JANUARY 2022

The NEWSLETTER

INTERNATIONAL HYDROFOIL SOCIETY

P.O. Box 8911, Reston, VA, 20195

Contents

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President's Report

This year's IHS activity was dominated by the Covid crisis. Few of our members were travelling and meeting others. We are looking back at how great last year's 50th anniversary celebration was. Current activities include:

The Mandles Prize for Hydrofoil Excellence continues to attract the finest University writers and innovators. Mark Bebar reports the following entrants and winners in the 2021 IHS Mandles Prize Announcement. We are accepting entries for 2022 Mandles Prize.

Past year's winning prizes can be found on our IHS website foils.org. On this site you will find our Newsletters dating back to 1978. The Website grows with news and information.

Our Facebook page has current material. Click on this link and feel free to add photos, comments, and written material.

Remember to view and "like" our 40 videos on our Youtube channel, Hydrofoils. Click this link.

Happy new year, 2022.
Hydrofoiling and innovating -- steady-as-she-goes!

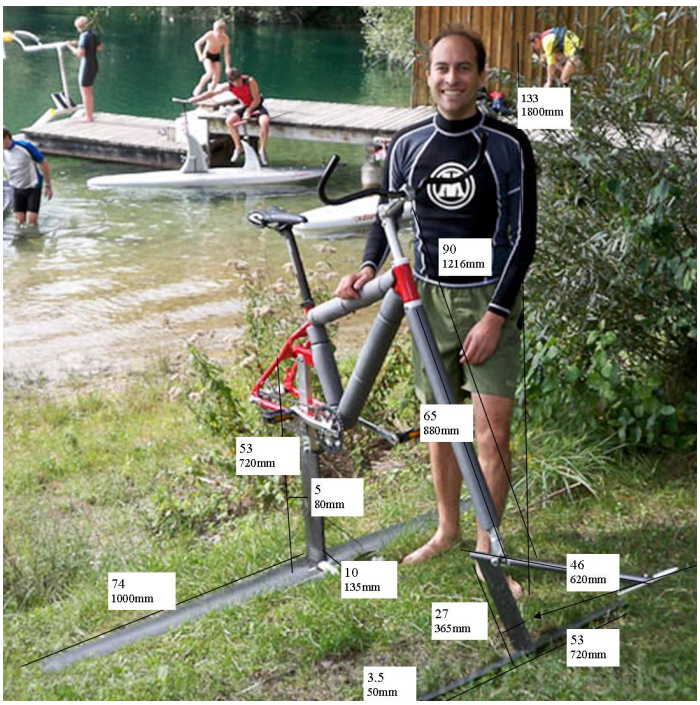
Ray Vellinga

Building a version of the OU32 high speed tandem hydrofoil

Introduction

My name is Wayne Butt and I am a retired Surgeon living in New Plymouth, a coastal city in New Zealand. I have spent much of my spare time and energy designing and building unusual items of all sorts – just things that capture imagination sufficiently to sustain the project to its culmination. The list of completed projects includes a twin engine single seat aerobatic aircraft called a Cricri, several boats, and early motorcycle replica (YouTube) disguising its ebike innards with the patina and rust of a barn find.

A first dabble in hydrofoils began 10 years ago after discovering several You Tube clips by a German aerodynamicist who constructed a successful hydrofoil bike. This led to a project to build something similar, just based on the images found on the internet.



German designed "aquabike" (YouTube)

Aquabike – copy version still awaiting a successful first outing

The original Yamaha OU32, refurbished and relaunched in 2020 (YouTube)

Welcome to the OU32

OU32 was the designated title for a concept boat commissioned by Yamaha to be designed and built by their chief designer, Kotaro Horiuchi, and his team. The boat was completed in a very tight 5 month timeframe for display at a boat show in Brisbane in February 1988. However, the project was mothballed after a few outings, apparently over liability concerns with underwater foils. Fortunately (for me) there are two excellent You Tube records of the OU32 and critical documentation of key structures like foil size and profile, and basic craft dimensions in Kotaro Horiuchi's second autobiography "Locus of a Boat Designer 2" which is available from Amazon. Having first seen Ray Vellinga's video compilation of the OU32 I had a burst of enthusiasm for a project to build a modified version of this intriguing watercraft.

What is the basic layout of the OU32?

The OU32 is a high-speed hydrofoil with a length of 4.5m (14.8 ft) and width of 1.2m (4 ft). The original craft was fabricated in FRP /fibreglass and mention is made of aluminium castings that would be difficult for the garage builder to replicate. The craft has a sealed cockpit in two pieces, with a simple straight curve fixed windscreen at the front, and a compound "blown" acrylic canopy for the hinged access portion. A 30 HP jet unit is housed in the rear of the craft, with the water intake at the base of the rear foil vertical section. The two foils and the two seats are both arranged in tandem.

