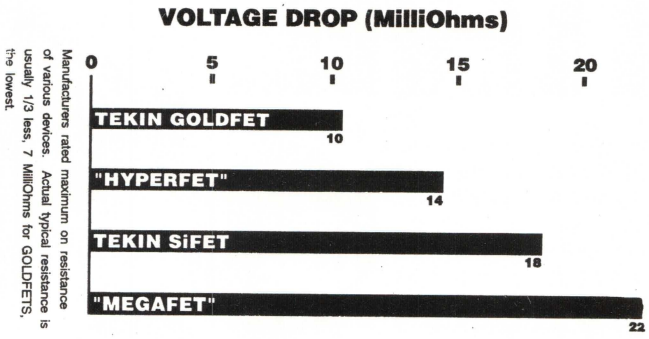
THE FIRST ever inaugural 1/10th scale on road world championships were held recently at The Ranch Pit Shop facility in Pomona, CA. Team Tekin had many very fast drivers qualified for the event, all of whom did an excellent job. Ralph Burch of Team Cam Motors led with an overall 4th place qualifying, followed closely in 5th by Mike Swauger of Reedy Associated team. Both these top notch drivers did an excellent job of driving at a level that required every last millisecond of speed. Despite rumors of some specially modified speed controls being used, these drivers used box stock, standard production, over-the-counter Tekin 411 G Goldfet speed controls. They performed under heavy current loads with super hot motors, and a blistering hot track surface with no overloads, overheating, or shutting down. No easy feat. In the mains Ralph came out of nowhere to take 2nd the first run. He was one of only a few drivers to make 17 laps in the mains. He finished 5th overall. Mike finished 8th overall in the world, in his first real electric race!

In other news, young Mike Fletcher has been the "Texas Terror" this summer. He captured two national titles. The first was in 2WD modified at the Norrca Off Road Nationals, then in the stock class at the ROAR Truck Nationals. Way to go Mike!

Not to be outdone, Bruce Chamberlain picked up a national title at the NORRCA Off-Road Stock Truck National Championships. He used a 410 K.

Tekin will be putting on it's own "Tekin Challenge" race this fall. This one will be an off road race with an unusually tricky track. It should be a lot of fun. Watch for a report.

A 2.2 uf capacitor will absorb a different band of motor noise than a .1 uf ceramic capacitor. The 2.2 uf tantalum capacitor included with all Tekin speed controls provides better interference protection than a .1 uf capacitor. While the 2.2 uf capacitor may result in a .5 to 1 second reduction in run time, the added protection far outweighs the nominal loss. Use of the 2.2 uf capacitor is optional with Tekin speed controls for cases of extreme radio interference. When using a 2.2 uf tantalum capacitor other than the one supplied by Tekin with the speed control, be sure it is rated for 25 volts or more. It should never be used with a reversing unit. No Tekin speed control will be damaged if a 2.2 uf or other motor capacitor is not used on the motor.



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AWARDS: 1ST-5TH ALL "A" MAINS
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RULES: ROAR RULES APPLY
STOCK MOTORS WILL NOT BE SUPPLIED
ONLY ROAR 24 DEGREE MOTORS PERMITTED

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CITY_____ STATE_____ ZIP_____ PHONE_____

CLASSES [CIRCLE]	2WD STOCK	4WD STOCK	TRUCK STOCK
	2WD MODIFIED	4WD MODIFIED	TRUCK MODIFIED

2WD FREQUENCIES	1ST_____	2ND_____	3RD_____
4WD FREQUENCIES	1ST_____	2ND_____	3RD_____
TRUCK FREQUENCIES	1ST_____	2ND_____	3RD_____

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1992 TOYS FOR TOTS RACE

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Cell Conditioning & Nicad Memory Theoretical Research Results

By Jeff Pack

THIS IS A follow-up article, from the last one on my "variable amperage" discharge system. The heading is somewhat misleading though, given that nicad memory has always been applied towards capacity, rather than performance. Allow me to proceed.

We all should be familiar with the term "nicad memory". For those who aren't, (to put it in it's simplest terms), is that nicads tend (if not discharged completely), to build up what is called "memory". The result we see as racers, is a loss of capacity. Refer to my past article on "Deep Cycling", for more information on this subject. Now to the heart of the article.

The term "cell conditioning" is an often abused term, used by some battery matchers who try to explain why their batteries are better than the others. The truth be known, with constant current, there is only so much "conditioning" that can be applied, because this is where "memory" falls into place.

In reality, there are "two" types of cell memory. The above "capacity" memory, and then there is "performance" memory. The second is key to battery conditioning success. Just the same as a cell remembers where it was discharged down to, it also remembers "how" it was discharged. The was a key find, in the development of my variable amperage discharge conditioning process. I've spent many years adapting my process, around this. But this is still "theory", as there is no scientific explanation of why this happens.

I've discussed this with numerous other nicad research groups, and their findings conclude mine, although we are still at a loss to explain why. Numer-

ous theories abound, but nothing concrete.

If we agree that the above is correct, then you will realize why constant current discharge is applicable only to certain forms of RC racing, where "performance" memory falls in line with the current demands placed on the cell. Thus you can create a form of cell "conditioning" (you are really creating a different performance memory), by discharging at higher amperage loads. Remember when you used to discharge at 10 amps? Now battery matchers discharge at 20 amps, and some at 25 and beyond. We believed this was because the motors were drawing more amperage and, as thus, we needed to discharge cells equivalently, so we would know the cell could withstand the load requirements. While this is true, this was only a piece of the puzzle, and performance memory takes the rest.

This is because if you could see the actual "power output" of cell (power = amperage (squared) * internal resistance), you would find a cell discharged often at 20A, when discharged at 25A, looses power output. Internal resistance curve goes up, temperature goes up, and power output goes down. This is because you are "counter" conditioning the cell, by discharging it differently, once performance memory has set in. This is the heart of performance memory. If you want to try an experiment, which will dramatically show performance memory, start with a new nicad cell. Discharge itat 20A to 1.0V. Now discharge the rest of the cell at 5A. Repeat this, say 10 times. Now put a pack together, and run it on the track. You will find that towards the tail end of the discharge curve, you will noticeably loose power. This is performance memory, at its worst. Now this is an extreme example, but the same holds true in other cases, it just isn't as noticeable. I'm keeping this article short, as I'm not sure that I'm being clear enough, or too simplistic, or too "theoretical". As always, it's you the reader that determines what we writers write about, and whether what we write is of interest to you. So any feedback is appreciated.

I've tried to at least give you a glimpse into some current nicad theory, and how its applies to RC usage, and maybe even given you a few ideas to play with, (or at least think about), the next time you are buying cells, or discharging them at a race.

As always, you can contact me at the "Pack Shoppe" (but I'm very busy these days) (206) 838-7293, or else on Compuserve, in the ModelNet Forum, RC-Cars section.

CP

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INSIDE THE INDUSTRY

Twister's Unfair Advantage

Everything You Want To Know About Shocks

OVER the past few issues of CP I have explained some of the basics of handling. To close out the series about handling, I will explain how shocks work. Before I get into the last handling article, about shock absorbers, I'd like to talk about the stock lathe. To demonstrate the effectiveness of the stock lathe Twister employees, Eddie Knowles and Alfredo Duran, went to the RC Thunderdome race and cut stock commutators for free. How about over 150 commutators! The racers loved it and the stock lathe proved its value when the racers found they could bring their tired motors right back to new condition. We even cut the winners commutator shortly before the expert stock A main. Next month I'll explain more about the stock lathe and what it can do for you.

SHOCK ABSORBERS

The spring actually absorbs shocks caused by bumps and dips in the road. But, if springs absorb shock, then just what do the shock absorbers do? The primary purpose of the shock absorber is to dampen vibrations or oscillations of the spring. In other countries, shock absorbers are called dampers. The goal is to keep the spring from bouncing beyond one full cycle. If you have driven a car with bad shocks, you know how uncomfortable the ride is when the car bounces over every bump, dip and rut. The properly set up shock absorber stops this.

Shock absorbers use friction (created with oil) to control the bouncing motions of the spring when a bump or dip is encountered. The greater the friction, the stiffer the shock absorber rate is. If the friction, or rate, is too high, the ride is stiff and much of the movement caused by the bump is fed through the suspension into the vehicle. If the shock absorber rate is too soft, then the vehicle will continue to bounce, or oscillate, after hitting the bump. The shock absorber also works during body roll, and has an effect on the handling characteristics.

A shock absorber works by controlling the movement of fluids, usually oil, through valves. A piston with small holes is connected to the shaft of the shock absorber, and moves up and down as the shaft moves in bump and rebound over surface irregularities. As the piston moves up and down the fluid is forced through the holes. The size of the openings, the type of fluid, and the piston speed all determine the rate of the shock absorber.

The shock absorber has two jobs. First it must

NEW YEAR'S OFFROAD CHALLENGE

January 2 & 3, 1993

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2WD Stock
2WD Mod
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Truck Mod

Stock entry includes Trinity stock motor

-Off road Only-

AT: WAGONHILL HOBBIES

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ENTRY INFO

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- Trophies A Main 1st thru 10th
- Other mains 1st thru 3rd

NO ENTRY REFUNDS

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  12:00 - 8:00 P.M.
- Saturday Jan. 2 - Practice
  8:00 - 10:00 A.M.
  3 Qualifers - 11:00 A.M.
- Sunday Jan. 3 - Practice
  8:00 A.M. - 10:00 A.M.
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control oscillations of the unsprung mass: the wheels, tires, brakes, hubs, etc. Second, the shock absorber must control the sprung mass (everything supported by the springs) of the car. The spring does most of the work in bump travel, while the shock controls the return motion through rebound travel. Over dips, in rebound travel, the shock slows the downward movement of the body, allowing a more level ride.

The spring rates used in competition are somewhat higher than the typical production car. The valving in the shock absorber must be stiffer to work with the stiffer spring rates. This is accomplished by using heavier oil or smaller holes in the piston. If the shock absorber rates are to soft (oil too light or holes too big) for the springs, the car will continue to bounce over bumps, dips and ruts, not a desirable situation. On the other hand, if the shocks are too stiff for the springs, the shock absorber will over-power the spring, keeping it from working. A shock absorber which is too stiff will also cause a harsh ride, which often causes the tire contact patch to leave the road surface over bumps especially if the spring rates are also too high, or the suspension travel is too little. This can cause a loss of traction over bumpy surfaces. Stiff shocks often result in "jacking up" where the ride height goes up and is held there by the overly stiff shock absorber. Again this is a bad situation.

Between these two extremes is a fairly broad range of shock absorber rates that will provide adequate dampening, and considerable fine-tuning capability. Adjusting piston hole sizes or oil weight allows very fine tuning of shock absorbers for different tracks and drivers.

The big difference between the standard production car shock, and a high performance or competition version is the shock absorber travel (the distance over which the energy is absorbed by the fluid in the shock absorber). Where a standard production car may have 1 inch of total wheel travel, the high performance car may have 1.5 inches of travel. The same car used for oval competition may be limited to .4 to .5 inches of travel. The same work must be accomplished over a much smaller distance of piston travel within the shock absorber. This requires very different valving within the shock.

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THE SHOCK ABSORBER & WEIGHT TRANSFER

Shock absorbers have a great influence on handling. We have discussed weight transfer, and the shock absorber affects how quickly weight is transferred. This determines the responsiveness of the car during transitions in and out of turns.

Since the shock absorber controls how quickly weight is transferred, this makes the shock absorber an important tuning tool for handling response. By alter-

ing the shock absorber rates in bump and rebound, we can change the rate of weight transfer. How quickly weight transfers while turning into or exiting a corner will affect the handling balance of the vehicle until all weight transfer has occurred.

Weight transfer occurs more quickly when the shock is stiffer. Let's look at an extreme example to illustrate this. If we had solid shock absorbers, the weight would transfer from the inside to the outside instantly, since the shock absorber cannot move. All forces pass through the solid shock with no time needed for the shock absorbers to compress or extend. With no shock absorber at all, weight transfer would be very slow. As body roll takes place, the springs would begin to oscillate, forcing the weight transfer to take a considerable amount of time. By stiffening the shock absorbers, we have quicker weight transfer. By softening the shock absorbers, we have slower weight transfer. This of course assumes that the range of valving is correct for the applications.

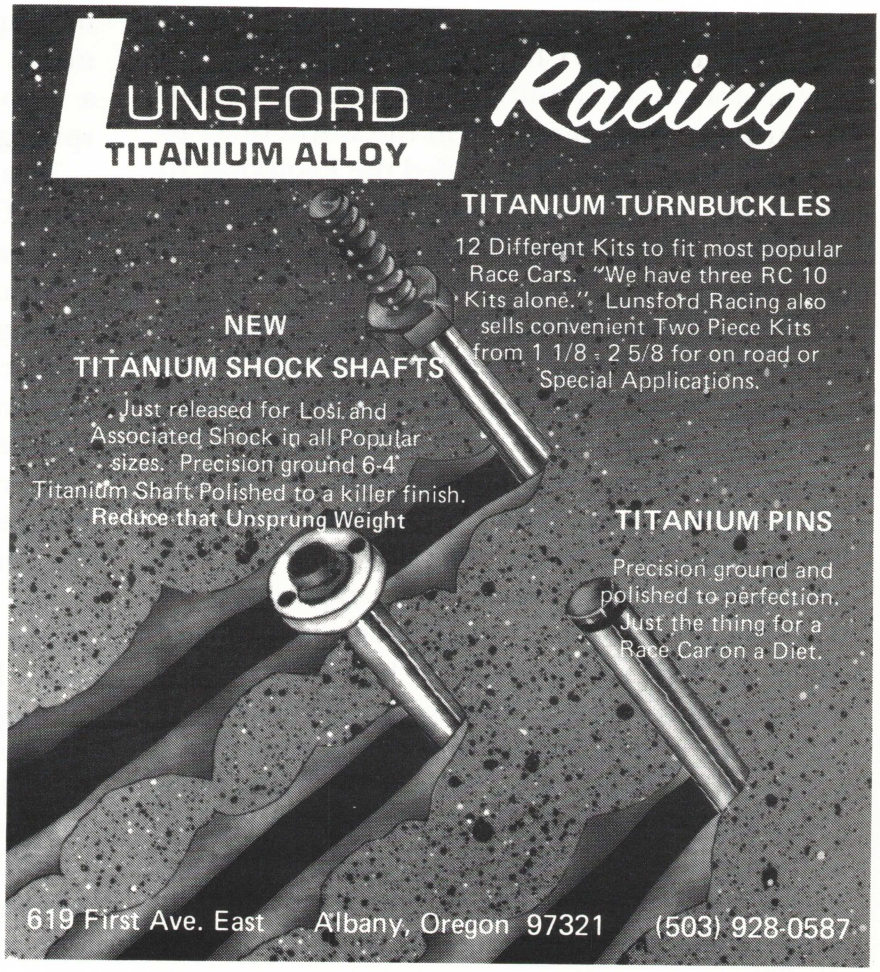
The overall effect of changing shock absorber rates alters the responsiveness of the vehicle. Stiffer shock absorber rates mean quicker weight transfer and faster vehicle response. Softer shock absorber rates slow weight transfer and reduce responsiveness. This has a substantial affect on the vehicle "taking a set" in a turn.

TAKING A SET

Essentially, a vehicle takes a set after all weight transfer has occurred. Let's examine the process. First the driver initiates a turn by moving the steering. The front tires assume an angle, which generates a force. That force reacts at the roll center and then at the center of gravity, causing weight transfer and body roll to take place. The angles at the outside tires will increase as the cornering force builds and as weight transfer continues. The quicker the weight transfer occurs, the quicker the car will take a set. The car has taken a set when maximum cornering force is reached and all weight transfer has occurred. Since the shock absorbers control how quickly weight transfers, they control how quickly the vehicle takes a set. Since responsiveness is important for improved handling, we want the vehicle to take a set quickly; the quicker the better, right? Maybe no.

Can a vehicle take a set too quickly? Yes! On off-road cars quick handling is more important than stability and ease of driving. Quick response makes driving through traffic and tight turns a breeze. The same quick responding car would be almost impossible to drive on a high speed concrete oval track. For oval racing we don't want the quick set approach to handling. A little slower response results in a very stabile and easy driving car, and of course more trips to the winners circle.

Mike Walker
CP



INSIDE THE INDUSTRY

When You Got To Have More TRINITY® Corner

The Evolution

THIS year the first ever 1/10 On-Road World Championships was held at the Ranch Pit Shop in Pomona, CA. If this race was carried in Vegas you could have received great odds that a brand new car that had yet to run a lap on the track would win the World Championships, especially on Associated's home track. At this historic race we did just that. We won the first ever IFMAR 1/10 World Championships with a brand new prototype car. Trinity debuted what proved to be a truly revolutionary car in the world of 1/10 on-road racing. The car is called the Evolution 10 and I was lucky enough to pilot the prototype Evolution 10 to a World Championship in its very first outing.

After practicing for three days at the Ranch with my 10L, Trinity's new ace car designer Jim Dieter shows up on the second to the last day of practice with a car that had never been run. Jim said, "The higher-ups in the company want us to try this car". After the first look at the car I thought "no way". It was different from any on-road car I had ever seen in my seventeen year career, and the Worlds is not the place to work out bugs on something so different. Well, curiosity got the best of me (not to mention satisfying the Big Wigs") and I decided to try it at the end of the day. Jim made an educated guess on the setup and we set it on the track. What I looked at as another way to design a car, Jim saw as the right way and boy was he right. After only two minutes running on the track we were turning some of the fast laps of the day!

The Evolution features many things you won't find on many other cars such as: Low Polar Moment battery mounting system, a "Reactive Caster Suspension System" front end, .110" Zero Flex Pencil graphite chassis, a Pro-Diff, Reduced Unsprung Weight pivotal rear and geometry and the Triad rear dampening system. All this and at a weight of around 40 oz. Two ounces under minimum.

