

THE MANUFACTURERS' OUTBOARD SHOOT-OUT

By Mark Spencer

Held in conjunction with the famed St. Louis Grand Prix, Powerboat Magazine decided to settle once and for all, the question of who is king of the hill among the high performance outboard powered vee-bottoms.

THE IDEA:

With a noticeable decline in the sales of expensive high horsepower vee-drives and jets among the lead-footed set, outboard iron has emerged as one of the simplest and most economical ways to move across the water when you're in a big hurry.

Each year, one of the questions we hear most often from readers of our annual Performance Trials series is "which one of the vee-bottom outboards was the fastest?"

Unfortunately, for the single-minded speed buff, our expansive testing program is designed to evaluate all the performance characteristics of a total package, not merely top-end. Consequently, manufacturers send boats to the Trials featuring a conservative rigging set-up. Surprisingly many builders of late have even opted for smaller mid-sized outboards to improve fuel economy and reduce towing weight on boats as large as 20 feet.

Like many of our readers, the staff at PB has also been anxious to find out how the vee-bottoms stack up against each other in the area of full-throttle performance. With our thinking caps in high gear during a recent skull session, the idea was born to sponsor an unprecedented "Manufacturers' Shoot-Out" to separate the bench racing from the boat racing. A total of 17 invitations were sent out... nine accepted the challenge.

THE FORMAT:

Complete fairness and total accuracy were our goals in establishing the contest's format. Right from the start, we recognized that top-end performance could be broken down into two separate facets, including sheer brute speed and overall handling quickness. First, to determine what each boat could do at full pedal, we decided to take a radar gun reading and use the flash peak speed obtained as each boat flew down the longest (approximately ½ mile) straightaway on the St. Louis triangle. Each entry would be allowed two solo laps in order to build up maximum speed for the straightaway.

Once the speed ladder was established, the boats would then be paired in a round-robin format of side-by-side sprint racing competition. First round brackets would feature entries 1 vs 9 (or the fastest and slowest speed qualifiers), 2 vs 8, 3 vs 7 and because we had an odd number of entrants the number 4-5-6 position holders were paired in the only three boat competition of the contest.

Each first round match-up would consist of three laps with the exception of the three boat pairing which was extended to four laps to accommodate the extra participant. To keep the competition interesting, the fastest qualifier was always given the outside lane starting position.

In the second round, the four, first round heat winners would do battle to narrow the field down to a final duel for the championship. Both preliminary and the main event would be five lap affairs with the fastest speed qualifier, once again, assuming the disadvantageous outside position.

We decided to run sprint races with only a limited two entries on the course to help accentuate true top-end handling performance. In a typical vee-bottom marathon, water conditions often become so ruffled, as a result of the hull's substantial wakes, that it is very, very difficult to move up through traffic even if a driver has a distinct speed advantage. Many times, even smooth water, closed course events turn into a whitecapped circus.

Also, to eliminate any late start excuses, we used a pace boat instead of a dead-in-the-water modified LeMans format... both boats were paired at an on-plane speed of approximately 35 mph before being turned loose for battle.

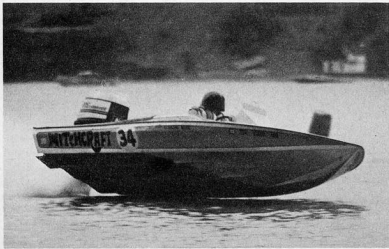


Photo by Tim Schorer

THE CHALLENGERS... AND THEIR WEAPONS:

KENNY SHAW-ALLISON CRAFT/JOHNSON 235

When the topic is high performance vee-bottom outboards, the name Allison Craft is synonymous with numerous competition and straightaway records. With more than a quarter-century of experience under their belts, Allison Craft is a family owned and operated outfit with headquarters in Louisville, Tennessee.

For the Shoot-Out, Allison Craft worked closely with Joe Burgess on a 225 Mercury-powered 20 footer. However, when the boat was put in the water for pre-event testing at St. Louis, the numbers just weren't showing up. As a back-up, company President Derris Allison had asked Kenny Shaw to stand by in his Johnson-powered machine.

Shaw's weapon was a three-year-old hull that was designed to compete in marathon events like Parker and Havasu. Over the years, the young pilot has enjoyed excellent success as he won the vee-bottom class at Havasu in 1979 and just recently won the Stroh's Beer Challenge in Ironton, Ohio in the single engine division.

Shaw's Allison Craft was definitely not built for short course sprinting, as the

bare hull weight was approximately 800 pounds. Measuring in at 20'5", the Allison Craft featured a notch back transom with a modified keel pad. Shaw's boat had received a custom bottom blueprinting to make sure everything was sharp and true, along with the addition of a port side skid fin on the rear chine to assist in cornering.