How could the OU32 be improved?

Specialised carrying frame and lifting slings for launching the OU32 into deep water

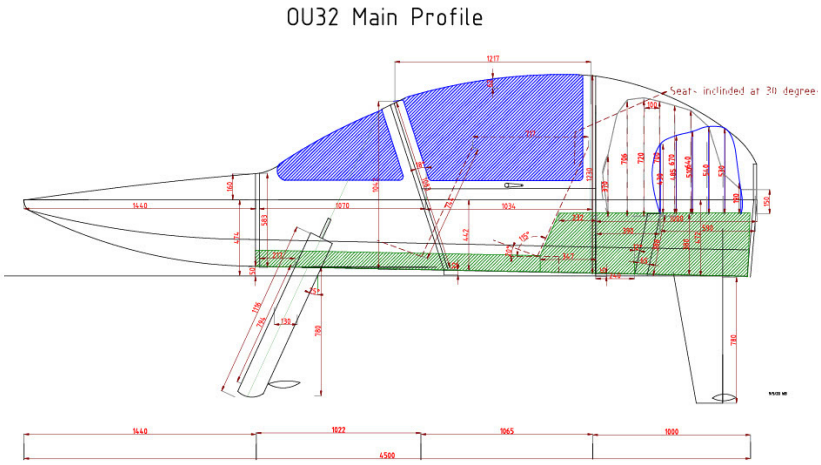
There are several major obstacles to this project for the home garage builder. The craft needs an elaborate high trailer for transport, and its draft of more than a metre requires a crane to launch the craft in deep water. My proposal to overcome these obstacles is to plan for the front foil to retract into the cockpit, and to use a 30 HP 4 stroke outboard motor with the rear foil mounted below the propeller. The motor has hydraulic tilt, so this modified craft can be transported with and launched from a custom made but conventional boat trailer, and can be run at slow speed from the shallows until water depth is sufficient to lower both foils.

The original boat was fabricated in FRP (Fibreglass), presumably from a mould. For construction of a single craft as a home project it is much simpler to use conventional boatbuilding techniques with plywood and fibreglass cloth. I have used the epoxy "stitch and glue" method. Regardless of construction technique the target empty weight is 358 Kg (790lbs). This is ambitious but realistic – and necessary for adequate boat performance.

Progress as at Dec 2021 – a completed hull with seating and canopy frame (Drawing)

Progress as of December 2021

Complex projects like this appear half completed when there is 90% left to do. The foils have been completed, deploying the Gottingen 593 aerofoil for which the dataset is available online. Span of foils is 660 and 700mm for front and rear respectively. Kotaro Horiuchi has confirmed this as the ideal foil span and aerofoil profile after multiple trials – information accessible in his autobiography and invaluable for proceeding with this project.



Drawings for Tsunami – a modified version of the OU32, Main Profile View

The boat hull is now completed and painted. Two months of spare time was consumed by building the canopy for the outboard motor, then mounting it on a gas strut system so it can pivot clear of the motor. A large bearing has been fitted in the hull for the front foil to pass through, creating a strong waterproof mount for the foil which can rotate 11 degrees either direction. The control system is to be all electronic, using linear rod actuators for turning control for both the front foil and the outboard motor. However linear rod actuators are too slow to control the front foil pitch, so rotating RC servos with their faster response will be used to control the pitch movements. Although directional control is via the front foil, Kotaro Horiuchi mentions that turning the rear foil (outboard motor) the counter intuitive direction adds to the turning control. One advantage to using electric linear servos for steerage is the ease of reversing control simply by reversing polarity to the servo motor.

Blowing the canopy and other work awaiting progress

The main canopy section uses polycarbonate sheet which becomes pliable at 140 degrees C. An appropriately sized oven to heat the 1200 x 1600 mm piece of clear acrylic is a challenge so consideration is being given to an oil bath heating system and use of compressed air to achieve the aesthetic compound curve that the canopy needs to look right.

The electric mechanism to raise and lower the front foil is also a challenge yet to be resolved. I expect another year of work before this craft, which I have called "Tsunami", will be launched. There are numerous design and engineering challenges ahead but foil craft are quite complex by nature, giving plenty of fertile ground for technical challenges.

I hope it this project succeeds as a worthy tribute to one the extraordinary designs by Kotaro Horiuchi who, for me, is an inspiration.

Narrow, sleek, and prone to tipping over might describe the initial impression

Follow project progress on my
Dropbox image folder
or contact wgbutt@gmail.com

Alain Thebault and his Hydroptere, Seabubbles and The Jet ZeroEmission

By Ray Vellinga

World famous hydrofoil sailor and IHS award winner Alain Thebault has done it again with his hydrogen-fuel cell-powered, non-polluting, hydrofoil passenger boat named the Jet ZeroEmission.