Lets start with the advantages of the LPM battery system. This system of mounting the batteries allows all six batteries to be mounted down the center of the chassis keeping the heaviest component centered on the center line of the car, thus making the car more responsive left to right. What makes this battery position possible is the lack of a T-bar and the addition of our Reduced Unsprung Weight pivotal rear end geometry.

This rear end has only one pivot on the center axis of the car that is placed as close to the motor as possible to reduce the effect of this mass of unsprung weight the motor creates. Lack of unsprung weight is very important to a good handling car. The rear end is kept in line by two outer tracking rods and the dampening duties are handled by our Triad rear dampening system. This rear dampening system consists of three independently adjustable coil over shocks to handle the roughest track surfaces.

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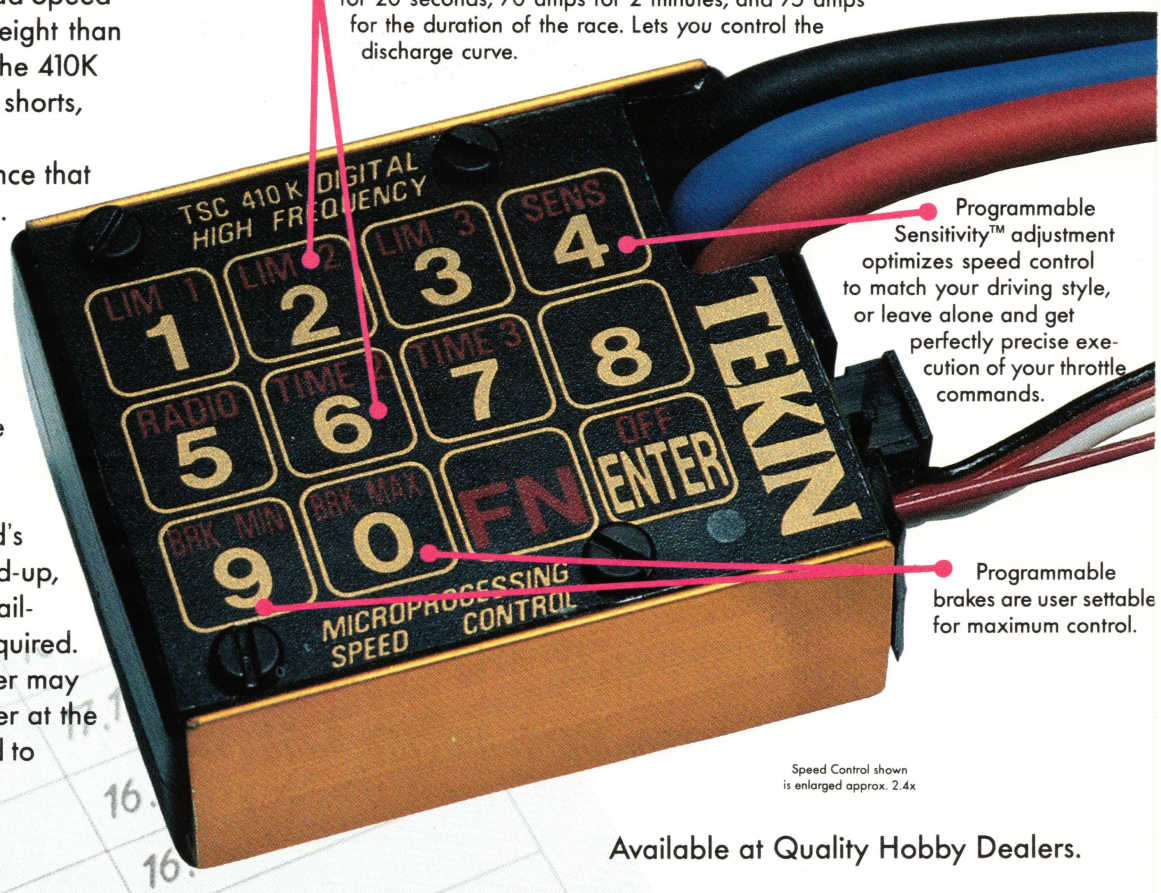

Speed Control shown is enlarged approx. 2.4x

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Region 5's

ROAR At Ameri-Trac

By Kent J. Heiden

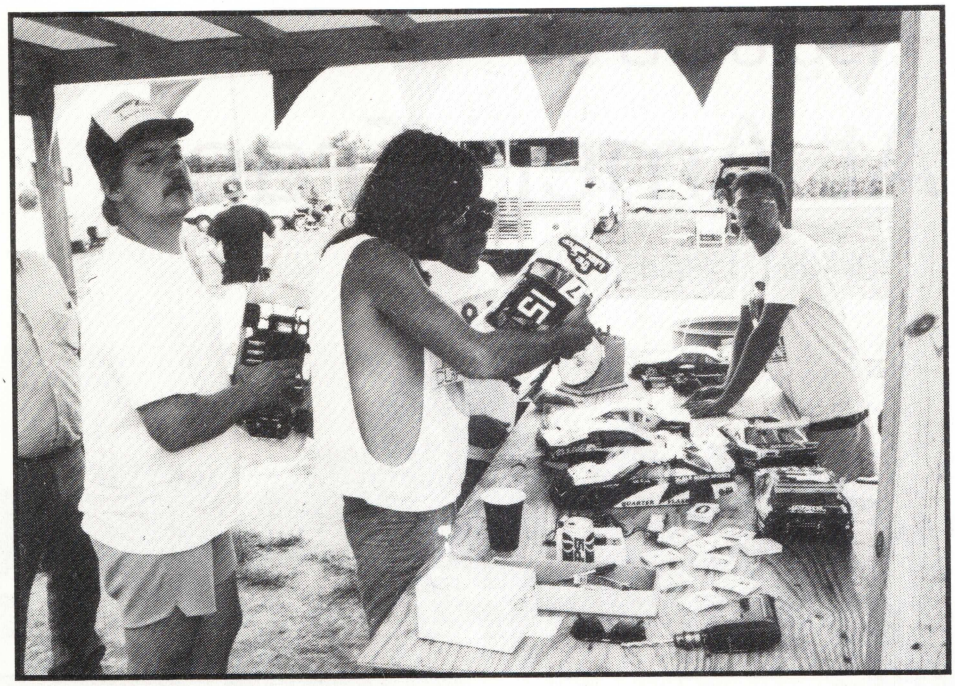
ROLLING FROM the starting grid, the pressure starts to build. You feel the wind in your face as you plunge to the inside of turn number one. The intensity of the twelve degree embankment pushes your driving skill to the edge of the envelope, sling-shotting out of turn one, the wall flashes for an instance, as the long back straight unfolds in front of you.

You mash the throttle with the pack closing in, and your car screams down the straight with the nation's best shortening your lead. Reaching the point of explosion, your motor continues to climb to the red line limit. You feel the power in your hands as you become one with your machine. Turn two is a blur at wide open, in and out of the ten degree banking you feel victory within your grasp as turn three suddenly appears .

Holding the perfect line into turn three's eight degree banking, and approaching the start/



Awesome describes the parade of cars lead by the Stock and Modified A main winners.



All cars were inspected in the Tech Area before and after leaving the race track. Official looked for correct weight, height, batteries and motors.

finish line, your nerves tingle as the pack begins to attack. Backing off the throttle to hold your line, you see the first challenger dart to your inside. Slamming the door closed; you defend position. You have completed lap one.

You have just experienced a small sample of what more than one hundred and fifty racers were thrilled too, during the recently held ROAR Region 5 Oval Championships at the Ameri-Trac Super Speedway in Mattoon, IL. The weekend of July 10, 11, and 12 the Sassy Chassis sponsored Region 5's erupted with an event filled with broken records and innovative progress for the entire sport of RC Racing. A large crowd on hand enjoyed an exciting racing weekend, testing the bonds of speed.

Track owner, Larry Annis, and Sassy Chassis owner Larry Papi, the major sponsor of the event, joined to bring the racers the best in super speedway racing. Larry Papi donated a pile of Sassy Chassis goodies that were given away as door prizes. Sassy Chassis helped make the Region 5 one of top races of the summer. The new Sassy Chassis TTB-10 also added extra excitement on the track with increasing lap times in every round. The new TTB-10 is Larry's own handy



work, and it will continue to grow in popularity with each race.

Ameri-Trac owner, Larry Annis, worked hard all weekend to answer the racer requests and to make the Region 5 a race to remember. To keep up with the fast progress of RC racing, Larry has always been ready to listen to new ideas on how racing can be the best at Ameri-Trac. This weekend was no different. The classic forty drivers suggested to Larry the idea of a rolling start. After the okay from all the classic drivers, Ameri-Trac showed the way with its first rolling start. As the veterans of RC rolled towards the start, the smiles on the drivers stand told the whole story. Good job Ameri-Trac!

Ameri-Trac and the sponsors did a great job, and the racers provided racing excellence second to none. The heat postings looked like a listing of the super speedway's best, with names like Dave Pulfer from McAllister, Chris Schneider driving for Fantom and Big Dog, and Jim Dieter from Trinity. Along with the familiar names of the veterans come a whole group of young and hungry drivers, from eight (and a half) year old Ricky Shilts sponsored by Team Arlington and Dad, the first to break the old stock track record at Ameri-Trac, to Craig Evraets the modified Top Qualifier driving for Tekin and Hyperdrive. A total of nine records was broken, while drivers tested the bonds of speed and driver abil-

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ity.

The shattering of records could be heard all weekend, beginning with the first round, when Ricky Shilts broke the old stock record set by Franklin Hammitt's 32 lap 4:04.29 with a 32 lap 4:03.59. We will all be hearing more from this youngster in the future, who ended up qualifying fifth for the A-main, and took home the eighth place finish.

After Ricky's record three other drivers took turns holding the fast changing record in stock. Blaine Godbey from ESP Racing Batteries, Tony Christen sponsored by Composite Craft and Tekin, and Rusty Westerman with JR Propo sponsorship all set record times, but Greg Kraios stepped up to take command of the stock record with a blistering 33 lap in 4:06.79 in round three, taking the top qualifier for stock.

The modified drivers refused to be showed up by the record breakers in stock and demolished the old modified record held by Frank Boling with a 35 lap 4:06.46. Four drivers in Modified took turns increasing the record pace: first George Berkowitz, driving for Fantom and PowerPush, second Chris Schneider, third Dave Pulfer, finally Craig Evraets clinched the title of record holder with an explosive 35 lap 4:03.90, taking top qualifier in Modified. The number of records broken thrilled the entire crowd at Ameri-Trac, but the thrills were far from over.

The A-mains in Stock and Modified will live on at Ameri-Trac because of the non-stop action, from the aerial crashes to the hard nose driving displayed by the winners. The A-

The happy competitiors all came out to show off their rides.

main in Stock and Modified were both captured by best friends, George Berkowitz in Modified and Greg Kraios in Stock. These two guys traveled to the race together and took home enough hardware to make Masami envious. Both of these young drivers showed patience and skill that allowed them both to come from the middle of the pack to claim first place. George was closely chased by Brad Hayes and Dave Pulfer, but he controlled the pressure from the ever present Hayes and Pulfer to hold on to the victory. Greg had more intense problems with Steve Scaggs, Rusty Westerman, and Brian Fairchild whom all finished within seconds of Greg's screaming fast Bolink. The courage and determination George and Greg showed will be an inspiration to all involved in the sport of RC. As for having fun, the two A-main winners were certainly not disappointed with the events of the weekend.

The Classic Forty A-main and the Novice A-main were as filled with excitement as the rest of the mains. John Hayes captured first place in Classic Forty with his 10L, after a battle with Dick Shilts. The Novice class was dominated by Guy Brocato, who finished the race a full two laps ahead of the field.

After a tremendous day of racing, the parade of cars and concourse were the icing on the cake. The Ameri-Trac Speedway was decorated with a double line of cars that spectators and racers could only describe as AWESOME! The Nascar paint jobs brought flash backs of Winston's finest, and visions of Daytona and Charlotte before their five hundred milers. Leading the two lines of dazzle and shine, the two A-main winners in Stock and Modified received the honors of the front positions.

The concourse judges had a tough decision picking the best out of so many detailed machines, but Chuck Giannone's "Food Lion Dinner Bell" Oldsmobile body captured the judge's eyes. Chuck's painting and detailing work is becoming famous at Ameri-Trac. Chuck took home first place in the Midwest Oval Championship in May and donated the body to Ameri-Trac, who in turn awarded it to another racer as a door prize. During the ROAR Region 5 Chuck's generosity continued, he awarded his winning "Dinner Bell" body to eight year old Ricky Shilts, who finished eighth in the Stock A-main. The RC spirit will continues to grow with gentlemen like Chuck Giannone and with young racers like Ricky Shilts showing us the way.

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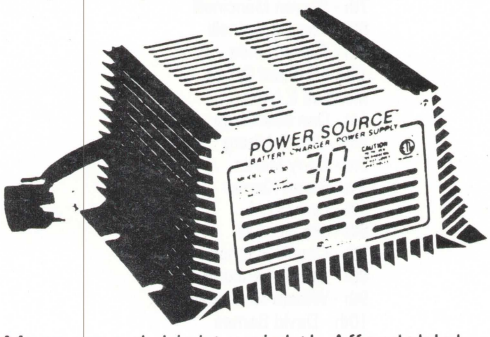

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Ameri-Trac gives a big thank you to all the racers and spectators for helping make the event a success. Ameri-Trac wants to extend its warmest thanks to the major sponsor Sassy Chassis, and all the other sponsors who helped with their generous donations: K & S. Racing Products, B & T Racing Team, Bolink, Associated Electrics, Mr. Bones Super Cells, Lite Speed, Competition Plus, R/C News, Tekin, Novak, T.D. Enterprises, Lunsford Racing, and Mad Dog Products. Ameri-Trac is looking forward to a future with ROAR and all the sponsors who helped make the ROAR Region 5 a success.

Novice A Main
1st - Guy Brocato
2nd - Tony Fraske
3rd - Steve Claxon
4th - Jeff Schultz Jr.
5th - Erik Louis
Classic Forty A Main
1st - John Hayes
2nd - Dick Shilts
3rd - Chuck Rencurrel
4th - Roy Bohnsach
5th - Larry Papi
6th - Rolly Adams
Stock A Main
Handout motors (Slot Machine)
ESC/Batt./Chassis
1st - Greg Kraios
Tekin 411G/PowerPush/Bolink LTOSS
2nd - Steve Scaggs
Tekin 410K/Parma/HyperDrive H10RS
3rd - Rusty Westerman
Tekin 420F/PowerPack/Lynx II
4th - Brian Fairchild
Novak/Turbo Schacht/10L
5th - Tony Christen
Tekin/Team Smooth/10LSS
6th - William McCauley
Tekin/QuarterFlash/10LSS
7th - Blaine Godbey
Novak MS/ESP-1400mah/Bolink LTO
8th - Ricky Shilts
Tekin 610/Trinity/OM-10
9th - Mike Lloyd
Novak/PowerPush/10LSS
10th - Greg Green
Tekin 411P/ESP/HyperDrive RS
Stock B Main
1st - Scott Linder
2nd - Nick Cacciola
3rd - Mike Verleger
4th - Rick Schoenherr
5th - Rick Rients
6th - Ian Rutledge
7th - Demetrius Pitchford
8th - Jim Fehlberg
9th - Jim Westerman
10th - Dick Shilts
Stock C Main
1st - Michael Steineke
2nd - Franklin Hammitt
3rd - Ed Robinson
4th - Chuck Mackin
5th - Larry Martin
6th - Bob Hendery
7th - John Buckley
8th - Danny Douglas
9th - Steve Lafara
10th - Jim Rumph
Stock D Main
1st - Craig Lewallen
2nd - Jason Crawley
3rd - Monty Panzica
4th - Lance Oland
5th - Steve Roebling
6th - Kevin Pullum
7th - Ron Gould
8th - George Mari
9th - Roy Bohnsach
10th - Cris Schieble
Stock E Main
1st - Don Smolik
2nd - Brad Adams
3rd - Ronald Savoie
4th - Michael Dugan
5th - Eddie Ellis
6th - Larry Papi
7th - Scott Spies
8th - Jerry Lee Burchell
9th - Ryan Annis
10th - Jim Mosley
Stock F Main
1st - Gary Nelson
2nd - Brent Bones
3rd - Dan Blacklidge
4th - Steve Rice
5th - Tom Sagle
6th - Ray Goff
7th - Scott Schoenherr
8th - Blee Nickels
9th - David Barnes
10th - Drew Craig
Stock G Main
1st - Todd Strobl
2nd - Chuck Giannone
3rd - Jeff Schulze Sr.
4th - Mike Jones
5th - "Swervin" Ervin
6th - Dave Baxter
Stock H Main
1st - David Fortman
2nd - Brain Russell
3rd - Gary Brizbndinz
4th - John Johnson
5th - Lee Walker
Modified A Main
Esc/Batt./Motor/Chassis
1st - George Berkowitz
Novak M5/PowerPush/Fantom/Bolink LTOSS
2nd - Brad Hayes
Tekin 420F/Fantom P170/Fantom/Bolink LTO
3rd - Dave Pulfer
Tekin 420F/Fantom/Fantom 12T/McAllister
4th - Mike Pulfer
Tekin 411P/Fantom "Killer Votlz"/Fantom 12D/McCallister
5th - Chuck Mactrinder
Tekin 411G/Team Arlington/Fantom/10LSS
6th - Chris Schneider
Novak/Team Arlington/Fantom/Big Dog
7th - Jim Dieter
Novak ML/Trinity Pushed SCR/Trinity/?
8th - Tim Sunde
Novak/Team SLC/Team SLC/TRC Lynx
9th - Craig Evraets
Tekin 410k/Sanyo Maxcell/Ballistic/HyperDrive
10th - Rusty Westerman
Tekin 420F/Fantom/Fantom 12T/Lynx II
Modified B Main
1st - Alan Bachman
2nd - Ken Pohlman
3rd - Ian Rutledge
4th - Dan Lewis
5th - John Lebak
6th - Dave Monegan
7th - Jim Westerman
8th - Kurt Lechel
9th - Frank Boling
10th - Brain Lettrich
Modified C Main
1st - Mike Mitzel
2nd - Mike Wenzel
3rd - Matt Helt
4th - Steve Lewis
5th - Jay Stoltz
6th - Gary Lewis
7th - Tom Sagle
8th - Franklin Hammitt
9th - Bill Sullivan
10th - Steve Lafara
Modified D Main
1st - John Piette
2nd - Mike Hoffman
3rd - Brad Norris
4th - Tom Killis
5th - Orrin Sunde
6th - Rob Passarelli
7th - Steven Mancinelli
8th - Tony Mancinelli
9th - Steve Sunde
10th - Richard Green
Modified E Main
1st - Dan Blacklidge
2nd - Jim Fehlberg
3rd - Larry Martin
4th - Bryan Klamer
5th - Larry Papi
6th - Jim Rhodes
7th - Chuck Giannone
8th - Chuck Rencurrel
9th - William McCauley
10th - David Barnes

