AeroMarine Research
TBPNews - Performance Report

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TBPNews #105 – August 16, 2006

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>>>> **Tunnel Boat Performance News** >>>>>> (over 7000 members!)

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******************** TBPNews *******************

1) Accident kills boat racer at DePue

An early Friday (July 28, 2006) afternoon racing accident claimed the life of an American Power Boat Association racer during the opening heat of the APBA PRO Nationals held on Lake DePue. Nick Davis, 37, of Chillicothe was fatally injured as a result of a two-boat collision during the first PRO National event of the day.

The noon-hour accident occurred during the initial competitive heat of the 500 Sprint Hydroplane division. During lap one, Davis led Ralph Donald's boat at the end of the backstretch, and the collision took place while both boats entered turn three. After divers pulled Davis from the lake, rescue workers and volunteers administered cardiopulmonary resuscitation while the injured Davis was transferred to the shore. Emergency medical technicians continued CPR to an unconscious Davis, who was then transported to Spring Valley's St. Margaret's Hospital in Spring Valley, where he was pronounced dead around 1:30 p.m.

At 2:15 p.m., a driver's-only meeting was held to announce Davis' passing, and 15 minutes later, fans and spectators learned of Davis' death during a public address announcement from the voice of APBA racing, Ray Rodda.

More at: http://www.hydroracer.net/

******************* TBPNews *******************

2) FEATURE ARTICLE: 'ChampCar Performance Secrets for Powerboats'

There is a great winning lesson for high performance powerboaters from Formula 1 and ChampCar (formerly CART) Series car racing.

At the CART Series Grand Prix of Cleveland in July/2002, Team Player's Patrick Carpentier gained an important 13 second lead on Team KOOL/Green's Dario Franchitti by running his car with a lower weight of fuel in his car for 4 laps prior to the last pit stop. Carpentier ultimately won the race. This is a great lesson for powerboat designers...and here is why?

Auto racers like CART and F1 calculate the exact advantage that fuel weight has on the performance of the car. Since the cars all weigh about the same, the fuel weight is important. The 25-gallon "advantage" of fuel that Mr. Carpentier had over Mr. Franchitti for a few laps, would have represented a car that weighed 200 lbs less. This lower weight meant less drag and thus, more speed. The same applies to boat design - but not just for fuel - we can gain more speed by cutting weight in lots of places.

A similar situation can be considered for a 30ft offshore catamaran with 2X600hp engines. Its total

running weight (loaded, including 700 lb of fuel) could be about 7700 lb, and it would have a top speed of say, 105 mph. By running with only 200 lbs less weight (this is only about 2.5 percent less weight) the top speed would increase by 1.5 mph. This may not seem like allot, but remember - the winning boat need only cross the finish line 1 foot sooner than the 2nd place boat! Over a 5-mile racecourse, this represents an advantage for the lighter boat of over a second (or 175 feet) on each lap!

There are lots of ways to reduce the weight of such a boat by only 200 lbs. A lighter fuel load is one method (can be accomplished with economical engine/prop efficiencies); lighter hull designs; lightweight engine components, lower unit drives and accessories - and yes...a lighter driver, too!

See more FREE Performance Articles at: http://www.aeromarineresearch.com/articles.html

Read more about Tunnel Boat design and setup in the world acclaimed "Secrets of Tunnel Boat Design" book

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3) E10 ethanol in Gasoline Causing Big Problems

Fuel problems are causing a lot of frustration for many boaters these days - and damage! The new E-

10 ethanol blended gasoline, in areas where it is mandated, is reportedly causing HUGE problems with burned valves, clogged fuel systems, ruptured fuel lines and more.

E10 gasoline is really 10% ethanol, an alcohol commonly derived from corn. That is a change from the traditional treatment with MTBE , the older, ether-based, pollution-reducing additive. There are, apparently, several contributing problems based in the E10 fuel. A most important action, if you're in a state that's switching from MTBE to ethanol is to have your [fuel] tank cleaned. Ethanol, when it meets MTBE, a sludge can form, leading to clogged fuel filters and damaged engines. Also, reports say that E10 can break down fiberglass fuel tanks and fuel hose lines. And it appears to create a problem by causing water formation within the fuel system. Alcohol has a greater affinity for water than ether-based oxygenates (like MTBE). If a fuel containing ethanol is used under conditions where water contamination is likely to be a factor, precautions should be taken to avoid such contamination.

There is a constant issue of reports of fuel-based engine failures and of fueling problems in the marine industry. And it's not clear what is being done about it. For now, I recommend that you have a good fuel filter with water-separation in your fuel line. And make yourself very aware of the type of fuel that you are using in your boat engine, and be sure that you know the proper procedures for fueling your boat and follow them to the letter.

Watch for next issues of TBPNews for in-depth feature article on "E10 Ethanol Fuel Problems"
Check out more at: http://www.aeromarineresearch.com/articles.html
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4) New "Professional Working Group" Agreed by UIM, F1 and C1

July 2006 l- UIM, F1 and C1 met in Arendal, Norway, on the occasion of the Class 1 Norwegian Grand Prix to discuss and establish a Professional Working Group (PWG) in order to handle more professionally the running of both pinnacle categories of UIM.

The PWG will be composed of, as Chairman, Mr. Ugur Isik from Turkey to represent UIM., Mr. Saeed Hareb from UAE to represent Class 1, Mr. Nicolò di San Germano from Italy to represent Formula 1 and Mr. Marco Sala from Italy to act as Co-coordinator. The PWG will have a period of six months to define the final structure and operational procedures.

