UNLIMITED NewsJournal
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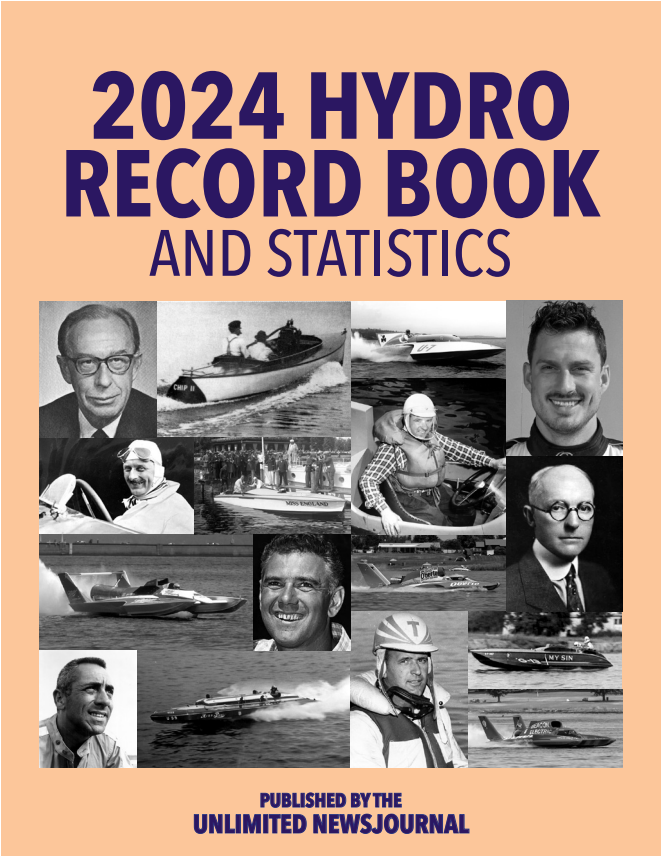
Fifth edition of UNJ's Hydro Record Book is now available.

The signs that spring is coming are unmistakable. Flowers are beginning to bloom, the days are getting longer, the Super Bowl has been played, Spring Training has started, the Daytona 500 has been held, and the *NewsJournal's* annual Hydro Record Book is now available for boat racing fans.



For the fifth consecutive year, your friends at the *Unlimited NewsJournal* have provided you with a document that can settle just about every debate you might have about this sport. Ever wondered who won the 1965 Utah Cup in Ogden? The Record Book has the answer. (Ron Musson in *Miss Bardahl*.) You've certainly had a debate with friends about which boat has won the most heats. Now, with a check of the Record Book, that matter can be settled. And, be honest, who hasn't wondered which driver has won the most races for a single owner? You know where the answer can be found.

Like the previous four editions, this year's Hydro Record Book has some new features. It now

ALSO IN THIS MONTH'S ISSUE:

includes additional boat data, such as which hull has won the most national titles or the most Gold Cups. It will tell you which boats have had the best percentage of heat wins as compared with heats finished, and there's a listing of which boat names have won the most national titles.

The 2024 edition also includes updated data using the results from last season. With his success last year, J. Michael Kelly has now moved into a tie for 10th place for the greatest number of race victories, equaling the career wins for Danny Foster, Ron Musson, and Tom D'Eath. With a total of 10 race victories, Vanessa and Darrell Strong are now tied with Guy Lombardo and William Bennett for 19th place on the list of most successful owners. Corey Peabody now holds the all-time speed record for a competition lap on a 2.5-mile course and Dustin Echols holds the qualifying speed mark on Lake Guntersville.

What's more, the best thing about the Hydro Record Book is its price. It's FREE!

To get your copy of this 42-page publication, simply go to our website. You can read it there, bookmark it, download it to your computer, or print yourself a copy. You'll find the Hydro Record Book at www.unlimitednewsjournal.net. Just click on the link at the top of the home page.

Here are a few samples of what you'll find inside:

MOST RACE VICTORIES BY A DRIVER:

1.	Dave Villwock	67
2.	Bill Muncey	62
3.	Chip Hanauer	61
4.	Dean Chenoweth	25
	Jimmy Shane	25
6.	Jim Kropfeld	22
	Bill Cantrell	22
8.	Steve David	18
9.	Billy Schumacher	17
10.	Danny Foster	16
	Ron Musson	16
	Tom D'Eath	16
	J. Michael Kelly	16
14.	Chuck Thompson	15
15.	George Henley	12
	Mark Tate	12
	Gar Wood	12
18.	Mickey Remund	11
19.	Mark Evans	10
	Mira Slovak	10
21.	Andrew Tate	9
	Bill Stead	9
	George Reis	9
	Jack Regas	9
25.	Dan Arena	8
26.	Lee Schoenith	7
	Scott Pierce	7
28.	Bill Brow	6
	Bill Sterett	6
	Don Wilson	6
	Jean Theoret	6
	Lou Fageol	6
	Warner Gardner	6
	Marion Cooper	6
35.	Guy Lombardo	5
	Vic Kliesrath	5
	Nate Brown	5
	Stan Dollar	5
	Corey Peabody	5

BEST PERCENTAGE OF RACES WON vs. RACES ENTERED:

Among drivers who have entered more than 20 races.

1.	Dave Villwock	67	149	0.450
2.	Jimmy Shane	25	64	0.391
3.	Chip Hanauer	61	158	0.386
4.	George Henley	12	33	0.364
5.	Andrew Tate	9	26	0.346
6.	Ron Musson	16	47	0.340
7.	Dean Chenoweth	25	76	0.329
8.	Danny Foster	16	50	0.320
9.	Bill Muncey	62	194	0.319
10.	Jim Kropfeld	22	69	0.318
11.	Jack Regas	9	30	0.300
12.	Bill Stead	9	32	0.281
13.	Billy Schumacher	17	71	0.239
14.	Mira Slovak	10	45	0.222
15.	Lou Fageol	6	28	0.214
16.	Tom D'Eath	16	78	0.205
17.	Mickey Remund	11	54	0.204
18.	Bill Sterett	6	31	0.194
19.	Jean Theoret	6	36	0.167
	Dan Arena	4	24	0.167

MOST HEAT VICTORIES BY A DRIVER:

1.	Dave Villwock	345
2.	Chip Hanauer	270
3.	Bill Muncey	234
4.	Jimmy Shane	163
5.	Steve David	151
6.	Mark Tate	128
7.	Dean Chenoweth	113
8.	J. Michael Kelly	93
9.	Jim Kropfeld	92
10.	Mark Evans	84
11.	Tom D'Eath	81
12.	Chuck Thompson	79
13.	Billy Schumacher	77
14.	Mike Hanson	69
15.	Bill Cantrell	66
16.	Mickey Remund	63
17.	Ron Musson	61
18.	Andrew Tate	50
19.	Scott Pierce	48
20.	Nate Brown	47
21.	Jean Theoret	44
22.	Mira Slovak	43
23.	Danny Foster	42
24.	Jeff Bernard	41
25.	George Henley	38
	Steve Reynolds	38
27.	Mitch Evans	36
28.	Jack Regas	35
	Mark Weber	35
30.	Fred Alter	34
31.	Jimmy King	33
32.	Bill Sterett	31
	George Woods, Jr.	31
	Warner Gardner	31
35.	Ron Snyder	25

MOST RACE VICTORIES BY AN OWNER:

1.	Bernie Little	134
2.	Miss Madison, Inc	40
3.	Bill Muncey	29
	Joe Schoenith	29
5.	Erick Ellstrom	28
6.	Ole Bardahl	27
7.	Dave Heerensperger	25
8.	Fran Muncey	24
9.	Ted Porter	18
	Willard Rhodes	18
11.	Fred Leland	17
12.	Horace Dodge	15
	Steve Woomer	15
14.	Dossin Brothers	12
	George Simon	12
	Gar Wood	12
17.	William Waggoner	11
	Lori/Mike Jones	11
19.	Guy Lombardo	10
	William Bennett	10
	Vanessa/Darrell Strong	10
22.	George Reis	9
	Jack Schafer	9
24.	Bill Harrah	8
	Bill Wurster	8
	Edgar Kaiser	8
27.	Stan Sayres	7
	Joe Little	7
29.	Bob Steil	6

TEAMS WITH MOST CONSECUTIVE HEAT VICTORIES:

The boat name listed is the name the boat used when the last consecutive heat victory was scored.

1.	Bernie Little/Miss Budweiser (1980)	20
2.	Dossin Brothers/Miss Pepsi (1952)	17
	Miss Madison, Inc/Miss HomeStreet (2015–16)	17
4.	Bernie Little/Miss Budweiser (1994)	16
5.	Willard Rhodes/Miss Century 21 (1962)	15
	Miss Madison, Inc./Miss HomeStreet (2019-21)	15
7.	Bernie Little/Miss Budweiser (1997)	12
	Erick Ellstrom/Ellstrom (2007)	12
9.	Bernie Little/Miss Budweiser (1981)	11
	Bernie Little/Miss Budweiser (1992–93)	11
	Bernie Little/Miss Budweiser (1998–99)	11
	Erick Ellstrom/Ellstrom (2008–09)	11
	Erick Ellstrom/Spirit of Qatar (2011)	11
	Miss Madison, Inc./Miss HomeStreet (2019)	11

TEAMS WITH WITH BEST % OF HEAT WINS vs. HEATS FINISHED:

Among boats that have had at least 20 race appearances. (*) The name listed is the name the boat used when it first competed for the race team and the name of the team owner.

