

CBOA NEWS

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Barge traffic resumes on the Aire and Calder Navigation

The CBOA was delighted to issue press releases on the 17th and 20th September that both the Hull originated marine dredged aggregates to Leeds and the oil traffic to Rotherham have re-started.

The 500-tonne capacity barges used for aggregate traffic and the 600-tonne capacity tanker barge can actually move the cargo more quickly than if the crew each drove an HGV between Hull and the destinations!

"Barge use also fits in with the de-carbonisation agenda", reported Chairman David Lowe. Research has shown that barges have for years created less emissions than heavy lorries – only 25% of that produced by lorries. Not only that, the barge industry is moving to use biofuels with hydrogen treated vegetable oil (HVO) being favoured. Barge companies have reported 90% reductions in net carbon dioxide emissions. Using barges also eliminates damaging dust particulates from brake pads, tyre wear and road surface wear with the consequent cost to the tax payer.

The barge traffics resumed after repairs to the Aire & Calder Navigation had been completed. Last December, one of the canal banks (a little west of Goole) nearly collapsed. Engineering surveys showed a need for extensive works, hampered by the fact that the work was adjacent to a small aqueduct taking a river under the canal.

Both traffics have been fully featured in previous issues of CBOA News; previous issues can be found on the CBOA web site along with the recent press statements on these traffics re-starting.



500-tonne capacity Branford Barge Owners' Farndale penning through Whitley lock with marine dredged aggregate for Leeds (A. Horn)

From the Chairman



As I write this report the vaccination programme has been extended to much of the population and a new 'near normal' way of life has been established. We trust that this can continue with further gradual relaxations. Not totally related to this has been a growing shortage of lorry drivers which has prompted additional interest in transport by water – we are currently, for example, fielding an enquiry for movement of bulk materials for the steel industry between the Humber/Trent ports and Sheffield.

We understand that the project to open a quarry near Stanley Ferry on the Wakefield branch of the Aire & Calder and to provide wharfage for 100% distribution of material by barge to a waterside terminal is progressing well.

Discussions regarding the Port Leeds (Stourton) project continue and Association members are assisting the proposed operator with development of a revised specification for the wharf area in time to meet the deadline for promised funding from the West Yorkshire Combined Authority. The newly elected West Yorkshire Mayor, Tracy Brabin, has indicated strong support for this and freight by water generally.

Members will be aware of the major leak at New Bridge on the Aire & Calder Navigation last December which closed the navigation. The Canal & River Trust contractors managed to complete the repair late August, but necessary dredging of key sections of the South Yorkshire Navigation and Aire & Calder Navigation wasn't completed in time for the re-opening. The oil traffic to Rotherham wasn't able to re-start immediately, and the aggregate traffic to Leeds had to re-start still operating at a much reduced draft. A major dredging programme at Lemonroyd did get under way and at the time of writing had just been completed before the Land & Water team moved on to Thwaite Mills/Knostrop and will hopefully carry out some spot dredging at Ferrybridge and other locations after which the full vessel draft of 2.5 metres should be available to operators. Meanwhile demand for aggregate in Leeds is increasing and it's hoped additional barges will be brought into use to supplement Farndale H and Fusedale H, with other potential destinations in mind.

The Association again had a stand (jointly funded by CRT) at the Recycling & Waste (RWM) exhibition at the NEC on 22nd/23rd September (see page 5). We had a larger stand this year and although there was a reduced footfall the number of serious enquiries was greater than in the past and we are looking at attending again next year. I am grateful to John Dodwell who has organised these events for some years and to Maik Brown who has agreed to do so in the future, and to John, Maik and Tim West who with myself manned the stand and assisted with erection and taking down. Your chairman gave a half hour presentation on freight by water (with the emphasis on recycling and waste) to what was described as 'a larger than average audience' and it was good to see some CBOA members attending including Elliot Lancaster from iRecycle who has invited us to share his stand at the Cleaning Show which will be at the Excel Arena 2-4 November.

The Association has appointed a part time secretariat to assist with administrative matters and this is easing the burden on officers and seems to be working well (see next page). We are also looking at changing the status of the Association from being an unincorporated organisation with little or no protection for its officers and members to an incorporated body limited by guarantee. This requires Articles of Association and a revision to the rules and I am grateful to Tony Seddon (Treasurer) for taking this forward as he has professional experience in the field. It is proposed that we hold an EGM later in the year to endorse this.

Tuesday 9th November is the date for the 2021 AGM – note the change from the 10th – this will be on-line with details sent out to members as required by the Constitution. Committee continues to meet on-line and this seems to work well, with some who do not normally attend being able to do so.

David Lowe

UK News

CBOA employs secretariat

The CBOA Committee have recognised that in order to future proof the Association, we need to look at succession management. One of the key areas of consideration when looking at this is the amount of time certain roles have historically required. The Committee discussed this at length and felt that a support function was required if we are to ensure the future of the Association.

Our Treasurer, in addition to an interest in water transport, operates a business providing exactly this service to a number of trade associations, and as a result was asked to provide a proposal to the Committee to gauge the viability of CBOA obtaining a level of support. This proposal was submitted and the Committee agreed to obtain this support, a few days per month, on a 6-month trial basis. As a result of these discussions, you may have noticed that CBOA information is now coming from one central source, Becky Clutton (info@cboa.org.uk) and we have positioned her as a central point of contact for all members.

The Committee feels that this has proven to be of benefit to date, and will formally review this at the end of the trial period.

Membership enquiries should still be sent to Louise Sliwinski at Wynns Ltd, whose contact details are on the back page of CBOA News.