In the engine compartment, Shaw wasn't anxious to reveal what was under the hood but he did admit to some modifications in the heads, pistons and porting. The engine was exhaust-relieved and featured a custom built nose cone on the lower unit. For both the speed run and the sprint races, Shaw planned no set-up changes and utilized a 27" transom height which is four inches up on the configuration of the hull. The boat featured a Nydall steering system with trim buttons built into the wheel. In the prop department, Shaw selected a 28 pitch Mercury Cleaver that was highly modified by Harold Nauss, who also handled the engine alteration. One of the few changes Shaw made for the Shoot-Out was the installation of a sprint, six-gallon fuel tank.



TIM TINUS-BAJA 184SS/MERCURY 225

Although they don't enjoy the same competition record as some of their peers, Baja Boats of Bucyrus, Ohio is noted for building some of the fastest recreational outboard vee-bottoms on the water today. For the special Powerboat Magazine event, Baja's head honcho Doug Smith, recruited the services of Tim Tinus to handle the driving chores on his 18'4" *Stampin' Mad*, powered by a Mercury 225.

The Baja's bare hull weight was 523 pounds as the boat was constructed with a combination of fiberglass and Kevlar. The hull featured a 15 degree modified vee-bottom that had what might be called a 23" wide pad as a result of two very large strakes running down the length of the hull. On the trailer during inspection, we noted the boat's outstanding quality of workmanship as the hull exhibited clean, crisp lines on the sides, bottom and deck. For maximum performance, the last four feet of the bottom were blueprinted, although there were no other modifications once the hull was out of the mold.

In the engine department, Baja followed the direction of Black Max as they



loaded their weapon with a modified 225 Mercury outboard. The engine received extensive modifications in the porting, carburetion, heads and piston depart-

ment. Tinus had one of the few engines that didn't utilize a nose cone on the front of the gear case. Instead, work was done with the torque tab and the intakes were funneled down so the engine could be run higher on the transom.

For the speed runs, Tinus used a 30" Chopper that was modified by Ron Hill. Although Tinus decided not to play with the 27½" engine height between runs, he made a switch to a quicker 28" Chopper, for the sprint events. In pre-event testing, Tinus saw close to 7,000 rpm at full throttle. Tinus used an engine mounting plate from Marine Engineering.

Like most of the serious high performance vee-bottoms, the Baja had a slightly notched transom to allow for engine extension. The hull handled exceptionally well and utilized a dual cable Mercury Quicksilver steering system. Because of construction delays, Tinus had very little time to get the Baja completely dialed-in. However, the boat's basic design was given a noteworthy accolade as the hull needed very minimal engine trim to obtain full speed on the straightaway.

ALAN STOKER-BAKER RST/EVINRUDE 235

Alan Stoker has dominated vee-bottom racing on the West Coast since the inception of the class almost four years ago. Stoker, in addition to winning a myriad of local Southern California events, has scored major wins at Parker and Havasu, along with winning the outboard class in the Catalina Ski Race on two consecutive occasions. Along with his father John, who serves as crew chief, the talented Mr. Stoker not only gets involved in hull design, but also handles all of his own engine work. Stoker's success on the race course has done a great deal towards moving the obscure name of Baker Boats into national prominence.

In fact, Baker attained coast-to-coast acclaim, winning our Powerboat Magazine Award for Product Excellence in the Performance Trials as the builder of the 1981 Outboard Performance Boat of the Year with a stone stock Rally Sport/Evinrude 235.

Stokers' most consistent success in vee-bottom competition came several years ago, before the modified tunnels started showing up at races and causing quite a rules' ruckus. According to the rules that govern this division, the modified tunnels and true vee-bottoms are allowed to compete against each other. Stoker figured if he was going to be competitive in the future, some immediate modifications would be needed in his Baker designed hull.

Approximately six days before the St.



Louis Shoot-Out, hull manufacturer Jerry Baker, working in concert with the Stokers, popped the first-ever Rally Sport Tunnel out of the mold. If you can't beat em', join em'... Baker did not splash any existing designs but wanted to create a whole new concept in vee-bottom boats.

Utilizing the same deck configuration as was used on the Rally Sport, the new RST features an intricate bottom design with twin 18" wide tunnels that are approximately ten inches deep. Baker was anxious to perform well at St. Louis and designed the first hull for sprint racing with a miniscule total hull weight of only slightly more than 400 pounds. Despite a limited amount of preparation



time, Stoker was confident in his set-up which utilized an engine transom height of 27½" for the modified Evinrude 235, and no extension hangers.

In the powerplant department, Stoker most likely had one of the most potent engines on the course. Extensive work had been done to the carburetion, porting, exhaust system, heads and pistons. Stoker used a custom made nose cone on the front of the lower unit to prevent blow-out and a dual cable Ride Guide steering system.

In the propeller department, Stoker used a 32 pitch Mercury Cleaver for the speed run and a 29" OMC RX for the roundy-rounds. In pre-event testing, the Cleaver showed approximately 6100 rpm at the head of the straightaway while the OMC wheel wound out at 6800 and was still growing before running out of water.