	OWNER/BOAT	WINS	FINISHED	PCT
1.	Miss Madison, Inc/Miss HomeStreet (Hull #1801)	56	67	0.836
2.	Bernie Little/Miss Budweiser (Hull #8012)	87	110	0.791
3.	Fran Muncey/Atlas Van Lines (Hull #8401)	55	72	0.764
4.	Bernie and Joe Little/Miss Budweiser (Hull #9712 T-5)	87	117	0.744
5.	Bernie Little/Miss Budweiser (Hull #9501 T-3)	94	130	0.723
6.	Bernie Little/Miss Budweiser (Hull #8901 T-3)	70	97	0.722
7.	Bill Muncey/Atlas Van Lines (Hull #7701)	79	113	0.699
8.	Dave Heerensperger/Pay 'N Pak (Hull #7325)	58	85	0.682
9.	Bernie Little/Miss Budweiser (Hull #8701 T-2)	98	146	0.671
10.	Ole Bardahl/Miss Bardahl (Hull #6740)	44	75	0.660

MOST TOTAL RACE VICTORIES FOR A HULL:

The boat name listed is the name the hull had when it first entered competition.

1. #0116 Miss E-Lam Plus 27
2. #0001 (T-6) Miss Budweiser 26
3. #0706 Oh Boy! Oberto 25
4. #7701 Atlas Van Lines 24
   #8701 (T-2) Miss Budweiser 24
6. #8700 Miss Circus Circus 23
   #9712 (T-5) Miss Budweiser 23
8. #7325 Pay 'n Pak 22
   #8012 Miss Budweiser 22
10. #9501 (T-3/rebuilt in 1995) Miss Budweiser 18
11. #8401 Atlas Van Lines 17
    #92102 Coors Dry 17
13. #8901 (T-3) Miss Budweiser 16
14. #5960 Miss Thriftway 14
    #7025 Pride of Pay 'n Pak 14
16. #6240 Miss Bardahl 12
    #8200 Atlas Van Lines 12
18. #6812 Miss Budweiser 11
19. #5608 Hawaii Kai III 10
    #6740 Miss Bardahl 10

MOST CAREER RACE APPEARANCES FOR A HULL:

The boat name listed is the name the hull had when it first entered competition.

1. #8700 Miller American 151
2. #8806 Miss Madison 149
3. #7325 Pay 'n Pak 129
4. #8200 Atlas Van Lines 115
5. #8808 Mr. Pringles 103
6. #8401 Atlas Van Lines 100
7. #0001 (T-6) Miss Budweiser 98
8. #92102 Coor's Dry 96
9. #9302 Miss T-Plus 90
10. #9712 (T-5) Miss Budweiser 87
11. #0706 Oh Boy! Oberto 82
12. #8410 Miss Tosti Asti 77
13. #8803 Risley's Express 73
14. #9401 (T-4) Miss Budweiser 69
15. #7902 The Squire Shop 68
16. #6079 Nitrogen Too 63
17. #0116 Miss E-Lam Plus 62
    #9899 U-99 62

BEST PERCENTAGE OF HEAT WINS vs. HEATS FINISHED:

Among boats that have finished more than 50 heats. The boat name listed is the name the hull had when it first entered competition.

1.	#1801 Miss HomeStreet	56	67	0.836
2.	#8901 (T-3) Miss Budweiser	70	97	0.722
3.	#8012 Miss Budweiser	89	126	0.706
4.	#7701 Atlas Van Lines	79	113	0.699
5.	#8701 (T-2) Miss Budweiser	98	146	0.671
6.	#0116 Miss E-Lam Plus	141	225	0.627
7.	#5608 Hawaii Kai III	31	51	0.608
8.	#5960 Miss Thriftway	46	77	0.597
9.	#6240 Miss Bardahl	44	75	0.587
10.	#6740 Miss Bardahl	39	68	0.574
11.	#9501 (T-3) Miss Budweiser	106	185	0.573
12.	#0706 Oh Boy! Oberto	176	327	0.538
13.	#6403 Tahoe Miss	39	77	0.506
14.	#7025 Pride of Pay 'n Pak	64	129	0.496
15.	#7171 Atlas Van Lines	36	77	0.468
16.	#6812 Miss Budweiser	56	122	0.459
17.	#3813 My Sin	25	55	0.455
18.	#7474 Valu-Mart	30	71	0.423
19.	#5677 Miss Wahoo	32	76	0.421
20.	#8700 Miss Circus Circus	204	487	0.419

SPONSORS THAT HAVE WON THE MOST RACES:

1. Budweiser 141
2. Atlas Van Lines 47
3. Bardahl Manufacturing 27
4. Oberto Sausage 22
   Pay 'n Pak Stores 22
6. Ellstrom E-Lam 19
7. Graham Trucking 17
8. Progressive Tool (PICO) 16
9. Gale Enterprises 14
   HomeStreet Bank 14
11. Miller Brewing 13
12. Dossin's Food Products (x) 12
    U.S. Equipment Co. 12
14. Circus Circus Hotel/Casino 11
15. Hawaii Kai Community 10
16. Thriftway Stores 9
    Century 21 Exposition 9
    Qatar 9
    Such Crust 9
20. Delta Realtrac 8
    Camel (Smokin' Joe's) 8
    Beacon Plumbing/Electric 8
23. Notre Dame 7
24. Squire Shop 6
25. Supertest Petroleum 5
    MYR Sheet Metal 5
27. Llumar Window Film 4
    Exide Batteries 4
    Winston 4
    Formula Boats 4
31. Eagle Electric 3
    Pringles 3
    T-Plus Engine Treatment 3
    Great Lakes Broach & Gauge 3
35. Olympia Beer 2
    Weisfield's Jewelers 2
    Smirnoff Vodka 2
    Miss Tri-Cities 2
    Lynx Healthcare 2

(x) The boats used the name Miss Pepsi, but the sponsor was Dossin's Food Products.

UNJ INTERVIEW

Dixon Smith: THE MAN WITH THE ANSWERS.

PART TWO

Dixon Smith is widely regarded throughout the sport for his technical knowledge of hydroplanes. Last month, in part one of our interview with Smith, he told us about growing up in Seattle. He discussed his introduction to hydroplane racing when his father, Burns Smith, was a crewmember on *Miss Seattle*. Dixon and his brother, David, were welcome in the shop where they helped with odd jobs. Later, Dixon worked on *Hawaii Kai III*, then joined the *Miss Bardahl* crew in 1962. He attended the University of Washington where he majored in physics. He also earned a degree in mathematics. During his years with *Miss Bardahl*, he helped solve the quill shaft problem and developed the use of nitrous oxide. At the conclusion of part one, the cabover *Miss Bardahl* had crashed in the 1966 President's Cup, killing driver Ron Musson. Dixon began talking with the *Tahoe Miss* team about joining their crew for the remainder of the season. The interview was conducted by Craig Fjarlie on May 26, 2023.

UNJ: After *Miss Bardahl's* accident in the 1966 President's Cup, you went to work on the *Tahoe Miss* crew.

Smith: Let's back up to *Bardahl* for just a minute. Let me show you a couple of pictures of some stuff that we actually did. This is a test stand for a Merlin that Dwight Thorne and I put together about 1962 or '63. This truck was owned by Precision Air Engines up at Paine Field. It had been used for radial engines and they weren't using it, so we were able to lease it for $50 a year if we promised to return it in the condition we got it. It was an old school bus that had been modified. We ended up putting a Merlin on it with an airplane propeller for load. Had an instrument panel.

One of the things that I did with this—and this was again thanks to some of the NACA stuff that I read—was to actually measure horsepower. You need to know engine rpm and we also needed to know the torque on the crankshaft, be-

Jon Osterberg

Leo Vanden Berg (left) and Dixon Smith

cause rpm times torque makes horsepower.

This is the coupling that goes between the crankshaft and the reduction gearbox that's driving the propeller. This coupling, I instrumented. There's stuff called strain gauges on here, which were devices that can measure metal movement very accurately electrically. Come out, there are some brushes here, and goes to a gauge on the instrument panel, so what you're doing is you're measuring the twist on the shaft. The more torque you put on it, the more twist you get. If you can measure that, you can actually measure torque, so now you can get actual horsepower readings on the thing.

Using an airplane propeller, you can load up the engine and the propeller will keep the rpm constant. It's designed to do that. It'll change the blades on it to keep the rpm constant. The throttle will keep the manifold pressure constant and then you can set the rpm and the manifold pressure. Now you can do things like screw around with fuel flow, water-alcohol flow, those kinds of things, and see how it changes horsepower. This was something that we set up at Paine Field.

Here is another picture of the instrument panel.

This was in the truck?

Yeah, this was in the cab of the truck. This was 1963, so no computers, right?

Right, yeah.

How do you take data? Polaroid camera. You get up to where you want to be, you take a picture. So, this is an actual run, 3,800 rpm, so this is 120 inches of manifold pressure. That's my hand on the mag switch in case something goes south, but this is running that engine on this test stand at the equivalent to race power.

So, this was a research project that was going. We had a whole lot of stuff instrumented so we could figure out, like, carburetor flow, water-alcohol flow, all those kinds of things and actually do controlled testing instead of taking it out in the boat and saying, "Driver, how did it feel?" We actually measured stuff. And this was a big help in sorting out some of the engine stuff, because we were able to actually measure stuff, make changes, and see what the changes did. This was kind of something that a lot of people didn't know about.

Sure, yeah.

It took a fair amount of time to do this, and I was crabbed at a few times because, you know, "You ought to be down here building motors, not up there screwing around with your test stand." Well, in the long run, the test stand probably would have been better time spent, but that actually was a very useful tool, to do that, and not a lot of people knew. So, that was part of the engine development stuff, having something like that where you could actually do some testing and measure what's going on. I'm a college kid doing all this stuff at the time. [Laughter]

Sometimes college pushes you in that direction, to think like that.

Oh, it's the physics courses and the lab courses and stuff like that taught me how to do experiments and get something out of them. You know, you design the experiment, you try and predict what you're going to get out of it, and then you go do the test.

If the test does what you think it should do, you understand it, okay, we're fine. If the test doesn't do what you expected, that's a big cue mark. You don't understand something. You have to figure out what's going on here, because it's not that it's a failure, it's you don't understand what's going on. That's a big thing. What I learned in college is, you can learn more from a failure sometimes than you can a success, if you look at it properly. So, it's kind of an attitude thing.

That kind of stuff back then, it was really a good opportunity for me to do stuff. Somebody later pointed out that test stand was probably worth a master's degree in mechanical engineering if you had the time to write it up. I was too busy boat racing to do anything like that. Okay, enough of the *Bardahl*.