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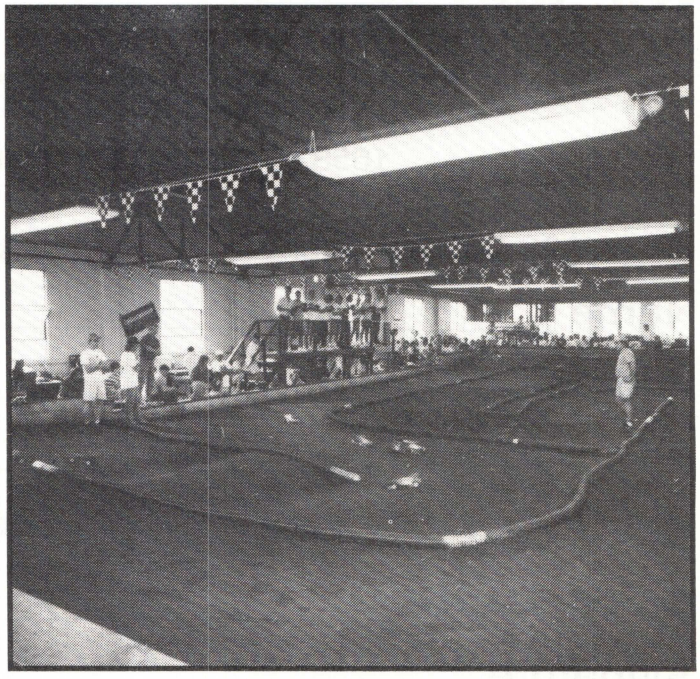
Region 8 Off-Road Shootout

By Randy Link

On June 5, 1992, off-road R/C die-hards converged on Hutchinson, Kansas, to settle a score. The score for some was to defend their titles from the previous year or to retake the one that got away. But, for most it was to participate and do their best at

R/C Superdome, Hutchinson, Kansas.



The 2WD Stock A Main drivers.



an event that is the highlight of every year of racing. This race is always the talk of the pits at their local tracks months before and after, of what would and did happen. This event would be no different.

At 12:00 p.m. the doors at the R/C Superdome were rattling from the restless racers outside anticipating what would take place the next three days. The doors opened and the racers filtered into the pit area to settle in. Many set up at their benches, while others raced to trackside to survey what might possess the race of their life, while even others checked out the hobby shop to see if it had the newest and latest go fast products, to put them in that elusive A-Main. Immediately racers started to descend on to the track putting those very important practice laps down before the next day of qualifying. Practice was on an open format the first few hours, but soon it was apparent it had to be switched to an organized practice system, due to the turn-out.

At 4:30 p.m., Parma handout motors were given out to all stock racers, and the race was on to solder them up and find that one magic gear ratio that would put their car or truck on the pace that would collect the T.Q. trophy for their class.

The track was closed at 6:00 p.m. and immediately the racers filtered out to go to their rooms and put the magic touch on their equipment, or for others it was to enjoy a night away from home. The track officials worked on the track till wee hours of the morning, to get the surface into perfect condition. At 8:00 a.m. the next morning the track opened and it was apparent the hard work paid off as some of the best times came out of this day of qualifying. Practice ran from 8-9:30 a.m. At 9:30 a.m. the Concurs contest was held. Thirty entries waited anxiously for their car or truck to be judged. In the end the winners were, 1st place Ric Beedy, 2nd place Jerry Justice, 3rd place Stephanie Pugh.

At 10:45 a.m. the first qualifier went off. During the day of qualifying each racer ran 3 qualifiers, in 6 car heats, before returning back to their rooms for a final tune up for Sunday, which would contain 2 qualifiers and then the main events. The next day after the final

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The 4WD Open A Main finalists.

qualifier it was apparent there would be a lot of close races in the finals.

In Stock A-Main Tony Leatherman started as the Top Qualifier. He left the first corner in first followed by Kyle Simmons in second, and Doug VonMosh in third. The top three stayed in these positions until lap 11 when Doug got by Kyle to take second. The race ended with Tony in first, Doug half-second back in second, and Kyle only a half-second back in third.

In 4WD Open A-Main, Kyle Simmons was Top Qualifier. The race horn went off with Kyle out of turn one, in first, Shawn Jordan in second, and Jason Howell in third. On laps 4 and 6, Shawn and Jason exchanged second and third while Kyle held a comfortable 6 second lead. Just when everyone thought Kyle had it in the bag, lady luck let it out. On the last lap Kyle motored up on lap traffic and got upended, allowing Shawn to slip by to take the win. Kyle recovered to take second and Jason took third.

In 2WD Open A-Main, Kyle Simmons was Top Qualifier. It started with Kyle Simmons in first, Shawn Jordan in second, and Jason Howell in third. On lap 4, Jason got by Shawn for second and was in hot pursuit of Kyle, in first. By lap 11 only three-tenths of a second was between Kyle and Jason. But on lap 12 Jason got into trouble, allowing Kyle to take the win by 2 seconds. Jason finished second, and

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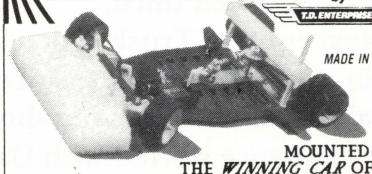

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The finalists in the 2WD Open class.

Shawn Finished third.

Next up was Truck Open A-Main. Dan Brockway was Top Qualifier, and would soon show why. The race started with Dan in first, with the rest of the trucks battling it out for the remaining spots. It was soon apparent this race wouldn't be as close as the first three A-Mains. Dan went on to stretch out his lead, with Clint Seitz and Casey Ensz battling for second and third. In the end, Dan took first by 11 seconds, over Clint in second, and Casey in third, a half of a second back.

As in most big events, the best is always saved for last, and this one was no different. The Stock Truck A-Main was the last main to run. Jerry Justice was Top Qualifier in this class. The race started with several trucks holding the lead within the first 9 laps. Within the last two laps the most exciting finish was starting to unfold. Jerry Justice and Stephanie Pugh battled their way to the top two spots. Going into the last lap, Jerry held first, Stephanie in second, and Frank Sell in third. The race would end this way, but Stephanie would be rubbing the paint off of Jerry's back bumper only .14 seconds behind. Jerry won the race, but I'm sure he'll remember that green truck chasing his tail across the line.

Every two years one driver qualifies to represent our region at Worlds. This year because of his second place finish in 4WD Open and first place finish in 2WD Open, Kyle Simmons will be our Region 8 Representative. I would like to give credit to Shawn and Jason who finished in the top three in both classes to make it a very close finish. I would like to thank



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THIS MONTH IN RACING

the R/C Supersdome and T.Q. Pro Shop for making this event a success and a lot of fun to be involved in.

Till next time—Good Racing!

2WD Stock:
A Main
1st - Tony Leatherman
2nd - Doug Vonmosch
3rd - Kyle Simmonds
4th - Richard Cantrell
5th - Brent Tavernaro
6th - Geno Hendricks
7th - Chris Gillihan
8th - Jason Howell
9th - Clint Carlson
10th - Dan Brockway
B Main
1st - Jason Kovachevich
2nd - Randy Link
3rd - Chad Drown
4th - Jason Porter
5th - Kevin Younger
6th - Mike Barr
7th - Pete Denney
8th - Curtis Karnes
9th - Richard Aldrich
10th - Greg Garrison/DNS
C Main
1st - Eric Larsen
2nd - Mike Barnard
3rd - Derald Smith
4th - Chris George
5th - Travis Fowler
6th - Chuck Orr
7th - Paul Sailor
8th - Daniel Lynn
9th - Brett Bierman
10th - Brandon Rowland
D Main
1st - Matt Foulk
2nd - Lyle Foss
3rd - Jim Harden
4th - Luke Lucas
5th - Dean Porter
6th - Ken Gates
7th - Rita Barnard
8th - Chris Betzer
9th - Chris Link
10th - Tom Zinn
E Main
1st - Paul Green
2nd - Juan Montiel
3rd - John Schoenauer
4th - John Davies
5th - Jeremy Mickey
6th - Merle Barnard
7th - Corky Green
8th - Mark Zinn
9th - J.R. McCreery
10th - Kyle Rowland
F Main
1st - Michael Mann, Jr.
2WD Open:
A Main
1st - Kyle Simmonds
2nd - Jason Howell
3rd - Shawn Jordan
4th - Richard Cantrell
5th - Tony Leatherman
6th - Jack Kloeber
7th - Geno Hendricks
8th - Chad Drown
9th - Randy Link
10th - Doug Vonmosch
B Main
1st - Chris Gillihan
2nd - Curtis Karnes
3rd - Eric Larsen
4th - Gary Lowrnce
5th - Clint Seitz
6th - Kevin Younger
7th - Rich Boomsma
8th - Chad Karstens
10th - Greg Garrison/DNS
C Main
1st - Ed Gaine
2nd - Chris Wolf
3rd - Roger Thenhaus
4th - Brandon Rowland
5th - Pat Gordon
6th - Chris George
7th - Jeff Gatesw
8th - Rick Hobbs
9th - Derald Smith
10th - Mike Larsen
D Main
1st - Todd Gilham
2nd - Jerry Doherty
3rd - Ric Beedy
4th - Eric Paik
5th - Kurt Dahlstrom
5th - Joel Splittgerber
7th - Ivan Larsen
8th - Lyle Foss
9th - Andrew Johnson
10th - Brian Bierman
E Main
1st - Jeff Buxman
4WD Open:
A Main
1st - Shawn Jordan
2nd - Kyle Simmonds
3rd - Jason Howell
4th - Chad Karstens
5th - Rick Hobbs
6th - Mike Larsen
7th - Todd Gilham
8th - Rich Boomsma
9th - Derald Smith
10th - Greg Garrison
B Main
1st - Joel Splittgerber
2nd - Dave Drown
3rd - Brian Bierman
4th - Jerry Doherty
Truck Open:
A Main
1st - Dan Brockway
2nd - Clint Seitz
3rd - Casey Ensz
4th - Chris Wolf
5th - Richard Cantrell
6th - Jerry Justice
7th - Mike Barr
8th - Rick Hobbs
9th - Todd Gilham
10th - Brian Bierman
B Main
1st - Roger Thenhaus
2nd - Eric Larsen
3rd - Joshua Flyntz
4th - Travis Fowler
5th - Chris Kovachevich
6th - Richard Aldrich
7th - Dave Swafford
8th - Robert Burk
9th - Ric Beedy
10th - Randy Moller
C Main
1st - Cody Jandrakovic
2nd - Eric Paik
3rd - Dave Drown
4th - Kurt Dahlstrom
5th - Andy Johnson
6th - John Davies
7th - Jeff Buxman
8th - Ivan Larsen
9th - Chris Betzer
10th - Tom Zinn
D Main
1st - Phillip Biggart
2nd - Michael Mann, Sr.
3rd - Alan Bernasek
Stock Truck A Main
1st - Jerry Justice
2nd - Stphanie Pugh
3rd - Frank Sell
4th - Donny Bowers
5th - Corky Green
6th - Brent Chaffee
7th - Chuck Orr
8th - Dave Drown
9th - Juan Montiel
10th - Mike Barnard
B Main
1st - Jason Porter
2nd - Greg Phillips
3rd - Dave Swafford
4th - Daniel Lynn
5th - Ryan Brauman
6th - Merle Barnard
7th - Jeremy Mickey
8th - Jim Miller
9th - Paul Green
10th - Jeff Fredichs/DNS

Updated NORRCA Results

It was brought to our attention that the Dirt Oval Nationals results that were sent to us were not correct. We apologize for this and here are the corrected results:

Expert Stock Sprint
A Main Final
1st - Chris Rahe
2nd - Chet Ellis
3rd - Garret Sharbonow
4th - Mark Smith
5th - Bert Massengale
6th - Mark Atterberry
7th - Rick Brown
8th - Ruck Yarber

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9th - Brian Landgraff
10th - Dave Barber
B Main
1st - Mitch Mitchamore
2nd - Marcus Pelt
3rd - Rachel Rivera
4th - Mike Zapata
Expert 2WD Stock
A Main
1st - Gary O'Brien
2nd - Don Vitale
3rd - Rick Noel
4th - Cam Case
5th - Scott Barber
6th - Tim Watson
7th - James Brown
8th - Ron Moore
9th - Trois Mitchamore
10th - David Vanderwerf
Expert 2WD Modified
A Main
1st - Will Whisler
2nd - Bob Light
3rd - David Potter
4th - Gary O'Brien
5th - Rob Cutman
6th - Cam Case
7th - Tim Watson
8th - Derek Povah
9th - Bill Griffin
10th - Brian Davis
B Main
1st - Ron Moore
2nd - David Johnson
3rd - Roger Redlin
4th - Jerry Cowart
5th - Kevin Davis
6th - Gene Gideon
7th - Richard Molock
Expert 4WD Modified
A Main
1st - Brian Landgraff
2nd - Nathan Magruder
3rd - Will Whisler
4th - George Vardzik
5th - Sam Williams
6th - Brent Redlin
7th - Trois Mitchamore
8th - Dave May
9th - Bert Massengale
10th - David Vanderwerf
B Main
1st - Brian Fielder
2nd - John Sharbonow
3rd - Sam Daugherty
4th - Phil McKinney
5th - Fred Hollis
6th - Phil York
7th - Ted White
8th - Tim Grimes
Modified Truck
A Main
1st - Mike Hamilton
2nd - Tom Owens
3rd - Michael Vasquez
4th - Tracy Dodds
5th - David Cornell
6th - Dave Davis
7th - Don McMillian
8th - David Morrison
9th - Jam McMillian
10th - Matt Pugh
B Main
1st - Larry Robinett
2nd - Gene Gideon
3rd - Jon Sullivan
4th - Adrion Mercing
5th - Kaven Mitchell
Expert Outlaw Sprint
A Main
1st - Bob Light
2nd - Garret Sharbonow
3rd - Chris Rahe
4th - David Potter
5th - Larry McGee
6th - Rob Cutman
7th - Jeff Daley
8th - Phil McKinney
9th - Bert Massengale
10th - Dave Barber
B Main
1st - Don Vitale
2nd - Mark Atterberry
3rd - J.R. Sitman
4th - Maurice Gildner
5th - Matt Pugh
6th - Dee McGee
7th - Mitch Mitchamore
8th - Nathan MacGruder
9th - George Vardzik
10th - Brent Redlin
C Main
1st - Jerry Godfrey
2nd - Larry Crouch
3rd - Rick Brown
4th - Gene Gideon
5th - John Lee
6th - Doug Edwards
7th - David Johnson
8th - Roger Redlin/DNS
9th - Mike Zapata/DNS
10th - Richard Molock/DNS

THIS MONTH IN RACING

Region 4 Championships

By Bill Caughron

The 1992 Region 4 Championships got under way this weekend in Altamonte Springs, Florida. For those of you not familiar with the location, Altamonte Springs is located just north of Orlando on I-4. This year's host was G.O.A.R. Greater Orlando Auto Racers. The track is located next to a water recycle facility with good old red clay as the racing surface. The host hotel was the Ramada Inn on Hwy 436 and they were one of the better hosts we have seen this year in our travels. The hotel was located near both fast food and medium priced restaurants so that you had a good choice of food after a hot day of racing.

We arrived on Friday the 17th to get in a little practice before the qualifiers started on Saturday. I must say that I was disappointed in the condition of the track. It looked like it had not been worked on for a couple of months. The holes and ruts were changing with each run. GOAR needs to take a lesson from Savanna, Gainesville and Tampa. If they are going to hold events like this in the future the track does need to be maintained for practice sessions. On race day the racers were presented with a totally different racing surface.

If I have one thing to say about Central Florida it is hot and wet. Every afternoon it rained and I do mean rained. Due to the heat some racers were having trouble. Their speed controllers were shutting down. This caused some racers to withdraw from some classes as the 90 degree plus heat and the high relative humidity played havoc with motors and electronics.

There was a lot more pressure on the racers this year, as we got ready for qualifying. This was the year to qualify for the Worlds and only two drivers one from 4WD Mod and one from 2WD Mod would be asked to the show in Brussels.

Saturday dawned and the racers were at the track early to see what the surface was going to be like. GOAR, like a lot of tracks in Florida, had the track covered overnight to prevent it from becoming a lake. They had done a great job of getting the track ready, but, what the racers saw on Saturday morning was not what they had seen on Friday. Gas driven tampers had been used to compact and smooth out the track and everyone was reaching into their tire box to see what would work. Usually the Modified racers run last but the format for this race was 4WD Mod, 2WD Mod, Mod Trucks, Stock Trucks and 2WD Stock. This was a real change for the 4WD boys as they are usually the last to run. The first heat had who's who in Florida and we were all ready for some fast and furious qualifying and we were not disappointed as Brett Reelfs set off on a blistering pace to finish with 13 laps. There was some reshuffling of the heats due to last minute sign-ups and realigning the 4WD heats with the result of some confusion as to what number heat was to be run when the 2WD Mod started next.

