

CONSUMER



RUNOFF



Snow Goer's annual Shoot-Out pitting the fastest of the fast as only factory mechanics can make snowmobiles fast has been a HUGE success with you, our readers. But some of you have asked what would happen if we took stock super-fast sleds and left the factories out of it.

We wondered too. So, in mid-March, we got in touch with four consumers who had purchased the fastest of the fast through normal dealer channels — just like you. We asked them to show up on a frozen lake and pull the trigger. Competing were the Polaris Indy 600, Yamaha V-Max, Ski-Doo Blizzard 9700 and John Deere Liquifire. Every brand was represented. There was no factory input. This was run-what-you-brung. It represented snowmobiles that you, the consumers, get when you go to your local dealer.

There were some surprises at our first ever Consumer Runoff and the winner was not the same as in our factory Shoot-Out. Who's fastest? Who got through our 3/4-mile strip of frozen lake first? Who picked up the \$100 we offered for first place?

For complete details on our first ever competition, turn to page 47.



FIRST ACROSS THE LAKE: YAMAHA V-MAX



Awesome is the word Yamaha liked to use when referring to its SRX. And that's the way it was in the mid 1970s through the 1980 model SRX. Those rigid front end Yamahas indelibly identified Yamaha as a force to be reckoned with in weekend lake drags.

But the force no longer was with Yamaha when it debuted its Darth Vaderish, "chicken-leg" SRX in 1981. It turned out to be only a sometimes go-fast machine. Band-Aids weren't enough to save the 1982 model SRX and that model never was introduced.

For the 1983 model season, Yamaha renamed its new 540-liquid the V-Max. It was quietly introduced without a lot of "Beat Thy Neighbor" advertising. Maybe Yamaha should have tooted its horn a little more. In stock dress, the V-Max blew snowdust in the face of every other brand at our first ever Consumer Runoff. Wanta' know more...turn the page.

THE CONSUMER RUNOFF

By Bill Monn
Photos By Wayne Hanson

On a rock-hard ice surface, Yamaha's V-Max logged a top speed of 96 MPH at the end of a three-quarter mile sprint to out-muscle the fastest of the fast at our first-ever Consumer Shoot-Out this past March.

Second overall and posting the best elapsed times through the eighth and quarter-mile marks was the brutish Polaris Indy 600. The Indy's best top speed was 92 MPH.

Hampered by a broken limiter strap on the first run and a slipping track on top end in succeeding runs, the Ski-Doo Blizzard 9700's best top speed was held to 87 MPH. The John Deere Liquifire rounded out our field of four with a 75 MPH top speed.

Serving as a contrast to our Shoot-Out with the snowmobile manufacturers, the Consumer Shoot-Out hosted stock, 1983 model snowmobiles purchased by consumers through normal dealer channels. In no way were the snowmobiles or riders associated with any of the snowmobile manufacturers.

Similar to our Shoot-Out with the manufacturers, we consider the results of the Consumer Shoot-Out to be indicative of how the machines perform but not necessarily definitive. In other words, given the conditions on the day we ran the competition, these are the results we logged. With different conditions, the results may differ.

Also a variable was the state of tune and condition of the machines that participated. These were not brand-new, factory-pampered, proto-type sleds with "expert wrenches" hovering to make sure everything was spot-on. Competitors in the Consumer Shoot-Out were "amateurs" and their machines didn't receive any special set-up treatment at the factory. Also, these machines were driven all winter — the V-Max, for example, had 1,700 miles on it.

These factors and many more are exactly the reasons we decided to host a Consumer Shoot-Out. Specifically, we wanted to find out how the



Our Indy was very, very fast out of the hole, but lost speed on top end when the hyfax overheated.