Well, next was *Tahoe Miss* for the remainder of the '66 season. A number of years ago, Mira Slovak said in an interview that it was a heavy boat, compared to the '58 *Miss Bardahl* or other boats he had driven.

I think it was.

He said it was good in rough water.

Yeah, yeah. They had some really good motors, and they made some serious horsepower with that thing, and Mira was

a good driver. He could handle the boat well. The *Bardahl* was a tad over 7,000 pounds and I think the *Tahoe* was probably high end of 7,000. They were, probably, 7–, 8–, 900 pounds heavier than we were, I think.

And they were running a G-6 Allison at that point?

Yeah.

There was a while they had a V-6 Buick running the...

[Chuckles] Oh, they tried a variety of things that were really interesting. When I worked on the boat, we only used the G-6 Allison, which is a two-stage Allison. It's got the auxiliary supercharger, and so forth. But, talking with the people on the crew that I got to know really well and respected, they had tried that aluminum Buick in the boat. They turned the auxiliary supercharger around and had the aluminum Buick driving the auxiliary supercharger instead of the engine driving it, and that was not terribly successful.

Part of what was going on was, I did some calculations, because I'd done a lot of calculations for stuff. I could fairly quickly calculate how much horsepower it takes to run a supercharger and so forth. Well, an auxiliary-stage supercharger, when you're making some serious manifold pressure, probably is eating up 4– to 500 horsepower. That aluminum Buick on a really good day, if it made 215 or 220 horsepower, it was having a really good day. So, talking to them when they were doing some early testing, it wasn't enough motor to make the auxiliary supercharger really work like it was supposed to.

In that era—this was 1966—every other engine was a cast-iron engine. That was the only aluminum engine being built at that point, and a cast-iron engine was unbelievably heavy. This was kind of the engine of choice because, I think, weight, as much as anything, but it just didn't quite have the oomph to do what it was supposed to do. They ran it some and the reports were not terribly successful and the other part of it is, now you've got two motors you have to pay attention to and keep running instead of just one.

So, it added to the workload.

Yeah, yeah. So, the whole time I was there we ran just the G-6 Allison, the two-stage engine.

Without the Buick.

Without, yeah, so the core engine was driving both superchargers. Harry Volpi liked to experiment and screw around with stuff. There were a couple of occasions when I was working on the boat that Harry wanted. Now, we're in the middle of the racing season, the boat's working really well, it's winning its fair share of races and so forth. There were a couple of occasions when Harry decided that, because he was team manager, he wanted to try something different, change something.

The water-alcohol injection system that they had was working quite well. Somebody convinced Harry that there was a different kind of water-injection regulator that would "solve all our problems." So, he gets one of these things and insists it gets put in the boat. We blew up two superchargers one after another. We put that thing in and a lap and-a-half later we blew up a supercharger. Changed engines, blew up another one.

Andy Anderson, who was the crew chief says, "We're done with that." And he didn't have a very nice way of describing it. [Laughter] Harry was upset because he said my guy said it would fix all our problems. Andy said, "We're done blowing up engines and put the old system back in, worked just fine." Harry wanted to do some things, I think, just for the sake of changing stuff. In the middle of a racing season, isn't very good.

One of the other things that happened is, the last race of the season was San Diego. We had to do really well to be national champion. We were only, I don't know, a few hundred points ahead of anybody else, so we really had to do well. Getting ready to go to San Diego, Harry decides he wants to run the Buick at San Diego. There's kind of a big brewhaw. Andy's the crew chief, he doesn't want to do it. Harry insists he's the team manager, you will.

So, Andy went over his head and went directly to Bill Harrah, and basically said to Bill Harrah, "If you want to be national champion, we have to stick with what we got. It's reliable, it runs good. The aluminum Buick driving the supercharger has issues, it's not as reliable, and also, we probably don't make as much horsepower." Bill Harrah said, "Stick with what you got." So, we stayed

David Volpi

The *Tahoe Miss* with the Buick engine driving the auxiliary supercharger.

with the G-6 Allison just like we'd been running, won the race, we're national champion. Monday after the race Andy got fired by Harry because he didn't follow directions.

That's kind of the internal politics of what went on. Harrah's, as a corporation, had a pretty good H.R. (Human Resources) department, so Andy appealed his firing. It went through the process. It took a lot of months. Andy was reinstated with full back pay because he had been improperly fired. Andy went in, got his check, cashed his check, said, "I can't work for that asshole anymore, I quit." That was real interesting, seeing the internals of how some of that stuff happened.

Abbie Rowe

The crew works on *Tahoe Miss* in 1966.

Then they tried a straightaway run after the season?

Oh, yeah.

Did Slovak drive that, too?

Yes.

It didn't seem to get a lot of publicity...

Well, heh, heh, um...

Maybe just as well?

First of all, trying to set a straightaway record at 6,000 feet altitude is probably not the smartest thing to do because the engine has a bad case of asthma to start with. If you have a casino up at Lake Tahoe, maybe that's the reason you'd go up there to do that. So, we went up there and the intent was to run that great, big turbocharger. Are you familiar with that?

Not really.

This turbocharger was about that big around [gestures] and that big. It came out of, like, a B-29. It was an aircraft turbocharger, but it was a great, big thing.

About three feet by four feet, or something?

Yeah, it was huge. It had duct work. There are some pictures floating around of this thing in the boat. They took the auxiliary supercharger out, put this thing in, and it used exhaust gas to run a turbine, which ran a compressor and then the compressor was ducted to feed into the carburetor. In the airplane world where you have constant load, constant power 'cause when you're running your airplane you have rpm and manifold pressure you're running in and it's all nice and stable and constant, that kind of thing works pretty well. In a race boat, not so good.

They had run that thing when Chuck Thompson was driving and Chuck supposedly reported that the boat was good for well over 200 miles an hour. It was unclear to me whether they had anything to back that up other than what Chuck had said. I don't know. But, we went up to Lake Tahoe and the intent was to take the auxiliary supercharger out, put this in, and configure the engine to do that.

It took several attempts to get the boat even up on a plane. Harry Volpi did some of the initial driving to make sure it was "OK." Finally, after about three or four attempts, got it up on a plane. Then Mira got into it, and he had difficulty getting it up on a plane because things weren't matched up real well and you're at 6,000 feet and just a whole myriad of problems. So, he finally gets the thing up on a plane and running kind of OK, and then, backing off the throttle, it backfires. When it backfires it breaks the engine supercharger, which has the carburetor thing on it and it goes forward and it bounces off this turbocharger.

The inlet fuel line for the carburetor is up, it's right in the front of the carburetor. When it bounces off the red-hot turbocharger that line breaks and now you have av gas squirting on this really nice hot turbocharger, which immediately catches fire. Now there's fire from the front of the boat to a hundred feet behind the boat.

Mira is wearing goggles and at one point he was kind of wearing an oxygen mask because of fumes. I don't know what he did, but anyway, when that thing blew he said he ducked down, got things shut off, pulled the fire bottle, and then bailed. He bails, luckily got things shut off so the fire pretty much stopped, but not completely. The crash boat goes after him.

Herb Witherspoon and I are in another crash boat, we head to the boat. This is October, Lake Tahoe. I'm wearing what I would be wearing, plus coveralls, plus I've got a heavy coat on. No life jacket. Herb and I each have a CO2 bottle, we both jump out of this boat onto the deck of the boat, with no life jackets, to put the fire out on the thing. Why both of us didn't end up in the lake freezing to death is beyond me.

They fished Mira out. He's got some burns on his face but other than that he's

OK. The boat is not significantly damaged by the fire. We got it put out pretty early. So, at that point, take the turbocharger out. Couldn't get it up on a plane, once you got it up on a plane then it blew up, so probably not a good idea to put the G-6 Allison back in, but there had been some experiments done by a guy by the name of Howard Gidovlenko, who was an engine guy who Volpi knew.

We went through about three or four engines and the fastest we went was, like 175, and the record at the time was 200, by Duby. About the fastest we went was, like, 175, and that was after trying every trick in the book anybody could think of, to try to make some more horsepower and do whatever we could do. It was obvious the boat was not gonna go any faster than that.

Mira was all right to keep driving on the later attempts?

Yeah.

Was that all the same week?

No, it was over a couple of weeks. There was a sanction that lasted maybe 10 days, it was fairly long, maybe two weeks, maybe 10 days, I don't remember. And *Budweiser* was up there also. They were going to piggyback on our sanction. They went 160 or something like that; 6,000 feet to set a straightaway record is a really bad idea. Mira did get in trouble with Continental Air Lines because they were somewhat unhappy with him driving race boats and being an airline pilot.

Yeah.

And between the time we had the fire and we're going to run again, he was back at work for a day or two. He shows up and one of the pilot managers sees him with the burns. It looks like a hoot owl because he had goggles, but he was kind of toasty, like he had a really bad sunburn. I think he kinda got told you need to make up your mind, whether you want to be a boat driver or an airline pilot. Continental was unhappy with him driving race boats and trying to be an airline pilot at the same time, but he drove—other than the early testing that Volpi did—he did all the driving for this straightaway record.

Looking back on it, it was really a miserable failure. After that, I was committed to go in the Navy that spring, because the Vietnam War was at full tilt and there was no lottery at that time. Anybody who was draftable was getting drafted and since my college deferment was going to run out, 'cause I was going to graduate from college that spring—before we went racing that spring—I talked to the Air Force, I talked to the Navy, and I ended up signing with the Navy. They were nice enough to give me, okay, you signed up to go to Officer Candidate School and so forth, when do you want to show up? I told them November, December, because I wanted to work on the boats in the summer and they were okay with that. I had an early December show-up at Pensacola for the Navy. By the time we got done with the mile straightaway record, I went home to Seattle for a couple of weeks and then headed to Pensacola.

"I ended up signing with the Navy. They were nice enough to give me, okay, you signed up to go to Officer Candidate School and so forth, when do you want to show up? I told them November, December, because I wanted to work on the boats in the summer and they were okay with that. I had an early December show-up at Pensacola for the Navy."

