



The Hovercraft Society
Formed in 1971

News Notes

No 6-24 NOVEMBER 2024



*Ulverston Inshore Rescue Service new IH3 craft entered service in July this year. Since that time the rescue team have been testing the craft out on sorties, and familiarising them selves with its capabilities..
Courtesy Ulverston Inshore Rescue Service*

INTRODUCTION

Amongst other company announcements, major news this month is the six craft order of new craft from Griffon Hoverwork via Chowgule Shipyard for the Indian Coastguard. This is going to be a challenge of quality control and cooperation between UK and Indian enterprises. We wish GHIL and Chowgule great success with this.

Aircat with ESNA and Strategic Marine have now launched the first Crewliner 35m SES in Singapore. This is the start of an important new operation and SES development through 2025.

In the recreation part of the market, a group of engineers spread globally are now working on all electric craft development and are hoping to enlist more adventurous ACV enthusiasts to push forward development at faster pace.

NEWS ITEMS

NEWS FROM AIRCAT



Strategic Marine and Aircat hosted partners from [Kongsberg Maritime](#) on a visit to the shipyard in Singapore in the week of 11th October. They welcomed Anders Valkeinen, Tuomas Pasanen, and Darren Ma Jiawei at the [Strategic Marine](#) shipyard to view the installation of SES waterjets on the new Aircat 35 CTV SES.

The KaMeWa S-50 waterjets provided by Kongsberg are a key component for the performance of Aircat's SES vessels. Their reliability and quality significantly contribute to the mission specification success, allowing [Aircat Vessels](#) to offer fast and efficient solutions.

Reader Note the two damper vents in the transom shown above are direct from the cushion – the other two are forward on each side, so four in total.

Aircat have placed new videos on their YouTube channel 16th November. The latest is a short showing the mechanics of the [cushion vents](#), and another showing the [first 35m Crewliner](#) out at sea already, with shots from the air and in the cabin as well as shots from the construction. It is most impressive to watch.

Earlier in July Aircat loaded an animated video of their 25m WindFarmer design, which is also very interesting to view, having exploded views of the vessel systems.

It can be viewed [here](#).

EUREKA NAVAL CRAFT SES



Eureka Naval Craft, a U.S. based maritime and defence innovation company, proudly introduced the launch of the company at the Euro Naval exhibition and Conference in Paris in November.

This included its suite of groundbreaking non-ITAR next-generation naval defence and coast guard vessels. Eureka's vessels, designed with ESNA Naval Architect's advanced Surface Effect Ship (SES) technology, deliver high-speed, multi-role capabilities - leveraging proven innovations from the offshore energy sector.

Eureka's vessels are specifically engineered for critical missions, including patrol, interdiction, reconnaissance, and attack, to provide agile defence of vital coastal infrastructure and naval bases across diverse environments.

Outfitted with cutting-edge modular systems, in collaboration with leading defence solution OEMs, Eureka's vessels will ensure comprehensive protection against threats from the surface, air, and underwater with unparalleled operational resilience in even the most contested waters.

Eureka's suite of vessels provide outfits to the basic SES for diverse mission profiles, from sea denial to logistics and medical evacuation, targeting the most demanding high-threat environments.

The vessels can operate from amphibious landing ship well decks and conduct beach landings with self-recovery. Additionally, they can be configured for remote unmanned operations, enhancing their flexibility and utility in modern naval operations.

The vessels that Eureka are introducing to market include two 36m and two 17.5m vessels:



1) AIRCAT Bengal, a 36 m LOA SES for Patrol, Reconnaissance, Interdiction, Logistics, Medivac and other coastal duties with a 1,000 nm range at 38 kts cruising (46-50 kts max speed - payload depending). Crew is 5-7 (depending upon mission) and can accommodate between 15-17 persons (mission depending) in addition to crew.

The vessel is capable of being equipped with defence systems and armed for contested littoral operation where there is pervasive drone and anti-ship missile threats. Optional primary armament includes three (3) 30mm remote weapon stations, each with individual radar coverage paired with a 360-degree 4D hemispheric radar and full spectrum optronics, as well as onboard ATGMs, drones, and numerous remote and manual machine guns.

The vessel has space on its aft deck for 2 x 20 ft ISO mission/ weapon payload containers (capable of carrying swarming loitering munition drones, anti-ship missiles, air defence, torpedoes, sea mines, and/or mine counter measure systems).



2) AIRCAT Lynx, a 36 m LOA - Coast Guard/ Border Patrol/ Fisheries Patrol SES with a 1,000 nm range at 38 kts cruising (46 kts max speed). Crew is 4-7 (depending upon mission) and can

accommodate between 15-17 persons (mission depending, or for casualty rescue 34 persons) in addition to crew.

This vessel is suitably equipped for search and rescue, medivac, vessel traffic monitoring, pollution response and readiness, maritime law enforcement, counter-piracy, counterterrorism, and suppression of illegal activities, including unreported and unregulated fishing, human/ narcotics/ weapons trafficking.

Optional primary armament includes optional 30mm and 12.7mm remote weapon stations with a 360 4D hemispheric radar and full spectrum optronics, an ISR Drone, and numerous manual machine guns.

The vessel has space on its aft deck for 2 x 20 ft ISO mission/ payload containers (capable of carrying drones, RHIBs, pollution response equipment and survey/scientific packages).