The innovation uses compressed hydrogen gas to react with oxygen-rich air in the presence of a catalyst to create electrical power. Utilizing a catalytic generator paired with electrical motors results in no combustion, virtually no heat, and pure water emissions. The submerged T-foils cut silently and smoothly through the water. It leaves little wake. There are two models:

- The Jet ZeroEmission takes off at 8 knots and cruises at 40 knots while carrying 6 to 12 passengers.
- The Liner takes off at 12 knots and cruises at 25 knots while carrying 26 to 32 passengers

The Jet ZeroEmissions follows the proof of concept, Seabubbles, which was a smaller, slower, battery-powered version. Seabubbles, now discontinued, first flew in January 2016 with the intent of being used as a water taxi through the twisty, narrow, busy Parisian Seine River. Seabubbles could fly fast with virtually no wake around the wallowing peniche cargo barges, and the huge sightseeing cruise boats.

The Seabubbles prototype carries 5 passengers, has a take-off speed of 6 to 8 knots and a top speed of 18 knots. But short range and low speed killed the concept.

Seabubbles navigates the Seine river in Paris

Unfortunately, the authorities would not buy into the hydrofoil water taxi idea. In Alain's words, "The lethal failure of my old SeaBubbles proof of concept was mainly due to its very low speed of 18 knots max. My new hydrogen-powered Jet, equipped with 2 hydrogen fuel cells, will sail at 40 knots."

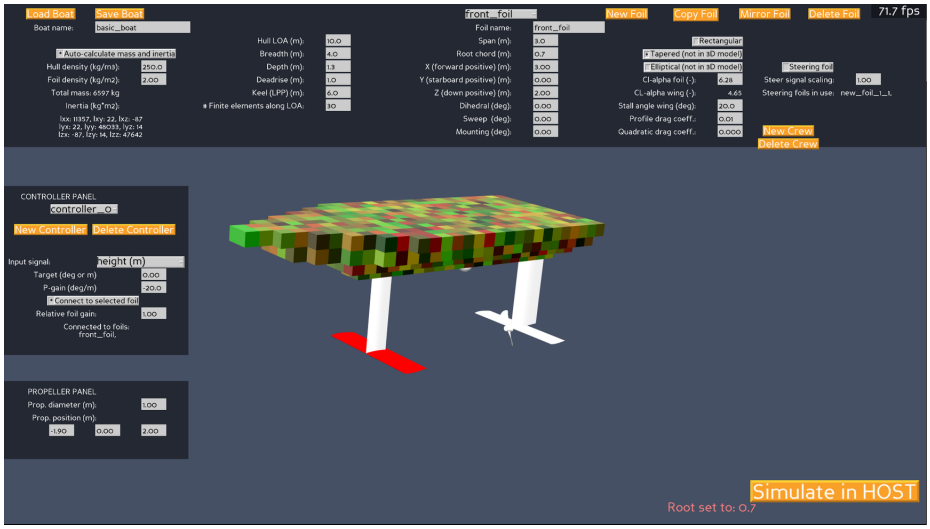
Developments from Flying Fish Tech

- In 2017, Gijsbert van Marrewijk and Johan Schonebaum won the Mandles Prize for Hydrofoil Excellence.
- Boosted by the award, Gijsbert and Johan co-founded Flying Fish Water Mobility in 2018.
- The Flying Fish team is well known for hydrofoil design and engineering in The Netherlands and beyond.
- With the gained know-how and experience, they have developed the first real-time hydrofoil flight simulator that can be used to test any foil design.

The simulator software consists of the Hydrofoil Designer tool (HYDE) and the Hydrofoil Optimization and Simulation Tool
(HOST). HYDE can be used to configure the main hull, foil and propeller parameters.
Furthermore, HYDE allows the configuration control systems, rudder foils and even sails and crew motion! The latter is
especially important in simulating small sailing craft.

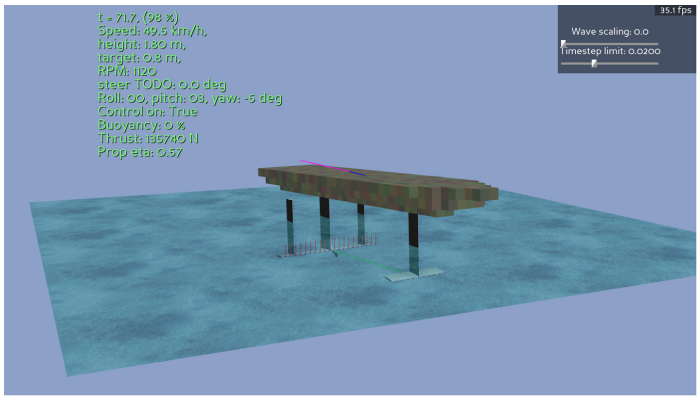
In the next step, HOST is used to simulate the vessel with real-time pilot input. HOST is a time-domain simulator that uses nonlinear force models on all foil elements. This means that behaviour such as stall, surface effects and wind effects are taken into account. As the 3D-models and physics models are dynamically updated during the simulation, the motions of foils and sails can be visualized. The real-time model updates allow the user to tune the control systems while sailing.