You stayed in the Navy for a number of years.

I was on active duty for about five and-a-half years, something like that, and then I stayed in the reserves, so I ended up with 23 years of service in the Navy. So, I was active and then the rest of it was as a reservist.

It gave you a chance to fly.

Well, because of glasses, I could be what the Navy called a Naval Flight Officer, which is a guy who's in airplanes but not a pilot. So, it would be, like, I was a right seater in A-6s, which is, I was a bombardier/navigator. It would be the same thing as a guy who is a back seater in an F-4, that type of deal. So, you're a flyer, but not a pilot. I did that, on active duty, for about five years and thank you to a few pilots who were really nice and probably put their own career on the line—but they didn't give a s--t because they wanted to get out of the Navy anyway—I got some amount of left seat flying time on the Navy. Illegal as all get-out, but I did.

After I did that, I was also flying little airplanes at the time, so I was a private pilot on the outside. After doing some flying of real Navy airplanes, I decided I wanted to be a pilot. And the Navy, in their infinite wisdom, decided that I was more valuable as a bombardier/navigator than I was a pilot, so no thank you, you can't be a pilot in the Navy. So that's when I got off. If the Navy had said you can be a pilot, I would have stayed in. But, they decided that I probably shouldn't be a pilot in the Navy.

So, I got out and ended up flying as a pilot for Pay 'N Pak and then United Air lines. That was kind of what drove that. I liked what I was doing in the Navy and the pay was really good and the flexibility gave me the chance to do what I wanted to do, so I stuck around in the Navy and ended up

retiring out of the Navy too, which was... The paycheck still spends nicely, which is nice.

You were Dave Heerensperger's private pilot?

Well, I was Pay 'N Pak's chief pilot. It was a corporate asset and I initially worked for John Headley, who was Dave's, kind of, counterpart. Then later, when Headley left, I worked for Dave. But, it was a Lear Jet and it was a corporate asset that was used, not as Dave's private airplane but as a corporate asset. Of the flying we did he was in the airplane, I would guess, 15, 20 percent of the time at most. Most of it was hauling corporate people around, doing what they had to do.

Pay 'N Pak, at that time, they were primarily west coast, but they had a lot of Midwestern stores, too, in smaller towns. They were kind of targeting smaller towns where there wasn't a lot of competition for a plumbing, hardware, electrical store. So, we hauled a lot of store development people around, looking at locations, district managers managing their groups, and because of the way the stores were and airline service, I could take a group of managers, store development people, and we could hit three or four cities in a day, where if they were doing that on the airlines it would have taken them a week and-a-half to do the same thing. The airplane paid for itself very well that way, being efficient and getting people where they needed to be in a hurry and so forth. I did that for seven, eight years.

After *Tahoe Miss*, were you away from racing for a while when you were in the Navy?

When I was in the Navy on active duty, I was out to sea at times. I did a combat tour in Vietnam on the *Enterprise* and I was gone, so boat racing was basically not practical at that point. I mean, I was stationed at Whidbey Island, but when you're in the South China Sea on an aircraft carrier, you're kind of out of things.

Robert F. Pauley

The crew that worked on the airplane at the Reno Air Races. From the left, Dixon Smith, Bob Patterson, Dwight Thorne, Chuck Lyford, and Jim Lucero.

What I did do, though, when I was back as an instructor at Whidbey, I did some help on some airplane racing stuff. I was at the Reno Air Race a couple of times. I had enough time off. I wasn't really actively working on an airplane other than at the Reno Air Race. I might have my years a little bit screwed up, about 1970, I was still on active duty. I went to the Reno Air Race and helped Dwight Thorne on an airplane. Spent the week there and it turned out that was one of those years when the Reno Air Race and the San Diego race were actually a week apart.

Normally, those two are on the same weekend. We got done with the airplane and decided we'd go down to San Diego for the boat race. Just go where there's a boat race. So, we get down there and I think it was either a Thursday evening or Friday, probably a Thursday evening. I'm just kickin' around and Heerensperger sees me and comes and talks to me and says, "I need you to run my race boat."

"Huh?"

"Yeah, I need you to run my race boat."

"Well, I thought you had good help."

"I fired the whole lot of 'em." So, Jack Cochran was crew chief and they'd had the outrigger boat and they turned that back in to Staudacher. Then they had the Staudacher boat, which was called the '*Lil Buzzard*. Well, Heerensperger got crossways with Cochran. He fired the whole lot of the crew in San Diego, so he basically offered me the job, or coerced me into the job of running his race boat that weekend. So, I collected Dwight, and Dwight's really, really good on motors. He wasn't much of a boat racer, but he was really good on motors. He worked around racing airplanes and so forth.

I collected a couple other people and we ran the boat, kind of sorted out some problems, and it did okay. We came in second or third or something like that. After that, Heerensperger offered me the job of being crew chief on the boat. I said, "Well, I have a little problem. The U.S. Navy still owns me, and they own me for a while."

"Well, you can do it part-time."

"No, I'm not gonna do it part-time. I can't do that." So, he hired Dwight Thorne to be crew chief on the '*Lil Buzzard*. Dwight took the job. He was living in California, moved to Seattle where he grew up, hired a couple of people, and he ends up running the boat. I am stationed at Whidbey Island, so I'm kind of commuting back and forth occasionally and helping on the boat and so forth. One

of the guys that Dwight hired was Jim Lucero, just as a crew guy. Well, Dwight lasted about a year and decided he really didn't like boat racing. So, he bailed and Jim took over as crew chief at that point. And at that point we'd been running the *'Lil Buzzard* and also *Pay 'n Pak*, had the twin-Chrysler boat, which my brother worked on. If you ever want an evaluation of twin-Chrysler boats and what they did, talk to my brother. He worked on that thing, and he doesn't have a whole lot of good things to say about Keith Black or twin-Chrysler boats or anything like that.

When Dwight was still there, we were running the *'Lil Buzzard*. There was another crew running the twin-Chrysler boat. We're in Madison and Tommy Fults is driving the *'Lil Buzzard* and I'm working on it the best I can while I'm still in the Navy.

The Chrysler people finally announced they're ready, they finally got it working, it's really, really good. We're set and we're gonna do good now 'cause we got it all sorted out. They actually did run pretty darn good for the first couple of heats. We weren't paired up with 'em until the final heat. They'd actually won a couple of heats. The boat was actually working pretty good and we could see the handwriting on the wall that whoever did good was probably going to be the surviving boat out of this, because Heerensperger wasn't going to run two boats.

So, Tommy Fults's guidance in the final heat was, we don't care if you win the race or not, but you will beat the Chrysler boat or you'll have the rods hangin' out the side of the engine. In other words, you'll run that thing as hard as you have to and if you can't beat him, we want to know that you ran as hard as you possibly could. Well, he didn't hang the rods out but he did win the race and beat the Chrysler boat. So that was kind of the end of the Chrysler boat. And then, unfortunately, in San Diego, Fults was killed.

Hydroplane and Raceboat Museum

Pay 'n Pak 'Lil Buzzard at Madison, Indiana, in 1970.

Randy Hall

While Dixon Smith and one crew operated *'Lil Buzzard* in 1970, another crew worked on the *Pride of Pay 'n Pak* and its twin Chrysler Hemi engines.

Yeah.

He was killed, the boat really wasn't hurt that badly, but didn't want to run that boat any more. That winter, after San Diego, Dwight quit. Now, Jim Lucero is crew chief. I'm still kinda working on the thing, but I'm getting ready to get out of the Navy also. The decision is made, we're going to use the Chrysler boat but we're going to put a Merlin in it. We'll get rid of the Chryslers and put a Merlin in it. We'll take the driver out of the front, put him in the back, and that was pretty much a Lucero decision to do that.

Did you agree with that decision?

Yeah. The *'Lil Buzzard* was an older-technology boat. It was kind of a typical, good Staudacher boat, but it was a mediocre boat at best. So, the twin-Chrysler boat looked like it had much more potential. Get rid of the Chryslers and put a decent motor in the thing and kind of fix it. So, yeah, I

Randy Hall

ABOVE: The Chrysler-powered *Pride of Pay 'N Pak* was rebuilt after the 1970 season and was fitted with a Rolls-Royce Merlin engine. **RIGHT:** *Pay 'N Pak* team members celebrate after winning the 1971 Atlas Van Lines Trophy in Dallas.

"...so they offered me the job of running the aviation department for the company, so I did that job through 1979. Most of that time, as time was available, I worked on the boats."

was in complete agreement with that. The boat was converted over, the '*Lil Buzzard* went away. I don't know whether it went back to Staudacher or got sold, I don't remember, but we converted the twin-Chrysler boat into the Merlin boat, which ran as a Merlin boat for two or three years, something like that, and then eventually got sold to Bernie. I'm still pissed at Heerensperger for doing that, 'cause then they went out and tried to beat us regularly.

Somewhere in that time frame I got off active duty and it turned out, kind of unbeknownst to me when I got off active duty, a few days after I left the Navy, I found out that Pay 'N Pak had bought a Lear. They previously had a small turboprop, which only required one pilot, but they bought a Lear and the Lear required two pilots. So, I went to Dave and said, "Okay, what's it take for me to get hired to be a second pilot on your Lear Jet?" I could do that because I'd been around him on the race boat and so forth.

He had no clue whether I was a capable pilot or not. I'd been instructing in the Navy. I'm not a pilot but I'm instructing pilots. Heerensperger says, "Well, I know what you can do on a race boat, you seem to be okay, we'll hire you on probation. If you don't work out, I'm gonna fire your ass." So, I got hired as a pilot. The chief pilot was not real happy with me being hired, but he couldn't do much about it.

And, then the insurance company. Normally, who flies corporate jets is controlled by the

David Smith Collection

insurance company as much as anything. They want to see a certain amount of time and experience and so forth. The FAA requirements are a lot less stringent, so the insurance company really controls. Since this was a new operation for the corporation, a new jet, they'd never operated a jet before, the insurance company—instead of having us fill out just a pilot resume—they sent out an underwriter to interview us. This is where it gets really interesting, and it's very specific about how you answer questions.