Due to the confusion the first and second heat in 2WD Mod had to be a re-run as some racers did not make the first call. This then caused a storm of controversy as 19 rounds of qualifying had been run with little track maintenance being performed before the 5th and 6th race was rerun. The winner of the first round saw his 12 laps go by the wayside as in the rerun, with deterio-

THIS MONTH IN RACING

rating track conditions, no one was able to turn a 12.

As the second round got started, after some much needed track maintenance, it started to darken up to the East—a sure sign that the rain was on it's way and to be sure the last Stock Truck qualifier had to be canceled and rerun Sunday morning prior to the third and final round of qualifying.

When we arrived on Sunday morning the location we were pitted in was now a lake. The track crew was hard at it with their tampers trying to get the track in shape. The problem was that the more they tamped the more water came to the surface. At about 8:00 A.M. we got the Truck's started and by 8:45 the last round of qualifying was ready to start.

As the 4WD race 1 started the computer glitched and the grid had to be reformed. After a little work we were off with round three and the last chance for everyone to make the A Main. Well, after everything was said and done, the mains were posted and we were ready to see who not only would be the Region Champions but also who would get the coveted invitation to the WORLDS.

The TQ's were: 4WD Mod, Brett Reelfs sponsored by Reedy, Novak, Pro Line, Power Source, 2WD Mod Doug Laurent sponsored by PSC, Parma, Magnum Motors, Mod Truck Keith Bellflower sponsored by Little John Racing, 2WD Stock Bruce Turner. After a long break, (we didn't need this with the weather the way it was) we finally started the Mains.

First up was the 4WD Mod boys it sure is hard to understand why we get less and less cars in this class. As the mains wound down to the "A" everyone was wondering if the TQ jinx would strike.

If you haven't noticed the TQ, as a rule, don't win the mains a lot of the times. Brett Reelfs was on the pole with Tracy Todd next and Sean Kersten rounding out the top three. Being from Pensacola my hopes were riding on John Walters sponsored by Traxxas, Tekin, PTI, HPI and Kyosho. He had only qualified 6th but as usual showed blinding speed. At the end of the first lap Brett Reelf was still holding way over the field but both his brother Brad Reelfs and John Walters along with Darrin Stump were close behind. For the next three minutes it stayed about the same. With less than a minute to go Brett flipped on the table top taking Darrin with him and letting John take the lead. John, not wanting to risk hitting the wall showed how to get around the track fast and safely as he pulled out from the challengers to take the win. In second was Brad Reelfs followed by Mike Mellin. Next up was 2WD Mod and with the skies looking like we were going to get a downpour, I hoped we would get all the races completed. As we worked our way to the "A" Main I still am amazed at the great racing that goes on no matter where one qualifies. We have great spectators for the "A" Mains but I tell you there is really close racing going on in the lower mains as well. But enough of that—now to the "A" Main. Sitting on the pole was Doug Laurent next was Brad Reelfs sponsored by Novak, Pro Line, TPS, Peak Performance and Associated with his brother Brett Reelfs sitting next to him.

At the horn the mayhem began as 4 cars tangled on the first turn at the end of the straight. Mike Mellin took the lead only to lose it to Doug Laurent with Darrin Stump close behind. With two minutes to go Darrin took the lead and he put the car in cruise control to take the win. Doug gave a late challenge only to fall short by 3.09 seconds followed closely by Mike Mellin who finished third. At this point the Race Director decided to run all of the "A" Mains as the thunder could be heard real close. So the schedule was rescuffled and the "A" Main Mod Trucks were next. Setting on the Pole was Keith Bellflower, Keith is also from Pensacola and for the last two years he has always been the "bridesmaid but never the bride", finishing second the last two regionals. Sitting in second was J.R. Mitch. Frank Richwer who qualified third did not make the call for technical reasons.

At the horn they slammed into the first turn with J. R. taking the lead followed by a group of trucks. With about 1:30 to go Keith took the lead over the table top and was off to the races with Jeff Retey second and J. R. dropping to third. As the call was put out "Finish the lap you're on", we all held our breath as Keith had only two corners to go and finally a regional championship. But you guessed it as he came out of the last turn on to the straightaway he did a traction roll letting

THIS MONTH IN RACING

Jeff by for the win with Keith The Bridesmaid finishing second and J.R. finishing third. Well, we were up to 2WD Stock and as of yet not a one of the TQ's had won. Sitting on the pole for 2WD Stock was Bruce Turned followed by Chance Hill and Stewart Levine rounding out the front row. At the horn Bruce and Chance were off like a shot followed closely by Anthony Kelly who was the beneficiary of a first turn crash. For the next 4 minutes it stayed that way with Chance putting on a charge only to have Bruce respond and keep the lead. The closest race was between third and fourth with Kevin Beavers putting real pressure on Anthony and finishing only .46 seconds behind for fourth. Well, the rains came at about 2:45 and I do mean it rained. At 4:30 the race was called and plaques awarded due to qualifying. Well this one is history, was this a good event? The G.O.A.R. group needs a little more experience on putting on this type of event. I feel if the event had been kept on schedule we would have had a better chance of getting all the Mains completed.

I salute our Region director Bill Freden he had some difficult calls to make and did a great job. For those of you who know me you know I don't always agree with Bill but unless you have filled his shoes don't be to critical. Once again the IFMAR Start was used for qualifying and it proved to be a big hit and successful. I can't see why ROAR doesn't make a rule change and make this the law. Remember to Support Your Local Hobby Shop. We need them to race and we'll see you at the Southeastern Championships in November.

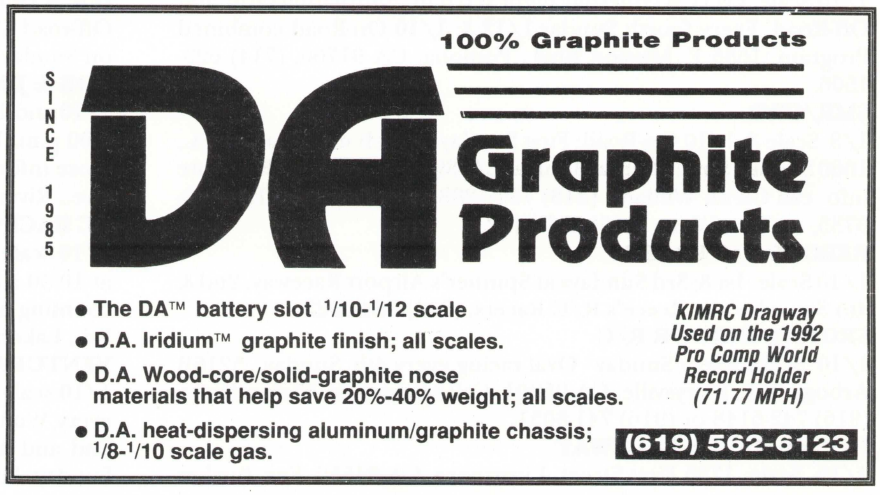
As we were putting the finishing touches on this article we received word that ROAR had announced (at the Off-Road Nationals) a rule change. This change affected the selection for the Worlds Team. It is, in effect, saying that your win at a Regional will not qualify you for the Worlds. If this is true (and we have not been able to confirm this with ROAR Headquarters) then the Regional winners may need to call their Region Director for information.

4WD Mod
A Main
1st - John Walters
2nd - Brad Reelfs
3rd - Mike Mellin
4th - Darrin Stump
5th - Brett Reelfs
6th - Kevin Clark
7th - Tim Raskin
8th - Sean Kersten
9th - Tracy Todd
10th - Ruffy Rios
B Main
1st - David Alberico
2nd - Mike Spehn
3rd - Shea Caughron
4th - John Wong
5th - Fred Scadron

2WD Mod
A Main
1st - Darrin Stump
2nd - Doug Laurent
3rd - Mike Mellin
4th - Brett Reelfs
5th - Brad Reelfs
6th - Jason Ruona
7th - Tracy Todd
8th - Sean Kersten
9th - John Walters
10th - J. R. Mitch
B Main
1st - Chance Hill
2nd - Ruffy Rios
3rd - Frank Richert
4th - Kevin Clark
5th - Jim Myers

2WD Stock
A Main
1st - Bruce Turner
2nd - Chance Hill
3rd - Anthony Kelly
4th - Kevin Beavers
5th - Stewart Levine
6th - Skip Vassoler
7th - Chad O'Daffer
8th - Chris Dalkin
9th - Mike Wolfson
10th - Chris Hanus

Mod Truck
A Main
1st - Jeff Retey
2nd - Keith Bellflower
3rd - J.R. Mitch
4th - Tony Hines
5th - David Rogers
6th - Skip Vassoler
7th - Jason Ruona
8th - John Colebeck
9th - Ben Faulk
10th - Frank Richert



RACING SCHEDULE

ARIZONA

HOBBYTOWN U.S.A., PHOENIX
Racing for 1/10 scale asphalt oval every Sunday at 1:00 p.m. at "Bell Canyon" Pavillions. Located at 2814 W. Bell Rd.Phoenix, AZ 85023. Phone (602) 993-0122.

HOBBYTOWN U.S.A., GILBERT
1/10th and 1/12th electric outdoor asphalt 100 ft. oval. Racing held twice a week, 12 months a year. Drag racing held on the 1st and 3rd Tues. of every month. Fully stocked hobbyshop, classes foor all cars, and computer scoring make for a great racing experience. For race times and more information contact HobbyTown; Gilbert and Baseline Rd., Gilbert, AZ (602) 892-0405.

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CALIFORNIA

OUTLAW MOTOR SPEEDWAY
1/4 Scale Dirt Oval every first and third Saturday. 1/10 scale: Tues. Tamiya Off-Road, Thur. Off-Road & Dirt Oval, Fri. 1/10 and 1/12 on-road, first Sunday Dirt Oval, second Sunday 1/10 & 1/12 On-Road, third and fourth Sundays Off-Road. 7920 Webster, Highland, CA, (714) 864-1770.

THE RANCH PIT SHOP
1/10 Scale: Every Wednesday night at 6 p.m. Alternating Oval and Off-Road. Every fourth Sunday 1/12 & 1/10 On-Road combined Program. 1655 E. Mission Blvd., Pomona, CA 91766, (714) 623-1506.

SMR/CRC
1/8 Scale & 1/10 On-Road: First Sunday of each month at G.I.A., 1660 Stewart Street, Santa Monica, CA. Sign-up 8:30 a.m. For more info call Glenn Williams (213) 734-7888, Chris Chan (213) 393-3735, or Tom Wong (213) 821-5472.

REECE'S R/C RACERS
1/10 Scale: 1st & 3rd Sundays at Spinner's Airport Raceway, 2nd & 4th Saturday's at Reece's R/C Racers, (209) 784-0922.

SROKA'S INDOOR R/C
1/10 Scale: Every Sunday - Oval racing every 4th Sunday. 5216B Arboga Rd., Marysville, CA 95901. Call Michael or Vickie Sroka (916) 742-6148 or (916) 741-3051.

HOBBY HAVEN RACEWAY
1/10 Scale: 1756 First Street, Livermore, CA 94550. For further info call (415) 443-5828 M-F 10 a.m. to 6 p.m.

FAST LANE R/C
Address is 25845 San Fernando Rd. #21, Saugus, CA 91350. Contact John or Darlene at (805) 255-2404. Racing is off-road, dirt oval, asphalt road course and asphalt oval.

SONOMA COUNTY RACEWAY
1/10 Dirt Oval, 1/10 Off-Road, 1/10 & 1/12 Asphalt: 806 Brookwood Avenue, P. O. Box 9565, Santa Rosa, CA 95405. Mark White (707) 571-7565, Schedule info (707) 571-8044, Competition Products (707) 571-8048.

THE SQUARE ROUNDHOUSE SPEEDWAY
1/10 Scale: Saturdays 3 events per month, Off-Road, Monster Truck Pulls and Oval Race. Oval dirt track and Off-Road tracks. 1468 Lander Avenue, Turlock, CA 95380, (209) 668-4454. Ask for Harold Lindquist.

RADIO CONTROLLED HOBBIES & RACEWAY
1/10 Scale: Indoor Off-Road racing every Tuesday & Thursday evening beginning at 7 p.m. and Saturday at 2 p.m. 2011 Placenta Ave., Costa Mesa, CA 92627. for more info call (714) 631-1555.

BROTHERS-IN-LAWS R/C RACING
1/10 Scale Dirt Oval. Racing every Sun. Call Bob (619) 949-5252.

ANTIOCH RACEWAY
1/10th Dirt Oval racing every Friday 7 p.m. All classes. Sat. & Sun. 1/10 dirt oval and off-road 10:30 a.m. Also night racing. 5631 Lone Tree Way, Antioch, CA 94509. Call (415) 754-5700. Ask for Jack Hanson.

R.C. CITY RACEWAY & HOBBIES
Off-road racing every Tues., Fri., Sun., Oval racing every Sat./ Practice time and rentals available. Call for more info. (408) 262-3188. 1453 N. Milpitas Blvd., Milpitas,

MOUNT SHASTA R/C RACEWAY
1/10 Scale: Lassen Lane and Smith Road. (916) 926-4717. Home of Cal-Ore Off-Road Championships. 1/10 off-road racing every other Sunday. May through October. Indoor carpet racing 1/10 & 1/12 November through April. 826 Pine Street, Mount Shasta, CA 96067.

HOBBY HUT
1/10 Scale: 2665 Park Marina Dr., Redding, CA 96001, (916) 241-3737. Off-Road racing. Norcal Mini Off-roaders. Ask for Kevin.

DESERT HOBBIES & RACEWAY
1/10 Off-Road racing 1st & 3rd Sundays. Every Friday 7:30 p.m. 25 min. from San Bernardino, 17210 Main St., Hesperia, CA 92345.

NORRCA (National Organization for Radio Controlled Autos) Main Office:
331 Mariposa Court, Upland, CA 91786. (714) 981-9641 or fax (714) 981-0527

D & B HOBBIES AND RACEWAY
Off-road Thursday and Saturday, dirt oval Fridays. Special events on Sunday. Call (408) 280-6539, Wed. thru Sun. 2:30 to 6:00.

BOB & JIM'S R/C WORLD
1/10 and 1/12 scale road course racine every Mon., Wed., & Fri at 7:00 p.m. 1/12 and 1/10 scale oval racig on Sat. at 5:00 p.m. For more information call)714) 684-6314. Track is at 3485 University Ave., Riversid, CA 92501.

RC RACING CENTER & HOBBIES
1/10 Scale racing every Tuesday and Friday at 7 p.m. Sunday racing at 10:30 a.m. Indoor tyrack and hobby shop, AC power, auto lap counting and food. Located in San Diego County; 9842 Channel Rd., Lakeside, CA 92040. (619) 443-2270.

VENTURA ROAD RUNNERS
1/10 scale off-road every Friday and 1st Sunday. 1/10th dirt oval every Wed. and 3rd Sunday. 1/10th and 1/12th asphalt road the 2nd and 4th Sunday. 1/10 and 1/12 scale asphalt oval the 5th Sunday. Freedom Park Raceway, 520 Freedom Pk., CAmarillo CA

93010. Contact Ed at (805) 499-8266 or Less at (805) 484-8920. Sign-ups close at 7:00 p.m. nights and 9:30 a.m. on Sunday.

CANADA

NORTHERN ALBERTA SCALE CAR AUTO RACERS
1/12 & 1/10 On-Road racing. 1/12 4 cell indoors on carpet during winter. 1/10 6-cell outdoors on pavement during summer. Dean M. Simpson, 1142 Knottwood Rd. East, Edmonton, Alberta, Canada T6K-2J8, (403) 461-3432.

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1/10 Electric Off-Road Sundays. 1044 W. 14th St., North Vancouver, BC Canada. 150' Straights/5' banks/moguls & jumps. Operated by the Western Canada R/C Club. For info call Dana Shaw (604) 980-4504.

R.R.O.L.
1/12 carpet racing Tuesday, 1/10 carpet racing Wednesdays. Sept. to May, Asphalt & off-road in summer. Remote Racers of London, P. O. Box 7241, Stn. E. London, Ontario, N5Y-4J0, Canada. Dan Engelbreth, (519) 668-0427.

S.T.A.R.C.
1/12 Scale: Wed. nite - STARC Club Series. Rockton, Ontario, Canada. Sam Burke (519) 621-5424.

S.O.R.C.R.C.C. 1/12 Scale: Southern Ontario Radio Control Race Car Club in Toronto, Ontario, Canada. Racing alternating Sunday nites Oct. - April Scott Reynolds 298-4941 or Gary Joi 421-9061.

CONNECTICUT

PANTHORN RACEWAY
1/10 Scale: Panthorn Park, Burritt St., Southington, CT. Every Saturday May 1st - Nov. 1st. Off-road, oval, baja, truck pull ing. Call (203) 628-9345 Ben Carr, 272-9326 Pete Church, 237-6976 Bob Lavoie, 879-2316 Steve Magnani.

WALLINGFORD INDOOR RACING ASSOC.
Conneticut's oldest indoor r/c facility. Carpet road course is 225 feet and the facility has lighted pits for 125 cars. Scoring is done by AMB with races scheduled every Friday and Sunday through the month of May. For furhter informaiton call Wayne Rydzy at (203) 265-3939. Track is at 63 North Cherry St., Wallingford, CT 06492.

CONNECTICUT R/C OFF-ROAD
1/10 Off-Road, from end of April to middle of October. Racing every Sunday weather permitting.Call Mike Belmonte at (203) 661-0145. Track is at Old Field School in Fairfield, CT.