Government answers

In the first of two London Mayoral questions Sadiq Khan was asked firstly how Transport for London (TfL) will encourage mode shift from road to water and rail, under Action 10 of the Freight and Servicing Action Plan. He replied by stating that the importance of increasing freight by water was both in the London Plan and Mayor's Transport Strategy. He said that to support this shift, a Freight Working Group that reports into the Thames and London Waterways Forum has been established where good progress had been made; the safeguarding Wharves review, had been approved by Government; TfL's Freight in London Toolkit contains details of wharf, railhead and construction consolidation centre locations and details. TfL had worked with logistics company DHL to bring small parcel freight by river from Wandsworth Riverside Quarter Pier to Bankside Pier for final mile delivery by courier bike. Rail freight had similarly received impetus.

The second question referred to removal of moorings on London's waterways to create Water Safety Zones – from CRT's London Mooring Strategy. London moorings are a contentious issue with both those using them and waterway users. This is no less the case with commercial operators using wide boats on the Paddington Arm and Regents Canal where in some places lock entry/exit can be difficult (and tug/barge push/tow combinations are often used) and passage in the pounds can also be difficult with the profusion of moored boats, two or more abreast. Tugs have in fact been used for decades on London's waterways. The Mayor's response was carefully considered and diplomatic, considering the several parties involved and coupled with the need for affordable housing in the capital.

Mike Amesbury Shadow Minister (Housing, Communities and Local Government) asked the Secretary of State for Environment, Food and Rural Affairs, what assessment he has made of the effect on the financial sustainability of CRT of meeting all its dredging requirements based on its current levels of Government funding. Rebecca Pow, The Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs said that "no such assessment has been made. As a charity independent of Government, CRT is responsible for operational matters on its waterways, including meeting its various statutory obligations". In other words, CRT has no 'clout' in getting additional funding if this is needed for vital works required, unlike Network Rail which can.

Rachael Maskell Shadow Minister (Digital, Culture, Media and Sport) asked the Secretary of State for Environment, Food and Rural Affairs, what recent assessment his Department has made of the potential merits of the development of rivers in urban areas for water transport. Rebecca Pow replied that no such assessment has been made. The Government does not have a role in operational matters on inland waterways, which is the responsibility of the relevant navigation authority. Local authorities have responsibility for transport policies within their areas, including any proposals for using rivers.

Hydrogenated Vegetable Oil (HVO) use

Earlier in the year the Government produced a consultation outcome amending the Renewable Transport Fuels Obligation (RTFO) to increase carbon savings on land, air and at sea, to improve greenhouse gas emissions. The first target to increase the main Renewable Transport Fuels Obligation (RTFO) target to supply renewable fuels from 9.6% to 14.6% by 2032. Also supporting the use of recycled carbon fuels and by expanding RTFO support to new transport modes, such as renewable hydrogen in maritime, rail and non-road transport.

Crown Oil claim that their Crown HVO Fuel will reduce greenhouse gas emissions by up to 90%, significantly better for the environment than regular diesel or biodiesel as it is renewable and sustainable, is synthesised from waste fats and vegetable oils, eliminating 90% of CO₂ emissions and significantly reducing NO_x, PM and CO emissions, provides Carbon offset delivery mileage, is a drop-in replacement for regular diesel that's compliant with EN15940 and is compatible with mineral diesel, meaning it can be used as a direct replacement for regular diesel, has excellent cold weather performance (low waxing) and high flash point for safety with storage and handling. Crown says that impurity removal during the production process reduces fuel degradation and increases shelf life to around 10 years.

However, the price from suppliers tends to be 10-18% more than diesel at present.

Whilst not forgetting all the good work being done by Prof. Rex Harris of the School of Engineering's Department of Metallurgy and Materials Science at the University of Birmingham, with developing a hydrogen powered demonstration canal boat (Prof. Rex Harris gave CBOA a talk about this at a previous AGM), it is also believed by GKN that metal hydrides are the answer for hydrogen fuel cell technology. GKN Powder Metallurgy, has launched a dedicated hydrogen unit. GKN believes that metal hydrides (in powdered form) are the answer as they can store hydrogen safely at lower pressures in small spaces, instead of using high pressure containers.

HGV road subsidy

What may not be publicly known but many in the water freight industry may be aware of is the effective subsidy that road freight receives for the damage it causes. In an article on the citymonitor web site, Philippa Edmunds states that unlike motorways, local and urban roads were not constructed to withstand the weight and volume of the HGVs using them. The standard 44-tonne HGV, causes 136,000 times more damage to road infrastructure than a typical car because the damaging power on the road surface rises exponentially as weight increases, she says.

It is estimated now that HGVs only cover one ninth of their road damage costs, previously thought to be a third. This is of course in addition to the emissions issue where the HGV is estimated to contribute 17% of greenhouse gases and 21% of NO_x emissions, says Philippa. The full cost of HGVs to the tax payer is reckoned to be £6bn pa. Efficiency is another drawback; multidrop delivery to supply several retail outlets means that the HGV is running many miles partly loaded. This supports the argument for distance-based charging to encourage firms to reduce lorry miles and increase transport efficiency.

Government advocates carbon reduction means

In June, the government issued the following document 'Procurement Policy Note PPN06/21 – Taking Account of Carbon Reduction Plans in the procurement of major government contracts' dated 5th June. It advises how Government departments should seek to use suppliers who can demonstrate they are using carbon reduction means in the supply chain. A template is provided to assist assessing the carbon reduction calculation.