So, I get interviewed and the interviewer talks to me about, now I have the appropriate pilot's license from the FAA to fly this airplane. That's not a problem, but it's experience. So, he asks me how much jet time I have. Well, I've got about, I don't know, 8–, 900 hours of A-6 time as an instructor

in the right seat, but there's no flight controls there. He says, "How much jet time do you have?"

"I've got 800 and some hours and most of that is as an instructor."

"Oh, you're okay." He never asked me if I had any flight controls, and I didn't volunteer that I didn't have any in that airplane. So, I got hired with virtually no actual pilot jet time. I had a lot of other time. But somewhere along the line I had learned be careful how you answer questions and don't volunteer anything. Anyway, that's how I got hired as a co-pilot on the Lear.

At that point I was working as a co-pilot on the Lear and I was also working on a race boat when I had time. And, um, a year and-a-half, two years later the chief pilot managed to step on his whatever real badly, not anything to do with airplane stuff. He screwed up and pissed off a chunk of the managers in the company by sticking his nose in something he had no business doing and just irritated a whole bunch of people, and he got fired for that. It had nothing to do with the airplane, but it was everything to do with what else he got in, so they offered me the job of running the aviation department for the company, so I did that job through 1979. Most of that time, as time was available, I worked on the boats.

I worked on the converted twin-Chrysler boat and then the Winged Wonder. The Winged Wonder was interesting because we were doing a lot of new stuff, and a lot of it was Jim Lucero. Heerensperger was backing it, but Lucero was behind building it out of honeycomb. I was responsible for the wing on the back.

The turbine U-95 had a wing, too.

Yeah, but...

It was different in the form.

The Winged Wonder with a Merlin was the first boat that had a serious wing on the back. We had learned enough at that point to figure out that round nosed boats had a real stability problem because they got too much surface forward and not enough back, so people were starting to cut a little bit out of the nose. The Winged Wonder had a fair amount pulled back from the center section. The reason for the wing on the back is trying to get some aerodynamic area back for stability purposes.

That was kind of an interesting project to get it done. Initially, Jones didn't want to build a honeycomb boat. He kept saying, "Well, we can use a little honeycomb, but I want to build it out of wood." Jim Lucero, and me behind agreeing with him, said no, we need to build this thing out of honeycomb because we need to figure this out and it's gonna be really light and it's gonna work good if we do it right.

One negotiating session between Heerensperger and Jones, Jones is adamant that he doesn't want to build it out of honeycomb, he wants to build a wood boat, and so forth. Heerensperger finally looks at him and says, "You want to build a boat?"

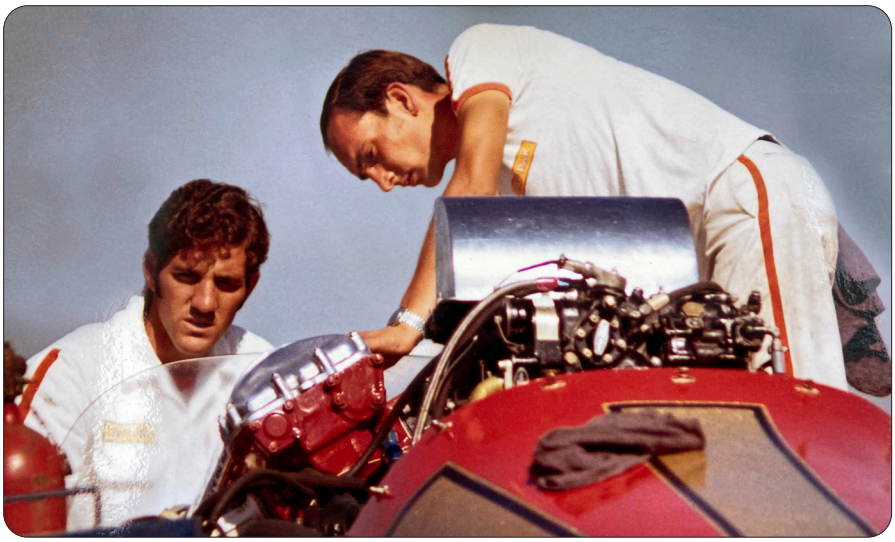
"Well, yeah."

"Okay, then it's gonna be honeycomb. If you won't build it out of honeycomb, we'll go get somebody else to do it so make up your f--kin' mind."

And Jones begrudgingly said, "Okay, your check, your money, I will build it your way. I don't like it, I don't think it's a good idea, but I will do that." After the

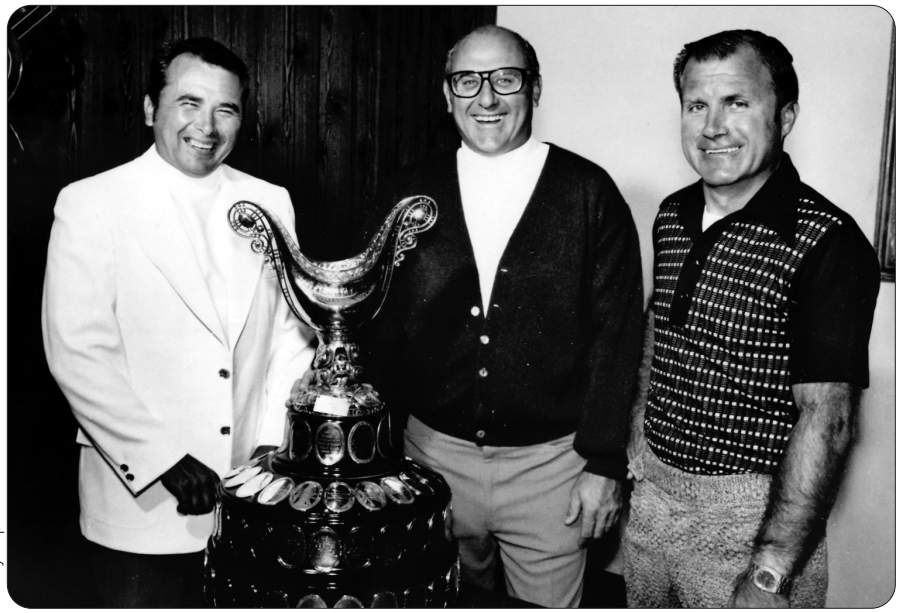
Randy Hall

The "Winged Wonder *Pay 'N Pak* in 1973



Dixon Smith Collection

Randy Hall



Hydroplane and Raceboat Museum

TOP: Jim Lucero and Dixon Smith working on the *Pay 'N Pak*. **MIDDLE:** The wing of the "Winged Wonder." **ABOVE:** Celebrating one of their Gold Cup victories are, from the left, George Henley, driver of the *Pay 'N Pak*; Dave Heerensperger, chairman of the board of Pay 'N Pak Stores; and John Headley, president of Pay 'N Pak Stores.

boat was successful, of course, it was all his idea and it was wonderful.

Yeah.

The boat worked great, so it was definitely a success. The wing on the back was there for stability purposes so if the boat pitched up, the wing would pick the back end up. If the boat pitched down is pushed the back end down. When the boat was going straight, it was basically doing nothing. But to keep other people on their toes, or keep them pointed in the wrong direction, the wing on the back of that boat was very much cambered on the top and flat on the bottom. It was not a symmetrical wing. Purposely done that way, but then it was also mounted on the boat so it was tipped slightly nose down, so it didn't generate any lift until something happened. If anybody looked at it, it looked like an airplane wing that was designed to create a lot of lift.

If anybody asked, "Oh, yeah, we put that on there so we could lift the tail end up a lot." Well, part of the design was, don't let other people know what you're doing. So, we built the wing cambered on top, flat on the bottom, but mounted it so that it was kind of zero lift as the boat was going straight and level.

We saw people doing some really interesting things when they started putting wings on boats. They didn't get what was going on. Now the turbine boats, the wings are all symmetrical, 'cause they're easier to build symmetrically and so forth, but that was a conscious decision to do it that way, too. As somebody used to say, if you can beat 'em on the beach it's easier than beating 'em on the course. [Laughter]

Anyway, the boat was really good, it was light, it behaved well because it was very much a copy of the previous boat, I mean, as far as sponsons and bottom and running surfaces and all that. It was a copy of the other boats, which we knew worked really well. Had some modifications on that thing, and so forth. It really worked well, and it was just a good deal.

One of the things that happened, it

David Smith Collection

The Smith family in the 1970s. From the left, Burns Smith, Dixon Smith, and David Smith.

was kind of interesting, we're in Detroit and we lose a blade on the propeller, and we ripped the bottom out of the boat. This happened, like, on a Thursday or Friday. I think it was Thursday. Anyway, we literally ripped the bottom out of the boat.

Carried it up to the *Gale* shop, start tearing it apart. My brother's in Seattle. Lucero calls him and gets him to break into the shop and get some honeycomb. The Lear, with another pilot, goes out to get him. They stop down in California to pick up a strut from Jones, and show up. We're repairing the boat.

When the honeycomb boat was built, the glue manufacturer that we were using said that the way to make this glue work right, you have to take the aluminum surface that you're going to glue to and you have to acid etch it and then you have to wash it with demineralized water, and then you have to make sure it dries. Well, what I just said is about a two- or three-day process. So, we're putting the thing back together. Jones shows up and this is, like, Friday night or Saturday morning. Jones is talking about this acid etching, water washing and so forth and that's the only way you can possibly do this.