R/C HOBBIES RACEWAY
1/10 Scale: Route 163, Bozrah, CT. Racing every Sunday, May 1 to Oct. 30. For more info call (203) 886-9441, ask for Mike or Bob.

SNORR
1/10 Scale: Racing every 1st and 3rd Sundays. P. O. Box 438, East Haven, CT, (203) 469-2594 or (203) 481-5813, Dave Seales.

BUCKLEY SPEEDWAY
1/10 Scale: 37 Douglas Street, Hartfort, CT. Every Sunday April 1st to Nov. 31st. Black top oval. For more info call "Ziggy" or Debbie Kwasnicki (203) 246-4778.

LITTLES HOBBIES
1/10 Scale: Monday - Trucks; Tuesday - Sprint Cars; Sat. - 2WD 6 yrs. to 16 yrs.; Sunday - All classes indoor clay oval and road track fast, Stock & Modified classes. 111 Main St., Tr. 66, Hebron, CT 06248, (203) 228-4942.

CONNECTICUT AUTO RACING TEAM
1/10 Off-Road and Sprint Car Oval. 37 Douglas St., Hartford, CT 06114, Zig (203) 246-4778.

K & M R/C SPEEDWAY & HOBBIES
1/10 Scale: 735 Canal St., Stamford, CT 06902, (203) 967-7255. 7,000 sq. ft. complex, ample pit with power, fully stocked hobby shop. Organized racing held weekly. Call for details.

EAST LYME R/C KAR KLUB
1/10 Scale: Every Sunday starting May 20 thru Sept. Racing at 11 a.m. Located at Society Rd, East Lyme, CT (Behind the Junior High School). For info call Paul Johnson, 739-4070 eves. or weekends.

NERCAR
Racing for 1/8 and 1/10 gas on road cars. For more information call Phil (203) 627-5410; Larry (203) 749- 6281; or Wes (203) 749-6281. Enfield, Conn.

COLORADO

QUEEN CITY R/C RACEWAY
1/12, 1/8 and 1/10 scale cars. Every Fri. 7 p.m. Open class. Every Sunday drag racing. 5050 S. Federal Blvd., Englewood, CO 80110, (303) 730-1391.

MILE-HI R/C SPEEDWAYS
1/10 Scale: Thurs. & Sat. off-road; Fri. carpet, Sun. 2 p.m. 178 S. Kalamath, Denver, CO 80221, (303) 722-6766.

R/C WORLD & TRACK
1/10 Off-road & dirt oval racing. Indoor facility. Wed & Fri. - oval. Sat. Off-road. Call Glen or Debbie (303) 789-0838, 2788 S. Federal, Denver, CO 80202.

M.H.O.R. R/C RACEWAY
Indoor 1/10 off-road racing on Wed. & Sat. Complete hobby shop, AC & DC power. For info call Jess Brockman (303) 343-0151 after 3 p.m. MST. 155540 E. Batavia Dr., Aurora, CO 80011, (East on 17th Ave. at Chambers Rd.)

FLORIDA

JAY'S R/C
1/10 Scale indoor carpet oval and road course. 5018 14th Street West, Bradenton, FL 34702, (813) 756-6393, 758-2565, 746-8649.

LOU'S R/C HOBBIES & RACEWAY
1/10 scale hard packed clay oval indoors every Thursday at 7:00 p.m. 1/10 off-road 7:00 p.m. every Friday. NASCAR oval every Sunday (indoor) at 1:00 p.m. For more information call Lou at (407) 337-9000. 1512 S.E. Village Green Dr., Port St. Lucie, FL 34952

LAKE WHIPPOORWILL SPEEDWAY
1/10 oval racing every Saturday. Open practice other days. 12345 Narcoossee Rd., Orlando FL, 32827 - (407) 277-9586.

GEORGIA

GEORGIA HOBBY CENTER
1/8 and 1/10 off-road and clay oval every Sat. and Sun. at 2:00 p.m. 112 Kenwood Rd., Fayetteville, GA 30214. (404) 460-1753

SILVER WINGS HOBBIES & RACETRACK
Indoor 260 ft. 1/10 scale clay oval. Complete hobby shop, plenty of electrical. Racing Tuesday & Saturday 7:00 p.m. Snack bar on site. 5611 Riverdale Rd., College Park, GA 30346 - (404) 991-2225.

ILLINOIS

MACHESNEY PARK RACEWAY
1/4 scale, and 1/10 scale: Large asphalt oval racing alternating every Saturday and Sundays April thru October. 1220 Shappert Dr., Machesney Park, IL 61111, (815) 282-1311.

R & R HOBBY
1/10 Scale dirt track inside and outside, also 1/12 tracks inside and outside. 1414 N. 24th St., Quincy, IL 62301, (217) 228-1133.

THE INSIDE TRACK
1/10 Scale: Every Wednesday 7 p.m. and Saturday 6 p.m. For more

info call (312) 898-5649. 725 Hill Ave., Aurora, IL 60505.

RECTOR'S R/C

1/10 Scale: Indoor dirt oval/off-road. Alternate months. 6 p.m. Saturdays, 2 p.m. Sundays. RR3, Albion, IL 62806. (618) 447-3282.

CARPETBURNERS R/C CLUB

436 East Main Street, (Rear) Danville, IL 61832, (217) 442-7466.

C & C HOBBIES AND RACEWAY

Off-road every Fri. night and Sun. 2081 W. Station St. Kanakee, IL Call Chris at (815) 935-2600 or Ken at (708) 485-6366.

AMERICA-TRAC SUPER SPEEDWAY

400 foot center lone high bank tri-oval. Large pit area, AC power, close to I-57. Phone (217) 234-8707. RR3 Box 242, Mattcon, IL 61938.

MIDWEST HOBBY TRAX R/C RACEWAY

1/10 scale indoor off-road and oval racing every Friday 8 p.m. and Sunday 10:00 a.m. AMB scoring, AC power, snack bar, full hobby shop. 114 Kirkland Circle - Unit A, Oswego, IL. (708) 978-RACE.

INDIANA

RPM R/C RACEWAY

1/10 Scale Indoor off-road racing every Sunday at 12 Noon. 1112 S. 16th, Elwood, IN 46254. For more info call (317) 552-7758.

R/C RACEWAYS

1/10 Indoor dirt oval. Wed. 6 p.m. oval. Friday 6:30 p.m. Sunday 12 non oval or off-road. For more info call (219) 747-6414. 2710 Nuttman, Ft. Wayne, IN 46804.

ARVIN'S HOBBY CENTRE

1/10 Scale: 2,600 sq. ft. carpet track with movable rails so that we can change the layout from oval to off-road. We run off-road and on-road cars on Sat., Sun., and Wed. 1403 E. Spring St., New Albany, IN 47150, (812) 945-3745.

RACEWAY PARK

Mishawaka, IN (Northern Indiana)

Winter - Large indoor carpet track - two Sundays a month. Summer - The Mid-West's Best Off-Road track - two Sundays a month. Off-road track is on N. Main Street. For info call Bob (219) 256-1020.

HOBBY WORLD RACEWAY AND HOBBIES

Indoor dirt oval and off-road. Racing every Wed. and Sat. at 7:00 p.m. Full hobby shop, AMB scoring, AC power and snack bar.1508 N. Harlan, Evansville, IN 47711. (812) 421-1100.

MOORESVILLE R/C HOBBY

Indoor carpet racing Friday, Saturday and Sunday. Monster Truck car crush every other wenesday. Outside banked oval every Friday, May thru October. For information call Danny at (317) 831-8877. Large hobby shop. Address is 7 Moore St., Mooresville, IN 46158.

GONZO RACEWAY

1/10 outdoor off-road racing on Sundays May thru September. Racing starts at 10:00 a.m. Indoor carpet racing November thru March. Computerized scoring. For more information call (219) 980-8409. 418 Roberts Rd., Chesterton, IN 46304.

BJ'S RIVERSIDE RACEWAY

1/10 scale lighted 450 foot outdoor off-road dirt track. 1/10 scale 115 foot in-door high banked dirt oval with jumps. Outdoor racing Friday at 6:30 p.m. Bomber classs (6-cell and bag motor, 6:00 min. heats) Saturday 6:30 p.m. oval racing (all classes, 4:00 heats) Sunday 6:30 p.m. off-road (All classes, 4:00 min. heats) A/C power, computer lap count, snack bar & R/C sped shop. 265 South Clay St., Jasper IN, 47546. Call Joe "BJ" Lorey (812) 482-3484.

P & T HOBBIES

1/10 off-road and oval racing on one of the midwest's finest circuits. Full serivce hobby shop on site and ample pitting with AC power. Oval is 220' long and off-road circuit offers more than 300' of racing. RAcing Friday night and Saturday, call for schedule. R.R. #2, Box 450A, Mitchell, IN 47446, (812) 849-6666.

IOWA

BOB'S R/C SUPPLY & RACEWAY

1/10 Scale: Indoor carpet racing! Tues. 1/10 oval; Fri. 1/12 Road Course; Sat. Monster Trucks. Stock & Modified. Call Bob, Nancy or Kevin (319) 232-2235, 935 Sheerer Ave., Waterloo, IA 50701.

NORTH PARK R/C SPEEDWAY

!/10 and 1/12 electric, 1/8 gas and 1/4 scale: For further information write c/o Mike Beisch, 805 South Jerome, Algona, IA 50511 or call (515) 295-9352.

KANSAS

EBERSOLE HOBBY & R/C RACEWAY

1/10 Scale off-road and oval. Races Wed., Thurs., Sat., and alternate Sundays. 11417 W. Highway 54, Wichita, KS 67209. Len Ebersole, (316) 722-8888.

CHAD'S R/C WORLD

1/10 Scale indoor dirt track. Thurs., oval; Fri. truck pulls; Sat. off-road. P. O. Box 76, 305 Browne Avenue, Scranton, KS 66537, (913) 793-2313.

KANSAS R/C RACING CLUB

Every Second Sunday, Junction City; Every 4th Sunday Enterprise.

DEE & MEE HOBBIES

Two tracks; dirt oval and off-road, oval on Mon. and off-road on Fri. Both at 7:00 p.m. Carpet 1/12 on Tue. at 7:00 p.m. 628 Kansas, Topeka KS 66603. 357-4232.

EBERSOLE R/C SUPER SPEEDWAY

High banked asphalt oval, road course, dirt oval and off-road. Electronic lap counting. track at 11417 W. Hiway 54, Witchita, KS 67209. Phone (316) 722-8888.

RCRC RACEWAY

Outdoor dirt oval and off-road track with full hobby shop, AC power, concessions and lights for night racing. Track is 95 by 65. For more information contact Bob Dunker at (913) 626-3261 day or (913) 626-9681 nights. Track is 507 N. 4th St., Atwood, KS 67730.

KENTUCKY

HOBBY CENTER

Hobby Center, INC. 2106 Triplett St., Owensboro, KY 42303. Phone: (502) 683-7611. Full service facility including hard surface flat track with a straight 75 feet long! Track indoors, regular racing every Thursday at 7:00 p.m. Track open daily for practice. Hours 11:00 a.m. to 7:00 p.m. Mon. - Fri. On Sat 11:00 a.m.to 5:30 p.m.

RIVER CITIES R/C RACEWAY

1/10 Scale: Racing at 5:30 Saturday evenings under a light area. Call Randy Aust (606) 836-4273 or Jason Graham (606) 836-2613. Ashland, KY 41101.

REMOTE CONTROL HOBBIES/RACEWAY

1/10 scale dirt oval and off-road every other Sat. 1/12 scale and 1/10 scale carpet on alternating Saturdays. On site hobby shop. 110 electricity, food. Racing starts at 5:00 p.m. Call Tim or Bev at (502) 247-4715 for more information. Track is in Mayfield, KY (West KY).

LOUISIANA

CAJUN R/C & RACEWAY

1/10th scale off-road dirt track (outdoors) Complete hobby shop, A/C power, food. Races eery Sunday at 1:00 p.m. Route 2, Box 288 - Hwy. 343 (Bosco), Church Point, LA 70525. For more info call Ray or Sandy at (318) 873-3855.

CAJUN R/C & RACEWAY #2

1/10th scale dirt oval track (outdoors). Complete hobby shop, AC power. Races every Saturday at 2:30 p.m. Address is 110 A Dar-

bonne, Sulpher, LA 70663. Call Randy or Sandy at (318) 527-9129.

MARYLAND

MASON DIXON R/C CAR CLUB
1/10 Scale: Every Sunday at 1 p.m. Track location at Hagerstown Fairgrounds, Hagerstown, Maryland. Call King's R/C Cars, 219 E. Washington St., Hagerstown, MD 21740, (303) 739-0080.

CENTRAL MARYLAND ELECTRIC RACING CLUB (CMERC)
Community R/C Speedway
1/10 Scale: Racing every Saturday dirt oval. Middletown Park, Middletown, Maryland. Contact John Mauchamer, (301) 698-9545.1/12 Scale: Mark Coats (301) 694-7420.

TEAM R & R, INC.
1/10 & 1/12 scale indoor oval carpet racing. Every Sunday. for more info (301) 848-2144 or (301) 876-2983. Westminster, MD 21157.

MARYLAND R/C CLUB
1/10 & 1/12 scale racing Indoor carpet. Contact Toy World R/C, (301) 424-0430.

THE COCKEYSVILLE ASTRODOME
1/10 Scale: C.A.R. Cockeysville Astrodome Racers, Inc., 10854 York Rd., (Rear) Cockeysville, MD, (301) 666-1098. for further information call Art LaPole (301) 889-2070.

GPA HOBBIES, INC.
GPA Speedway races 1/10 off-road and 1/10 and 1/12 indoor road. For schedule information call (301) 805-9004 or write to GPA at 3498 Crain Hwy., (Collington Plaza), Bowie, MD 20715.

THE TRACK/MARYLAND R/C CLUB
1/10 & 1/12 carpet indoor banked oval and road course. Track at 16806-08 Oakmont Ave., Gaithersburg, MD 20877. (301) 417-9630 or 424-0430.

BEL AIR R/C RACEWAY
Practice Monday, Thursday and Friday 3 p.m. to 6 p.m., Tuesday 3 p.m. to 9 p.m. Monday monster truck races, Thursday 1/10 off-road, Friday 1/10 NASCAR Direct Drive, Saturday morning Novice racing, Saturday afternoon Clodbusters, Sunday 1/12 and 1/10 GTP Ultralight on-Road races. Track at 227 G Gateway Dr., Bel Air, MD 21014. For information phone (410) 838-1229.

MASSACHUSETTS

BROCKTON INTERNATIONAL SPEEDWAY
1/10 & 1/12 Oval racing on Mon. 7:30 p.m. 1217 Main St., Brockton, MA. For information call (508) 588-9355.

R/C PERFORMANCE CENTER
1/10 Scale carpet oval and indoor off-road dirt track. Racing Tues., Thurs., Sat., & Sun. 4 Manley Street, West Bridgewater, MA 02379. Ask for John (508) 588-9666.

HOBBIES ETC. RACEWAY
1/10 & 1/12 scale: Every Sunday Racing at 1 p.m. Indoor on-road carpet. For more information call (617) 389-3331. Medford High School, Winthrop St., Medford, MA.

NORTH EAST AUTO RACERS (NEAR)
The club hosts 1/8 gas and 1/10 electric road racing. Track is behindCobblestone's Restraurant. Races are scheduled May through October. For full schedule contact George Denault at (508) 346-8456.

MEGADROME RAEWAY/BRCCR CLUB
One of the largest facilities on the East Coast. Track is located at North Adams Plaza, Rt. 8 Curran Hwy., North Adams, MA 01247. (413) 743-7223.

WEST STREET HOBBIES RACEWAY
1/10 scale, 260 ft. banked carpet oval. Racing Wed. & Sat. evenings at 7 p.m. Phone (508) 533-1231. 114C Main St., Medway MA 02053. NORRCA rules.

MICHIGAN

USA RACEWAYS
1/10 & 1/12 Scale: Road rcing wed. and Sat. 1/10 oval Friday and Sunday. Stadium 1/10 on Saturday. 6083 Dixie Highway, Bridgeport, MI, (517) 777-7USA.

HARRISON INTERNATIONAL SPEEDWAY
1/10 Scale: Friday nite high banked small oval. Sunday large flat oval. 3519 N. Clare Avenue, Harrison, MI 48625, (517) 539-7959.

GLASS CITY RADIO CONTROL
Racing 1/10 & 1/12 scale: Clayton White (1/12) (419) 882-2518 or Mike Marshall (1/10) (313) 241-5321.

BAJA BAYOO R/C RACEWAY
1/10 scale off-road racing May through September. Racing evry Sunday at 1:00 p.m. weather permiting. 5313 West 22 Mile Rd., Tustin MI. Track is 8 miles south of Cadillace. (616) 829-3447.

R & L HOBBIES
Indoor dirt stadium track. Race at 1 p.m. Sat., 7 p.m. Wed. Practice other days. First class facility, come see us at 9782 Portage Rd., Kalamazoo, MI 49002. Call us at (616) 323-3686 or fax us at (616) 329-1744.

MISSISSIPPI

FASTRACKERS RACEWAY
1/10 scale off-road racing every weekend. One of the biggest and most challenging off-road tracks in Region 6 ROAR sanctioned. For more information and racing schedule, write - 4909 West Gate Hills Dr., Meridian, MS 39305 - (601) 693-8368.

JACKSON R/C RACING ASSOCIATION
Car and truck racing Sundays at 10:30 a.m. and Tuesdays at 6:00 p.m. Computerized lap counting, all classes pan stock and modified, gearbos stock and modified, truck, 4 X 4, Dominator class, and 1/12 if enough to run. Track is 2 1/2 miles west of Rt. 9 on Rt. 526. (908) 905-1593.

NEBRASKA

OMAHA NEBRASKA RADIO OPERATED AUTO DRIVERS
1/10 & 1/12 Scale carpet and pavement racing. Oval and road course. (402) 331-2907.