Obviously there appears to be scope for use of water transport, perhaps particularly into or out of towns and cities.

Government presentation given on potential for waterways freight use

Chairman David Lowe gave a presentation presented to the All-Party Parliamentary Waterways Group (APPWG) in September, with the proposal that the forthcoming grant contract between CRT and the Government should include provisions for the Dept for Transport to provide funding to enable CRT to make specific improvements to their freight waterways. Michael Fabricant MP, Chair of the Parliamentary Group, agreed that the Group should write to relevant Ministers at DEFRA and DFT to support this.

David commenced by highlighting his own early freight involvement on the Leeds and Liverpool Canal and then other recent successful inland water traffics, with both small and large vessels. He then gave examples of potential traffics for waste, effluent, biomass, imports/exports, aggregate and for containers; Bulhome lock on the Aire and Calder should be rebuilt to continental size for 700 tonnes capacity; container traffic should be encouraged; Port of Leeds given more emphasis; inclusion of water transport in government modal shift promotion.

There is no statutory duty on CRT for water freight like the rail industry have; this should be extended to CRT. Indications on how funding would work were given. DfT should assume responsibility for water freight on all large waterways, should re-introduce Freight Facility Grants for wharves, handling facilities etc. and should provide funding. CBOA, IWA, Logistics UK and others can assist with the consultation. The environmental benefits of water transport are well known and oft published by CBOA – these should be taken on board and acted upon.

Medway and Chatham debate

In an impassioned plea in the Commons in September by Kelly Tolhurst, (Conservative, Rochester and Strood) against the proposed closure of areas of dockland for housing development, CBOA member GPS Marine Contractors was quoted as a prime case. If the docks were to close, GPS would likely pull out of Chatham docks she said.

Barge freight carriage by GPS has been 2.3 million tonnes of cargo from three major projects in London, which eliminated 7.5 million heavy goods vehicle road miles and reduced CO₂ emissions by 7,200 tonnes compared with using Euro 6 trucks. Use of hydrogen-treated vegetable oil (HVO) is now furthering the reduction in GPS's vessel emissions.

The MP gave other examples of trade and industry which would be lost, very useful for the locality with jobs provision and prosperity, including water borne finished goods and timber imports, which would be lost if the area became a dormitory town. She also fully supported use of the waterways generally for transportation and for decarbonisation of the economy.

Government £20m fund for Clean Maritime Demonstration Competition

In a response from Lord Goldsmith (DEFRA) in the Commons in April to a question about emissions from boats in residential areas, he said the Government had launched a £20m fund aimed at supporting innovation in the wider maritime sector and accelerating the commercial availability of low and zero emissions technology for vessels in the UK. While primarily focused on maritime activity it is expected that this fund will also benefit related sectors including inland fleets, particularly in areas like engine technology and alternative fuels. This is with the Transport Decarbonisation Plan transition to net zero in 2050 in mind. The question seemed to be related to residential boats however but may have wider application.

Call from British Ports Association to move inland freight by water

In the analysis in May 'Port Traffic Analysis Including Modal Transport Splits' by Port Centric Logistics and Partners (PCLP) for the British Ports Association (BPA), an astounding 70% of ports throughput is by road haulage, rail 10% and coastal shipping 20%. Waterways were not allocated a figure but mentioned as "...a very small volume by waterways". A table indicated that oil and ores were carried by water (other than coastal).

The analysis seemed in general to not feature inland water freight, indicating that more needs to be done by policy makers to look at how a greater proportion of freight could be moved by rail and sea. However, the BPA say that they are highlighting the potential for modal shift - taking lorries off the roads and moving more freight by water – to help reduce congestion and carbon emissions. The BPA recognise that good 'last mile' connections to ports are needed which depend on government to invest in local transport infrastructure.

The British Ports Association represents operators that manage over 400 ports and terminals around the UK. These ports collectively facilitate 86% of maritime trade in the UK as well as providing hubs for other industries. It is interesting that the number of UK ports with active rail freight services is significantly fewer than in the previous century, and their role has changed, in particular through the growth of intermodal container transport; the same reduction may be true of inland waterway connected ports, both perhaps due partly to contraction of their routes, especially the smaller ones.

CBOA at the Recycling and Waste Management exhibition



CBOA was once again at this exhibition in September and Chairman David Lowe reports that some useful enquiries and contacts were made.

Regional News

Nottinghamshire Council proposes water transport for nuclear power station build

CBOA Vice Chairman Tim West wrote to Nottinghamshire County Council (NCC) supporting their bid to the UK Atomic Energy Authority (UKAEA) to host its future Nuclear Fusion STEP reactor at the West Burton power station site in North Nottinghamshire.

NCC proposes using the River Trent for the movement of the large AILs that would be required for this project, with delivery via an existing berth at Cottam or through a facility created at the West Burton site. Tim also highlighted that should a cargo handling facility be created at West Burton this would create the opportunity for direct delivery of construction materials.

AILs were first delivered via the ro/ro facility at Cottam in 1998 and this berth has been used regularly since to tranship AILs for Cottam, West Burton and Staythorpe power stations, he pointed out. Sizes of AIL capable craft were stated and the most recent use for AIL movement on the Trent was in July last year. The benefits of using water transport on the Trent, especially when importing large sub-assemblies from docks in the NE is invaluable in preventing this type of movement from impacting the road network with its negative consequences.