GORDON DOWNARD-CHECKMATE ENCHANTER /MERCURY 225

The entry from Team Checkmate was without question the biggest boat in the contest. It had a 20 foot centerline measurement and a hefty bare hull weight of more than 800 pounds, despite a Kevlar construction. Driven by Gordon Downard, the weapon from Checkmate was a three-year-old hull that was intended primarily for marathon use. From the time they registered, Checkmate realized they wouldn't be in the running for the top prize. However, they were still interested in seeing how their "almost seaworthy" combination stacked up against the flyweights.

Featuring a complex pad bottom that provided excellent stability in rough water, Downard's Enchanter was powered by a virtually stone stock Mercury 225. Engine modifications were minimal as the Checkmate team used only "hot" timing and some exhaust relief to boost horsepower. On the lower unit, a nose cone was fashioned out of fiberglass instead of aluminum to help eliminate blow-out.

Downard did extensive testing to determine the optimum prop for both the 30/POWERBOAT



speed run and the sprint races. For maximum brute speed, the Checkmate was equipped with a 14 x 30 Mercury offshore Cleaver while a custom 15 x 26 wheel would be used for the circle races. Downard anticipated turning between 7,000 and 7,300 rpm in each event.

Unlike many of the smaller and lighter vee-bottoms, the Checkmate doesn't

"hang" on the ragged edge, but runs under complete driver command, at all time. The boat needed very little trim to obtain maximum speed and showcased a dual cable Ride Guide steering system. Competing at St. Louis in nearly stock form, the rig was equipped with a large 25 gallon fuel tank. It was interesting to note that Downard did not use any engine extension hangers on his Checkmate. According to his pre-event testing, moving the engine back didn't improve top-end performance and caused a slight decrease in handling capability.



JERRY OWENS-ELIMINATOR 19 DAYTONA/JOHNSON 235

Eliminator Boats stirred up controversy in the VP class two years ago, when they decided to enter the vee-bottom division with their exquisite modified tunnel hull, originally designed for jet boat applications. Showing good results at both sprint races and marathons, Eliminator has become heavily involved in competition and was well represented at our Shoot-Out by talented Jerry Owens.

With both a 19 and 21 foot tunnel offering, Owens opted for the smaller hull for its superior short course speed potential. With a bare hull weight of approximately 400 pounds, Owens' race boat had absolutely no modifications once it was popped out of the mold. Probably the only difference between the Eliminator race boat and the products customers buy off the showroom floor was the Kevlar used in the competition hull's construction for decreased weight and added strength. In fact, according to Owens, the boat he used at St. Louis had an approximate 1/8 inch hook in the bottom that had not been ground out as the PB Shoot-Out marked only the third time in the water for the brand new machine.

In the engine department, Owens came into the challenge slightly underpowered compared to his counterparts as his Johnson 235 was virtually stone stock, except for some modifications to the exhaust system and the addition of a nose cone on the lower unit. Because of the Eliminator's sleek, low profile design, the outboard engine was hung on a hanger built and designed by Tom Stolarz. For both the speed and sprint dashes, Owens planned no changes in his 27" engine height, nor did he plan on switching from a 28" Mercury offshore Cleaver prop modified by Ron Hill for either contest.

Although the secret to making the tunnel really work is "blowing" the boat out of the water, Owens' Eliminator requires very little trim to make the hull cook. In fact, excess trim only increases rpm and fails to produce any speed or handling



advantages. Under ideal conditions at St. Louis, Owens hoped to squeeze 6,300 rpm out of the big Johnson.

Realizing he was short in the power department, Owens concentrated on set-up and fine tuning. In pre-race testing, he experimented with various timing settings and found that a perfect 25 degrees of advance provided optimum top-end and acceleration punch. Tests were also conducted with the advance at 28 degrees, however, the engine was dull and flat coming out of the corners.

Even if he didn't win the overall speed contest, Owens left St. Louis with unquestionably the finest looking package of the bunch. Eliminator has always taken special pride in their quality of workmanship as evidenced by their Award for Product Excellence on two separate occasions for Best Exterior Design at the Performance Trials. Mold work, finish detail, color coordination, engine installation and overall rigging on the Eliminator was a clear cut-above all other entries at St. Louis.

RON BAKER-HYDROSTREAM TORPEDO/EVINRUDE 235

Along with Allison Craft, there is probably no other vee-bottom company which has obtained more success on the race course than HydroStream Boats. Manufactured by Howard Pipkorn out of New Brighton, Minnesota, the innovative and unique HydroStream design has become extremely popular with hot boat enthusiasts throughout the country. Whenever a group of hot outboarders get together, it's a safe bet that a HydroStream will be in the pack somewhere...

most likely in a place out front.