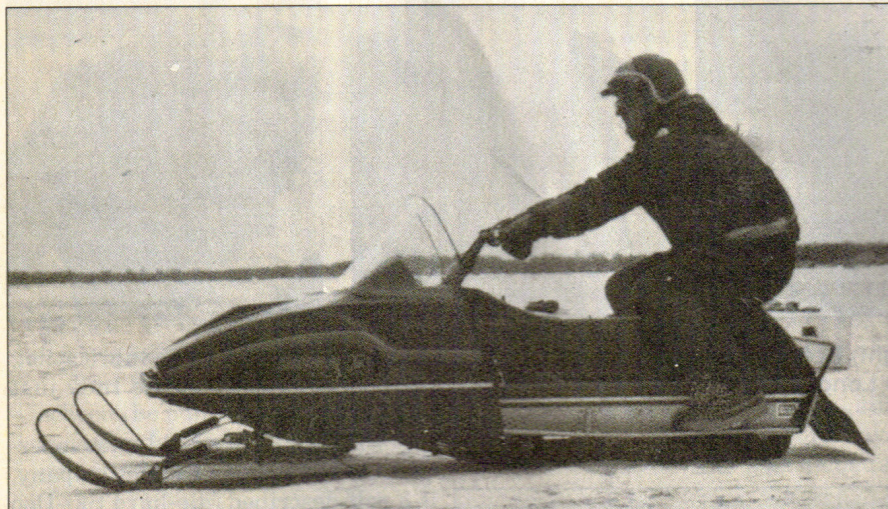
A broken limiter strap in the suspension slowed our 9700 entry, causing ratcheting on top end.

machines were performing in the hands of consumers — machines that didn't have the benefit of factory wrenches dialing them in. The 1981 SRX is a good example of a sled that could be tuned to run very strong, but proved too finicky for consumers to consistently get the performance desired.

"I had a 1981 SRX and I didn't really like it," said Jerry Parent, our V-Max competitor in the Consumer Shoot-Out. "But this V-Max (1983 model) is super. It's probably the finest

sled I've ever had. It's super for trail riding and handles great. I can ride 140 miles, come home and not even be tired. The rear (suspension) works real good and real good with the front (suspension)."

Parent, 43, is a building contractor in Forest Lake, Minn., and has been an active snowmobiler since 1967. He has owned, he figures, between 25 and 30 snowmobiles. All but two were either SnoJets or Yamahas. Parent was a Yamaha/SnoJet dealer in Forest Lake from 1971-76. With three children, he



The John Deere Liquifire simply gives up too much engine to have a shot against the big boys in a drag race.

said that he has owned as many as five machines at one time.

Trail riding rather than lake racing is Parent's favorite type of snowmobiling now and he logs close to 2,000 miles each season. He said he also likes to buy a new sled every season, explaining, "I drive hard and I like to have the sled under warranty."

Parent thinks the V-Max and Indy 600 are very close on top end and perhaps the Yamaha is a little faster. On any given day one may beat the other, he said. The Indy, he believes, is a little quicker off the line. The V-Max shines on ice or hard pack, he said, and the Polaris is a little better with a few inches of snow. In deep snow, he thinks they are about even.

"I think that new suspension Yamaha has makes it go on the ice," he said. "The wheels just work better than the Polaris."

Kip Campbell, 31, of Forest Lake, Minn., was bitterly disappointed with the no-snow conditions at our Consumer Shoot-Out and claimed that his Polaris Indy 600 probably ("probably, hell, I'm sure of it") could have won with an inch or so of snow. Campbell claimed that the rock-hard ice did not provide any lubrication for his slides and that the hot hyfax were slowing him down as they heated up.

"All you proved was that Yamaha

has a better wheel kit in its suspension," Campbell told us. "With a little lubrication, it would have been a different story."

Campbell, sales manager for Superior Dairy Fresh Milk Co., Forest Lake, Minn., had his first snowmobile ride at 13 on his grandfather's eight-horse Ski-Doo. Since then there has been a selection of Arctic Cats, Kawasakis, Yamahas and Polaris. Campbell says he likes lake riding and lake racing and probably logs about 1,000 miles each season. He says that he likes the big Polaris models (he has owned Centurions, Indy 500s and now a couple of 600s) because they are as fast as anything out of the box and offer the most to gain with modifications.