OVER THE WALL GANG
Schedule: Nov.-Mar. 1/10th oval,1/10th & 1/12th road course. Apr.-Oct. outdoor off-road and asphalt oval and road for 1/10thad 1/12th cars. On site hobby shop. Located at 401 Market Pl., Norfolk, NE 68701. Phone (402) 379-0879.

HOBBYTOWN USA
1/10 scale, 1/3 mkjile high banked dirt oval track. Racing Tuesday nights at 7 p.m. and Sunday at 1:30 p.m. May through October. Located in the East Park Mall; 66 &) streets, Lincoln, NE 68510. (402) 434-5056.

NEW HAMPSHIRE

HOBBIES PLUS & R/C RACEWAY
Track is at 14 Celina Ave., Hashua, NH 03063. This is New England's largest (350 ft.) and fastest banked carpet oval. Also 26 x 72 flat carpet track dedicated to 1/12 road racing. Pit areas with electricity for over 200. Complete hobby shop, computer scoring. For more information call (603) 882-9200.

ACTION R/C RACEWAY
1/10 Scale & 1/12 on-road, 1/10 off-road cars and trucks. Indoor

carpet high banked oval. Family Fun Hobbies, 201 Washington St., Claremont, NH. (603) 543-1022.

HOBBY ETC. RACEWAY

Indoor carpet banked oval for 1/10 and 1/12 scale. The 1/12 division also can road race. AMB scoring with a full hobby shop and concessions on the site. Telephone is (603) 595-8549. Rt. 101A, Amherst, NH 03031.

NEW JERSEY

AMERICAN HOBBIES

1/10 Scale: Thurs. Oval; Sunday Off-Road & Oval. for info call (201) 446-2010.

PARLOR HOBBIES

1/10 & 1/12 Scale: Short track stock car racing on road courses. 1/10 on asphalt. Truck class with 1/12 on road, off-road. Rabbit Lane & 34 Broad St., Matawan, NJ, 566-3158.

GLASSBORO'S GRAND OVAL

1/10 and 1/12 indoor carpet oval and road course racing. Outdoor banked clay oval. Racing Wed., Fri., Sat. and Sun. (609) 863-1551. 167 Rt. 47 DSouth (Delsea Dr.), Glassboro, NJ 08028.

NEW MEXICO

LAS CRUCES HOBBY RACEWAY

1/10 scale off-road and oval on a 7,200 square foot track. 1/10 gas truck and electric racing every Sunday. 1996_A S. Valley Dr. Las Cruces, NM 88001. Phione (505) 524-8530

RACERS INN

Full hobby shop and concessions. 1/10 off-road every Sat. at 6:00 p.m. on outdoor 70x120 track. Also 1/4 scale Sprints and Grand Nationals. Oval and dirt oval. Call for schedule. Located at 4300 Rankin Ln. N.E., Albuq. NM 87107. Phone (505) 345-5988.

NEW YORK

WALT'S HOBBY & CRAFT

1/10 & 1/12 Scale: Two indoor tracks. 1/10 clay oval, Mon. & Sat; 1/10 Gearbox carpet, Mon.; 1/12 & 1/10 carpet, Tues. Oval and Road Course. Weight Pulling Wednesday. 2 Dwight Park Drive, Syracuse, NY, (315) 453-2291.

RADIO OPERATED AUTO RACING OF ROCHESTER

1/10 Scale: Monday Pro Night; Tuesday Boy Scout Night; Wednesday Teen Night; Thursday Indoor Clay; Friday ROARR Meetings; Saturday & Sunday Family Days. 110 Anderson Ave., Behind Village Gate, 274 N. Goodman St., Rochester, NY.

REC. R/C RACEWAY

1/10 Scale Clay Oval. Saturday - Oval; Sunday Off-Road. Call Erin Clancy (914) 868-7715. Route 82 to Standfordville, NY 12581.

ROMAC

1/10 and 1/12 on large carpet oval. Thursday and Sunday. (Northern Lights Mall) N. Syracuse, NY. For more info call (315) 468-1463 or (315) 468-6544.

SCHENECTADY R/C SPEEDWAY

1/10 & 1/12 Scale: Indoor oval carpet and Monster Trucks. 955 State St. Schenectady, NY, (518) 3709-3747.

BROWNIE'S HOBBIES

1/10 Scale: Off-Road Dirt Track. Friday evenings 4WD & 2WD. Track open April - November. 124 Bennett St., Staten Island, NY 10302, (718) 727-2194.

RAPID TRANSIT RACEWAY

1/10 Scale: Mon, Tues., & Sat. - Practice. Wednesday - Stock & Mod.; Thursday Sprint Car; Friday Sportsman & Open Class. 2104 Broadway, Schenectady, NY 12306, (518) 372-0777.

CAPITOL DISTRICT R/C OUTLAWS

1/12 Scale 4-cell carpet. Oval and road course. Every Friday at 7:30 p.m. October to April. For further info contact Capitol District R/C Outlaws, 223 Fourth St., Scotta, NY 12302, or Sam Roberts (518) 374-3801.

QUEENS OFF-ROADERS

One of the biggest 1/10th off-road tracks in the country! Racing on Fri. at 8:00 p.m., Sat. at 3:00 p.m. and Sun. at 11:00 a.m. For latest racing information call (718) 392-5766. Track is at 42-12 13th St., L.I.C., NY 11101.

VICTOR R/C ASSOCIATION

1/10 scale clay oval track & off-road racing. Fridays and Sundays, May through September. 1309 Mertensia Rd., Farmington, NY For information call Larry at (716) 394-3754.

NORTH CAROLINA

DIXIE R/C HOBBY SHOP

1/10th Scale: Every weekend Sat. & Sun. The races will alternate between oval and motorcross starting in May. P. O. Box 135, Ramseur, NC 27316, after 6 p.m. (919) 824-2770.

MID-CAROLINA R/C SUPER SPEEDWAY

1/10 & 1/12 high speed banked quad-oval and road course. Located on FLint Hill Rd., Off 1-77/Carowinds exit, So. of Charlotte, NC. Fred Penland, (704) 373-2535 7:30 A.M. to 4:30 P.M.

ASHEVILLE HOBBY SPEEDWAY

1/10 & 1/12 scale asphalt oval-indoors. Racing Wed. & Sat. 7:30 p.m. Highway 25, Naples, NC 28760, (704) 684-9814 ask for Jack or Sharon Murdock. 1/10 Dirt Oval & Off-Road. Racing Sat. & Sun. 1st & 3rd weekends. 6200 McGregor Dr., Charlotte, NC 28227, (704) 545-0746 ask for Steve Hill.

RC HOBBY & RACEWAY

1/10 & 1/12 indoor carpet racing Nov.-Mar. Oval and Off-Road dirt racing every Saturday. For more info (919) 228-6809, 1358 S. Church Street, Burlington, NC 27215.

BOOGLE BAY R/C RACEWAY

600 foot asphalt oval raceway with 30 foot wide straits and 40 foot wide turns. The track races 1/10th, 1/12th and 1/4 scale. Racing set every month in advance every Saturday and Sunday. Rt. 1 Box 324, Linden NC, 28356 - (919) 488-5408.

NORTH DAKOTA

NORTHERN MINI-RACERS

1/10 Scale on-road, carpet, road racing. Saturdays Sept. through May. P. O. Box 415, Minot, North Dakota. For information call Pat McWethy (701) 839-8868 or (701) 852-6254. Roger Lee (701) 839-4731 or (701) 839-5294.

KOUNTRY KLIN HOBBY

1/12 Scale small indoor carpet track & hobby store. Box 247, 324 Railroad Ave., N. Mohall, ND 58761, (701) 756-6307.

OHIO

TARCAR-TOLEDO AREA

1/8 gas stock cars. Black clay tri-oval. Sundays late April thru Mid-October. For more info call Dave Scanes, (419) 893-1916.

1/8 RACERS OF TOLEDO

1/8 & 1/10 scale asphalt road course. Every other Sunday from Mid-April to Mid-October at the Woodville Mall rear lot. For schedule and info contact Brent Gottfried (419) 843-3231.

THE RACER'S CHOICE - RADIO CONTROL HOBBIES

Located at 1298 U.S. Rt. 42, Mason OH 45040. Large outdoor off-road track, over 400' long with 100' straight, elevation changes, jumps, moguls and banks. Lighted with large driver's stand. Also

banked 40' - 100' oval. Organized racing weekly. Fully stocked shop, for details and schedule call Holly, Tony or Adrian at (513) 398-5539. Track located just north of Cincinatti, near Kings Island.

CORCAR - COLUMBUS, OH

Outdoor 10th scale off-road racing May through September and indoor off-road racing October through April. Contact Ray Williams before 9 p.m. (eastern) (614) 890-2983.

ALCAR INTER. R/C RACEWAY

1/10 Scale off-road Friday nights. 1/12 & 1/10 carpet Sundays. 33501-A Lake Rd., Avon Lake, OH 44012, (216) 933-6017.

ALTERNATIVE RACING ASSOCIATION

1/10 and 1/12 on-road. Two large tracks indoors and outdoors. 2600 17th SE, Canton, OH 47306 (216) 484-2587.

INNOVATIVE HOBBIES & LAKES SPEEDWAY

Large indoor multi-layout ozite carpet track and large outdoor dirt oval. Racing Wed., Sat., Sun. 3425 Manchester Rd., Akron, OH 44319, (216) 645-1333.

AEROTECH RACEWAY

1/10 oval/tri-oval and off-road dirt. 409 Applegrove Rd. North Canton, OH. Call Ron at (216) 499-1300.

MODELER'S HAVEN RACEWAY

1/10 clay oval May thru October. Electricity, water, indoor restrooms and shaded pit area. Contact Bob at (216) 499-6000. 4255 Portage N.W. North Canton, OH 44720.

MID OHIO R/C RACEWAY

We race 1/10 off-road and dirt oval all indoors. There is a 300 foot oval track with the off-road track built inside of that. In addition to that, we have scale 1/4 mile slot car drag races. Call Bob at (513) 233-2807 for more information. Track is in Huber Heights, Ohio.

D & S HOBBIES AND RACEWAY

Racing is 1/10 and 1/12 4-cell. Race days are Wed., Fri. and Sun. Track is closed Mondays. D & S Hobbies, 7701 Crile Rd. Unit 3, Concord, OH 44077.

AAACTION SPEEDWAY

High banked 100' x 50' clay oval and off-road track. No AC power, but plenty of shaded parking and pit space, clean restrooms, concession stand and a good family atmoshpere. Contact Tim McKnight at (614) 387-5912 for more info. All races $5.00 per class.

OKLAHOMA

R.C.A.R. OF TULSA

1/10, 1/12 Scale: Indoor racing. 3025 South Sheridan Rd., Tulsa, OK. For more info call Dave Cole (918) 745-9898.

RCRC OF OKLAHOMA

1/10th scale indoor dirt oval and dirt off-road. Racing on this large track is at 7 p.m. Tuesdays and 5 p.m. Saturdays. Complete hobby shop with plenty of pit space and AC power. 400 WS. Vermont, #104, Oklahoma, OK 73108. Call (405) 942-7272 ask for Robert.

OREGON

R/C SPEED CENTER R/C ADDICTION

1/10 & 1/12 scale, banked dirt oval racing, dirt off-road racing, sled pulls, mudbog. 2810 N. Pacific Hwy., Medford, OR 97501, Call Gene or Betty Skelton, (503) 779-8298.

PENNSYLVANIA

CARCLUB-COCHRANTON AREA

Racing every Friday at 6 p.m.; Saturdays 9 a.m.; Sundays at noon. Large indoor carpet-dirt outdoor. Call for info Harry Turner, 120 W. Adams St., Cochranton, PA 16314. (814) 524-7788.

C.A.R. CLUB

Racing every Sunday. Tamarack Raceways, Contact Harry Turner, 120 W. Adams St., Cochranton, PA 16314, (814) 524-7788.

WAGONHILL HOBBIES

Indoor 1/10 & 1/12 on-road racing every Friday night. Outdoor Off-Road every Saturday night. 225 S. Board St., Grove City, PA (412) 458-4711.

TC'S R/C'S

Inside and outside race track and RC Shop. 1537 Freeport Rd., Natrona Heights, PA 15065, Call 226-8802.

PHILLY RADIO CONTROLLED RACERS R/C CAR CLUB

1/10 on-road paved track. Sundays, April thru November 11 a.m. 7790 Dungan Rd., N.E. Philadelphia. Jon (215) 224-4822 or Bernie (215) 831-1835.

EAST ST. RACEWAY AND ART CENTER

Over 4,000 Sq. foot carpet track. Computerized lap counting. Racing starts at 7 p.m. each night. Friday oval racing; Saturday stadium off-road. Located at 747 E. Railroad Ave., Verona, PA 15147 (412) 826-0602

SOUTH CAROLINA

BNS COMPETITION HOBBIES

Contact Bob Sanford, (803) 224-8591. Route 7, Box 380, Anderson, SC 29624. Racing and open practice Wed. 6:30 p.m. Every Saturday 1 p.m. 1/10 Dirt Oval.

REMOTE HOBBIES INDOOR RACING

Friday nites - Oval 1/10; Saturday - Road Course 1/10. Shop (803) 736-9446, Track (803) 699-0528. 9005 C Two Notch Rd., Columbia, SC 29223.

BEREA R/C SPEEDWAY

Fri. Nights 1/10 conc., banked oval; Sat. nights stadium off-road for trucks and buggies; Sunday unlimited oval;. 707 Sulpher Springs Rd., Greenville, SC 29610. (803) 246-4702.

TENNESSEE

HITT'S HOBBY & RACEWAY

Tuesday Oval; Thursday Off-Road Stock; Saturdays Off-Road Novice; Sundays Off-Road Modified; Oval and Off-Road. 853 Wren Rd., Goodletsville, TN 37072. For info call Ben or Kent (615) 859-3465.

TEXAS

HAL'S R/C RACEWAY

Saturday is on-road asphalt 1/10. Sunday is off-road. Registration both days is at 11:00 a.m. 1440 Bessemer, El Paso, TX 79936 (915) 591-2213.

RIVER CITY RACEWAY

On Quincy Road, Wichita Falls, TX. Every 2nd & 4th Sundays at Noon. Call (817) 691-1478.

ARROW HOBBIES

Wednesday - 1/10; Every other Friday 1/8 Sprint cars only; Saturdays 1/10 dirt oval. 2710 So. 1-35 West, Burleson, TX, (817) 295-2821.

VICTORIA HOBBY SHOP

Every Sat. Off-Road; Every Sunday - Ovals. 5211 John Stockbauer, Victoria, TX 77904, (512) 575-3270.

EAGLE HOBBY CENTER & RACEWAY

Every Friday night 1/12 4 cell stock, pro-stock and modified. 1/10 6 cell stock on-road. Eagle Hobby Center & Raceway, 3601 Shepherd, Balch Springs, TX 75180, (214) 557-5290.

COASTAL BEND SANDBLASTERS R/C CAR CLUB

Races first thru third Sundays, 2 p.m. start. Bill Witt Park, Yorktown Road, Corpus Christi, TX. Call Pete Broadway (512) 992-4448.

ROADRUNNER R/C CENTRAL
1/12 carpet oval or road course. Thurs. 1/10 carpet oval. Tues. & Fri. nite & Sun. 5620 Bellaire, Houston, TX 77081, (713) 661-7574.
ROADRUNNER R/C NORTH
1/10 Dirt oval Wed., Fri.; 1/10 Dirt Off-Road Sat. & Sun. 12760 Veterans Memorial, Houston, TX 77014, (713) 537-7758.
ROADRUNNER R/C SOUTH
1/10 Indoor Dirt Off-Road Wed, Fri. & Sat. 12902 Player, Houston, TX 77014, (713) 728-2277.
TEXAS R/C RACEWAY
Home of the Plano Outlaws
Tues. & Sat. - 1/10 on-road; Fri. - NASCAR nite; Sunday 1/12 on-road. 75 Central Exressway at 15th St., Exit 29, Palisades Square Shopping Center, Plano, TX. Call Jim (214) 517-7485 or Dean (214) 519-0324.
AMERICAN ANGLER TACKLE & R/C
HOBBY CENTER'S "AA" RACEWAY
Two dirt tracks, oval & off-road. Races every Sunday, 1 p.m. Tracks alternated. Races every Saturday 11 a.m. oval. Hobby shop on site. 1617 Toomey Rd., Austin, TX 78704, (512) 474-8277.
WESTSIDE HOBBIES
1/10 Racing every Sat. 1/10 on-road racing every Sun. on asphalt. Alternating oval and road course. 7214-A N. Mesa, El Paso, TX 79912. For additional information call Tom, Mark or Tim at (915) 585-1864.
FINISH LINE HOBBY & RACEWAY
1/10 scale indoor off-road every Fri. and Sat. 8:00 p.m. 1/12 indoor carpet every Tue. 7:00 p.m. 11925 Jones Maltsberger, San Antonio, TX 78216. Call (512) 491-0088 for more information.
T & T EAGLE HOBBY
Headquarters for the "Killer Dillers" R/C Club, racing is on the first and third Sunday in front of the store. The firstSunday is road course and the third is oval. Emphaisis is on fun racing. Trophies for novice class only, entry $5.

UTAH

I.R.C.D.R.A./HOBBY EXPRESS
Race indoor off-road every Saturday at 6 p.m. 3150 Brinker, Ogden, UT info call Hobby Express (801) 621-4013.
WASATCH OFF-ROAD RACEWAY
Operated by IRCDRA. Races are indoor on an off-rad and oval raceway. Races every Saturdayt at 6:00 p.m. Track at 3170 Brinker Ave., Ogden, UT 84401. Phone is (801) 773-0933.

VERMONT

MIKES HOBBIES & RACEWAY
Indoor banked 1/10 carpeted oval, on-road racing. Six classes every Wed. at 7:00 p.m. and Sun. at 1:00 p.m. Track at 162 N. Main St., Rutland, VT 05701 - (802) 775-0059. For more information ask for Lee or Chuck.