For the St. Louis Shoot-Out, Pipkorn and his band of thought-provoking engineers headed into the think tank for their best effort. What they came up with was a modification to their 18 foot Viking that has enjoyed tremendous competitive success over the years. Renamed the Torpedo, the new HydroStream featured hollowed-out chines or "tubes" to form one of the most unique "modified tunnels" we've ever seen. The boat had a

RULES FOR THE POWERBOAT MAGAZINE MOD VP FACTORY SHOOT-OUT

BOAT STANDARDS:

- V-Bottom and Modified V-Bottom* boats must be factory production** hulls constructed of Fiberglass, Kevlar 49 and/or similar materials.
- Single engine boats only.
- No cut down, decked over, or permanently enclosed cockpits allowed.
- Boat length shall be a minimum of 17'9" from back of the original transom to the furthest molded part of the boat.
- There shall be no minimum weight.
- Removable flush deck mounted tonneau covers of any type material, using safety hold downs will be allowed.
- No wings or adjustable airfoils will be allowed.
- Adjustable transom plates must be in a secured, non-movable, position for competition.

*Modified V-Bottom: Must have center pod extending below or at least even with the outside sponsons at the transom and must be at least as wide as either outside sponson. Additional strakes, pads, notches, skegs, and fins will be allowed.

MOTOR STANDARDS:

- Engine: Factory production** model V-6.
- Cubic Inch Displacement: 161 Cubic Inches maximum.
- Bore and Stroke: Stock for the engine model. (For exceptions see 1981 OPC racing rule book, page 48 Rule 35 Article C.)
- Flywheel: Stock for that model but may be modified. (No aluminum flex flywheels permitted.)
- Carburetors: Stock Venturi and throttle bore (that engine model. (All other modifications allowed.)
- Motor Mounts: Solid or pinned mounts will be legal.
- Good Cowling: Stock appearing, no race or hooded cowlings allowed. Cowlings must remain on during the race.
- Exhaust Relief: External exhaust relief holes or slots will be allowed in the following locations:
OMC-On the lower unit between the upper and lower cavitation plates.
Mercury and Mariner-On the lower housing between the upper and lower cavitation plates.
- Reeds: May be of any material or manufacture.
- Tower Housing: Stock appearing, must be standard 20 inch, long shaft.
- Cylinder Head stud bolts will be allowed.
- All motor parts not mentioned above must be factory production** parts available for V-6 engines.
- Engines may be internally modified except for the above rules.

LOWER UNIT STANDARDS:

- Lower units must be for that engine model incorporating its stock gear ratio and be fully shiftable from driver's seat.
- No direct drive or racing lower units will be allowed.
- Modifications allowed:
1. Nose Cones and other modifications are allowed.
- Trim Tabs may be modified or removed for propeller clearance.
- Exhaust extension rings and thru-hub exhaust adapters will be allowed.
- Water intakes may be modified.

**Production: Any product manufactured and available to the general public.

FUEL STANDARDS:

- Pump gasoline, Ethyl, AV gas or high octane racing gasoline allowed. No nitro, alcohol, nitros oxide or fuel injection allowed.

notch-back transom and flat keel pad along with the relieved chines to reduce wetted surface.

Obviously, the HydroStream was a prototype as the boat was constructed with a very lightweight 400 pound bare hull weight. For this custom racing application, Pipkorn also introduced his new "flight capsule" cockpit design which featured a molded fiberglass tonneau cover and seat that would prevent the driver from going under the deck, in rough water operation. Although the overall workmanship on the racing machine wasn't up to the typical HydroStream standards because of time limitations, the boat wasn't lacking in futuristic design experiments.

In the engine compartment, pilot Ron Baker wouldn't be giving away much to anyone. Using a modified Evinrude 235, Baker would steer the ultra-quick HydroStream using a very stout 28" engine height. The 160 cubic inch V-6, featured extensive work to the heads and ports



along with a nose cone, relief of the exhaust system, modified motor mounts and cable steering. Pipkorn was rather tight lipped about his propeller selections, although he did admit that a 30"



over-the-hub Mercury Cleaver had been showing the best results for top-end speed.

Since 1967, HydroStream Boats has been tearing up the nation's waterways with some of the best and most exciting outboard chargers around. The boats have become notorious for their uncanny ability to "hang" under top-speed conditions. Baker, in anyone's book, is ranked as one of the finest "Stream" highflyers in the country. Everyone knew that HydroStream was definitely a force to be dealt with.

ALAN MILLER-LASER 380 RAY/MARINER 200

For almost four years, Roark Summerford has been manufacturing recreational performance boats out of his shop in Roanoke, Texas, however, 1981 marked his first serious attempt to enter vee-bottom racing on a major league scale. Measuring in at a perfect 19 feet, the Laser entry at St. Louis weighed a sturdy yet economical 625 pounds and was built using Kevlar materials.

Unique and innovative are the best two words to describe the new Laser. The boat features a foot wide pad bottom that has a full five degrees of vee along the flat modified keel. The transom of the boat is quite clever as the hull features a notch-back bottom and an engine extension bracket that is built into the mold. This unique bracket which moves the powerplant a full foot away from the edge of the wetted surface, makes the Laser one of the fastest vee-bottoms available. At the present time, Laser is the only manufacturer in the country to offer this feature as an integral part of the hull design.