"The (Polaris) factory runs it (Indy 600) at 8,000 RPM and with not that great of an exhaust," according to Campbell. "You can do a lot with that. With Ski-Doo and Yamaha, they're pretty much all set as you get them — there's not a lot more you can do with them. You can pick up 10 MPH with the Polaris with just pipes and a little clutching. You couldn't get half that much (gain) with the Ski-Doo or Yamaha."

"For high-speed running on a bumpy trail, nothing can touch the Indy," Campbell added. "On the lakes,

CHARTING THE SPEED

Following are the radar speeds and elapsed times for the snowmobiles competing in the Consumer Shoot-Out. Temperatures were in the low 20s and competitors were bucking an 18 MPH headwind. The ice on Forest Lake, Minn., was rock-hard and totally bare of snow. Points were awarded at four intervals with double points awarded for the top speed at the 3/4-mile mark. Each driver was given three runs and the option of taking a fourth run. The best at each interval was then selected. Both the Yamaha and Polaris had 96 studs in their tracks, the Blizzard had 116 studs and the Liquifire 48 studs. All were worn to varying degrees. Also, some competitors rolled slowly through the shorter distances to minimize track spinning. Here are the results:

1/8-MILE

Yamaha V-Max.....	11.60 secs.
Polaris Indy 600.....	9.95 secs.
Ski-Doo Blizzard 9700.....	15.30 secs.
John Deere Liquifire.....	16.20 secs.

1/4-MILE

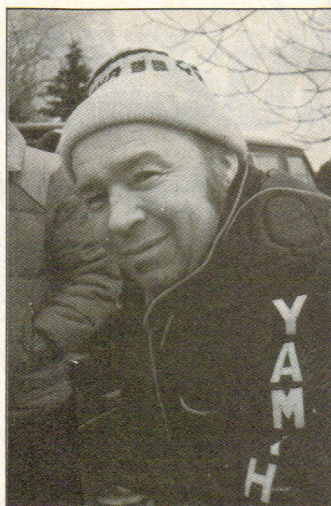
Yamaha V-Max.....	14.50 secs.
Polaris Indy 600.....	13.50 secs.
Ski-Doo Blizzard 9700.....	19.50 secs.
John Deere Liquifire.....	21.00 secs.

1/2-MILE

Yamaha V-Max.....	.94 MPH
Polaris Indy 600.....	.92 MPH
Ski-Doo Blizzard 9700.....	.83 MPH
John Deere Liquifire.....	.73 MPH

3/4-MILE

Yamaha V-Max.....	.96 MPH
Polaris Indy 600.....	.92 MPH
Ski-Doo Blizzard 9700.....	.87 MPH
John Deere Liquifire.....	.75 MPH



Just everyday snowmobilers: (left to right) Bob King, Liquifire; Jerry Parent, V-Max; Kip Campbell, Indy; Bob Long, 9700.

KEEPING THEM HONEST

Dialing in a snowmobile for maximum performance is a fine art. "Art" comes under scrutiny when it approaches that fine line between a stock "adjustment" and what we consider a modification.

We keep all competitors honest at each Shoot-Out event by contracting a professional technical inspector to perform a prescribed series of tests on each machine to insure everything is within stock specifications.

Serving as our technical inspector for both Shoot-Out IV and the Consumer Shoot-Out was Olav Aaen, president of Aaen Performance Parts. Aaen has been involved with snowmobiles for the past 12 years and with high performance internal combustion engines for more than 20 years. Before starting his own business nine years ago, Aaen was manager of an advanced design group for OMC, a major snowmobile manufacturer. Aaen's qualifications also include degrees in mechanical engineering and internal combustion engine design.

The factory test crews by now are very familiar with our tear-down requirements and we seldom find anything very exciting. The first items checked are sled weight and gasoline. Unusual light weight and special potent fuel can give a decided edge.