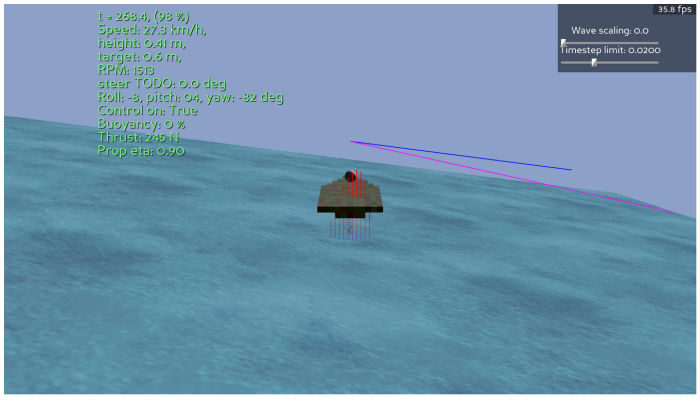
Note that the hull physics model and 3D model are based on finite-element cubes. These create buoyancy and drag based on the individual cube submergence. This allows a realistic simulation of take-off behavior, but is less accurate for simulating the dynamics of conventional vessels.

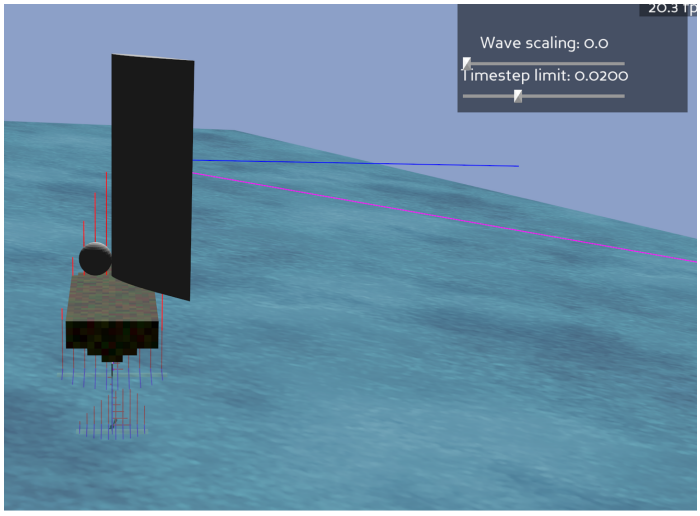


In the screenshots, you can see a design in HYDE and three simulations in HOST. One is a simulation of the TU Delft Solar Boat 2016, a single-track front-rudder hydrofoil boat. The second one is a model based on the Boeing Jetfoil, featuring active roll and height control systems that are coupled to the rudder. The third screenshot features a small single-person sailing foiler, in which the mass of the sailor is used to balance the forces from the sail.

In the photo, you see developer and engineer Gijsbert van Marrewijk fly the Jetfoil model. The steering wheel is used for rudder motion, while the control levers are used for throttle, height setpoint and other variables.







Flying Fish has found that simulating designs in HOST greatly decreases development time and test effort for new foiling vessels, because new prototypes will have predictable foiling flight behavior.

In case you want to cooperate with Flying Fish to simulate your foiling design, please contact the team at gijsbert@flyingfish.tech

flyingfish
boosting maritime innovations

Recent Hydrofoil News

Electric Foils

CALIFORNIA TECH STARTUP UNVEILS ELECTRIC HYDROFOIL FERRY CONCEPT

By Baird Maritime - October 28, 2021
Article link

Photo: Boundary Layer Technologies

HydroFlyer e-foil brings motocross madness to the water with handlebars

By Nick Lavars - April 28, 2021
New Atlas Article Link

Introducing: The HydroFlyer - The World's Most Advanced eFoil (YouTube Link)

Manta5 Hydrofoil ebike begins production, with more models planned

By Mike Hanlon - May 26, 2021
New Atlas Article Link YouTube Link

The bikes are made from carbon fiber and aircraft-grade aluminum, making them buoyant and light enough to carry

Edorado 8S e-hydrofoil deploys retractable foils to hit 38 knots

By Ben Coxworth - September 13, 2021
New Atlas Article Link

Edorado 8S Prototype in flight (YouTube Link)