In the engine department, Laser was on par with the best as it utilized a custom "souped-up" Mariner 142 c.i. mill that featured a three carb set-up with milled heads, moderate port work, exhaust relief and a general clean-up of all tolerances. On the lower unit a special nose cone, custom made by Laser, improved speed



and handling. The cable steering system on the race boat was also a custom made unit that had a bar all the way through the entire engine for safer and more precise handling.

In their rigging set-up, Laser decided to use a 30" Mercury Cleaver for the speed runs and a 26" Cleaver for the sprint confrontation. Of all the participants interviewed, Laser planned on spinning their engine the tightest looking for top rpm readings of approximately 8,000 or better. The boat was equipped with an electric fuel pump and a lightweight nine gallon fuel tank. Because of their innova-

tive hull design, Laser is able to obtain extremely high engine placement. The boat comes standard with a 24" transom and the big Mariner was jacked up an additional four inches for the St. Louis Shoot-Out.

For the high speed runs, company President Roark Summerford would handle the driving chores. After the quick two lapper, Summerford would then give the sprint race responsibilities to Alan Miller, whose high performance outboard vee-bottom experience includes stints with racing ventures for Glastron/Carlson and Eliminator. Miller is noted in racing circles for his meticulous attention to rigging details and fierce competitive spirit.



MIC HALBREHDER-PACECRAFT 18/EVINRUDE 235

Out of the chilly area of St. Paul, Minnesota, came one of the real surprises in the Shoot-Out as we received an unexpected application from Mic Halbrehder to compete in an 18 foot Pacecraft. Although we'd heard little of the Pacecraft outfit, they've been building boats for al-

most five years, with most of their products competing at local events in the E and J stock outboard classes. The PB Shoot-Out marked their first attempt at national style V-6 competition.

With their boat finished less than three weeks before the event, Pacecraft knew

they wouldn't be in the running for the overall top prize but they wanted to see how they rated, using basically stock equipment.

Designed for family recreational use with a substantial above-the-waterline superstructure, the Pacecraft weighed in

at approximately 500 pounds and was constructed using plywood, fiberglass and coremat. The boat featured a 10" wide keel pad, with no notch in the transom. The bottom was designed using a 15 degree modified vee and two lifting strakes per side.

Power for the hull was supplied via a nearly stock Evinrude 235. The only internal powerhead modification that Halbreher made was shaving a bit off the cylinder heads. The lower unit was equipped with a "Bullet" by Ted Miller of All Seasons Marine. In addition, the exhaust was relieved.

Halbreher mounted the big Evinrude on the Pacecraft transom using a mechanical engine bracket that pushed the lower unit approximately two inches away from the edge of the wetted surface. Transom height on the boat was 25" and for maximum speed, the V-6 was elevated an additional 2 1/4" on the bracket.



For the top speed run, Pacecraft employed the same wheel most of the others were using as they outfitted the Evinrude with a 14 x 30 Mercury Offshore type Cleaver then switched to the lesser 14 x 28 for the sprint races. Both wheels were modified by Ron Hill.

Anticipating speeds in the mid-80s,



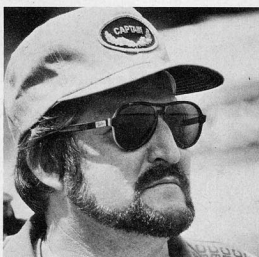
Pacecraft decided to spin their engine at approximately 6400 rpm. The overall quality of workmanship on the Pacecraft wasn't quite up to expectations but the boat had a unique design configuration that was rigged under tight time conditions.

FRED BOWDEN. WITCHCRAFT BLACK SABBATH / EVINRUDE 235

Although Witchcraft has taken a rather low profile during the last three years, activity is once again stirring in their Anaheim, California shop and we look to see this popular builder back on the race course soon. For St. Louis, always tough Fred Bowden entered his four year old Witchcraft to see if he couldn't shake up some of the hot runners. Weighing in at a rugged 760 bare hull pounds, Bowden's Witchcraft was designed for running the long distance marathons at Havasu and Parker.

Looking for maximum performance Bowden, along with help from John's Custom Marine and the Stoker clan, did a complete blueprint job on the Witchcraft's bottom. Modifications included straightening the running surface, extending the chines and putting a notch in the transom. The Witchcraft, unlike most of the high performance vee-bottoms, doesn't have a pad along the keel but instead comes to a sharp vee.

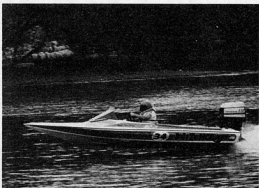
Although Bowden realized he didn't have state-of-the-art technology at his disposal when it came to hull design, he wasn't sacrificing anything in the powerplant department. Using an Evinrude



235 that had been reworked by Ted Miller of All Seasons Marine in Boulder City, Nevada, Bowden's mill featured modified ports, high compression heads, carburetor adjustments and revamped pistons. For improved handling and performance, Bowden utilized one of Miller's lower unit "Bullets" and also relieved the exhaust openings.