3) AIRCAT Jaguar, a 17.5 m LOA - Landing Craft Vehicle Personnel Improved (“LCVP(I)”) with a 350 nm range at 38 kts cruising (48-50 kts max speed). The landing craft profile has stealth characteristics. It can carry 3 crew plus 24 marines or two MTZR ATVs with their crew.

The vessel is optionally equipped with active defence countermeasures and armed with a 12.7mm remote weapon station for contested littoral operations with pervasive drone and anti-ship missile threats.

4) AIRCAT Panther is a 17.5m LOA autonomous Surface Vessel (“ASV”) with onboard space for a 20 ft ISO mission/ weapon payload container contained within a low observable form with a 350 nm range at 38 kts cruising (50 kts max).

This ASV is intended to conduct logistics and/or distributed attack/ defence operations. It may be configured to carry 4 x antiship missiles for

attack, mobile distributed point air defence, and/or high volume containerized swarming loitering munitions packages



To explore how Eureka Naval Craft’s innovative vessels can enhance modern naval and coast guard operations, visit www.eureka.navy.

Eureka exhibited at the Euro Naval conference in Paris from November 4-7 where they introduced the new company and its product range to the naval support industry and European marine armed forces.

GRIFFON HOVERWORK WIN AWARD



Griffon Hoverwork have won Maritime UK Solent's International Partnership and Global Trade Award for 2024. This award celebrates businesses that demonstrate outstanding achievements in the international marketplace, with a thriving export strategy that underpins growth and the ability to innovate. Thanks were expressed to all their customers and team members for being part of the success.

SIX MORE GH CRAFT FOR INDIA

Griffon Hoverwork has partnered with Chowgule shipyard in Goa for the construction of 6 new

craft for the Indian Coastguard. The hovercraft will be manufactured in Goa under Griffon’s direct supervision, ensuring full compliance with all technical specifications and India MoD requirements. The design license agreement with Chowgule will ensure that the best quality craft is manufactured and delivered to the Indian Coast Guard, fulfilling all their operational and security requirements.

Contract Award Ceremony

India Ministry Of Defence signed the contract with M/s Chowgule & Company on 24th October for the acquisition of the six ACVs (Hovercraft) that will be indigenously manufactured for the India Coastguard. This move will strengthen coastal security in alignment with the Government of India’s ‘AtmanirbharBharat’ and ‘Make in India’ initiatives.



Above two views of the signing ceremony for the contract held on 24th October. From the lower image the craft appear to be GH8000. Courtesy Government of India and Indian Coastguard.

WYVERN LIFT FANS

The Wyvern LCAC features game-changing, space-saving lift fans, freeing up more area for troop cabins or medical facilities.

As can be seen below the back-to-back mixed flow fans are in an open area as there is no filtration required for lift air. Their mixed flow design also makes the ducting a little more compact.



See more in the video [here](#) on LinkedIn. A short video showing exploding views of the craft and its components is on the Wyvern Internet site [here](#).

CANADIAN GH2000 GOES INTO OPERATION



During the second week in October, the VCA Boréal has been replacing the VCA L'Esprit-de-Pakuashipi at the Saint-Augustin River crossing. Built specifically for the needs of the crossing, it can travel on water, ice or land, and can carry up to 18 passengers.

Below, another image from beginning of November as the season changes . .



Many thanks to Société des traversiers du Québec for the photos.

The VCA Boréal was manufactured in England by Griffon Hoverwork Ltd before being shipped and assembled in Quebec, in close collaboration with the SdTQ teams.

During the winter period both craft may be in operation.

ESNA DEMO SES AS LANDING CRAFT

The team at ESNA have taken their Sea Puffin out and filmed it on a demonstration on how a SES could be ideal as a landing craft.

The bow can be nudged right up to the beach. Clearly a craft with a bow ramp is required – that is something the prototype SES doesn't have but the film does show the potential. Perhaps they will take it further with Eureka Naval Craft.



Click on the image above to watch the film which is just 1:18. The beaches are great in Southern Norway!

SILVERSTREAM NEWS

Silverstream and Yiu Lian Dockyards to Drive Silverstream System Installations



October 10th Silverstream Technologies, has signed a memorandum of understanding (MoU) with Yiu Lian Dockyards (Shekou) Ltd, one of the largest ship repair yards in China and part of China Merchants Group. This partnership aims to

drive forward retrofit installations of the Silverstream® System.

Yiu Lian Dockyards (Shekou) operates repair yards in Shekou, Shenzhen. The shipyard accepts all major vessel types but is well known as the leading repair yard in China for LNG carriers (LNGCs). LNGCs have a scheduled dry docking every five years after delivery, a time window that presents an ideal opportunity to retrofit clean technologies and enhance vessel energy efficiency without any loss of hire.

The dockyard has serviced 734 vessels in the past three years from all segments, and so far, in 2024 alone, it has dry-docked 28 LNGCs. As part of the agreement, the companies will collaborate on installations of the Silverstream System for vessels dry docking at Yiu Lian (Shekou), ensuring efficient delivery tailored to customers' needs.