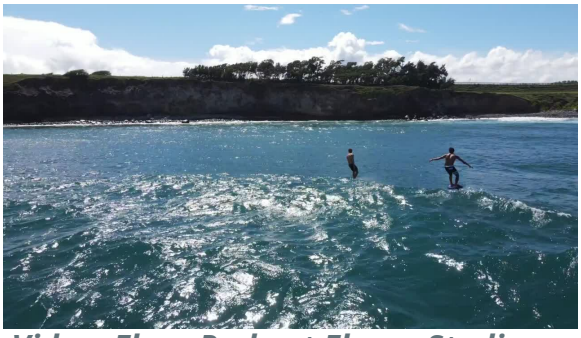
Foiled again: Candela's C7 "flying boat" blows electric range figures out of the water

By Loz Blain - June 01, 2021
New Atlas Article Link

The entire foil system fully retracts automatically - Candela

Surfers Want to Transform Your Commute With Hydrofoils

Author Jen Murphy - Nov. 6, 2021
Entrepreneurs are seeking to make so-called foil boards as ubiquitous on the water as electric scooters are on land. WSJ Link



Video: Flora Rude at Flocus Studio for The Wall Street Journal

Ferries

VESSEL REVIEW | CHAIKA & YALTA – FIRST TWO UNITS IN NEW RUSSIAN-BUILT HYDROFOIL FERRY SERIES

By Baird Maritime - September 10, 2021

Article Link

RUSSIAN BUILDER TO MARKET HYDROFOILFERRIES, OTHER VESSELS TO ASIA-PACIFICCUSTOMERS

By Baird Maritime - November 29, 2021

Article Link

A Kometa 120M hydrofoil ferry (Photo: Vympel Shipbuilding)

HySuCats

Icarus Marine

Hydrofoil Supported Catamarans

Website Link

Military

French builder unveils new foil-equipped RIB series

By Baird Maritime - July 28, 2021

Article Link

Photo: Sillinger

Product Information

PROMAX

is a professional manufacturer of Fins and Hydrofoils in Guangdong Prov, CHINA.

"In the past decade, we have been improving the technology and product quality. Up to now, we provide quality surfing products and hydrofoil to customers in more than 30 countries around the world. "Focus on the production of quality products, eliminate inferior products" has always been our aim. This is the driving force for us to keep improving the technology and product quality."

Check out catalogs and other information on their website:
http://www.promaxsurf.com/

Restoration Plans for PT 20B "Expressen"

By Steinar Warland, Norway

Rodriquez PT 20B "Ekspressen" underway earlier in its life. Photo via Steinar Warland.

As had originally been reported in CLASSIC FAST FERRIES October 2012 with an update in January 2017 (Link), the only remaining PT.20B hydrofoil, "Ekspressen", is being restored by an association in Stavanger, Norway. The hydrofoil, built by Rodriquez in 1961, was purchased as a wreck in 2017 and is now located at Oma Slipp (Oma Shipyard) in Stord, Norway where reconstruction is planned.

Steinar Warland working on this restoration project recently reached the IHS through Baird Maritime seeking help to located parts for the project:

- Both bow and aft foils
- Engine and shafting
- Chairs for both passenger cabins and wheelhouse
- Various instruments.

Steinar points out that the engine and seats are identical to those also fitted to some of the PT 50 hydrofoils while the same model engine was also fitted to Westermoen built W86 catamarans.

Anybody who can assist, or knows somebody who can, is most welcome to contact Steinar Warland via email: steinar.warland@lyse.net

The restoration team has the impressive goal of restoring the hydrofoil to its former 35 knot foilborne operation within around four years. On their side in this effort is Oddvar Oma, who, together with his brothers, owns Oma Slipp and Oma Båtbyggeri (https://www.oma.no), so the expertise for this challenge is certainly available. If replacement foils are unable to be found, then the intention would be to build new ones to original plans, though that would come at considerable expense.

The team intends to certify the "Ekspressen" as a non-passenger ship, hence limited to 12 passengers. This presents less technical and financial hurdles when it comes time for the boat to be approved by the Norwegian Maritime Authority.

Photo showing "Ekspressen" slipped in Stord, Norway in November 2021. Steinar Hystad photo.

To comply with current legislation, certification as a passenger hydrofoil was anticipated to result in a significant weight increase as a result of safety equipment and rescue appliances, to the point that that the boat would not become foilborne with its original 61 passenger capacity.