Caledonian movements

Richard Davies of the Inland Waterways Association (IWA) kindly reported the following: -

When the Caledonian Canal, a Commercial Waterway, re-opened in July after lockdown, the Scottish Canals website announced operating hours as seven days a week, 8.30am – 5.30pm, with a one-hour break for lunch. But locks and bridges would no longer be permanently manned so boaters were asked to allow up to an extra one or two days for their canal transits this year. The normal minimum time required to make passage is stated as 2½ days.

Since the start of August to end of September 9 commercial transits only were tracked. These include 1 naval, 1 RNLI, 1 new-build passenger boat on delivery, and 6 workboats or crew transfer vessels – usually employed on North Sea oil and gas work.

Most unusually no fishing boats have passed through the canal in that time, although one fishing boat was spotted at the start of October. Most commercial transits have been completed in about 2 days. Monitoring by IWA members was done remotely by AIS and use of AIS is mandatory for commercial vessels at sea but not inland so some vessels may have been missed. Even so, the canal does appear to have been quieter than normal.

The significant drop in traffic will have had an impact on Scottish Canals' revenue account which is already under severe pressure. Possible causes of the decline in commercial traffic could be the general down-turn in economic activity, and the restricted draft available this year to 3.2m (fresh water) compared to the normal of 4.1 m. due to silting at Laggan which is planned for removal next winter.

In an attempt to spot whether fishing boats were making the long passage around the North coast instead of using the canal I managed to catch 2 such boats, one on passage from Buckie to Oban and the other from Peterhead to Northern Ireland. Both voyages were quicker than if they had used the canal, even on normal minimum passage times. However, that was during fair weather.

IWA were considering putting the case to Scottish Canals that

1. In the light of this performance Scottish Canals may wish to consider amending the message on their website warning of delays that may have put some users off, especially now that more stormy weather is likely following the autumn equinox making passage through the Pentland Firth more hazardous, and
2. In the event of a future lockdown, should this Commercial Waterway remain open for its economic and marine safety value?

The Scottish Government has been given the green light for the largest hydro project ever to be built in Scotland – which could deliver power to three million homes. The Coire Glas development in the Great Glen, 19 miles south of Fort Augustus, will become the first new pumped storage scheme to be developed in the UK since 1974. Pumped storage schemes operate using two bodies of water at different heights and act like a very large grid-scale battery. During periods of low demand for power, electricity is used to pump water from the lower loch to the upper reservoir, akin to charging a battery. This stored energy can then be released by using this head of water to generate power when it is needed.

The newly-approved scheme would be capable of a power output of up to 1500MW for 24 hours non-stop (initially approved as a 600MW scheme in December 2013) and a pumped storage capacity of up to 30GWh.

The development will lead to an estimated 3.9 million tonnes of rock excavated from a cavern. Rock removal is a key challenge of the project and a partnership between SSE and Scottish Canals could see some of the rock transported out via the revitalisation of the Caledonian Canal as a freight route which CBOA would definitely support.

Biogas Europe Summit: 24th and 25th of November 2021

the 6th edition of Future of Biogas on the 24th and 25th of November 2021 in Germany which boasts the largest Biogas market worldwide by volume.

To be held in Berlin, you will be able to hear from Zoltan Elek, CEO of Landwaerme, Lorenzo Maggioni, Head of R&D of Consorzio Italiano Biogas on Day 2 focusing on: Decarbonising the Grid: The Use of Biogas as a Greener Alternative.

They will be sharing insights on:

- Upscaling biogas as the main driver and only sustainable solution for a greener future
- Providing alternative uses of biogas to produce advanced biofuels
- Assessing and acknowledging the essential role of biogas in the fight against GHG emissions.

Contact mahsan@acieu to request an agenda and details.

Change at the helm at Thomson River Transport

We are grateful to John Thomson for the following report:

Capt. Graham Thomson has now passed operations of the business to his son John, who has been involved with the business since the company purchased dumb barges from British Waterways in 1990, converted them to powered barges and they haven't stopped since. The CEMEX carrying contract on the Severn has been running since 2006. Each barge carries around 160t per load and they complete 4 trips per day and they currently have three boats operating, *Elver*, *Perch* and *Chub* which operate between the two sites which are 2 miles apart in Worcestershire.

Recently they are undertaking a programme of refitting and this includes a visit to RWD Davis dry dock in Saul Junction on the Gloucester Sharpness Canal.



Chub on dock at Saul (Thomson River Transport)



TRT's Elver loading (R Horne)

Cory new vessels

Just missing the previous CBOA News publication, CBOA member Cory announced in April that they had taken delivery of five new barges from Newcastle-based shipyard A&P Tyne and Belgian shipyard Meuse and Sambre, following the signing of two multi-million-pound contracts over the past two years. Cory has now taken delivery of six of 35 new barges which form part of the ongoing modernisation of its fleet, to replace older types of vessels which will be repurposed or recycled.

These new barges (known as '20 box barges') can carry 20 waste containers containing a total of 270 tonnes of non-recyclable waste – thereby removing the equivalent of 11 articulated lorry journeys from the roads. They will ultimately replace the fleet currently operating from Cringle Dock in Battersea and Walbrook Wharf in the City of London.

In total, Cory operates a fleet of five tugs, more than 50 barges and in excess of 1,500 containers; the delivery of the barges represents the latest stage of Cory's investment in its river-based infrastructure as the company progresses its £800 million growth plans, which include the development of the Riverside Energy Park next to its existing energy from waste facility in Belvedere.

Commenting on the delivery, Cory's Director of Logistics Fran Comerford-Cole said "This year marks Cory's 125th anniversary and river operations have been at the heart of the Business since the very beginning. These additions to our fleet will help us to secure our future on the Thames for many years to come."