Noah Silberschmidt, Founder & CEO of Silverstream Technologies, commented: *“Collaborating with leading shipyards is key to ensuring that more shipowners can benefit from our air lubrication technology, which enhances fuel efficiency and reduces emissions. With the most retrofit experience of any air lubrication technology provider, we’re committed to facilitating access to our Silverstream System and contributing to a more sustainable and efficient shipping industry. We’re excited to sign this new agreement with the team at Yiu Lian Dockyards, enabling even more vessels to take advantage of our innovative solution.”*

Xu Rong, Vice GM of Yiu Lian Dockyards (Shekou) Limited, added: *“Reducing greenhouse gas emissions and saving fuel have become top priorities for shipowners and operators. Each year, we see growing interest from owners in retrofitting clean technologies on the vessels that visit our yards. The Silverstream System, a market-leading air lubrication technology, is the ideal solution for these ships—particularly the LNG carriers we regularly service. We’re excited to offer our customers the ability to facilitate installation of this innovative system.”*

KTP Project with Southampton University

For a while now Silverstream have been working with Southampton University on a Knowledge Transfer Partnership. This is a project where a

business has challenges that it finds difficult to find the best solution to. From the video [here](#), it is rather more than technical or business consultancy being a two way and experimental process that can give more significant results. Do take a look at the video to understand the process.

HOVERTRAVEL MAINTAIN CERTIFICATION



Hovertravel Green Maritime Certificate has been maintained. Hovertravel were thrilled to say they retained [Green Marine Europe](#) certification for the second consecutive year, building on their groundbreaking achievement as the first UK domestic ferry company to receive this accolade in 2023. Thanks were given to all their teams for helping on the journey to be more environmentally friendly.

AIRLIFT EXHIBIT AT MILIPOL SHOW

Airlift Hovercraft exhibited their Revolution hybrid hovercraft at the Milipol Exhibition and Conference in Doha, Qatar at the end of October. This is an event for Homeland Security and Defence.

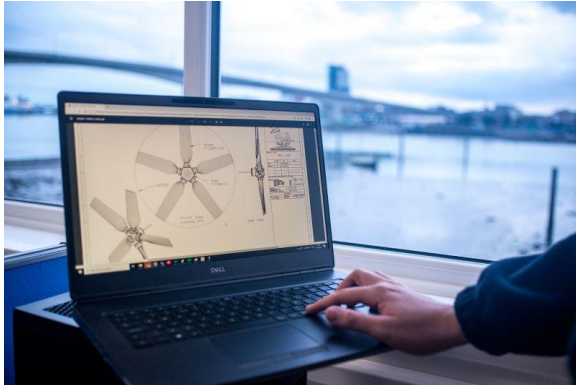


Above a view of the craft on the First Q Stand, with thanks to Airlift Hovercraft and First Q.

The show had an attendance of 14,500 which is significant for a specialised event such as this. Airlift and their local partners [First Q Trading W.L.L.](#) were pleased with the interest shown in their craft.

RECRUITMENT

Griffon Hoverwork



Calling all Design undergraduates at [University of Southampton](#) and [University of Cambridge](#), are you looking for a placement starting in Summer 2025?

GHL have a great opportunity to join their Design Team as a Design Engineer on a years' placement. From day one, you will be working alongside experienced professionals on real-life consultancy and design projects. You'll gain valuable hands-on experience, learn from industry experts and start building your professional network for life after graduation.

Year Placement – Starting Summer 2025, located at 8 Hazel Road, Woolston, Southampton.

Application Closing date is 6th December 2024.

For further details visit your university careers portal or email

jodie.harris@griffonhoverwork.com

ESNA Looking for Naval Architect

ESNA have been advertising for a Naval Architect to join their team based in Kristiansand with applications closing by 01.12.2024.

The advertisement on FINN is [here](#).



Hovertravel seeking personnel



Posted 22nd October. Hovertravel have an exciting opportunity for a team leader at our Southsea terminal. Join the team which operates the world's favourite passenger hovercraft service. The role includes early shifts starting at 0545 at Southsea, find out more now at the following link: [Hovertravel Team Lead](#).

Silverstream Careers

Silverstream have quite a few positions out on recruitment at present. For their Southampton Office they are looking for an LNGC Sales Engineer, and a software engineer, while in London they are looking for a business administrator, head of performance, performance analyst, and quality engineer as well as possibility for the Southampton posted jobs to be based in London. Go [here](#) to see all the opportunities.

Silverstream are growing quite rapidly at present as their market particularly for LNG Carriers is growing. They have extensive business in China for the ship installations.

IVANOFF HOVERCRAFT UPDATE

Magnus has been updating his Facebook posts again. Latest information is [first flight](#) (1:45) of his last of six Finish Border Guard IH6 that is

being tested before delivery, and some amazing footage from an IH3 that is owned and operated by Sapeurs Pompiers Corèze in France, south of Limoges. This footage shows them training on a local river with rapids and a weir. Do look [here](#). The video is 2:35.



ANOTHER UPDATE ON OWEN'S REVOLUTION



QR001 (Revolution prototype electric hybrid personal hovercraft) last flight in Montreal for 2024.



This summer was a heavy-duty reliability test with QR1 operating flawlessly averaging over 50km every day in last 20 weeks.

Owen and Rita Ellis are now returning back to Australia for a well-earned break and some warmer operating weather!

The top image is from a post on Facebook just before the return to Australia. The lower picture is from a video of a flight made by Mark Johnstone a while ago as part of the runs. He is quite happy just floating on the river, before running up the electric lift. Go [here](#) to watch.

Thanks, as usual to Owen for the information via his Facebook page.