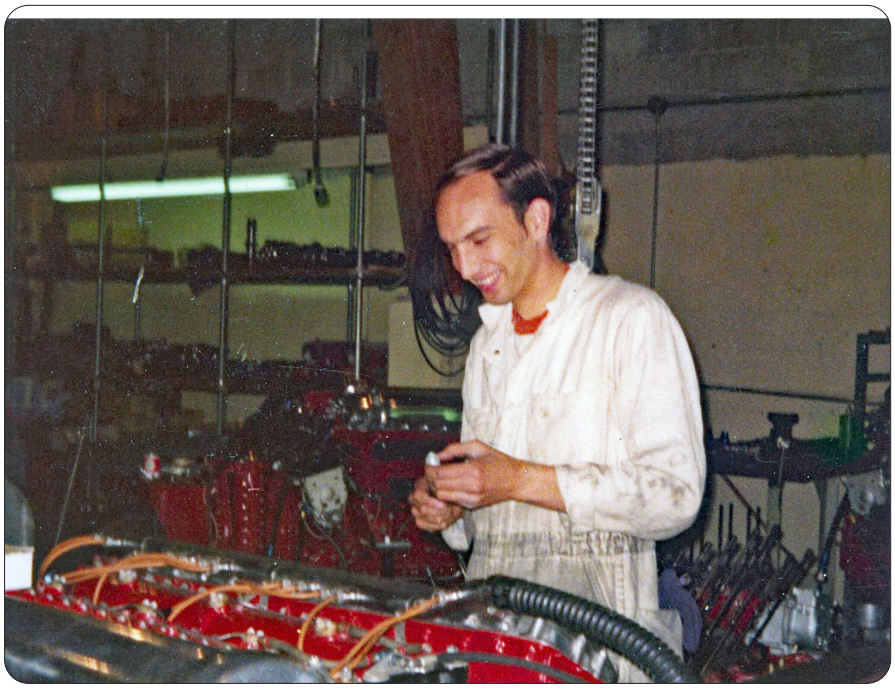
My brother says, "Bull s--t, we don't have time for this. Where's the disc sander?" So, he grabs a disc sander with some fairly coarse grit paper, and where you normally would acid etch it, he goes zzzz, zzzz, zzzz on all of the pieces, "Let's glue." And that's 'cause the boat is basically held together with glue, not fasteners.

Jones just has a hissy fit about, "It won't work, you can't do that." Done. We're gonna glue this thing together and we're gonna get it down to the racecourse. So, we did, and we showed up Sunday morning with the boat and the glue was probably still going off on the drive down there. We worked about three days straight with no sleep. It's the only time I've ever been, when I moved my head, my eyes wouldn't track any more. I had to be careful when I moved my head because if I moved my head, if you look at that and move your head, mine wouldn't. Everybody was like that. We were just numb.

We ran the boat and we didn't win but we came in second or third, so we did pretty good. But the interesting part of that was, some time later we blew the bottom out of the boat again. The pieces that had been glued with acid etching came apart. The pieces that had been scuffed up with the coarse grit on the disc sander didn't. The standard process for all race boats now, if you're gonna glue something together, you scuff it up with coarse grit sandpaper and glue it. You don't acid etch it any more. That started with my brother.

Do you remember what year that was in Detroit? Was George Henley or Mickey Remund driving?

[Pause] It had to be, like, about '73 or '74, something like that. I don't remember, I just don't remember. But, we



Dixon Smith Collection

Dixon Smith at work in the *Pay 'N Pak* engine shop.

Hydroplane and Raceboat Museum

Mickey Remund

busted a prop and blew the bottom out of the boat and it was definitely in Detroit 'cause we did all the work at the *Gale* shop. Some of that kind of blurs together. The boat worked great. When Mickey drove it, he did a really good job. Then, between seasons he tried to renegotiate something that was eye-wateringly expensive and Heerensperger said he wasn't going to pay him that. So, that's when Mickey didn't drive and George started driving.

Mickey went and drove for Fendler.

Yup, yup. George is probably the best driver I've ever worked with. Doesn't complain, always smiles, runs the s--t out of the boat, is easy on the equipment, and his wife is phenomenal. She's out there on the end of the dock yelling, "George, cut 'em off, go faster, why aren't you doing this?" It's the only wife I've ever seen that's actually, fully supportive of her husband driving a boat fast and hard. I've seen some wives, "Now, honey, remember the kids and be careful out there." Not Mary. "Get out there and kick ass."

So, you know, that was a wonderful experience working with George. And he knew how to get the most out of the boat without exceeding or without trying to hurt anything. There were a few times when he'd be running second and then, on the final lap, he would pass whoever was in first and win the race. "George, couldn't you pass him?"

"Oh, yeah, I could pass him any time, but I just didn't need to 'cause I knew I could get it."

"Well, how much nitrous did you use?"

"Ah, I don't know, not much."

"Well, didn't you need it?"

"Ah, maybe I used just a little bit and we should..." No, the way he was running, we'd pull the bottles out and weigh 'em. He was right. He used very little. The guy could get unbelievable performance out of the boat without thrashing the equipment. He was really, really good on stuff. Just talking to him, you'd never figure out he's an aggressive driver. But, just phenomenally easy to work with, no complaining. If he had anything, "Well, you know, if it did this a little better it might make it a little easier, but it's not that big a deal," type of thing. A really, really enjoyable and good guy. I had a lot of respect for him as a driver.

In '75, Jim McCormick drove the first part of the season. The boat, something had been changed?

Yeah, the guy behind the steering wheel.

The boat didn't seem to be quite the same.

Well, George had decided he didn't want to drive anymore, so Dave hired McCormick based on his previous experience. Jim just, his physical condition wasn't very good, and he had some physical problems, like he wore shin guards all the time because he didn't want to bang his legs up in the cockpit, and trouble getting around. He just wasn't getting it in the boat, and I don't know whether it was age or physical condition, but the boat really hadn't been changed.

What we did in the winter was just kind of normal maintenance and it had been okay. We hadn't really changed much. It was just Jim, he wasn't getting the job done. And Dave really wanted George back, and talked to George and, "Nope, I'm building a house, I got too much to do."

Dave said, "What do you need to do on the house?"

"Well, it needs to be plumbed and wired."

"Okay, I will come and plumb and wire it, you drive the boat." And that's actually what happened. Heerensperger went out and worked on his house so George could drive the boat. That's how we got him back. Actually, Dave prob-

Hydroplane and Raceboat Museum

Jim McCormick in the cockpit of *Pay 'n Pak* in 1975.

Hydroplane and Raceboat Museum

Ron Armstrong drives the *Pay 'N Pak* on the Columbia River in 1977. The boat was owned by Bill Muncey at the time, but Dave Heerensperger decided to run it one last time in the Tri-Cities and Seattle that season.

ably took a couple of people from the store, but Dave actually went out there and did a lot of the work on it, to get George back. Dave worked on the house to help get it done and that was the hook to get George to driving. I mean, Dave paid him very well, but it wasn't a money deal, it was a time deal. So, when George came back, things got well immediately.

Yeah, changed overnight, almost.

It was strictly a change in the driver. McCormick's a nice guy and so forth, he just wasn't getting it done on the boat. He was getting a little older at the time, so, you know, it was pretty obvious that this isn't working on the thing, so when George came back everything got well really quick.

Did you stay with the boat when Muncey bought the team?

No, um, when Muncey bought the operation, I was still flying for Pay 'N Pak, and that was my regular job. I worked on the boat a little bit and also the Blue Blaster was in the process of being built at the time and I'd been involved in, kinda, some of the Blue Blaster stuff also, so I worked a little bit on the boat, not very much.

At that point I'd been running the aviation department, working on the race boats, and also, I was in the Navy reserves flying and my plate was pretty freakin' full. I decided I needed a sabbatical from boat racing, so I started backing off. Then, when the Blue Blaster got going, Dave decided that he wanted to run one more time, so he leased back the boat from Muncey to run in Pasco and Seattle. I was the designated crew chief on that one.

So, I was the crew chief, we collected some people, and Ron Armstrong was driving and that did not go well. The equipment we got was not as good as I thought it should have been and I didn't have any say. I don't think, I don't know, whether Dave had any say on the driver, but Ron Armstrong was the driver and after a little bit I was really not pleased with Armstrong. He was doing okay, but his wife was a problem. Real problem. "Oh, Ron, remember the girls, now don't get hurt out there." And she'd be literally crying on the dock and, "I'll be up behind the truck crying while you're out driving, so don't get hurt."

I finally told my wife, "Get her the hell out of here if you can. I mean, she is screwing with his head so badly." So, we ran the boat in Pasco. Did kinda medium okay. We ran it in Seattle, kinda did medium okay. We didn't get as good equipment as I thought we should as far as motors. They were kinda partially used up. The boat had not really been well maintained because they were concentrating on the Blue Blaster, so we spent some amount of time just kinda fixin' stuff on the boat that should have been fixed over the winter but wasn't.

And the original arrangement was Muncey was going to pay me some amount of money for running the boat. When it was all said and done and the boat goes back to them, I went to Jim and said, "Okay, when do I get paid?"

"Oh, we'll get you a check." Two days later a check shows up and it's a check for, like, $75. So,

"So, I was the crew chief, we collected some people, and Ron Armstrong was driving and that did not go well. The equipment we got was not as good as I thought it should have been and I didn't have any say."

I, you know, "What the hell is going on here?"

"Well, there were a lot of extra expenses and so forth and that's what we can afford to pay you." I ran the boat for two f--king races. Well, I told Heerensperger what's going on. He made it right. He fixed it, but at that point, okay, I've been used up by boat racing just a little bit too much, so I really am going to take a sabbatical.

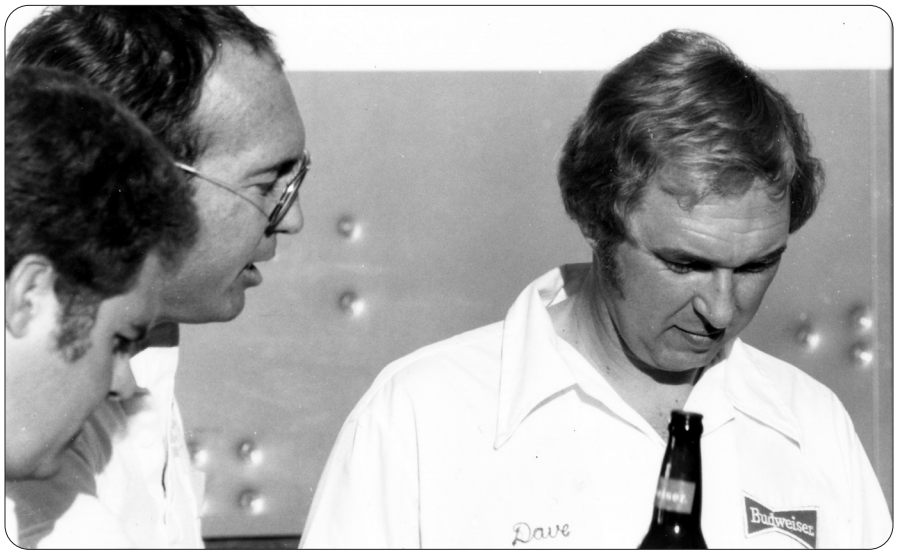
So, I walked away from boat racing and every time Lucero would call me for some information or some help or some something, which he did a few times, I said, "Jim, hang on a minute." I'd go up to my office and I had that check stapled to the wall and I'd go look at that check, and then I'd go, "What do you need, Jim? Sorry, too busy, can't help."