Despite the large number originally built around the world at several different Supramar licenced shipyards, only four PT 20 hydrofoils of all variants are still known to survive:

- ·The 1961 Rodriquez built PT 20B "Ekspressen" in Norway.
- ·The 1964 Rodriquez built PT 20 "Manu Wai" owned by Garry Fry in Sydney, Australia.
- ·The 1964 Rodriquez built PT 20 "Freccia del Giglio", last known to be stored at Nuova Meccanica Navale shipyard in Naples, missing its foils and shafting.
- ·The 1978 Hitachi Zosen built "Angel III" on display on the South Korean island of Saryangdo.

The International Hydrofoil Society wishes the restoration team success in this worthy project.

December 2016 - "EKSPRESSEN" in Stavanger

TU DELFT SOLAR BOAT TEAM

https://solarboatteam.nl/en/

Marine Log and Maritime Executive Articles

The Team

Hydro Motion initiative, by TU Delft Solar Boat Team, is one of the Dreamteams of Delft University of Technology. We are a group of 20 ambitious students with 8 different study backgrounds, that put their studies on hold for the entire year, to design, build and race a hydrogen-powered boat to inspire the maritime industry and show the world the potential of hydrogen energy. For the past 15 years, we have focused on generating renewable energy with our solar boats. This year, we take the next step. We switch from generating clean energy to storing clean energy, where we explore hydrogen energy as an option for sustainable energy storage. Each year we use the experience of previous teams to build up our knowledge. We chose to compete in the Open Sea Class to show the maritime offshore industry and the world what is possible with hydrogen energy.

The Project

This year, our team is building a boat that sails on hydrogen to explore the possibilities to store green energy. Each year, we set a goal at the beginning of the year and go through a full design cycle of design, production and testing in one year. We make a trimaran with hydrofoils to sail with less drag. We actively control our foils with a height control system that adjusts the angle of attack if the boat gets out of balance. This way we can fly stable for extensive periods of time. Our special innovation is our hydrogen system which needs a more advanced cooling system.

Mark and Julien of Seabubbles SA met with IHS President Ray Vellinga in June of 2018 in Paris to explore ideas on publicizing the innovations.

No mention of Alain Thebault would be complete without a reminder of his trans-Atlantic sailing Hydroptère -- in English, "hydrofoil". Here's a link to an explanatory YouTube video of his records:

September 4, 2009, L'Hydroptère, sailing on a course off Hyères, France, became the fastest sailboat running over a 500 meter course at an average speed of 51.36 knots. link Later in November 2009 L'Hydroptère achieved 50.17 kt over a 1 nautical mile course. link

On July 2015, Hydroptère sailed from Los Angeles 2,215 nautical miles to Kewalo Harbor, Hawaii. Later, it was sold, sailed back to California, and docked in San Francisco.

Alain has one request of the hydrofoil world: "Let's build the future together!" Here's a link to he company web site: thejet.tech

Images used with permission from Alain.

Mandles Prize

Announcement of Winners – 2021 Mandles Prize for Hydrofoil Excellence

By Mark Bebar

A number of entries for the 2021 Mandles Prize were received, reflecting a range of hydrofoil-related technology. We assembled an outstanding panel of judges to review the entries, and they determined that this year's First Prize winner is from Cedarville University, Cedarville, Ohio. In addition, two Honorable Mention awards have been given this year, both to students at the University of Southampton, United Kingdom.
These are the awards for 2021. Copies of the papers can be found at the links shown.

First Prize (one at $2,500):

"A Multi-Input Control Model for a Hydrofoil Boat with Differential Front & Rear Strut Steering and Actuated-Wing-Induced Roll"
By: Jason Paulus
Cedarville University, Cedarville, Ohio
Faculty Adviser: Professor Timothy Dewhurst
Paper Link

Honorable Mention (two at $1,000 each):

"Foiling Autonomous Surface Vessel (Project C-Flyer)"
By: James Hawkins-Dady, Henrique Faria, Jessica Carter, Diogo Nunes, Alex Pardoe, and Robert Williams
University of Southampton, United Kingdom
Faculty Adviser: Professor Stephen Turnock
Paper Link

"Development of a Velocity Prediction Program to Investigate the Influence of Crew Setup on the Performances of the Foiling Olympic Class Catamaran NACRA-17"
By: Louis Huchet
University of Southampton, United Kingdom
Faculty Adviser: Professor Stephen Turnock
Paper Link

Our appreciation and thanks go to the many prominent schools of the previous (2014-2020) and 2021 Mandles Prize cycles and the students and faculty advisers that competed. They include: Australian Maritime College, University of Tasmania; Cedarville University; Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland; Florida Institute of Technology; Massachusetts Institute of Technology; Stevens Institute of Technology; University of Florida; Ghent University, Belgium; Swiss Federal Institute of Technology; Technical University of Delft, Netherlands; Tolani Maritime Institute, India; University of Genoa, Italy; University of New Orleans; University of New South Wales, Australia; University of Southampton, United Kingdom; Newcastle University, United Kingdom; United States Naval Academy, Annapolis, Maryland; and Webb Institute, Glen Cove, New York.