HOVERAID UPDATE



The new River Rover is now into proving trials. It was unveiled at an event in September, and later carried out initial testing over a field close to the workshop, see vudeo clip [here](#) (0:44). Before that there was a video of it hovering in the workshop, and just outside, you can see [here](#) (0:20).

Following this, in November trials have now been transferred to Bewl water in Kent awaiting the next phase of Testing. It is necessary to build up the hours on the craft via longer runs than are possible at their Sussex workshop to prove its systems prior to shipment to Madagascar.

Once reliability of the craft has been proven, it will be shipped out and operations begin during 2025 to complement the craft in service out there.

Earlier, in September, a mechanical engineering student Emily made a volunteer trip out to Madagascar and assisted in maintenace work on River Rover 403 and the Vortex 5 that the medical team have out there. The full story is [here](#). An amazing experience by all accounts!

Here are a couple of photos from the visit. Do view the full article.



From 5 years ago here is the HoverAid info video on YouTube, click on the image. It is just as relevant today.



HOVERCRAFT ADVENTURES IN SOUTH AFRICA

Hovercraft Adventures launched their experience on Bon Game Reserve using an Amphibious Marine Explorer hovercraft recently. It is a one-of-a-kind wild ride starting underneath the Gouritz Bridge and taking riders up the riverbank to the swimming water hole.

Earlier Bon Game had been using Zephyr craft which are open and can carry 2 or 3 passengers, so this is a major upgrade to their service.

Zephyr 382 - 3-seater. Twin Engine - Thrust: Rotax 503 (50hp) Lift: B&S (17.5hp), Length: 3.82m Width 1.98m Cushion Height = +/- 20cm

front - 15cm Rear. Max Speed over surface - 65-70km/h



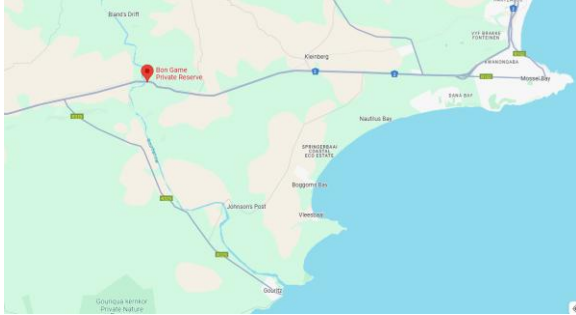
J B Johnson of [MR Hovercraft](#), South Africa supplied both the original Zephyr craft and then the Explorer. He currently advertises as the distributor for Amphibious Marine in South Africa.



In October J B Johnson ran a training weekend at the Gouritz River for personnel at Bon Game.

The reserve is just off the N2 highway and 45 minutes from Mossel Bay. The river has shallow waters, sand bars and during the training weekend tailwinds provided some technical challenges for the trainees, but by the end of the weekend all showed basic proficiency to fly the craft, reported JB.

Front brakes on the Amphibious Marine vessels are a huge plus when it comes to training and provide operators with an extra level of confidence to slow the craft down and to perform tight pivot turns as needed. This is useful on the stretch of river navigated for the rides.



Above, Courtesy Google Maps, the location of Bon Game Reserve. The bridge is not far from the launch site but there is a significant length of the river to provide attractive trips, especially with the larger Explorer craft. To view easily just click on the image to bring up google maps!

HOVERCRAFT AND DRONE SYNERGY AT HESA



Above, two HESA hovercraft, the larger having a drone landing pad over the thrust duct.

In a groundbreaking development, Hovercraft Environmental Services Australia ([HESA](http://www.hesa.com.au)) is proud to announce the integration of cutting-edge drone technology into our fleet, marking a new era in environmental monitoring and management.

This innovative fusion opens up expansive possibilities for ecological preservation and operational efficiency.

Advanced Drone Capabilities

Our hovercraft are now equipped with state-of-the-art landing pads, tailored to accommodate a variety of drones up to 25kg. This enhancement allows us to deploy RGB, thermal, lidar, multispectral, and agricultural spray drones, each engineered to perform specific ecological tasks.

Innovative Use Cases

HESA's commitment to environmental stewardship is reflected in our diverse drone

applications. We are leading efforts in seagrass planting and monitoring, enhancing mangrove ecosystems with comprehensive payload operations, pioneering insect sampling and collection methods, and advancing aquatic weed control strategies.



Above a view of the HESA craft ready for another survey mission. Photos courtesy Peter Venn

Unprecedented Benefits

The integration of drones with our hovercraft negates line-of-sight limitations, significantly expands operational range, and enables on-the-go battery charging, ensuring uninterrupted mission continuity. This synergy not only elevates efficiency but also reinforces our dedication to sustainable practices.

Leadership Transition

Linked with these technological advancements, we are delighted to announce a leadership transition. Stephen Venn takes the helm of HESA, succeeding Peter Venn, who, while stepping back from daily operations, will continue to provide invaluable expertise in an advisory capacity.

With a lifetime association with hovercraft, carpentry skills, experience in flying rotor-wing aircraft, and a decade in drone operations, including in the mining sector, Stephen is poised to lead HESA into an exciting future.

Join us as we continue to set new benchmarks in environmental services, driven by innovation, dedication, and a commitment to preserving our planet.

ELECTRIC HOVERCRAFT



Keith Oakley, Graham Nutt and Owen Ellis have got together to prepare an internet site that gives technical knowhow and experience with developing electric powered light hovercraft. The site can be found [here](#).