For the St. Louis event, Bowden settled on a 27" engine height as he mounted the Evinrude on the transom without the aid of

a bracket or extension hanger. For the speed runs, Bowden selected a 32" Mercury Cleaver, then switched to a 26" OMC wheel for the roundy rounds. RPM was targeted for the 6600 range.



Realizing that he was going to have to "hang it out" to be competitive, Bowden relied on a dual RideGuide stock steering system. To improve sprint speed on the Witchcraft, the boat's normal 60 gallon fuel tank was replaced with a 15 gallon container which save approximately 80 pounds. To help with the aerodynamics of the hull, Bowden used a cockpit tonneau cover and a wind screen in front of the driver.

THE TOP SPEED DUEL:

The rules were simple. Each builder would be permitted two complete round trips on the St. Louis triangle with the Powerboat Magazine radar gun picking up the peak top speed down the long back straightaway. Running in alphabetical order, according to the hull manufacturer's name, Kenny Shaw in the Allison

Craft was the first contestant on the water.

Considering that his boat was designed primarily for marathon applications, Shaw's straightaway performance was exceptional. Hanging the boat on the last few precious inches of the bottom in a driving style that he should patent, Shaw pushed the Johnson-powered Allison to

runs of 90 mph on his first lap and 89 mph on his second.

With Shaw smiling on the way to the trailer, Tinus was up next in the Baja. Running in perfectly smooth water, Tinus trimmed the 184SS for maximum speed with poetic efficiency as the boat ticked off numbers of 82 mph on the first attempt

and 77 mph on the second go-around. Actually, we're quite confident that the boat could have hit speeds in the mid-80s if Tinus hadn't been forced to overtrim in an attempt to gain maximum speed before he ran out of water. In the straightaway, the boat handled incredibly well with no hint of chine walking or uncontrollability.

After a frustrated Tinus went back to the drawing board, pre-event favorite Alan Stoker in the first-ever Baker tunnel, attacked the water. Using a very conservative driving style, Stoker put together back-to-back 93 mph passes, which would eventually prove fast enough to win this section of the contest. Both of Stoker's runs were absolutely picture-perfect as the boat never swayed, bobbed or started to kite. No question that numbers in the high 90s are well within the Baker's reach as the boat's speed was gaining running down the stretch. With additional testing, this hull could become a perfectly safe and true 100 mph modified vee-bottom. Exceptionally quick. Very responsive. Excellent handling. Perfect control. Baker had everyone in the pits wondering if a new era in vee-bottom performance hadn't just begun.

Knowing what the hot-dog from California had on the board, gave Ron Baker in the HydroStream something to shoot for. Unlike some of the Pipikorn products from yesteryear, the new tube bottom Torpedo handled beautifully in the smooth St. Louis waters. Baker's expert driving style netted twin mirrored runs of 92 mph on each pass. HydroStream had every reason to smile as they missed the number one spot by just one mile per hour while demonstrating some excellent handling characteristics. With further testing and hull development the new Stream should also be an honest 95 mph performer.

Watching from the pit dock as Baker and HydroStream kicked out speeds in the 90 mph range must have been a bit discouraging for Gordon Downard who had to follow the lightweight machines in his marathon built Checkmate. Squeezing the throttle for everything the Mercury could put out, the best Downard could



Summerford squeezed maximum power from the Mariner.



With weapons in hand, competitors line-up for the duel.

muster were runs of 81 and 80 mph. Weighing all factors, the Checkmate's speed on the small St. Louis course was quite creditable. The boat was completely stable on the top-end, although it was slightly sluggish coming off the pin into the straightaway. With a longer stretch of water, the boat possibly could have hit a maximum speed of 85 mph.

Following Downard in the radar runs was Jerry Owens in the Eliminator. Unfortunately for Owens, the water conditions at St. Louis were a bit sticky for maximum performance from a tunnel. Running with a very "glued-in" attitude, Owens turned in numbers of 84 and 85 mph. Once again, observers felt that the Eliminator hull design is more than capable of

mid-90 mph performance if the boat is equipped with a modified engine and has a slight wind chop to free-up the hull.

After Owens, Summerford handled the driving chores on his Mariner powered Laser vee-bottom. Driving the boat with a near perfect attitude, Summerford launched an 89 and 90 mph assault on the course to match dead-even, the performance of Shaw in the Allison Craft. With his excellent showing, Summerford could be proud that his new upstart boat company was on par with the veterans in the true vee-bottom circle.

Perhaps that surprise of the event was turned in by Mic Halbreder who followed Summerford on the water with his 18 foot Pacecraft. Because of the boat's substantial deck and sides, the hull doesn't give the appearance of a race boat... but the top-speed performance was a sight to behold. Running under complete control, without having to fly the boat on the ragged edge, Halbreder turned in runs of 86 and 87 mph. Not only was the speed exceedingly impressive considering the virtual stock condition of the engine, but the boat handled perfectly with no kiting, chine walking or sway.

Last but not least in the alphabetical-order-radar runs was Bowden and the Witchcraft. Knowing that he'd have to get the boat free to stand a chance, Bowden hit the up button hard as he sent the 19 footer nearly into outer space. Bowden netted numbers of 84 and 86 mph, but on both runs he had to back off the throttle before reaching top speed as the boat got too high under full power.