The International Hydrofoil Society thanks all entrants for their interest in hydrofoil technology and for their excellent work. We wish all of you the best in your professional careers and sincerely hope that you will continue to participate in activities of the IHS.

It is noteworthy that 2021 was the 8th year of the Mandles Prize for Hydrofoil Excellence. Thanks to the continued generosity of Martinn and Connie Mandles, we have been fortunate to highlight the professional accomplishments of the next generation of hydrofoil designers.

Announcement – 2022 Mandles Prize for Hydrofoil Excellence

Now that the 2021 Mandles Prize awards have been announced, we are embarked on the 2022 competition. Visit the IHS website for this year's announcement, and rules.

The International Hydrofoil Society is pleased to announce that thanks to the continued generosity of Mr. Martinn Mandles, a long-time member of IHS and his wife Connie, we will once again sponsor The IHS Mandles Prize for Hydrofoil Excellence competition. The competition, now entering its 9th year, includes up to $4,500 annually in IHS hydrofoil achievement prizes for students, with a $2,500 First Prize and up to two $1,000 Honorable Mention awards.

In order to open the competition to a wider spectrum of qualified entries, submissions by students based on work completed since 2017 will be eligible for the 2022 IHS Mandles Prize for Hydrofoil Excellence. The due date for application forms (included in the Rules) is May 2nd, 2022.

This is an outstanding opportunity for the next generation of hydrofoil developers to be acknowledged for their efforts to advance the state of the art in hydrofoil and hydrofoil-assisted craft engineering, design and construction. Background and Rules for the competition can be downloaded from the IHS website (www.foils.org)

We anticipate a very exciting competition in 2022 and look forward to receiving many high-quality entries. Questions on the IHS Mandles

Prize for Hydrofoil Excellence can be sent to IHS Vice-President Mark Bebar at: markbebar@juno.com

Departed Members

In Memorium - Capt. Karl Melton Duff, USN (Ret)

By Mark Bebar and Joel Billingsley

It is with great sadness that we report the passing of Captain Karl Melton Duff, USN (Ret), a founder and long-term member of IHS. Karl's obituary as reported in the Kitsap, Washington *Sun* newspaper on 1 January 2022.

IHS member Joel Billingsley provided the following personal insights on Captain Duff:I first met Karl in 1971 when he was Commanding Officer of the Hydrofoil Special Trials Unit (HYSTU) in Bremerton, WA. I was assigned to the PLAINVIEW (AGEH-1) which had recently been delivered and was at Puget Sound Naval Shipyard to correct her deficiencies. As an interim assignment, I reported to HYSTU. Karl was an excellent CO, committed to wringing out the benefits of hydrofoils for Navy operations. He also saw the larger issue of getting the word out to the general public. He planned an Open House and gave me the privilege of conducting tours of the HS DENISON, an early gas turbine powered hydrofoil bailed to HYSTU.

At the time the HIGHPOINT (PCH-1) was the workhorse of the Navy's R&D fleet. She was under his direction for trials and evaluation, but HYSTU also found engineering solutions to the day-to-day problems that arose. Karl managed these in stride. Besides technical direction, he sought to build esprit de corps with his staff and arranged for bowling nights. His wife, Gretchen, prepared the most fantastic Sunday dinner a newly commissioned officer could envision!

We next met in a chance encounter in Crystal City, VA about 10 years later. True to form, Karl and Gretchen graciously entertained me and my wife at their Alexandria home. Prior to moving back to his home in Port Orchard, he donated a large collection of hydrofoil memorabilia for an exhibit at the Washington Navy Yard Museum.

IHS Vice-President Mark Bebar, detailed to the PHM Program Office (PMS-303), had the privilege of working with Karl in the late 1970s. As the Navy's onsite representative during the follow-ship effort, CAPT Duff was a critical link between the Program Office, Supervisor of Ships (SUPSHIP) Seattle and Boeing Marine Systems. He was an inspiration to everyone who worked with him and a beacon of hope during the evolution from lead-ship operational testing (OPEVAL) on PHM-1 through design improvements and delivery of PHM-3 Series follow-ships.

IHS member Joel Roberts noted that Karl was on location for the duration of OPEVAL in California as were Hank Schmidt and Erick Ashburn, who have both passed away.

It is noteworthy that all of what drove Karl over the years was governed by his and Gretchen's strong set of Christian beliefs. An example is included below, one of Karl's papers, documenting his personal effort to have the PHM lead ship name officially changed

Karl was a charter member of the International Hydrofoil Society. Let us carry forth his vision and determination to promote the unique role for hydrofoils in the maritime order.