The site has been put together by Keith Oakley and presently features information about his 'Sound of Silence', as pictured above including the build of his craft. This is really the first fully electric, separate lift and thrust light hovercraft.

We are promised more as experience progresses. Graham is working on his own craft aimed initially at cruising (see below News piece). Owen currently has his hybrid craft 'Revolution' that is also built commercially by Airlift Hovercraft and is regularly reported on here.

There are several videos of the 'green machine' already on their site, click on the image below to start viewing.



Having prepared the summary above, THS Techsec was kindly sent an initial information note about the initiative by one of the founders, Graham Nutt, now christened *The e-hovercraft collective*. The key to success of this venture, both in UK and globally will be by active participation and sharing of latest learnings. Do take part if you can! So here it is . . .

News from 'The e-hovercraft collective'



Who? I hear you ask, well this is an independent group of likeminded international hovercraft designers, engineers and enthusiasts who are pushing forward the

development of small lightweight electric powered hovercraft.

This group of enthusiasts is also drawing together the regulations for a new competition series for electric powered craft.

The general reaction at the Hover club of Great Britain AGM a couple of years ago, when Keith Oakley gave his presentation on the progress with his project to build an electric powered cruising craft, was fairly negative. 'It won't work', 'too heavy', 'will only run for a few minutes' and so on, you get the drift. Well let me tell you that Keith is not easily put off by such comments and has ploughed on with his development program and has now reached the design spec performance.

The aim was to have a craft that could carry 2/3 people at 20/30 Km/H for about 2 Hours has been achieved, and we cruised a large 1000 Ha lake for a week in the summer, morning and afternoon without the craft missing a beat.

The pleasure of cruising along with no vibration or noise coming from the lift or the thrust motor is a game changer. You can hold a conversation with the passengers in a normal speaking voice. The overall noise signature is very low (below 72db at 25m) and we were able to pass through areas that would not be possible with a conventional craft

You can see the videos of this test on the new web site www.e-hovercraft.info. This web site will be the 'go to' place to find out about what works and what does not work for electric powered light hovercraft, hence the .info tag. The web site is not commercial and just seeks to spread the knowledge about electric powered light hovercraft.

www.e-hovercraft.info is where all the details of the upcoming competition regulations will be

posted as soon as they are finalized, watch this space !

The next phase of our development trail is the conversion of Scarab 21, an ex-formula 25 (yes, it is that old, 1996) racing craft from Briggs & Stratton power to electric power using the same successful running gear, both lift and thrust, as fitted to Keith Oakley's craft 'Sound of Silence' but with a different battery system, using five Jaguar I Pace batteries. This will give around the 50-volt mark, remaining under any electrical regulations. This should make a cruising craft with similar performance to a cruising F35 craft, with about a 2-hour endurance. it will be interesting to compare with a current F35 racing craft.

The same battery and thrust motor set up is being investigated by one leading manufacturer to see if it is possible to produce a small integrated craft that could become the basis of the competition craft for the new proposed e-powered series.



HOVERCRAFT MUSEUM NEWS



As shown above, the Hovercraft Museum have put on a special display to celebrate 60 years of the SR.N5. They are showcasing their own SRN5 (the craft that started the collection nearly 40 years ago) with presentations given on the history of the type.

The museum example during its operational days operated in Japan and New Zealand for a time, before returning to the UK!

The Museum is open on both Saturdays and Sundays from 10am to 3pm at present.

Details and updates can be found on their internet site [THM](#), or on their [Facebook page](#). A view of their souvenir shop and café can be seen [here](#).

Key information for visitors include their seaside location at Lee on Solent right at the seafront with the NHTU slipway opposite the entrance. They have over 50 craft on show, a gift shop/café on site, are family friendly.

They have full wheelchair access to hangars & gift shop/café and put on activities for their younger visitors. Dogs are also welcome (with their owners . . .!)

Clubs and Associations Update

THE HOVERCRAFT CLUB OF GREAT BRITAIN



2025 Race Meetings

Race meeting weekends for 2025 are currently planned as follows:

- 3-5 May 2025
- 24-26 May 2025
- 7-8 June 2025
- 21-22 June 2025
- 12-13 July 2025
- 26-27 July 2025
- 23-25 August 2025– EHF meeting France
- 6-7 Sept 2025– EHF meeting Germany (or on alternative date of 30-31 August)
- 20-21 September 2025
- 4-5 October 2025

Locations are yet to be confirmed.

5/6th October, Whittlebury, Northampton

This was another busy HCGB Racing weekend. Video, photos and results have been posted to the [HCGB Facebook page](#) and the pages of members linked to that. Do take a look.

Cruising – Blackrock sands 12/13 October

The HCGB Cruising group held an event at Blackrock Sands, mid-October attended by 6 craft. A feel for the weekend was posted by Michael Bradley on Facebook, as follows:

‘The cruise was attended by 6 craft and 14 club members. Saturday afternoon saw wind gusts up to 40 knots which was very challenging but didn’t deter from some good craft handling training for all. Sunday was absolutely perfect for us. The sea was like a mirror, winds very light and we even had warm sunshine. We explored new territory and met some very interested members of the public.

Those of you who are thinking about joining a cruise, please get in touch and come and enjoy similar experiences to those we had at the weekend.’ The cruisers had help and support from the camp site, Gwynedd Council and other club members helping with maintenance parts over the weekend. There is a possible plan for another event next April, contact [Michael Bradley](#) for that.