In the final analysis, Stoker in the new Baker tunnel, won the top speed contest at 93 mph followed by Ron Baker in the HydroStream at 92, Kenny Shaw in the Allison Craft and Roark Summerford in the Laser were the fastest of the true vee-bottoms as they tied for third at 90 mph. Mic Halbreder surprised everyone by finishing in the number five slot at 87 mph, followed by Bowden in the Witchcraft at 86 and Owens in the Eliminator at 85 mph. Tinus and Downard rounded out the finishing order as they finished eight and ninth respectively with speeds of 82 and 81 mph.

BOW-EYE TO BOW-EYE: FIRST ROUND

BAKER VS. CHECKMATE: Stoker knew that if he played it safe, he would have no problem with Downard and his much-too-large for sprint racing Checkmate Enchanter. Operating from the outside, Stoker kept the Baker RST on the Checkmate's chine and things were close through the first lap. Showing a clear advantage to top speed, acceleration and handling through the turns, Stoker passed

Downard on lap two and built up a nearly 300 yard lead as he coasted to an easy victory. In warm-up, Stoker turned in average lap time in the low 50s. In his first round heat victory, Stoker completed the three laps in 2:41 for a 53.67 average lap time. Downard was a solid six seconds off the pace at 2:47.5, averaging 55.83.

HYDROSTREAM VS. BAJA: Despite having to start from the outside, Baker

and his Torpedo HydroStream assumed the lead coming out of the first turn on the opening heat and never looked back. Tinus tried every possible engine trim combination and although the Baja looked very stable, it simply did not have the top-end or acceleration coming off the pins. Baker obviously didn't push the equipment as he needed 2:44.5 to complete three round trips on the St. Louis

triangle for an average lap time of 54.87 seconds. Tinus was far off the pace as he turned in average laps of 57.83 seconds.

ELIMINATOR VS. ALLISON CRAFT: In what many considered the closest match-up of the event, Kenny Shaw and Jerry Owens did battle for three heart-pounding laps. In the final results, Owens emerged as the winner because of his driving skill, not because the boat was faster. Starting from the outside Shaw tried every trick in the book to get around the methodical Owens. Shaw swept the turns wide, cut across the Eliminator's transom, dived on the pins and tried to outrun the tunnel on top-end but nothing worked. Owens drove an extremely intelligent race as the Eliminator tunnel had enough brute speed to hold off the challenges on the straightaway and the boat made sharp, crisp turns as he never relinquished the inside slot. No question that Owens' inside starting position and expert defensive driving techniques made the difference as the boats finished less than 100 feet apart after three laps. Eliminator moved into the semi-finals with an average lap time of 55.23 seconds while Shaw, grimmacing, went to the



Even after three laps, Owens and Shaw remained almost this close.

trailer with numbers of 55.83 for the contest.

LASER VS. PACECRAFT VS. WITCHCRAFT: Because Allison and Laser tied for the number three position, a coin was flipped to see which boat would assume the number four slot on the totem pole. Allison Craft won, which put Miller and the Laser Craft in the four lap event with Bowden and Helbreder.

Starting positions had Laser on the outside, Pacecraft in the middle and Bowden on the favored inside slot. Using

his inside position quite effectively, Bowden blew the pack into the first turn as Miller blew by the slower Pacecraft with ease. For more than two laps, Bowden kept Miller at bay, but a mistake in the far turn allowed the pesky Laser to slip under the Witchcraft's wake. Once Miller had good water out front, he was unbeatable. Halbreder was never really a factor as the Pacecraft just didn't have the top-end punch or acceleration to compete with the lighter boats.

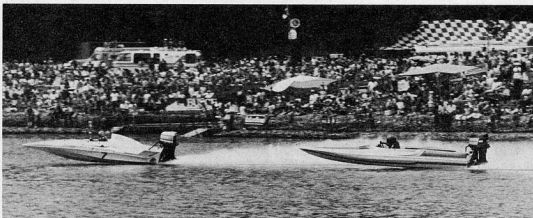
Bowden, in defeat earned the complete respect of his peers as his driving ability kept an over matched combination in contention down through the final lap. In winning, Miller let HydroStream and Baker know that he too, would be a force to reckon with as he turned in the fastest average lap times of the first round, completing the four laps in 3:33 for an average of 53.25 per trip. Bowden had nothing to be ashamed of as his 54.87 lap average looked solid compared to the other vee-bottom times. Halbreder, who didn't push the equipment once he saw the cause was hopeless, turned in the slowest laps of the event with a 60 second average for the four round trips.

GETTING SERIOUS:SEMI-FINALS

BAKER VS. HYDROSTREAM: The two fastest speed qualifiers were pitted against each other in what most of the insiders expected to be the real match-up of the event. Stoker knew that he'd have to use all his driving skills as Ron Baker in the HydroStream, would have the inside track and there wasn't enough speed difference between the two to make passing easy.