Next, we check compression and squish clearance. Abnormally high

compression improves power and a tight squish area speeds up combustion. These two tests are crucial because they easily can be manipulated to give more power but not be representative of a production engine that must function with gasoline available at the local gas station. We also perform limited engine disassembly to make sure no extra grinding was performed on the ports.

Other items checked are bore and stroke, carburetor size, air boxes, exhaust systems, drive systems, tracks and suspensions to make sure there are no major deviations from what will be found on stock machines.

At the factory Shoot-Out, all entries passed with flying colors. At the Consumer Shoot-Out, Kip Campbell had installed a slide rail lubricator on his Indy 600. He contended that because the course was rock-hard ice with no snow for his hyfax, the slide lubricator merely would put him on a par with the Yamaha V-Max, which he admitted had a better wheel kit.

This we could not allow because a slide lubricator does not come with the Indy 600 as stock equipment from the factory.

That was the only non-stock ruling we had to make. All the sleds that competed were judged to be representative of what the consumer can expect to get from a dealer.

it runs best with a little lubrication. But on hard, dry ice, the Indy just won't go."

Bob Long, a 41-year-old sales supervisor for the Master Bread Company, is a self-described, die-hard Ski-Doo man. He has purchased 22 Ski-Doos starting with a 1969 T'NT 640 that he bought from his brother when it was three months old. He purchased one other used Ski-Doo and all the rest he has purchased brand new.

On the first run at the Consumer Shoot-Out, Long broke the front limiter strap which left him with about three inches of play in the track, he said. As a result, he said that he couldn't hold the throttle wide open because of track slippage. Long said that he really didn't think he would win the Consumer Shoot-Out, but he also expected to do better than the 87 MPH he hit for a top speed.

"I didn't think that I was going to beat the Indy and I had never run against a V-Max," Long said. "I didn't figure that I'd get it running as well as Karpik did (Ski-Doo factory racer Gerard Karpik logged a top speed in excess of 100 MPH at Shoot-Out III with a 9700), but I know that it will go faster than it did. I wish I would have had more time to dial it in."

Although Long dabbled in oval racing several years ago, he now mostly trail rides. He complains that he "hardly gets out" anymore, lamenting that he only runs 500 to 1,000 miles per year. He has been to Yellowstone six times, which he claims is a real challenge to get the machines to run in the thin air. The highlight of each season is a long weekend in Minnesota's north woods with a dozen buddies — "It's sort of our own little shoot-out," he says.



Long maintains that he is satisfied with his 9700, but admits that he was (and is) disappointed that it doesn't have an independent front suspension.

"I had a 9500 and I was waiting until they (Ski-Doo) came out with something bigger," he said. "I was real disappointed when the 9700 came out without an IFS. But I bought it because I wanted the extra power. The 9700 was a lot of money with no IFS — it was a hard decision."

"I think all the sleds are good now," he added. "Larry Paron (the Ski-Doo dealer who sells Long his sleds) has been super with me. A good dealer really means a lot. I might have bounced around to other brands, but Larry's been straight with me."

Bob King, our Liquifire driver, echoed the opinion that a good dealer — Osseo Sports for him — plays a big part in what he buys and his enthusi-

asm in the sport. But the main reason he rides a John Deere Liquifire is because he likes its looks.

"Styling is a big thing with me," King said. "If you don't think a sled is good looking, you won't buy it."

King, a 34-year-old sales representative for Griffin Pipe Products, grew up in southwest Iowa and lusted for a snowmobile for several years but says he couldn't justify buying one until he moved to Champlin, Minn., in 1974.

"My first sled was a Scorpion Super Sting," King said. "A few years later I bought my wife a Polaris Electra...now I have a hard time getting out of the house without her."

King moved up to a 1976 Liquifire, then a 1980 Liquifire before buying the 1983 model this past February.