Photo courtesy Michale Bradley with thanks.



Map extract courtesy Google Maps.

The site looks very inviting! Interesting that this location is not far north of the Tal-y-Bont site that a group of HCGB enthusiasts used to take a late week hovering holiday back in the 1970’s!

That whole area is most amazing. Highly recommended. Best wishes and thanks for the info to Michael Bradley.



THS MEETINGS

The following THS meetings are currently planned, see table below Details of further meetings will be publicised in the events blog once finalised, and in the next NewsNote. At present all meetings are held on Zoom.

2024	Subject
November 21 st 19:30 UKt	Committee Meeting
December 12 th 14:00 UKt	AGM on Zoom
December 12 th 14:30 UKt	Presentation on Zoom
2025	Subject
January 15 th 19:30 UKt	Committee Meeting

THS 2024 Dinner and Awards

The Hovercraft Society has made a special achievement award to the whole team at Griffon Hoverwork Limited in recognition of delivery of the three GH 12000 passenger hovercraft to Oita Prefecture in Japan this year, together with a significant training and support programme.

This contract has been a task taking several years to complete, by a dedicated team. The Covid pandemic was an additional challenge that had to be overcome during design and construction. A truly special achievement for the company and Air Cushion Industry.

The trophy was presented to Managing Director, Adrian Went on behalf of his whole team, at the

celebration dinner held by THS in Portsmouth, on 12th October – more below.

The three GH12000 craft together with new terminal facilities re-establish a hovercraft service in Japan. They operate from the city terminal across Beppu Bay direct to the airport approximately 24 km away. They are expected to carry around 300,000 passengers each year on the service.



Above, THS Chairman Mike Mooney presents the trophy to Adrian Went, CEO of GHL. Below the trophy.



In addition to the well-deserved presentation to Griffon Hoverwork, after the dinner a trophy was also presented by Techsec and Treasurer on behalf of THS to the Chairman Mike Mooney for his long and dedicated service to THS and hovercraft development.



Above, Treasurer Adrien Ridding presents the long service award to Chairman Mike Mooney.

The dinner itself attracted 14 member and partner attendees. Following initial drinks at the bar of the Royal Maritime Hotel, Portsmouth, just by the Dockyard and Maritime Museum, the dinner was held in a dedicated room next to the restaurant courtesy of the hotel.

The dinner menu included vegetarian options and was a la carte. Following the food and awards, Mike Pinder gave some entertainment with magic tricks at the table. These were most enjoyable and appreciated by all!



Above, Mike Pinder making a decision on what secret to bring out from his box of tricks!

Hovering back to Germany . . .

By John C Lewthwaite

Those who follow our *THS News-Notes*, will recall John's visit to Germany in 1979 with the VT-2 hovercraft. Well, seven years later in 1986 he was back again, this time assisting MTG Marinetechnik in Hamburg, Germany. MTG operated the central planning and design office for naval surface craft for the Federal German Ministry of Defence. They had recently been working with the US Navy on the preliminary design of a fast test craft; a 50kt SES named the *SES-700*.

The *SES-700* project had been based on a data exchange with the US Navy's Nav Sea office.

The leading dimensions were as follows:

Length oa. = 67.0m
 Beam oa. = 16.1m
 Full load displacement = 720t.
 Speed (calm water) = 50kts
 Propulsion 4 Allison 571 KF gas turbines (22,000kW) using 2 KaMeWa waterjets
 Lift system 4 centrifugal fans driven by diesel engines.

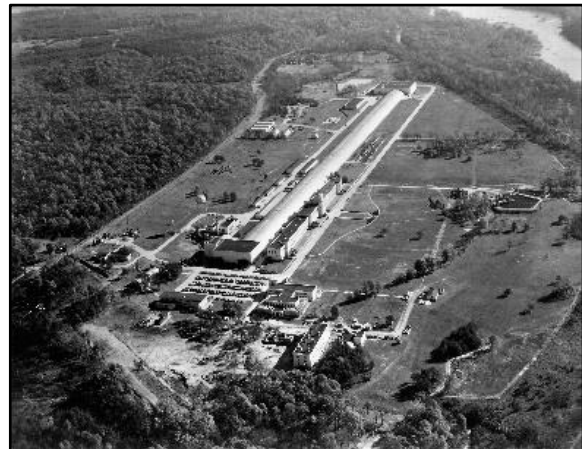


When I joined MTG, I had to explained to them that I did not speak German. "That all right" I was told "we want you to speak American" – I told them my American was quite good! They were then kind enough to arrange a meeting with all my new colleagues where they were told my name. After my few weeks with the company I was impressed that they all seemed to have remembered, whilst I had some difficulty in remembering all their names. I shared an office with a gentleman named Jorg Reischauer who had been working on the *SES-700* project. He

explained that after the meeting, that the Director had said that *Lewthwaite* might be a little difficult to remember. But after seeing my stature (I am lightly built) he suggested that I looked like an example of a "*lose weight*". So, in fact I has been addressed each day by "Guten Morgen Herr Lose weight"- but it clearly worked.

I soon settled in with their kind assistance and started to study the *SES-700*'s design features.

The next stage in the project was model testing. A 5m long hydrodynamic model had been built by the US and tests were planned in the David Taylor Research Centre in Carderock MD, not far from Washington DC. The DTRC high-speed towing tank is an impressive facility – over ½ mile long and capable of towing models at very high speeds – the tank is in the long building shown on the upper right.