Approaching Westminster bridge (Cory)

In May, Cory was awarded £12.1 million through the Government's £320 million Heat Networks Investment Project (HNIP). The £1.6 million commercialisation grant and £10.5 million construction loan will support the development of one of the UK's largest heat networks, delivered by Vattenfall, to supply low carbon heat to a total of 21,000 homes. Cory's existing Riverside energy from waste (EfW) facility will provide heat for up to 10,500 homes in Bexley in the first phase of the proposed heat network.

In July, Cory announced that its fleet of tugs will run on biofuel. The move follows successful trials that have resulted in a reduction of net CO₂ emissions by 90% – a major step in decarbonising the company's river operations and transport on the Thames as the UK targets net zero greenhouse gas emissions by 2050. The hydrotreated vegetable oil (HVO) will bring additional air quality benefits – reducing nitrous oxide (NO_x) and particulate matter emissions by 19% and 21% respectively. HVO is produced from waste materials such as used cooking oil and waste fats, which do not release any new carbon dioxide into the atmosphere. The effective use of waste is consistent with Cory's broader business approach and another milestone in Cory's 125-year history.

Fulham FC use Thames

Fulham Football club used water transport for constructing the new riverside stand. The capacity of barges meant that sizeable sub-sections could be manufactured off-site and brought in by barge from Tilbury; 55-tonne pieces were craned off barges onto site. The roof trusses were 7m above water line on the barges, meaning that "passage plans" were developed to ensure safe clearance under the bridges could be achieved at low tide requiring movement over two tides, Battersea being the waiting point. Accordingly, depth clearance in the river also needed to be analysed. Westminster bridge has the lowest air draft.



Construction of the Riverside Stand of the Fulham Football club stadium

Hammersmith Bridge re-opens



Hammersmith Bridge

The closure since 13th August 2020 ended on the 17th July 2021, when the bridge was opened to all except road vehicles. Serious cracking and corrosion had been found on the beautiful 133-year-old structure necessitating the closure on safety grounds. Apparently, minute cracks had been found in the major castings which had not been known about before, indicating a threat of collapse. Much pleasure traffic, trip boats and freight normally pass underneath, causing considerable disruption.

Lobbying for opening of river passage, albeit perhaps under controlled transit means, was coming from several quarters some of which were CBOA, The Company of Watermen and Lightermen of the River Thames and British Marine who wrote a joint letter to the Chief of Hammersmith and Fulham Council. This was responded by Baroness Veer of Norbiton (Minister of Roads, Buses and Places) who empathised, explained the issues and said that a review would be undertaken after the results of the tests were available in June.

The clearance for an early opening has been made possible by results obtained by high tech analysis of the problem, using engineers with experience gained from working on California's Golden Gate Bridge and North Sea oil rigs.

BACAT revival

CBOA member Dean Marine Services, moved six BACAT barges, by pushing them with its pusher Tug *Pushette* from Newark on the R. Trent, where they had been laid up for over 25 years, to Hull. The company has its own dry dock on Lime Street on the River Hull and one of the BACAT barges (technically a Humber Small or HS barge) was on dock for refurbishment at the time of publication.



Tug *Pushette* pushing 6 BACATS up the R Hull, Hull (Maik Brown)

These BACATS were built by the Yorkshire Dry Dock company who were on the side of the River Hull also on Lime Street, the BACATS were what was known as 'HS' – Humber Small and could carry 140 tonnes per barge.

These barges known as BACATS (Barge Aboard CATamaran) were a part of a Danish initiative in the early 1970's to partner with other countries in

Europe like France, Holland and Belgium and these BACAT barges were loaded onto a specially designed Mother Ship to be moved to and from the continent and then were pushed onto the inland waterways of the Humber region to Leeds, Rotherham, Selby and other destinations using Pusher Tugs which BW had specially designed for the work.

At the time Dean's were undecided as to their future use; possibly for sand/gravel carriage or even conversion for use as house boats in London which fetch high value. The Yorkshire Post newspaper featured the move.

Guy's and St Thomas' NHS Foundation Trust to use water transport

The NHS Foundation Trust has joined forces with CEVA Logistics and CBOA member Livett's Group to trial a delivery service by boat on the Thames, as part of the Trust's commitment to reduce carbon emissions. A pilot service is being trialled, if successful the aim is to reduce the use of the Trust's three delivery trucks which currently travel around 1,500 miles per week. For each truck removed from the road, approximately 708kg of CO₂ could be saved per week. This will help Guy's and St Thomas' work towards its aim of reaching net zero carbon emissions by 2030, and it supports the Mayor of London's aim to reduce the number of lorries and vans entering central London in the morning peak by 10% by 2026. The hospitals already cargo bikes transporting blood and tumours for testing between Guy's Hospital and St Thomas' Hospital which replaces vans and motorbikes.

David Lawson, Chief Procurement Officer at Guy's and St Thomas', said: "The riverboat pilot forms a key part in our ambition to remove over 40,000 truck deliveries from central London roads each year. We also want to encourage and support other organisations to adopt the use of zero emission delivery models to improve air quality for the communities that we serve."

Edward Livett, Director of Livett's Group, said: "We are very excited and proud to be a part of this trial as it is a clear example of positive use of the River Thames, something we are constantly striving for. Livett's specialise in river logistics and as a Group have assets from Putney down to Gravesend which we are confident will help make this trial an absolute success. We look forward to helping freight back onto the river and proving it to be an environmentally sustainable and safe solution."