King's wife has kept pace with a 1976 Trailfire that she traded up for a 1979 Sportfire. Snowmobiling is a family activity for the Kings.

"I first went to the Liquifire because I liked the way it looked and I liked it because I didn't have to (pre) mix the oil," he said. "I'm not that big on speed, but I like the Liquifire because it is good in deep snow. There isn't much that's going to stop you."

"I didn't have any problems with the 1980 Liquifire, but I had 4,500 miles on it and it was starting to nickel and dime me. I got a real good buy on the new one. I got 15-20 miles per gallon with the old one and I get a little better than that with the new one, which really surprised me. It may cost a dollar or so more, but it's not out of line with other sleds. It's very dependable and the maintenance is very low. I'd recommend it."

CONSUMERS VERSUS FACTORIES

The results of the Shoot-Out we host each year for the snowmobile manufacturers and our first ever Consumer Shoot-Out beg comparisons. We have wondered from the very start, as we're certain many of you have, just how close would the "off the rack" sleds run compared to hand-massaged factory entries in the Shoot-Out.

Our overall analysis is: the performance of both is very close.

Shoot-Out IV was for 1984 model snowmobiles that have not yet been offered to consumers. Our Consumer Shoot-Out hosted 1983 models bought through normal dealer channels. Mechanically, there are very few differences between the 1983 and 1984 models relating to performance.

Of particular interest for comparison were the Indy 600 and Liquifire models because they were common models to both Shoot-Outs. Would the factory sleds be significantly faster than the stock counterparts — indicating a wide discrepancy between a factory sled and what the consumer gets?

The results in that vein were very gratifying. Performance-wise, the factory-prepped Indy and Liquifire sleds both were almost exactly five miles per hour faster at the end of a three-quarter mile sprint than the corresponding 1983 models participating in our Con-

sumer Shoot-Out.

Considering the soft ice conditions at the factory Shoot-Out and the rock-hard ice at the Consumer Shoot-Out, that spread strikes us to be about right. Even more significant is the fact that both models experienced almost exactly the same decrease in top end speeds — which leads us to the conclusion that, indeed, the track conditions and not necessarily the factory influence probably was a major factor for the difference. Or, for the skeptical, the spread could indicate that a factory set up sled is up to five MPH faster than the same consumer sled — but at least the spread was consistent for both the Indy and the Liquifire.

We also should point out that the Consumer Shoot-Out was run into an 18 MPH headwind, while the factory Shoot-Out had virtually no winds at all to influence the speeds. At Shoot-Out II when the factory sleds bucked a 20 MPH headwind, top speeds were held to the low to mid-90s so we know that speeds definitely can vary according to which way the wind is blowing.

We were surprised, frankly, by the 96 MPH top speed of the V-Max and the four MPH spread over the Indy 600. From what we've heard and witnessed this past winter, the V-Max, generally, does not enjoy that kind of an advan-

tage over the Indy 600. But, in marginal snow conditions, it seems apparent that the rear suspension on the V-Max can make a big difference.

The Indy was not allowed to use slide lubricators in the Consumer Shoot-Out because slide lubricators do not come on the Indy as stock equipment. (Kip Campbell, the driver of the Indy entry, had installed lubricators that we made him disconnect.) After we closed shop for the event, the Indy and V-Max went back out on the lake to play and the Indy activated the lubricators — neutralizing a hot-hyfax-sticking problem it was experiencing on the hard ice. Unofficially, the sleds then ran about dead even.

We also were surprised by the speeds of the Blizzard 9700. Again, from what we heard and witnessed during the past winter, that sled is capable of faster speeds. But a limiter strap can break (as it did on the first run) and we can believe that it would lose some top end speed if the track had two to three inches of play in it as its driver claimed.

We learned a lot from the Consumer Shoot-Out and we think the results, with the above mentioned asteriks, were indicative of the performance levels of the machines involved. And, for sure, we probably will do it again next year.

— Bill Monn.