Herr Reischauer and I were sent across to assist with the testing. The tests programme was extensive and continued for several months. We each were allocated an apartment in Rosslyn near DC and were made very comfortable.

Initially runs were made in calm water and these validated the *SES-700* hull design was satisfactory and no modifications were necessary to improve its dynamic performance. When it came to testing in head seas, we explained that the vessel was intended to operate in European waters where waves tended to be short and steep. These are typified by JONSWAP spectra rather than longer open-ocean waves. The wave maker had to be re-programmed to generate these conditions, and they were found to be rather demanding on the model's pitch motions.

A series of tests followed in which we tried to reduce the motions by initially fitting anti-damping fins to the bows of the model and subsequently by an active ride-control system trying to limit the pressure rises in the air cushion. However, it was found that the best solution was to operate the lift fans at reduced power in over-wave conditions which dampened the pitching although causing a modest loss in the craft's speed. It was appreciated that there were limits in interpreting results from towing tank tests where the waves are long crested (ie; stretched across the width of the tank) rather than more multi-directional in real sea conditions.

I organised the analysing and reporting of the results from these model tests for MTG, and subsequently prepared a paper summarizing the results which was presented by MTG's Chief Naval Architect, Herr Oehlmann and myself at the ASNE Advanced Vehicles Conference in Arlington VA, USA in 1986. A copy of this is included in [THS ACV/SES drag page](#).*

On return to our office in Hamburg, we discussed the above concern about the *SES-700*'s sea-keeping behaviour. I recommended to MTG that we should consider building a manned sea-going model of the design. I had previously run a similar test programme for Vosper Hover-Marine where we built and tested a 6m long model of their *DECIDER* design. A description of this model which is now in the UK Hovercraft Museum is in preparation

Accordingly, we designed a 10m long model of the *SES-700* which was built by the Luerssen shipyard in Bremen. The model was operated by the civilian part of the German MoD procurement

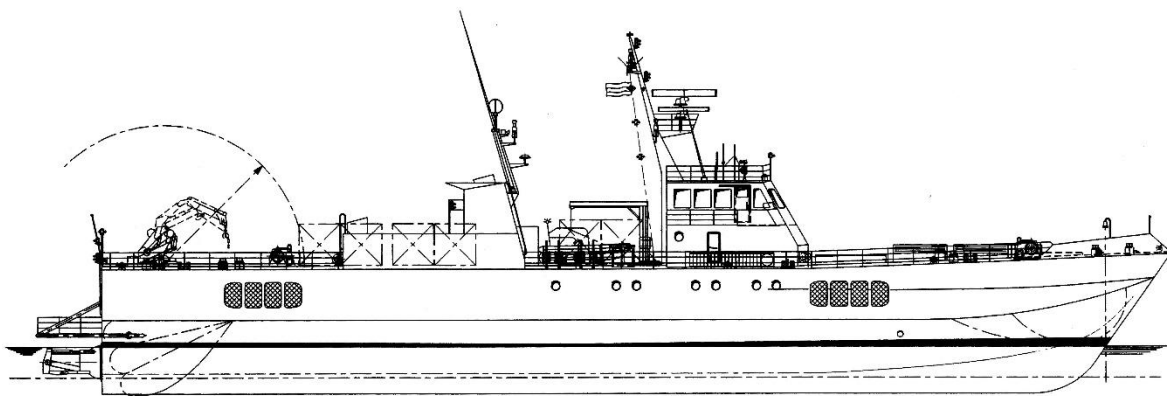
office; the WTD71. The tests were carried out from their base in Eckernförde in the Baltic. This is where I had tested the *VT-2* in 1979; so back to where I started in Germany!

The model was named *MOSES* (Model SES) and carried a crew of two. It was propelled by waterjets powered using geared out-board motors with their propellers removed. Bow and stern seals were fitted inflated by centrifugal fans.

The model was fully fitted with on-board instrumentation and carried a shore-based laser positioning system which logged its speed. It was also fitted with lights and cameras in its cushion compartment.



Trials continued throughout 1987 and were very comprehensive. Its sea-keeping characteristics were found to be less demanding than those recorded in the towing tank and were regarded as being acceptable. I organised the analysis and reporting of these results. MTG expected that the project would continue and that a full-size test craft would be designed and built. However, in 1990 as a result of the costs of the re-unification of Germany, government research projects were curtailed, and the project was stopped. MTG



continued to develop alternative commercial applications of the *SES-700* concept.

In the meantime, I returned to the UK, supporting MTG as a consultant and soon after I, together with a number of other experts in the fast craft business formed Independent Maritime Assessment Associated Ltd. (IMAA). So, the hovering continued.

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* To find the paper referenced on page 16 click on the link to the ACV/SES Drag Page and scroll down to the reference. It will load as a pdf.

From the Internet

We hope the material below is useful and enjoyable. Click on images and links to go to the recordings.

Latest Oita Videos



From Tetsu Wacky!! Mid November 0:40. Craft Leaving maintenance base/terminal.



The full terminal and service experience, with Chan'neru Kōsei (Channel Development). An enthusiastic and enjoyable video (11:28)

Are the back bumpers for the rudders new??