The aims and functions of PWG will be as follows:
· Represent professional powerboat racing at institutional, political and sporting forums
· Promote and co-ordinate professional powerboat racing activities in an environmentally friendly manner
· Manage the sporting side of the classes and set the related rules
· Co-ordinate the calendar of both Championships to avoid overlapping and interference between the various Local Organizers
· Ensure that the Championships maintain the level of quality and format established by the PWG
· Establish basic rules for the running of commercial activities
· Identify possible areas of commercial synergy and where PWG Championships' image rights can be best exploited

· Identify possible areas of synergy in the supply of common services to both classes
· Provide legal consultancy services to members and organizers of both Championships

Check out more at: http://www.f1boat.com
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5) ChampBoat Grand Prix of Minneapolis: Terry Rinker takes his Third Win

Mercury Racing powered Terry Rinker of Riverview, Fla., is now three for three in the 2006 ChampBoat Racing Series, after winning the ChampBoat Grand Prix of Minneapolis, on Sunday, July 23. The race was round three of the 2006 ChampBoat Racing Series presented by Mercury Racing. Rinker also won the Labadie Bay City River Roar and Greater Cincinnati Grand Prix – the first two rounds of the 2006 ChampBoat Series.

Rinker won the event in style, by taking his 11th career win by a 2.98-second margin over Chris Fairchild in his Hooters-sponsored boat, as he finished for the first time this season. Rookie sensation Shaun Torrente of the California Gold Racing Team, and Wyatt Nelson of Syracuse, N.Y., rounded out in the 4 and 5 spots. All were powered by Mercury Champ EFI race outboards.

Round four of the 2006 ChampBoat Racing Series presented by Mercury Racing is the St. Louis Grand Prix – the Indy 500 of powerboat racing – Aug. 18-20, in St. Louis, Mo.

Check out more at: http://www.champboat.com
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6) Mercury Racing wins Powerboat Grand Prix in Arendal

Mercury Racing 1075 SCi sterndrive engines-powered Jotun's Jorn Tandberg and Christian Zaborowski to win the Norwegian Grand Prix in Arendal, Norway, on Sunday, July 23rd. Bjorn Gjelsten and Steve Curtis came second in their Lamborghini-powered Spirit of Norway, extending their championship lead to 37 points. Victory 77, piloted by Mohammed Al Marri and Jean Marc Sanchez, finished third.

Tandberg and Zaborowski, aboard Jotun, first started on the outside of the first of two start lines then impressively raced to the front to lead into the first corner and by the end of lap one, they had opened up a six-second lead. With clear water ahead, the all-Norwegian duo was never challenged, extending their lead lap by lap and going on to take their maiden Class 1 win, completing the 12 lap, 93.8NM course at an average speed of 122.05mph/196.38kmh.

Steering problems plagued Mercury Racing 1075 SCi-powered Qatar 96 from the start – forcing the competitive team to settle for a fourth place finish. Victory 77's Al Marri and Sanchez kept their title hopes alive, coming home in third with Sanchez full of praise for the event.

check out more at: http://www.mercuryracing.com
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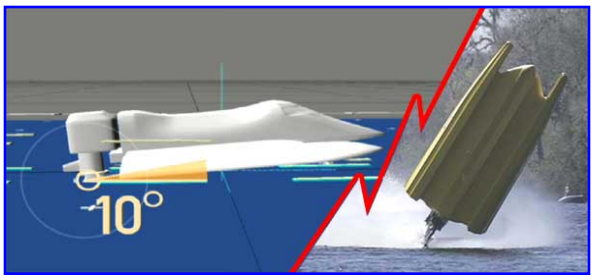
7) Powerboat Racing on TV

*** "*Thrill Zone: Extreme Powerboats*" - National Geographic powerboat show.



Author Jim Russell (Jimboat) is powerboat design technical consultant on a new National Geographic special for "Thrill Zone" series...Wednesday, August 30, 2006, at 07pm, Thursday, August 31, 2am, and Tuesday, September 5, 12pm.

Details at: (http://channel.nationalgeographic.com/channel/ET/daily/20060830.html)

Watch for other show dates on AR's website! http://www.aeromarineresearch.com/NatGeo_thrill-zone.html

*** *Honda powerboat series on TV* - Honda Formula 4-Stroke Series on Sky Sports; Next up is all the action from the Tyneside Grand Prix ; Monday, 21 August at 19:30 on Sky Sports 3 Digital or 22:30 on Sky Sports Xtra.
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8) Jimboat's Feature articles

Jimboat writes Feature articles in HotBoat, Family&Performance Boating, World of Powerboats, Extreme Boats magazines.

- 'The Bottom Line'-"Why does a Pad make a vee Hull faster?" - F&PB-Sept 2005
- "10 Smokin' Speed Secrets Revealed..." - HB-Feb2005
- "Winterizing your Performance Outboard" - F&PB-Jan2005
- "What a Drag" - 'Trim Angle & Engine Height Can Reduce Drag and Increase Speed' - HB-Sept2004
- "10 Safety Tips" - 'Ten Safety Ideas for High Performance Go-Fast Boats' - HB-Aug2004
- "Flight Path" - 'Where does Lift Come From?' - HB-April2004
- "Rocket Science" - 'How To Increase Your Hull's Design Speed With Aerodynamics' - World of Powerboats-Winter2004
- "Tunnel Vision" - 'What Factors Influence Tunnel Hull Performance' - Extreme Boats-April2003
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See you next time!
/Jimboat

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