When the starter's flag dropped, both boats made a bee-line for the first turn as the HydroStream shut the door on the Baker going down the opening chute. For almost three laps, of the five lap event, Stoker gasped on water from the HydroStream's wake as he tried to cut behind the modified vee-bottom without success. On the top-end, Ron Baker used his inside position effectively to hold off Stoker's challenge. In several instances, Stoker had to back off the throttle as the new Baker tunnel got very high in the HydroStream's wash. Although Stoker had difficulty getting around the boat from Minnesota, there was never any problem catching up to launch another assault. Finally, after two hard fought laps, Stoker passed Baker coming out of the far turn and once he got into the good water out front, it was adios to the HydroStream.

Forced to run in the wake of Stoker, Ron Baker's HydroStream didn't handle as well. At the finish, Stoker proved he was



Working from the outside, Stoker had to play catch-up.



Miller, in the conventional Vee-bottom Laser had little trouble with the Eliminator modified tunnel.

clearly the dominant force as he won the match-up in surprisingly convincing style, considering the boat's nearly equal top-end capabilities. At the end of five laps, Stoker built up a comfortable 13

second lead as his average lap times moved down to an incredible 51.52 seconds compared to 54 seconds per lap for Baker.

LASER VS. ELIMINATOR: In the other part of the second round, Alan Miller doused any hopes Jerry Owens had of another upset as he pushed the Laser to the lead from the outside after the first lap and never looked back. Miller once again, wasn't forced to push his equipment as average lap times of 54.18 were more than sufficient to hold off the challenge of Owens whose numbers were down to 56.16 per lap. In convincing style, Miller and Laser moved into the championship round hoping to stop the Alan Stoker express.

KING OF THE HILL: CHAMPIONSHIP HEAT

BAKER VS. LASER: Right from the beginning, everyone involved with the Shoot-Out had an itching feeling that it might come down to Stoker vs. Miller as it has so many times in the past. In the engine department, Evinrude was pitted against Mariner for the title. From all perspectives, Stoker had to be considered the favorite if for no other reason than he was using a modified tunnel boat against a true vee-bottom hull.

Surprisingly, the contest wasn't nearly as close as advertised. Stoker, working



Stoker tore up the competition... and the checkered flag.

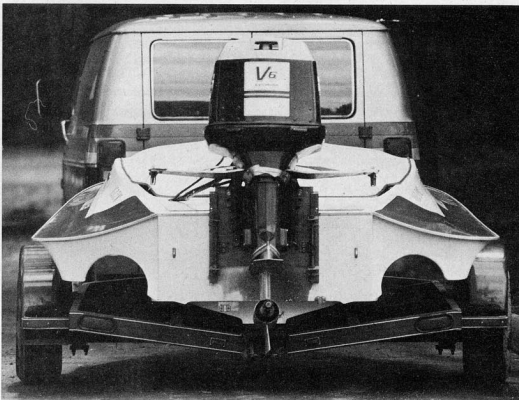
from the outside, went around Miller on the second turn of the first lap when the Laser dug in a chine trying to hug the buoy. Stoker paced himself out front. Actually, both boats had exceptional handling characteristics on the top-end but the tunnel had a distinct advantage coming into and out of the turns. To prove he was the undeniable king of the hill, Stoker completed the five lap main event with average lap times of 51.68 compared to Miller's 53.30 clocking.

COOLING DOWN THE GUN BARRELS

In the final analysis, Stoker proved that vee-bottom boats from California have the potential to win against the heavyweight names from the midwest. Not only did he win the overall brute speed contest but Stoker also won the roundy-round competition. Boat manufacturer Jerry Baker was all smiles as his new experimental project proved a superior machine with almost no development time. The Baker RST was clearly in a class by itself as it out-ran, out-performed, out-handled and out-punched all comers throughout the entire weekend. Not only did the boat show exceptional performance under racing conditions but the hull was completely stable at all speeds and could move vee-bottom outboards into a whole new design era.

From a competition standpoint, the Shoot-Out was a killer for Stoker and the Baker but the challengers legitimately griped that it's like comparing apples and oranges when you run true vee-bottoms against modified tunnels. No question that the complaint holds some logic and readers should take this factor into serious consideration when analyzing the results. Stoker readily admits that the new RST doesn't handle rough water as well as his stock vee-bottom Baker, but that the tunnel is still in the development stages.

In addition, many of the manufacturers suggested that Powerboat work in harmony with the engine manufacturers for Shoot-Out II next year and have stone stock powerheads bolted onto the boats at the race site. This format modification will be seriously considered as there is no doubt that several of the competitors had much stronger engines than their foes.



Controversy raged on running vee-bottoms with modified tunnels.



Powerboat would like to thank all nine of the manufacturers who participated in this first-ever event along with Johnson, Evinrude, Mercury and Mariner. A special word of appreciation should also be extended to the American Motorboat Racing Association (AMRA) and the St. Louis Lions Club for handling the officiating duties. Our thanks to Land & Sea for donating contingency money. ■