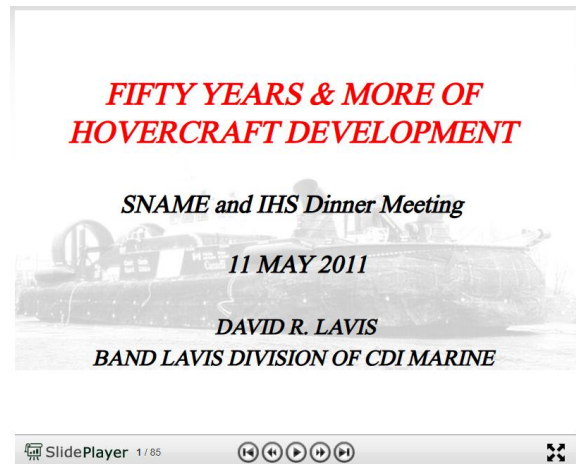
They enjoy feeling the skirt!!

I really need that bear and the cuddly ACV! Eat your heart out Hovertravel!

2011 Slide Pack from Band Lavis

This is a pack on 'SlideShare' with 85 slides on the development history of ACVs to that point. It is a quite comprehensive overview from a US and Western based dataset.

It is a presentation made jointly to SNAME and the International Hydrofoil Society. You can go through the pack online without registering, but to download, you would need to register on the service. Click on the image below to view.



Historical Videos

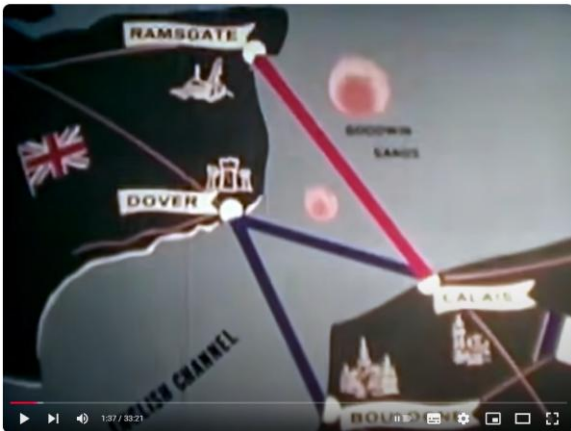
Another three videos for you. I found a lot more when finding these. I think it will be best to establish a page on the site where I can categorise these kind of videos for easy access. This time videos are on IHU, SR.N4 channel services, and Ramsgate Hoverport. Click on the images to view.



IHTU training to Goodwin Sands 1967 (1:20)



Operations at Hoverlloyd Ramsgate International Hoverport (3:20)



A summary video of SR.N4 operations in the early days without tapered skirts etc from Super 8 film, (33:28)

The Crazy hill climb



See Ben Collins go up a hill climb and across a bog in a borrowed racing hovercraft. You will have to go to 13:45 of the 17:52 of this test against two tough off-road vehicles. The hovercraft wins even though Ben has clearly not had many lessons in driving . . ! Only in an ACV . . !

REGULATIONS

IMO HSC Regulations

It is possible now to gain access to the IMO High Speed Craft Code regulations online. The code is downloadable in pdf form in individual chapters from the UK Maritime and Coastguard Agency [here](#). It is the 2008 version referred to as MSIS 34.

Background and a paper on the work ongoing on the regulations (which are for craft that operate internationally but are accepted as standard practise globally for all high speed craft above the size of personal craft) are available [here](#).

The regulations themselves as updated to 2021 are available for download from IMO [here](#) when purchased for GBP 34.00. This is the document in complete form rather than as chapters. It is available in English, French, and Spanish.

The same regulations are available for reading online at the Netherlands Environment and Transport Directorate [here](#) (in English).

Canadian Regulations

Triggered by a reference related to the CCG the following two documents are applied with reference to ACVs built and operated in Canada.

The first is TP1332 – Construction Standards for small vessels by Transport Canada, [here](#).

The other is TP5579, Standards relating to Design, Construction and Operational Safety of Dynamically supported craft in Canada Volume 1 - Design, Construction, Testing and Documentation of Air Cushion Vehicles (1985).

This is available on request from Transport Canada [here](#), rather than by direct download.

While issued in 1985, it is still applied as it is referenced in the [study contract for the new CCG hovercraft](#).

There are other guides on the same page, for example a Safe Boating Guide (tp_511e) that gives advice useful also for cruising Hovercraft that can be directly downloaded.

OBSERVATIONS

Another News Note that has taken time to assemble. It is hoped the various links throughout this issue will enable readers to access

information online without getting too distracted. The problem with YouTube (I find) is that there are so many interesting videos shown in the panel on the right that before I know it, I am going off sideways. On the other hand, I should not complain – it is good that so many people are

taking the time to post their experiences there, for instance at Oita terminal this last month.

I hope you have enjoyed this issue!

THS Techsec



Above Adrian Went shows the well-earned THS Achievement Trophy together with his team at the Portchester Construction facility on 14th October



Above, The first Griffon Hoverwork 2000TD filmed from the second craft while on a training mission earlier in October in eastern Poland. Courtesy Ben Avery/GHL



Hovertravel has agreed to allow THS members to book flights between Southsea and Ryde at a 20% discounted rate when booked online.

To obtain the discount members must use the current **THS promotion code**, which is available either from THS Treasurer, or from the Newsletter Editor.

At time of boarding, they should show their **membership card**. The offer is available for up to two people travelling at the same time. Once booked the tickets are not refundable or transferrable.



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