VIRGINIA

F/X CITY RACEWAY
Every Saturday 1 p.m. The Frame Gallery, 13340 F Franklyn Farm Road, Herndon, VA 22071. For info call Eric (703) 471-4499.
WINNERS CIRCLE HOBBY SHOP & RACEWAY
Racing every Saturday night at 6 p.m. Large oval carpet. 3236 W. Clay St., Richmond, VA 23230 (804) 355-7076.
COOPER'S RC RACE CENTER
Racing every Sunday 2 p.m. oval and off-road. Contact Norris (804) 724-4182. Rt. 4, Box 122B, Chatham, VA 24531.

WASHINGTON

SPOKANE INDOOR RACEWAY
This is a 10,000 sq. ft. facility with carpeted on-road track and indoor dirt off-road track. Daily open practice is $2 per day. Large indoor pit area, computer scoring (AMB), full parts shop. Located at E. 6422 2nd Ave., Spokane, WA 99212. Phone for current race schedule at (509) 534-RACE.

WEST VIRGINIA

BIG BOYS TOYS HOBBY SHOP AND TRACKS
Dirt and carpet oval tracks. Racing every Sunday evenings; Monday and Thursday evenings. Bridgeport, WV, (304) 842-5799.
WEST VIRGINIA REMOTE CONTROL RACEWAY
Racing every Sunday. Doors open at 12 noon, racing starts at 1 p.m. The track size is a 90 X 50 foot carpet oval. Prizes in all "A" mains. Track is at 601 Jefferson Rd., South Charleston, WV 25309. Call Russell Pauley (304) 346-7223 after 6 p.m.
R/C RACE PLACE
Racing on-road every Wed. night at 7:00 p.m. and carpet oval every Fri. night at 7:00 p.m. during the winter months. Racing outside for dirt oval every Wed. Fri. nights on lighted 260 foot track during the summer months. Full hobby shop. Contact Mike or Dennis Robinson at (304) 292-0811 for information.

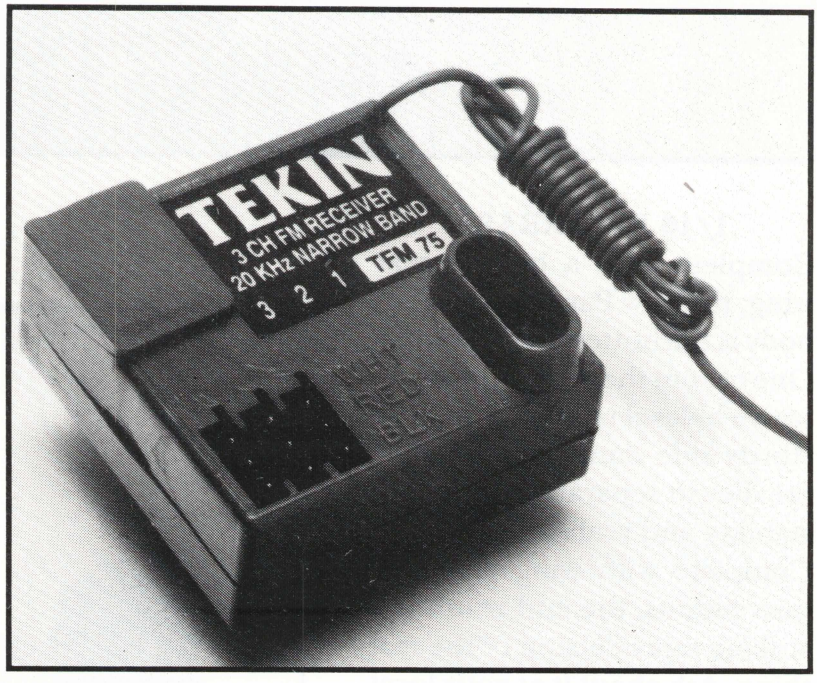
WISCONSIN

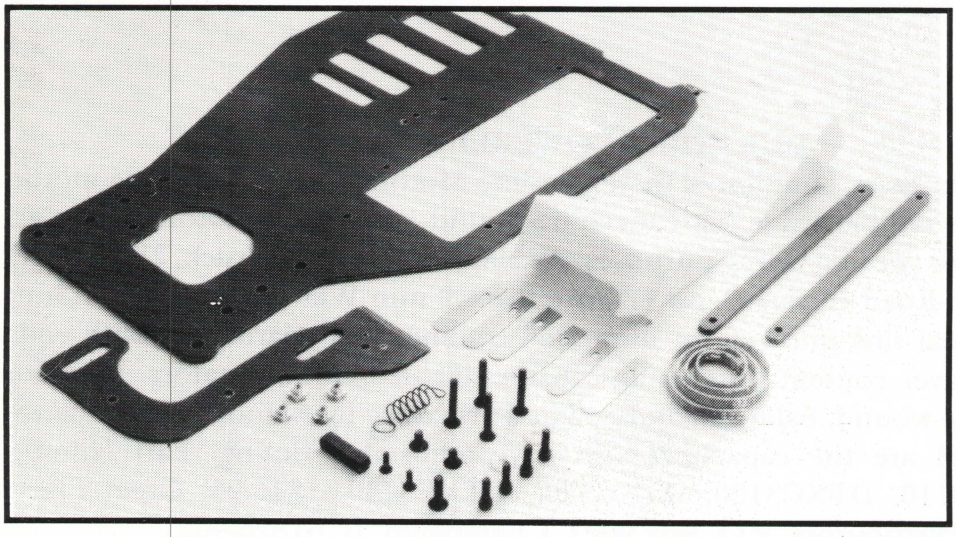
MADISON AREA RADIO CONTROL
CAR ASSOCIATION, INC.
Dirt Oval on Sunday. Carpet road racing on Saturday. Carpet oval on 1st and 3rd Fridays. Track is at 1810 S. PArk St., Madison, WI. For information call 273-0519 or 837-2033
J. G. S.
Wisconsin's finest off-road race track. Perfectly groomed 100 ft. straightaway, computer scoring, driver's stand, starting lights. Racing every other Sunday 1 p.m. Menomonee Falls, WI (414) 255-2040.
TRACKSIDE RACEWAY
Dirt oval racing every Thursday night 6 p.m. Menomonee Falls, WI (414) 255-2040.
ABC R/C
Clay track racing every Saturday 1 p.m. Truck pulls every Tuesday 6:30 p.m. 1441 B E. Main Street, Waukesha, WI 53186, (414) 542-1245.
ALL IN 1 RACEWAY
5612 S. 108th St., Hales Corners, WI. 1/10 scale indoor dirt track. High speed semi-oval and true off-road courses. Racing Wednesday nights at 6 p.m. Sat. & Sun. at 1 p.m. For more info call (414) 425-4060.
RC RACEWAYS AND HOBBIES
1/10 Indoor dirt oval Fridays & Sundays. Off-Road Wednesdays. Outdoor Asphalt Thursday (weather permitting). Fully stocked hobby shop. For more info (414) 764-9701. 181 W. Marquette Avenue, Oak Creek, WI 53154.
GARY'S HOBBY SHOP
Indoor banked concrete oval racing Tue. nights. Figure "8" Sun. afternoon. On site hobby shop with Ac & DC power. For latest information call (414) 554-8884 or (414)554-8636. Address is 3701 Durand Ave., Elmwood Plasa, Racine, WI 53405.

For The Racer

THE WORLD'S SMALLEST FM RECEIVER FROM TEKIN

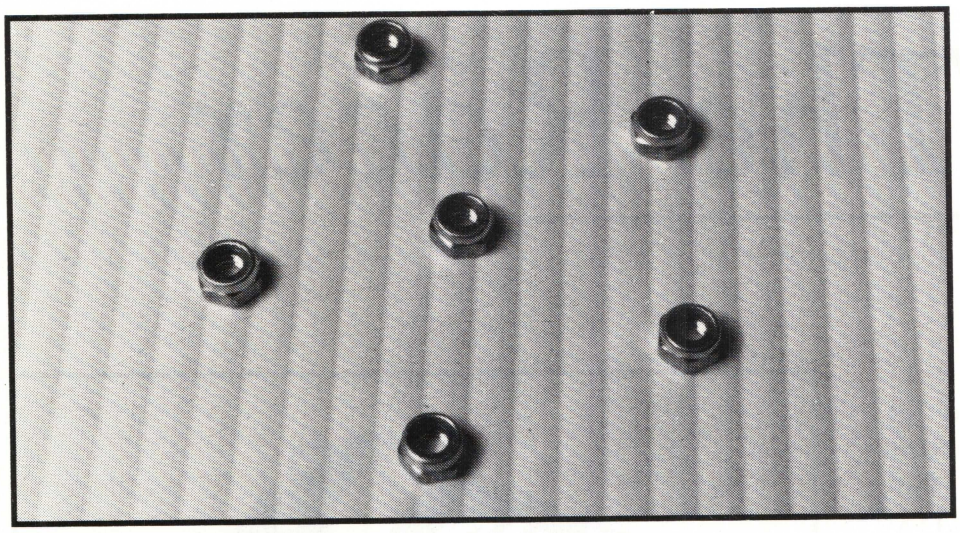
Tekin has just set a new standard for receiver technology with the introduction of their new FM Mirco Receiver. This receiver is the smallest, most advanced FM receiver available for your RC vehicle. With a case size of 1.2 x 1.2 x .57 inches, it can be easily installed in most radio control vehicles. The TFM Micro Receiver only weighs 13 grams which is light enough even for the most discriminating racer. It's compatible with any existing FM radio system including those from Futaba, Airtronics, KO Propo and JR. The Tekin TFM is available for use with 27, 29, 35, 40 and 75 MHz systems, and uses the same crystals as your existing radio. For more information please contact Tekin Electronics, Inc., 970 Calle Negocio, San Clemente, CA 92672-6201.





BOLINK'S QUICK CHANGE CONVERSION KIT

BoLink now offers Quick Change Conversion Kits for RC 10L SS and Lynx II SS oval racing cars. Both kits include a complete hardware package, a special chassis to convert your car for endurance racing, 3 sets of battery contacts and complete instructions. They are designed to use standard stick type 6 cell battery packs. BoLink R/C Cars, 420 Hosea Road, Lawrenceville, GA 30245, (404) 963-0252, FAX (404) 963-7334.



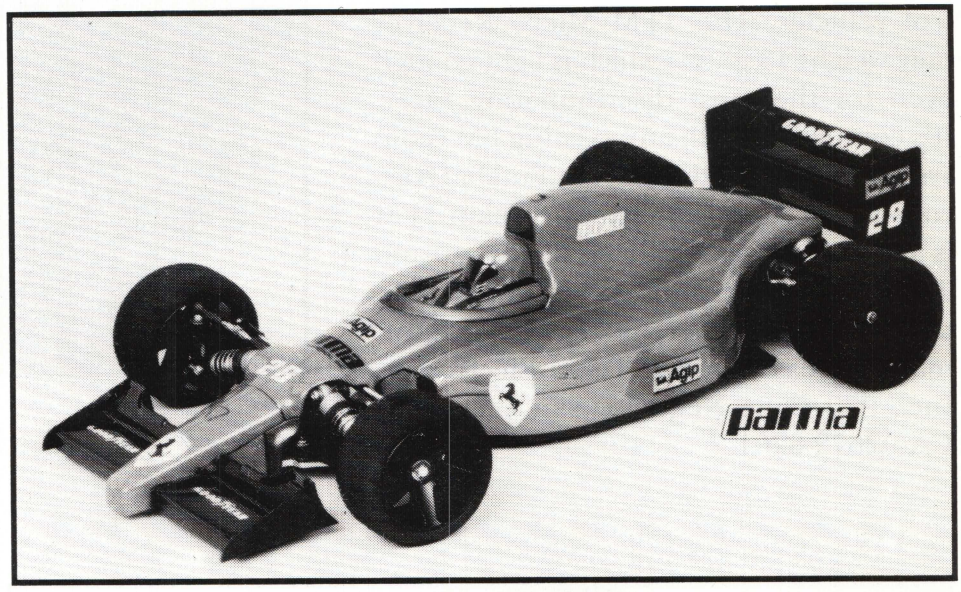
BUD'S 4-40 ULTRA MINI ALUMINUM LOCK NUTS

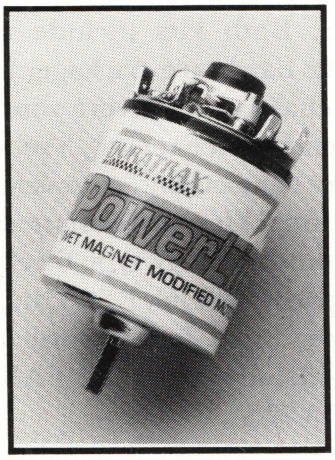
Super light weight and size make them great for retaining ball pivots on off-road cars. These are the lock nuts used on our super machine front-end stub axles. Part Number 7555-$2.95/ 6 pcs.$2.95. Bud's Racing Products, 1575 Lowell Street, Dept. CP, Elyria, OH 44035. For a complete catalog, send $2.00 and large 45 cent SASE to above address.

1/10 F1 FERRARI

Complete with a bi-level rear wing, the new Parma F1 Ferrari body is the hottest new Formula One car out there. It is complete with a bi-level rear wing and the sturdy side dams and winglets are die cut separately for added stability and realism.

Complete with wing tape and instructions, the end result is a striking reproduction of the real thing. Ask about it at your local hobby shop or raceway. Part Number 10346...Clear $21.00. For a full color catalog, poster and stickers, send $4 to: Parma International, 13927-PR Progress Parkway, North Royalton, OH 44133.



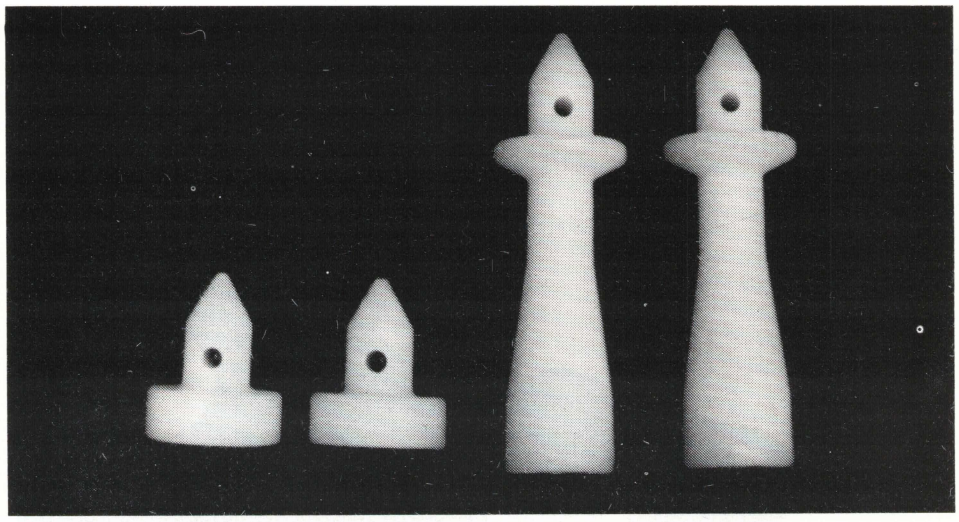


DURATRAX POWERLINE MOTORS

Team Duratrax announces the Powerline Motors. These Powerline motors offer incredible value with machine-wound race-ready motors. They are suited for specific racing purposes. Available in Monster Truck, 2WD, 4WD, and, On-Road versions. All Feature the 4.9 mm Wet Magnets and 1.3mm Can. Heat sink end-bell for improved cooling. Ball bearings at both ends. High Silver content brushes and diamond-trued communtators. Precision machine-wound, balanced and epoxied armature for smooth performance. Included are the capacitors and have adjustable timing. Part Number DTXC3110, DTXC3120, DTXC3130, DTXC3140 - $44.95. Great Planes Model Distributors, P.O. Box 9021, Champaign, IL 61826-9021.

HEAVY DUTY BODY POST SET (4)

Made with a Dyeable, harder grade of nylon so the 4-40 screw threads won't strip easily. They are injection molded with a slight point on the end to help you spot the body holes with ease. Set includes 2 fronts and 2 rear. Part Number 7014 RC10T - $2.50/set. RPM, Custom Engineered RC Products, Richard Royall, 14978 Sierra Bonita Lane, Chino, CA 91710. (714) 393-0366. FAX (714) 393-0465.