EA licencing overhaul

The Environment Agency is carrying out a major overhaul of the licencing and charging arrangements for all vessels on all its waters including Medway and Anglian, for which the consultation ended on the 17th September this year. Where the Thames is concerned, the EA downstream limit of jurisdiction is the obelisk on the bank a distance below Teddington Lock, below the obelisk is the Port of London.

As far as freight vessels on the Thames are concerned, they intend to abolish the decades old scheme of applying a tonne-mile charge for the weight carried, with a minimum charge. These charges have increased significantly over the years so it is now expensive if considering low value materials such as waste or sand.

The proposal seems to now favour levying an annual charge for freight vessels of £100, to rise to £104 in 2023. This will probably suit operators who use the Thames more than once a year, but perhaps not so favourable for a single short run. There is also the flexibility of being able to go back on one's tracks – useful for coal boats when delivering for example, instead of the old merchandise ticket being for one direction of travel only. Another issue might be empty running where there is no evidence of goods being carried, whether or not the vessel is on its way to loading on or off EA waters.

CBOA commented on the proposal covering the issues above, as did other organisations.

Esprit's Trafford Docks movements

Graham Dixon Managing Director for CBOA member Esprit Group Ltd kindly reports the following:

Over the first 2 weeks in June, Esprit's Trafford Docks in Manchester has welcomed 3 large ships bringing oversize and overweight project freight up the Manchester Ship Canal from destinations such as Croatia and Germany.

In late May, the m/v *Hendrik S* brought 3 large 35 tonne silos from Rotterdam into the heart of Manchester, via the Manchester Ship Canal. These were fabricated in Germany, destined for the Heineken factory in central Manchester. The massive silos left Esprit's Trafford Docks, one each night at 1am, escorted by 4 Greater Manchester (GM) Police bikes and traffic car plus a wide load support vehicle. Each 4-mile journey took 2 hours, often travelling on the wrong side of dual carriageways in order to negotiate roundabouts and tight bends. Tram lines had to be lifted by TfGM and street furniture temporarily removed by Trafford Council.

In early June, the m/v *Eems Transporter* brought another 4 silos into Trafford Park, again all destined for the Heineken site. Another 3 nights of police escorts and great teamwork from Sarens Cranes, Finnie Heavy Haulage, GM Police, KeolisMetrolink, TfGM and Heineken, all under the management of Park Project Freight, saw everything again delivered safely and on time without causing any traffic disruption.

Immediately after the *Eems Transporter* left berth, the m/v *Hendrik S* returned to Esprit's Trafford Docks, this time carrying a 128.5 tonne electricity transformer. The transformer started its journey in Croatia as part of a larger consignment of transformers and equipment aboard the m/v *Eems Servant*. This transformer was then transhipped onto the *Hendrik S* in Liverpool for the final leg up the Manchester Ship Canal to Trafford Park. Colletts Heavy Haulage were entrusted with project managing the big lift, using a 550-tonne strut-jib crane from Ainscough Cranes, and transport to a site in Rochdale. This time the final leg of the journey by road left Trafford Park at 6am on Sunday morning, requiring 5 GM Police bikes and a traffic car plus a wide load support vehicle, travelling at 10mph for the short trip via the M60, M66, through Bury and into a particularly tight access site in Rochdale.



Above and left: *Hendrik S* unloading silos at Esprit's Trafford Docks (Esprit Group Ltd)

Had these huge oversize and overweight cargos needed to travel to Manchester by road from a coastal port, the traffic chaos and congestion would have been immense. Thanks to companies such as Heineken recognising the great asset we have with the Manchester Ship Canal and choosing this as their preferred method of bringing oversize freight into Manchester, serious congestion was avoided and the much greener alternative was used. It's vital we continue to use the Manchester Ship Canal as much as possible to ensure it remains open for freight. Esprit Warehousing and Docks, who operate the Trafford Docks in Manchester, and the canal owners Peel Ports are working closely together to identify new business opportunities for freight on the canal. So, it's fantastic to see this hard work from both companies bearing fruit more and more. congestion was avoided and the much greener alternative was used. It's vital we continue to use the Manchester Ship Canal as much as possible to ensure it remains open for freight. Esprit Warehousing and Docks, who operate the Trafford Docks in Manchester, and the canal owners Peel Ports are working closely together to identify new business opportunities for freight on the canal. So, it's fantastic to see this hard work from both companies bearing fruit more and more.

GPS provides biofuel barge on Thames

CBOA member GPS Marine has teamed up with Green Biofuels the UK's leading provider of clean advanced fuel GreenD+, to help reduce London's carbon emissions and boost the Thames' drive to clean up and reduce pollution. GPS started using GreenD+ last year and now operates a fuel bunker barge, the *Dispenser* which supplies to other operator's craft also and is London's first GreenD+ floating fuel station. The *Dispenser* also loads directly from the terminal to avoid using lorries for re-bunkering.

Several web sites and periodicals were posting this. There was a brief article in The Times which seemed to not fully report on the significance of GPS's strategy and did not perhaps illustrate the point adequately, in using the term 'biofuel'. As John Spencer, MD GPS wrote to The Times the term biodiesel is a term commonly associated with Fatty Acid Methyl Ester fuel (FAME), which is unsuitable for marine use and is not particularly good at reducing emissions either. GreenD+ is a second-generation product and has plant derived additives reducing the NO_x emissions by 30%. Sulphur is absent and particulates are reduced by 80-85%, and the fuel is almost carbon neutral.