That one used me up a bit. That's when I said I need a sabbatical from boat racing seriously, and I didn't do anything until, I don't know, it was probably '84, '85, something like that, maybe '86, I don't remember.

Anyway, Dave Culley called me. He was the crew chief on the Griffon *Bud* at the time. Dave called me and we had a short conversation. Now, we worked together 'cause he worked for Heerensperger for a little bit on the *Pay 'N Pak*, so we worked together before. I knew Dave pretty well. He said, "If I buy you lunch, can we talk about motors?"

I said, "You buy me lunch and talk about anything you want, I don't care." So, we went to lunch and chatted and they'd been running the Griffons for basically one season and they were having significant reliability problems. They were busting stuff and not finishing and not doing well at all. He wanted some help, you know, "What can we do to fix some of this stuff?"

So, "I'll come out and take a look and kinda poke around and see what I can, see if I can figure out anything." I went out and looked at a bunch of busted stuff and looked at what was going on and told him, "I think I can fix your problems."



Hydroplane and Raceboat Museum

Dixon Smith (second from left) and Dave Culley (right)

The water-injection system, the ADI system they had, had been inherited from an airplane racing deal and had been designed and put together by Pete Law, who I knew. Pete's a smart guy, he worked for Lockheed, he's a thermodynamicist by education and trade, but he's got some ideas on how engines work that vary significantly from mine. So, I told Culley, "Tell you what. I'll take a shot at this, and I think I can fix some of the stuff, but the condition is you can't tell Pete Law what I'm doing and if it works, how well it works."

And he said, "Really?"

I said, "Yup, just, that's the condition."

And he said, "Okay."

So, I redesigned the water-alcohol injection system and helped 'em sort out some other engine problems. They looked at some stuff, did some mods to the engine, and next time the boat ran, motor ran really good, didn't break anything, boat went good. When they started racing, still had some amount of problems with the supercharger and so forth, but not to burn pistons, pitch rods type of stuff they'd had before.

Somewhere along the line Dave had talked to me about, you know, doing some more work on the boat and how much do you charge, and so forth. I said, "Tell you what. I don't like keeping track of time, I don't like writing bills. Why don't you just pay me a monthly retainer and if I think I'm working way harder than I should, I'll tell you I need some more money, or if you think you're not getting your money's worth, let's talk. And then, just putting me on a monthly retainer, that way if somebody else wants me to help on their boat I can say, 'Sorry, I'm tied up, I got something to do.'"

So, that arrangement stood all the way up through 'til Bernie died. I was on a retainer for the *Budweiser* group and I worked on the Griffon stuff and over a couple, three years for the Griffon, did a bunch of changes on the engine. Got rid of the aftercooler and then increased the amount of nitrous we were using. Then I was doing some calculations on carburetors for, I think, an airplane deal.

And just for grins, I ran the same calculations on the Griffon with the carburetor they were using, and I came up with some really weird results. Wait a minute. Those equations are telling me that the carburetor is choking the engine. I went back and looked at this stuff and I kept coming up with the same answer.

So, I talked to Jim Kropfeld, who was driving at the time, and I said, "Jim, when you really get going pretty hard and you're not quite at full throttle, and

then you go to full throttle, does nothing happen?"

And he said, "Yeah, there's a dead spot in the throttle up kind of full throttle. At some point it's kind of dead and I always thought it was a linkage problem."

"No, I think the carburetor's too small for the motor for how hard we're running." Because we'd fixed a lot of the blower problems so we're making more manifold pressure and we're running the engine harder and we're trying to get more air through the carburetor than the carburetor was capable of doing. And the equation told me, and I was kind of wondering, that seems strange, but what was it? The air was getting supersonic at the carburetor. That was something I had never seen before. After talking to Kropfeld, this is a problem. At that time I think Culley had gone away and Jeff Neff was crew chief. And I said, "Carburetor's too small."

"You're kidding me?"

"No, carburetor's too small."

"What can we do?"

"We get a bigger carburetor." The carburetor that was on it was essentially built for the two-stage Allison, which is a 1,710-cubic-inch engine. The equivalent carburetor that was going on radial engines, which is the same basic carburetor, was good for up to a 2,800-cubic-inch engine. And that's kind of what the equation said.

So, there was a carburetor that went on a 4,360-cubic-inch engine. That sucker is huge, but it's for a 4,360. I did some digging and figured out yup, that's what we need. So, I get one of these, and we need this. And they go, "You're kidding me." [Laughter] So, build an adapter and got the thing flowed and got it all set up. Changing the carburetor only we picked up something like 10 inches of manifold pressure. It was, in fact, choking the thing. It was just one of those things I'd never seen before, and it was kinda, oh, wow! So, with a great big giant carburetor on the thing, we took the aftercooler off, and not the last year the Griffon ran but the next-to-last year, that thing really cooked.

To back up, you weren't working on the Griffon *Bud* when Chenoweth was killed.

No, no, that was before I was. I was not on the boat at that point. I didn't go on it 'til after he had been killed.

Yeah.

But I did remember when they tried to set the straightaway record out at Sand Point. I went out to watch that thing and I was in one of the boats, a crash boat, when that thing did its loop-de-loop and so forth, but I was not working on the boat at that time.

When you were involved with *Budweiser*, did you ever have anything to do with the turbine boats?

Oh, yeah, yeah. What Bernie had done is, he bought that turbine operation from the guy down in Texas. He bought the turbine boat, and he hired Ron Brown and a few other people and set up a shop in Kent. They worked on that boat for a year and-a-half or so, converting it from one kind of engine to the T-55 and a bunch of mods to the boat. It was a completely separate operation from the Griffon operation. I never was at the shop, and I don't think anybody else was down there. Nobody was. It was a completely separate operation.

They finally got the thing to the point where they were going to take it over to Pasco and test it, and they did. They took some videos of the thing and then they came up to the shop in Wallingford where the Griffon boat was. We kinda met the people and then they had some videos of the boat running. They were convinced this thing was right there. We look at some of the videos and I'm sitting next to Loren Sawyer. "Okay, what do you think?"

I talked to Loren, he says, "F--ked up." I'm coming to the same conclusion. This thing in the corners is doing this kind of stuff [gestures]...

Hobby horse.

...and get going on the straightaway that's not bad, but boy, in the corners it's really not doing well at all. What had happened is, they had cut a whole bunch—if the boat's here and this is the back of the boat—they had a section in the center and then it was cut out on each side out to the air traps. So, there was a center section that carried the strut and so forth, but there was this big area on each side that had been cut out and had no bottom. This was a Ron Jones deal, I think. Maybe Brown was involved in it also.

So, [makes noise like a boat running, coming in and out of the water]

F. Pierce Williams

The Griffon-powered *Miss Budweiser*, also known as the "Bubble Bud."

L. Dodd

The *Miss Budweiser* team moved into turbine power with this boat in 1986.

that ain't so good. Started out that season running both the Griffon boat and the turbine boat. But, the turbine boat didn't have enough people, so some of the Griffon boat people migrated over to the turbine.

Unfortunately, it was a couple of the really good people. What was left on the Griffon boat wasn't exactly the first team. So, the Griffon boat was not doing real well that season. There were some fixes that needed to happen but didn't happen for a variety of reasons.

I was still attached to the Griffon boat at that point. Well, one of the things that had happened is Ron Brown, on the turbine boat, had decided that they needed a computer in the boat to monitor the engine. He has hired some guy from Oregon who supposedly was a data, computer kind of guy and he had built this thing for a lot of money. It also, supposedly, had radios in it for communication. Well, it worked great until you turned the motor on, then it didn't work. Even when the motor wasn't running sometimes it didn't work, but most of the time it did.

Brown approached me 'cause I was curious about this thing. I kind of stuck my nose in, looked at it and talked to the guy when he was there to see what was going on and so forth.

A piece of the puzzle that most people don't know about is, when I went to work for United [Air Lines], I worked for about a year and then I got furloughed. I was laid off for four and-a-half years. When I was laid off for four and-a-half years, I needed a real job. So, I ended up going to work for Boeing as an instrumentation engineer in flight test. My job was instrumenting airplanes for flight tests; computerized instrumentation, telemetry, the whole deal. It wasn't me alone, I worked with a group of probably 50 people. But that's what I did for four and-a-half years, computerized data systems and I learned a ton of stuff from Boeing about how you do all that kind of stuff, what's the right way to do it, all that kind of stuff.

So, in a conversation with Brown, he says, "You know anything about computers?"

"Yeah, I kind of did it for Boeing for four, five years."

And he says, "Well, can you fix this?"

And I said, "Let me talk to the guy. The next time he's up here I'll talk to him and I'll kind of see if I can figure out what's going on."

So, this guy was getting $2– $300 a day to show up and fiddle with this stuff, and he was up there for a couple of days and I spent some time with him. I came to the conclusion, I can't fix this. What he had done, I don't understand. Maybe it works but I don't understand it and when I look at it mechanically it's not something that's even close to what we would have thought about doing at Boeing, the way it's put together, because if you shake it, I think it's going to fall apart.

So, I told Brown, "I don't think I can fix it, but I think I can build something that will work."