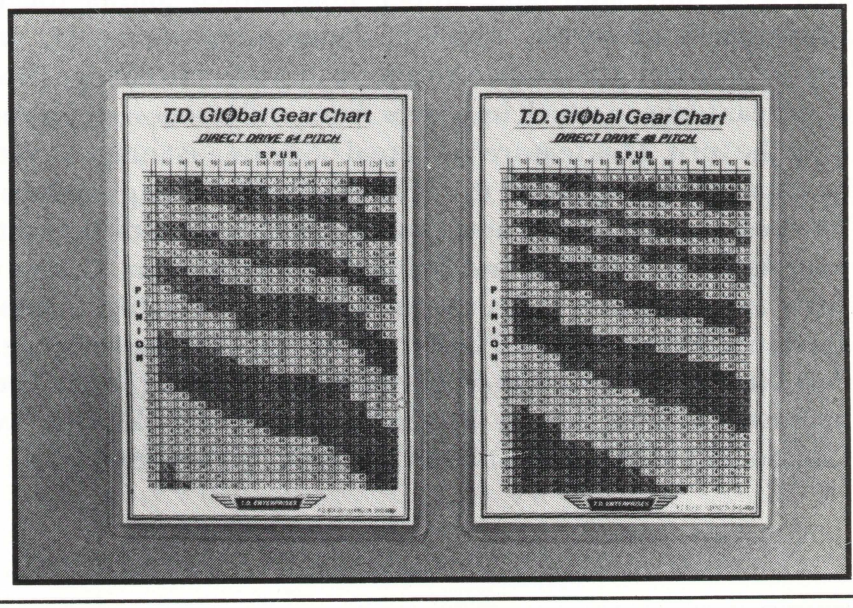


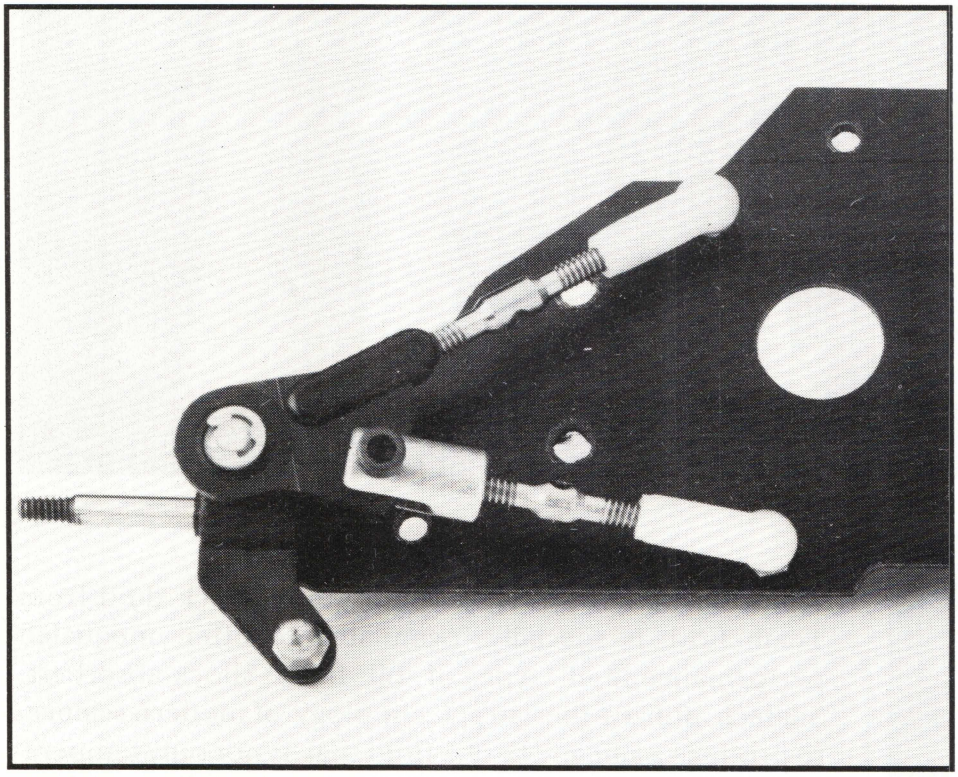
TEAM LOSI SHOCK OIL

Team Losi Silatech competition grade shock fluid from Team Losi, is specially formulated to offer unequaled performance in all types of oil filled shock absorbers. Silatech utilizes the latest technology of modern science, to produce a silicone based fluid that is not only temperature stable, but features reduced seal swelling, which minimizes "stiction" and unwanted drag on the shock shaft. Additionally, Silatech is color coded for easy identification and is laboratory graded in half steps, to produce unequaled performance. Don't guess–rely on Team Losi Silatech competition grade shock fluid for best results. Part Number A-5220 through A-5226. Team Losi, 13848 Magnolia Ave., Chino, CA 91710 (714) 465-9400 FAX (714) 590-1496.

T.D. GLOBAL GEAR CHARTS

These charts show direct drive ratios for almost every gear available. Their compact 6" x 4" size makes them easy to mount in pit boxes for trackside use. Made to last, they are hot laminated in 5 mil plastic–impervious to sprays and lubricants. Available for 64 or 48 pitch ratios. Part Number 1048 - 64 Pitch (pink) - $3.00. Part Number 1050 - 48 Pitch (orange) - $3,00. T.D. Enterprises, P.O. Box 3301, Lexington, OH 44904. (800)253-7229.





TRINITY EVOLUTION 10 RCS FOR RC10L & BOLINK (REACTIVE CASTER SUSPENSION)

The 1/10th IFMAR On-Road World Championships were dominated by Joel Magic Johnson and his Trinity Powered "Evolution 10" car. This car, soon to be released by Trinity (E0010) had several unique features incorporated into it's design, one of which is the "Reactive Caster Suspension".

This new front suspension design features a carbon graphite lower arm and fully adjustable upper links which allows for infinite adjustments of caster, camber, dampening, springing, and roll center. The unique design also allows the caster to change (decrease) as the car turns in which improves front end traction and stability exiting the turn. This feature was a real obvious advantage as witnessed by anyone who attended the IFMAR World Championships.

The best part about this new front end is that it is a direct bolt-on for your Associated RC10L and Bolink 1/10th scale cars. Comes with all parts and complete instructions. Easy, fast assembly. Comes packaged in a shrink-wrapped box for easy shipping and storage.

Part Number E0011 (On-Road wide) and E0012 (Super Speedway narrow) - $79.99. Trinity Products Inc., 1901 E. Linden Ave., #8, Linden, N.J. 07036. (908) 862-1705 FAX (908) 862-6875.

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Maximum Go for Minimum Dough!

Kyosho's 1/8 scale gas Inferno DX™

Decisions, Decisions...

Here's the situation: 1/8 scale gas racing appeals to you. But you A) don't have the cash for that killer car and B) don't want a car that'll be outdated by tonight's 6 o'clock News.

So what do you do?

Inferno DX: 2 reasons to buy now, and 1 for the future.

Simple. You buy Kyosho's Inferno DX.

Why? Because it has many of the Kyosho Inferno's features, the car Steve Pond of *R/C Car Action* magazine called, "...the best 1/8 scale off-road car around, right out of the box."

Features like the same logical layout and winning potential, to name two.

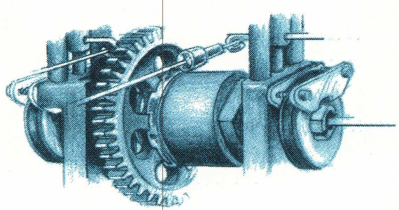
And because it carries the best, going-in price of *any* 1/8 scale gas car around.

That's because it's a "foundation" car—a car you can build on and grow with.

And that's where Reason #3 comes in.

Fact is, Inferno DX not only gets you in for less today, it'll cost you less in hop-ups tomorrow. That's something to look forward to, right?

And look at what you start with.

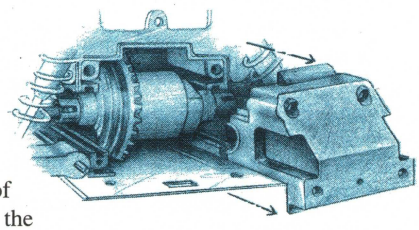


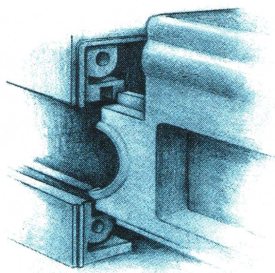
Twice the braking, so you can go hotter into the corners.

With two brakes (not one), the Inferno DX can slow for a corner in less than half the distance of single-brake cars. Bias on both adjusts from the center diff (an easy "do") for fast, last-minute tweeks.

2-minute diff access, front and rear...

When you need access, you need it fast. Interlocking diff cases make it happen; having to remove just seven screws makes it happen *fast.* And when they're out, the diff's right there, ready for work.



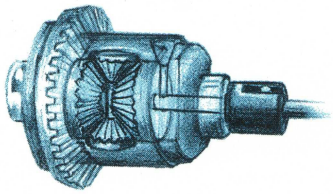


Universal rims for equal footing

A new design makes the wheels stronger, yet lighter. With less mass to move and less surface to hold dirt, more power goes for speed. Using the same rim on all axles also means that weight, traction and handling are balanced better, too.

Diffs with the guts to go the distance.

Three tough gear diffs (front, rear and center) deliver smooth, controllable power to all four wheels.



An all-in one aluminum radio tray.

All radio gear goes on one tray: remove five screws, unhook the servos, and it lifts right out. Easier cleaning, easier maintenance... easier everything. And since it's aluminum, it protects more and flexes less. That keeps steering neat and precise, with no slop.

8 more reasons to see it for yourself.

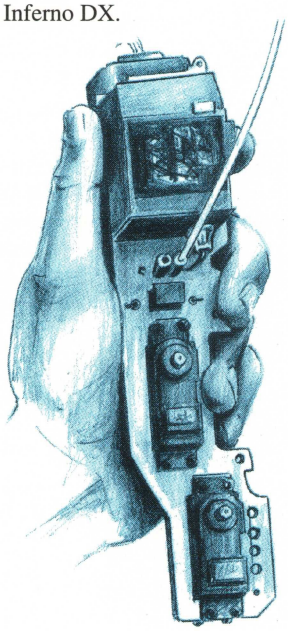
It would be easy to go on and on about the Inferno DX. About the 4-wheel, independent suspension with extra-long arms. The forward-mounted gas tank that takes the "Oops!" out of spills. Toe-in that adjusts to 0,1,2° just by adding simple blocks. The oil-filled Black Shocks. The adjustable wing mount. Bearings in the rear tranny. And the lighter, 2.5 mm aluminum chassis that holds it all.

But why bother?

Seein's believin'...and you can see it for yourself at your local hobby shop.

Compare features. Compare prices. And get the most Go! for your dough.

Inferno DX.



News Flash

Inferno Sweeps all 5 Main Events, Including Top four "A" Main Spots, at the Southeast Gas Off-Road Championships.



Length: 18.9"
Width: 12"
Height: 7.1"
Weight: 7.5 lbs.
Wheelbase: 12.9"

Track: 10.0"
Requires: 2-channel radio, .21 buggy engine, muffler and manifold

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TURBODYNO.
A true dyno for R/C racers.

There are other dynos. But only the new TURBO-DYNO directly measures actual torque, as well as amps, rpm and volts in 6 settable loads. It's a true dyno that motor manufacturers themselves use. And now, it's available to you.

Consider these unique TURBODYNO benefits to R/C racers:

- Up to 8 storable setups. The first 4 are standard pre-programmed setups for 1) 11 to 15-turn modified motors, 2) stock motors, 3) 15 to 24-turn modified motors, and 4) loading motors to pre-programmed amp draw levels from 7.5 to 30 amps. Setups 5 thru 8 are blank for your own use.

Each setup consists of up to 6 settable loads in either torque, amps or volts. The setups can be executed manually or automatically and saved in power down memory.

CONSTANT VOLT 5.00

RPM	TORQ	WATT	EF	AMPS
24529	0.9	16	44	7.3
23862	1.6	28	56	9.9
23022	3.0	51	68	15.0
22314	4.4	73	73	20.0
21532	5.8	93	74	25.1
20969	7.2	113	74	30.2

Actual HP printout

Plus:

- No slave motor effects on readings.
- Display of efficiency and output watts.
- Motor timing set for maximum efficiency while running motor.
- Direct calculation of gear ratios.
- Sensitivity for detection of brush and spring changes.
- Consistant readings from dyno to dyno.
- Motor voltages selectable from 4 to 8.4 volts.
- Hewlett Packard thermal printer interface standard.
- Maximum capabilities: 60,000 rpm, 16 in-oz torque, 30 amps.
- Power supply: 12 to 14 VDC at 30 amps required.*

All this for a fraction of the cost of a commercial dyno. **Now only $995.00** (Suggested Retail)

Hewlett Packard Printer (Optional) **$125.00**

Competition Electronics. The name to remember for reliability and winning performance.

*Automobile batteries are not recommended. Battery voltage drops considerably when loaded to 30 amps. There is also a danger of explosion from gases generated by lead-acid batteries.



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OVAL'S BEST!!

ROAD'S BEST!!

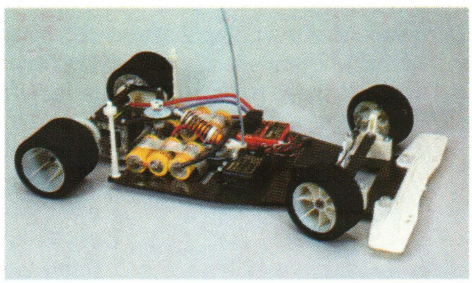


KENT CLAUSEN

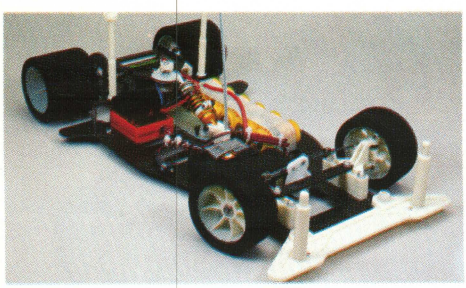
CLIFF LETT

ACTUALLY, AT *TEAM ASSOCIATED,* WE LIKE BOTH ROAD *AND* OVAL RACING. WHEN THERE'S GOOD COMPETITION, THEN *BOTH* ARE EXCITING!

KENT "Mambo!" CLAUSEN is presently better known for his accomplishments on the ovals. In 1989 he shattered the 1/10 electric oval speed record with a blistering 70.1 MPH in his RC10L! Then, in 1991, he put his RC10LSS into orbit, with a new 75.96MPH record run at *R/C Thunderdrome!* Did you know that Kent is also an IFMAR *1/12 World Road Champion,* and that he has also won 7 ROAR 1/12 ROAD AND OVAL Nationals?



RC10L on road



RC10L Super Speedway oval

CLIFF "Buggymaster" LETT's accomplishments in both road and oval racing would fill this page. But Cliff is an IFMAR *1/10 Off Road World Champion,* as well as an 8 time ROAR ROAD AND OVAL National winner, and a *Whippoorwill* and *R/C Thunderdrome champion.*

So you see, we at TEAM ASSOCIATED like both ROAD AND OVAL racing. So much that after we built the RC10L, the most popular 1/10 ROAD racer ever, we built the RC10LSS, the most popular OVAL racer. When we came out with the true scale RC10LSS, which appeared too narrow to everyone, they all said it wouldn't work. But, I'm sure you've noticed, they've all copied it now.

ALL OF TEAM ASSOCIATED'S WINS HAVE BEEN POWERED BY OUR *REEDY MODIFIED* MOTORS. GOOD FOR ROAD AND OVAL RACING, THEY'RE THE WORLD'S BEST, *7 TIMES!*

TEAM ASSOCIATED

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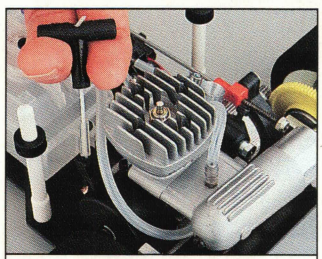
The DuraTrax GT-10™

The GT-10 kit does not include body or radio equipment.

Don't Let It Pass You By

DuraTrax brings affordable nitro power to on-road racing

For the last few years, gas racing has been the fastest growing category around. But most on-road gas cars have been either too complicated or too expensive, especially in the 1/8 scale category. Now DuraTrax has brought the excitement and realism of gas racing—affordably—to 1/10 scale on-road with the new GT-10.



The GT-10 is available with or without a pull-start equipped O.S. .12 CZ-R engine.

The GT-10 lets you say goodbye to expensive motors, batteries and speed controls and say hello to longer run times, faster speeds and the realistic roar of gas power. If you've already got a 1/10 scale electric, then you've already got most of the hop-ups you need—the GT-10 has 90% parts compatibility with most popular electric models. The GT-10 can also be raced on the same tracks as 1/10 scale electrics and accepts virtually any body—from oval to GTP.

When it comes to the technical aspects of this racer, simplicity is the name of the game. It features a beam style front axle that's simple to adjust and easy to maintain, the same 1/4" rear axle with adjustable ball diff found in 1/10 scale electrics and standard 48 pitch spur gears. The GT-10 also includes a unique pinion gear which can be changed without buying the entire clutch bell and a large capacity fuel tank with flip-top cap for fast pit action.

Simple, fast *and* affordable. So what are you waiting for? Get in on the newest, most exciting category of racing yet with the 1/10 scale, gas on-road GT-10.

For a free brochure and the location of the dealer nearest you, please call **1-800-682-8948, ext. 1082.**

Watch your local 1/10 scale track for new classes of gas racing and other DuraTrax sponsored events coming soon.

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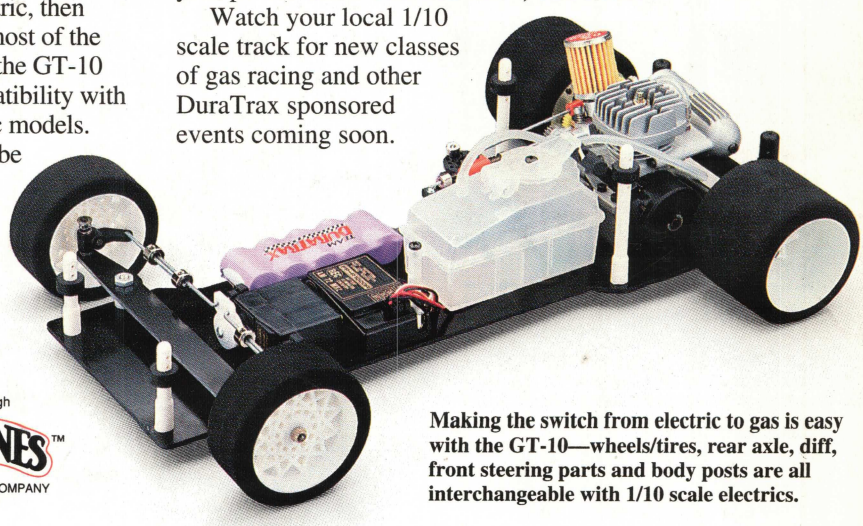

Making the switch from electric to gas is easy with the GT-10—wheels/tires, rear axle, diff, front steering parts and body posts are all interchangeable with 1/10 scale electrics.