GPS fuel boat *Dispenser* (GPS Marine)

Nottinghamshire promotes sustainable transport

Nottinghamshire's Minerals Local Plan was recently adopted. Their Strategic Policies section includes section SP4 Sustainable Transport Introduction, acknowledging past use of the waterways for barge transport, but now suggesting that there is potential for some minerals to be moved by water, rail or pipeline in future.

The Policy also states that consideration needs to be given to transport distances proposed for new extractions, method of transport used with impacts on environment, amenity, and quality of life needs to be considered. Alternatives to road must be considered – water, rail, pipeline whenever feasible. If road must be used, then minimising its use and maximising proximity to 'markets' and avoidance of built up areas and minor roads must be planned for. We hope that this Policy is adhered to closely.

Livett's new landing craft

In a first for recent times, Livett's Group are introducing a landing craft for transporting both people and light freight throughout the River Thames and beyond. Unknown on inland waterways with the inherent steeper banks and wharves, the *Bravo Lima GB* will be able to pick up or set down people and light freight from miles of Thames foreshore, slipways, stairs and beaches.

For this type of operation, it is no longer restricted to being reliant on traditional piers, which can be expensive, congested and inconveniently located. Livett's also see that this craft will be useful for Thames filming needs, and complements the existing fleet of camera boats, safety boats and workboats.



The landing craft Bravo Lima GB (Livett's Group)

The *Bravo Lima GB* has very small draft and an opening bow door makes it suitable for use on all river foreshore and wall work including surveying. Drive on and off is also feasible for small vehicles.

Ed Livett reported "We are very excited to welcome the first purpose-built landing craft to the Thames. We strongly believe the boat will be a great asset to the local marine industry and we can't wait to see it in action!"

In the press

CEMEX reduces HGV use

The publication *'Motor Transport'* featured the CEMEX deal with CBOA member Walsh River Freight Partnership to shift aggregates by barge on the Thames. It reported that barge carriage will operate one barge service per day, with each loaded boat carrying 400 tonnes, saving the equivalent of 20 HGVs travelling across the centre of London between CEMEX's wharf at Dagenham to its Readymix plant at Fulham. The deal is a new 5-year partnership contract, and interesting to see it publicized in a road transport journal!

Joe Gifford, Walsh MD described the deal as a "win-win": "Not just for CEMEX and Walsh, but also for freight transport, construction and the environment," he added. "Moving essential materials via the River Thames has numerous advantages – reducing lorry miles, less congestion, lower emissions - whilst at the same time helping to meet London's demand for materials for redevelopment and regeneration." A 75% CO₂ saving is calculated compared with road transport, demonstrating CEMEX's Future In Action commitment to net-zero CO₂.

London's wharves busy

The April issue of *Coastal Shipping* contained several references to wharf activity in London during February. The CEMEX jetty at Dagenham had seen several imports of stone from the Raynes jetty with 3 ships. Three ships delivered stone to the Eurovia jetty from Belfast. Scrap had been loaded by several ships at Barking's docklands wharf for delivery to Southampton.

Gantries 5 and 6 for a tunnel boring machine has been delivered to Chambers Wharf, Bermondsey, for the final 5.5km section of the super sewer running between Chambers wharf to the pumping station at Abbey Mills, River Lee.

On the Medway there were 17 berthings in December and 16 in January. The Scotline wharves on the Medway handling mainly timber from Varberg or Riga with an occasional cement cargo from Aalborg.

Mainmast featured in Yorkshire Post

The Post started by commenting in May that "few people will realise what work the green and yellow (CBOA member) Mainmast barges do – or that the industry they play an integral part in has been part of the city's life for centuries". Fair comment probably!

The oilseed rape is growing in the fields around Hull is not a new invention – the crop started to be imported from the 1500s, mostly from Germany and the Low Countries.

The Post stated that Mainmast has two barges dedicated to carrying rapeseed oil from the distinctive 1912 built Isis Oil Mills operated by Cargill on Stoneferry to King George Dock. From there it goes to the AAK refinery, for export abroad or use in biodiesel or fish farms. When refined it can be used for frying chips, making margarines and spreads. The Croda processing site further upstream is also used.

The post said that last year Mainmast carried 130,000 tonnes in Hull, taking more than 9,000 HGV journeys off the city's roads. Andy Sanders, director of Mainmast reported "Our barges carry between 350 and 500 tonnes each trip and on average we move over 2,500 tonnes a week, that takes a lot of road congestion out of the centre of Hull."

The Post also featured the Aire and Calder oil traffic handled by Mainmast as mentioned on the front cover of this issue. Andy Sanders said that availability of qualified captains is an issue with many approaching retirement, so he is looking at training youngsters for the job of crew in addition to taking on fully qualified experienced personnel where this is possible; these measures to safeguard the future of the industry.

Roina to join Loach

CBOA member Jason Nicholls has acquired the J R Hepworth of Paull, Humberside built vessel *Roina*, to work in estuarial trading, reports Coastal Shipping, in the June 2021 issue. Built for the London and Rochester Trading Co. Ltd as *Roina*, she then was sold to JJ Prior and renamed as *Nigel Prior*. From 2010 she was reported as laid up in Colchester and later on the Medway before being refurbished and renamed with her original name for the present owner.

Overseas News

Crewless electric boats

The *Yara Birkeland* which is claimed by the operators to be the first fully autonomous and electric cargo ship will start commercial operations later this year. If successful, it could signal the start of the transformation of the highly-polluting shipping industry.