"Well, how much will that cost?"

"Well, I don't know, let me figure it out." So, I came up with something that would seem reasonable to me. And I'm basically going to charge them for hardware 'cause I'm on a retainer anyway."

So, "Are you sure you can't fix that?"

"No, I can't fix this box that this guy built. Beyond me what he's doing." So, anyway, I built a computer and wrote some software and we put it in the boat, and the first test we did of the boat, got upside down. It was really interesting because it was a new boat. The old boat, they decided was no good, so a new boat had been built. It was a new boat. Kropfeld is driving, and he goes out and about the third lap he gets going on it and it does a loop and crashes.

I talked to Kropfeld about it and I said, "Okay, what the hell happened?"

He said, "Well, I was kinda getting used to things in the cockpit and I stood on the gas and I looked down. I was kinda lookin' at the gauges and then I looked up, and all I could see was sky."

I said, "Well, what did you think?"

He says, "All I could think about is Bernie's gonna be really pissed.?" [Laughter]

So, boat crashes. My computer is in what I thought was a waterproof container. It's about half-full of water. Not good. So, they fixed the boat, I fixed the computer, and it actually starts working. We were actually able to gather data in the boat and it was working, so at that point, all of a sudden, I became a turbine boat guy. ❖

Next month, in the conclusion of our interview with Dixon Smith, he talks about his work on the turbine-powered Budweiser boats, the vintage Miss Bardahl, and other details of his involvement with hydroplane racing.

A sad farewell to our friend, Ben.

BY CHRIS TRACY
President of Unlimiteds Unanimous,
publishers of the NewsJournal

With great sadness, I relay that our good friend, Ben "Doc" Keller, passed away on his birthday, February 5, 2024. He turned 74 that day.

Ben had not been in good health for several years, suffering from a number of health challenges. He had resilience and bounced back, even after sometimes spending long times at a rehabilitation center. He always maintained a positive attitude and, instead of focusing on his health problems, often would communicate gratitude to his doctors and nurses that supported him. But after a fall this time, his kind heart could not recover.

By profession, Ben had been a high school choir teacher at Lakes High School, near Tacoma, Wash. He earned a doctorate in music at the University of Arizona and both master's and bachelor's degrees at Pacific Lutheran University. His work with the Lakes choir was widely respected and recognized.

Jim Hausske

Ben had been involved with Unlimiteds Unanimous (UU) for about 40 years. He has been one of our race reporters for decades for the *Unlimited NewsJournal* (UNJ) and had covered races from east to west. Most recently, he served as the race reporter for the Tri-Cities races before the pandemic. Although not in good health, he had optimistically requested to be the Tri-Cities race reporter for the *UNJ* for the 2021 and 2022 races; I penciled him in, but quietly conveyed to the UU publication team that I would be his back-up, if he couldn't make the trip to Tri-Cities.

Maybe the most unusual story about Ben being a race reporter for the *UNJ* happened decades ago, when he was the Madison, Indiana, race reporter. (BTW, Ben loved the Madison race and *Miss Madison* race team.) This was before the Internet was widely being used and the *UNJ* was still being printed and mailed. Ben had the summer off from his teaching job and was going to drive to Madison.

Along the route he stopped in Nebraska, had dinner at a local diner, and developed a bad case of food poisoning. He wound up staying several days in Nebraska and never made it to Madison for the race. But the *UNJ* needed his race report! So, Ben called his friends who had attended the race or who worked on race teams and took notes from their recollections and requested race photos. And, then he watched the race on cable TV and took notes. Between the notes and photos from friends and watching the race on cable TV, he was able to put together a race report for the *UNJ*. And I don't think any readers even realized he didn't attend the race in person.

Although monthly UU meetings are in the greater Seattle area, Ben regularly made the trip from Tacoma to attend meetings and go out to dinner with the UU gang after the meeting. I think all of us noticed during social time that Ben was a man of exceptional kindness.

Aside from UU/*UNJ*, Ben was active in other parts of hydro racing, too. He was a longtime member of the Royal Order of the Turbine (ROTT) board and often led the invocation prayer at the annual Tri-Cities ROTT dinner/Hydroplane and Raceboat Museum fundraiser.

He was a pit tour guide and dispatcher at the Seafair race for decades. And he owned *Hawaii Kai* boats in both 1/10- and

Nelson Holmberg

Ben Keller with his beloved *Hawaii Kai III* radio-controlled hydroplane.

1/7-scale racing, winning the ERCU national points championship in 2011 and 2012. In ESU racing, his boat won 18 races, as well. And Ben was all in with *Hawaii Kai* pink—including shirts and hat, and, at one time, a Chrysler PT Cruiser, custom painted in *Hawaii Kai* colors.

And no story about Ben would be complete without mentioning his passion for Mercedes Benz cars. I swear one of the reasons Ben would attend UU was to also drive by a couple of Mercedes dealerships in Seattle and view the cars. At one time, Ben owned both a Mercedes sports car and a Mercedes SUV. He was a longtime active member of Seattle's Mercedes Benz Club, as well.

We'll miss Ben and we are better people from our friendship with him. And, since Ben was a longtime choir teacher, I'll close with some lyrics from a song.

Happy Trails
(Lyrics by Dale Evans)

Some trails are happy ones,
Others are blue.
It's the way you ride the trail that counts,
Here's a happy one for you.
Happy trails to you,
Until we meet again.
Happy trails to you,
Keep smiling until then.
Who cares about the clouds when we're together?
Just sing a song, and bring the sunny weather.
Happy trails to you,
Until we meet again.

MY $0.02 WORTH
Editorial Comment by Andy Muntz

We started the Hydro Record Book five years ago from an inspiration that was left to us by the late Fred Farley, a longtime member of Unlimiteds Unanimous who became renowned as one of the sport's leading record keepers. For many years, Fred would produce for the Unlimited Racing Commission a media guide that provided information about the sport's drivers and owners.

Now, I've always been a nut for baseball statistics. I even got a partial scholarship to college as a scorer for the baseball team. So, my favorite part of the media guide was the section where Fred compiled data about the sport's historical results. I enjoyed the lists of which drivers and owners had won the most races, and the results of races that had been held at each race site.

The sport stopped producing the media guide about 40 years ago and for many decades the only people keeping track of hydro statistics were fanatics like me—people who were just collecting and organizing the data for our own amusement. Nothing was being retained, it seemed, by the sport itself.

Then, several years ago, I had the opportunity to meet with a person with extensive experience in promoting sports who was interested in helping to market the sport of unlimited hydroplane racing. In that conversation he asked what I'm sure he thought was an innocent question: Does the sport keep track of its historical data? Are there any performance statistics that can be used in promoting the sport? The answer, sadly, was that while a few individual fans were collecting the information, the sport itself hadn't been keeping track of those kinds of records.

At about the same time, the owner of an H1 Unlimited race team visited one of our Unlimiteds Unanimous meetings and asked pretty much the same question. He wondered if anybody was maintaining records about the sport, such as which drivers had won the most races and what were the current speed records.

So, the idea of the Hydro Record Book was born—a single place where a person could go to find all of the performance history of hydroplane racing.

Among the first questions I confronted as the project got underway was to decide what gets included. Fred Farley's media guides only covered the years

following World War II, but I thought this new effort should also include the years before the war. I finally settled on including all of the Gold Cup and Harmsworth Races, and the events that happened beginning in 1922, which is the year that the APBA created the Gold Cup class and things became more organized.

Then came the natural follow-up question: Which races should be included? All through the 1920s and '30s there were several events where boats of all sizes competed together in one big marathon-type race—often called free-for-all events. Should they count as a race? And, during the late-1940s, Guy Lombardo, being a well-known celebrity as a well as a boat racer, would often compete in events where he'd race his boat against smaller limited-class entries. Should that count?

Using APBA rules as my guide, I eventually settled on the following criteria for an event to be called a race. It should have more than two heats, and it should have three or more starters that were in the Gold Cup or Unlimited class, or their equivalent.

There was also a question about speed records—a question that still comes into play today. How should the records reconcile the fact that there are rule changes and that a boat competing with various engine or fuel restrictions has a historical disadvantage when its performance is compared with a boat that raced at a time when those restrictions didn't exist. It's led to teams claiming "restricted" speed records as opposed to those that are "unrestricted."

To this I argue: If you start recognizing different records for different situations, where do you draw the line? Fuel-flow restrictions were not constant. Do you have a different record for a boat restricted to 4.2 gallons per minute as opposed to 4.5 gallons? Other things also impact speed. Do you have different speed records for three-bladed props as opposed to two-bladed props? Do you have different records for sunny days as opposed to blustery days? Do you have different records for smooth water as opposed to rough water?

To settle that issue, I go back to the example of baseball, where a home run is a home run no matter where it is hit and what conditions were in place when it was hit. A home run hit over the right-field fence at the old Polo Grounds in New York, which was only 258 feet from home plate, counts the same as a home run hit over the centerfield wall in today's Minute Maid Park in Houston, which is 435 feet away. A home run hit in the warm, thin air of Denver counts the same as one hit at sea level on a cool, rainy day in Seattle. Same goes for a home run hit against the wind as with the wind.

So, I opted not to make the speed record thing too complicated and avoid getting bogged down in all the endless variables. The Record Book simply lists the fastest speed recorded by the official timers. (In some cases, by the way, those records weren't recognized by the APBA because the sport wasn't sanctioned by the APBA in some years.)

The Hydro Record Book has grown during the five editions since that first issue in 2020. Each year we add new categories of data that we think might interest those who read it. But, there are certainly more ways to look at the sport's performance history.

If you have any ideas of things that should be included, or general comments about the publication, please don't hesitate to pass them along. We want next year's Record Book to be even better. ❖

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Letters are welcome, but may be edited for clarity and space.
Send comments to: ajmuntz@icloud.com

PLEASE JOIN US AT THE NEXT MEETING OF UNLIMITEDS UNANIMOUS
2 p.m. on Sunday, March 10, 2024
Bellevue Public Library, Room 4, 1111 110th Ave. NE, Bellevue, WA 98004