An Important Name Change

A good name is to be more desired than great riches – Prov. 22:1

Early in 1974, I was serving as the NATO Patrol Hydrofoil Missile Ship (PHM) Deputy Program Manager under the late Capt. Jim Wilkins. We were making rapid progress with the Boeing Company to build the lead ship. However, SecNav Notice 5030 (of 15 February 1974) caused some deep program consternation by designating the name of the lead ship to be DELPHINUS (i.e., Dolphin in Greek). Upon realizing the effeminate sound of the adulterated name "Delphinius", we immediately set about to obtain a name change if it was at all possible.

Everyone told me it was impossible, but we decided to try anyway. I tried every avenue I could find, involving all of the offices involved in the original name selection – The Office of Naval History and our program sponsor in the Office of the Chief of Naval Operations. However, despite many contacts, phone calls and vigorous arguments, the official SecNav Notice had been promulgated. No one wanted to go back to the Secretary of the Navy to attempt persuading him he'd made a mistake.

I finally decided there was only one man in the Navy who could and would make the effort, if we could get word to him. That was Admiral "Ike" Kidd, a colorful and vigorous four-star admiral who commanded the Naval Material Command and had a strong fleet background.

His frequent expressions of fleet problems indicated he would certainly understand and agree with the need for a name change – and would not shrink from saying so to the Secretary.

So I wrote a memo to the Commander of the Naval Sea Systems Command, Vice Admiral Robert Gooding, requesting him to take the matter to Admiral Kidd. I included in the memo all the background and the thought that if we could not obtain a name change the crew would have to be "fighting men indeed". But after two further weeks had passed and I'd received no response, I went upstairs to inquire of VAdm Gooding's Executive Assistant, Capt. (later Rear Adm.) Ed Peebles. He was very harsh on me saying, "You might as well forget it. I tried to change the name of a submarine once, and got absolutely nowhere! As far as I know, no one has ever succeeded in changing the name of a ship, especially the lead ship of a new class after the Secretary of Navy has officially announced it!" He said it was a dead issue and he himself would not take it up again with Admiral Gooding.

While we were talking, Vice Adm. Gooding passed us on his way out of the office. I soon left also, now finally convinced there was no hope for a name change. There at the elevator was Vice Admiral Gooding. We were the only two to board the down elevator. He was on his way to the basement to catch his car to Admiral Kidd's office! I quickly filled him in on what the memo had said and asked if he had

realized that one of the adulterations of the name DELPHINUS was "Dull Penis". He apparently had not, but promised to take it up immediately with Admiral Kidd.

Two days later I was called by Admiral Kidd's Executive Assistant. "Is this the young buck Commander who has asked for a name change to the USS DELPHINUS?" "Yes, it is", I replied, wondering what would come next. He said, "Admiral Kidd has told me to tell you that Secretary Middendorf has agreed to a name change and he wants to know if the proposed alternative name, USS PEGASUS is okay with you.

I told him I thought Pegasus was a great name, especially for the type of ship it was to represent – flying hydrofoil ships. In less than two weeks, a new SecNav Notice 5030 had been promulgated, making the name change official.

I never understood how all of the vain effort of weeks could have proved so futile then suddenly all fall into place. I still have difficulty thinking it was all merely a coincidence.

Søren Struntze

By Martin Grimm

Long standing IHS member, Søren Struntze, passed away in Copenhagen on 27 November 2021 aged 75. Since about 2005, Søren had been suffering from Parkinson's disease, and its effects on his health finally took his life. He was a gentle and considerate person.

After completing his naval architecture degree in 1977, Søren was employed as a naval architect with the design and consulting companies Knud E. Hansen and subsequently Olsen Design. However his passion was hydrofoils and he had originally intended seeking employment at Westermoen Hydrofoil AS in Norway where, in his youth, he had witnessed the construction of the first of the large Supramar PT 150 hydrofoils 'Expressan'. While Westermoen no longer built hydrofoils by the time he had completed his degree, and later became Westamarin, he was engaged with them during 1995-96 for elements of the structural design of the high-speed vehicle and passenger catamaran HSS 900 'Stena Carisma'.

Earlier, he had also been engaged in work related to the introduction of Rodriquez hydrofoils on routes in Scandinavia. With some of his colleagues at Knud E. Hansen, he had also prepared speculative preliminary designs for a range of passenger hydrofoils which he continued to evolve following his retirement.
Søren also built radio-controlled models of such hydrofoils including a highly detailed working scale model of the Supramar PT 150 "Queen of the Waves".

Photo on left: Søren Struntze at his home in Virum near Copenhagen in 2014.

Søren Struntze in his youth standing in front of the Westermoen built PT 150 'Hydroliner' (originally 'Expressan') - Mandal, Norway, 1969. Photo: Christian Struntze.