Electric cargo ship *Yara Birkeland* (Yara International)

Destined to travel between the two Norwegian towns of Herøya and Brevik and also carrying freight that is normally carried overland replacing 40,000 lorry journeys a year with the consequent huge reduction of NOx and CO₂ emissions report the operators. Geir Håøy, CEO of tech firm Kongsberg, which is responsible for the

autonomous operations of the ship, is pleased to be representing this major technological and sustainable advancement and sees it as an important next step for the entire maritime industry.

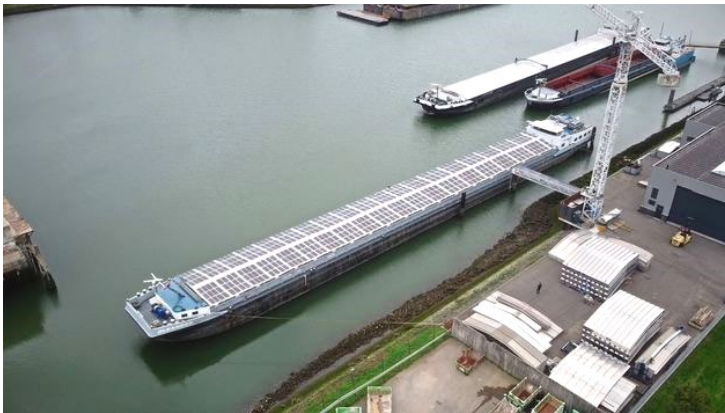
The ship has a huge 7MWh battery which provides motive power, with a top speed of 13 knots and a cargo capacity of up to 60 containers. It is likely however that maintaining top speed for long periods would significantly reduce the vessel's range in between charges of course.

Meanwhile in Amsterdam there are plans to trial an autonomous vessel for collecting rubbish and also passengers, but one assumes not with the same vessel. Called Roboats, Stephan van Dijk, the director of innovation at the Amsterdam Institute for Advanced Metropolitan Solutions, which is collaborating with the Massachusetts Institute of Technology, said the technology was "very relevant in highly complex port operations, where you have a lot of vessels and a lot of ships and a lot of quays and piers. There you can really improve the safety with autonomous systems, but also make it more efficient and into a 24/7 operations approach." Manoeuvring through the very busy canals of Amsterdam, full of private and tourist boats will be a challenge.

The electric Roboats have propellers and four thrusters and is battery powered. The speed will be about 4mph and can run for 12-24 hours, depending on the battery type and cargo load. On board cameras and sensors detecting moving and stationary objects input to the computer for steering and control computation.

Solar hatches for inland shipping

The Rotterdam start-up Wattlab says it is making inland shipping more sustainable. By fitting solar panels to deck hatches, a large area is covered with them providing electricity for the vessel, eliminating use of generators at night, for navigation and other purposes, giving the captain and crew once again a silent night, just like old times.



Solar hatches by Wattlab (Wattlab)

Development by Wattlab has means wafer-thin lightweight solar foils and bendable robust solar panels can be made in any random shape. Despite traditional or conservative attitudes by captains, it did not take long for several of them to see the benefit and want to use the technology. It has been designed for a harsh environment; a characteristic needed by our industry. The financial return time for a captain is about 5 to 8 years say Wattlab.

Holland to convert container vessel with hydrogen fuel cell

Rotterdam-based firm Future Proof Shipping (FPS) is commissioning the Holland Shipyard Group (HSG) to convert the *Maas* at 110 x 11.45m to a new hydrogen-powered fuel cell propulsion system at the shipyard at Hardinxveld, Netherlands. The re-fit is due to be completed by December this year, to operate a scheduled service between Rotterdam and operator BCTN's terminals in Antwerp. The refit of this vessel will reduce greenhouse gas emissions by some 2,000 tonnes of CO₂ per year.

FPS has received financial support for this refit from the Netherlands Enterprise Agency (through its Sustainable Shipping grant scheme), the Interreg VB North Sea Region Programme (via the ZEM Ports NS project) and the Port of Rotterdam Authority's 'Clean inland shipping and sustainable logistics in Rotterdam' incentive scheme. Cees Boon, an adviser at the Port Authority reports that hydrogen has excellent prospects of replacing diesel oil in the longer term as a transport fuel for inland shipping.

The refit involves removal of both main engine and gearbox, and installing a new modular propulsion system. This consists of electric motors, hydrogen tanks, a PEM fuel cell system (necessary for converting hydrogen into electricity) and a battery system. The compressed hydrogen tanks, the fuel cells and the battery system are separate units that can be removed for maintenance or replacement purposes. The hydrogen and fuel cell system will be installed in the cargo space of the vessel, with the hydrogen being placed above the fuel cell system in two 40ft containers (approximately 1000kg at 300 bar).



The fuel cell system will be triple redundant with 825kW capacity (to supply propulsion and auxiliary power) and a 504kWh Lithium-ion battery pack for peak shaving, secondary and bridging power. The system uses 750V DC.

Both HSG and FPS have distinguished themselves from the traditional market by actively seeking out and embracing projects with environmental sustainability at their core – HSG on the shipbuilding side, and FPS as a tonnage provider by offering zero-emissions vessels for charter to cargo-owners and other shippers.

The container vessel *Maas* (Holland Shipyards)

CBOA for Members

We can of course provide additional printed copies of CBOA News for companies that have several directors and staff. If this would be of interest, please let Louise Sliwinski know – contact details in the rear page.

We can also send the PDF file of the CBOA News to members if they would prefer to have this to pass to staff and skippers also perhaps. Likewise, please let Louise Sliwinski know if this would be useful.

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