

Electric Boat News

The Journal of the Electric Boat Association
(Affiliated with EVA)

Volume 4 : Number 2 : Spring 1991



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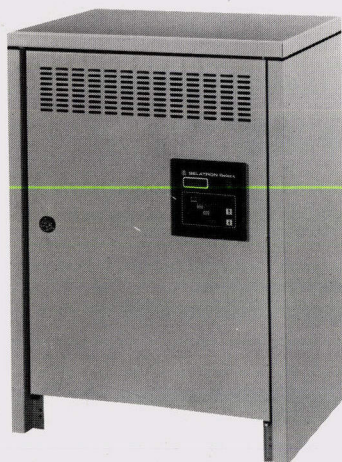
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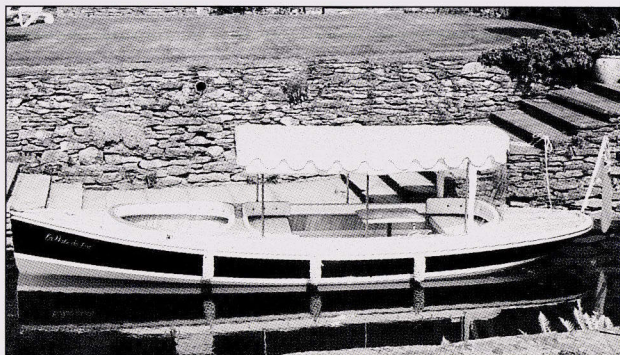


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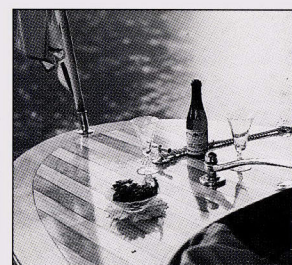
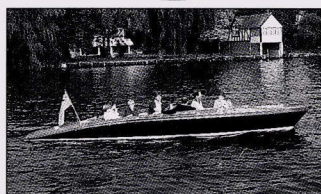
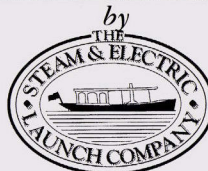
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Frolic 21 Traditional



Above: Frolic 21

left: Henley Slipper Launch

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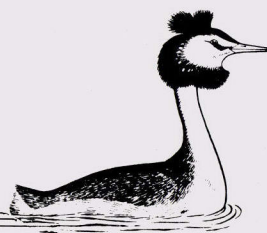
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Membership Secretary/Treasurer: Fraser Brown, c/o The Mouse Hole, Abbey Road, Knaresborough HG5 8HX.



Welcome to New EBA Members

TRADE:

Eastern Electricity plc
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BABS Business Services Ltd,
(Redditch, WORCS)
Marconi Underwater Systems Ltd.,
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P.J.D. Heaf (Wallingford, OXON)
D.S. Chamberlain (Bisham, BUCKS)

been taken and comprise many component manufacturers - batteries, motors, controllers, testing equipment. But there will also be electric trucks, vans, scrubber-dryers, personnel carriers, mopeds - and hopefully a STAELCO or TELCO on the lake.

The conference fee is £215 per person, although EBA members may claim a discount of £40 per person. So if you're seriously looking at all the technical options for your boat, here is a worthwhile visit.

(Contact Point: Janet Larkin, Electric Vehicle Association, 8 Leicester Street, LONDON WC2H 7BN. Tel 071 872 6206)

Your last chance!

The Emsworth Trophy will be awarded at the Spring Meeting



On Saturday 25th May 1991, the EBA will host the User Group's Spring Meeting at Waters Edge, Bourne End, BUCKS. This is a chance to meet other EBA user members, discuss your queries with some of our Trade members, "Try-a-Boat" and take part in an open forum on the future of electric boating. With the marquee booked and half a dozen boats prepared to give rides, there are still a few places left for this meeting, so if you wish to take part in electric boating's future, complete and return that form this week to Fraser Brown, Mouse Hole, Abbey Road, KNARESBOROUGH HG5 8HX

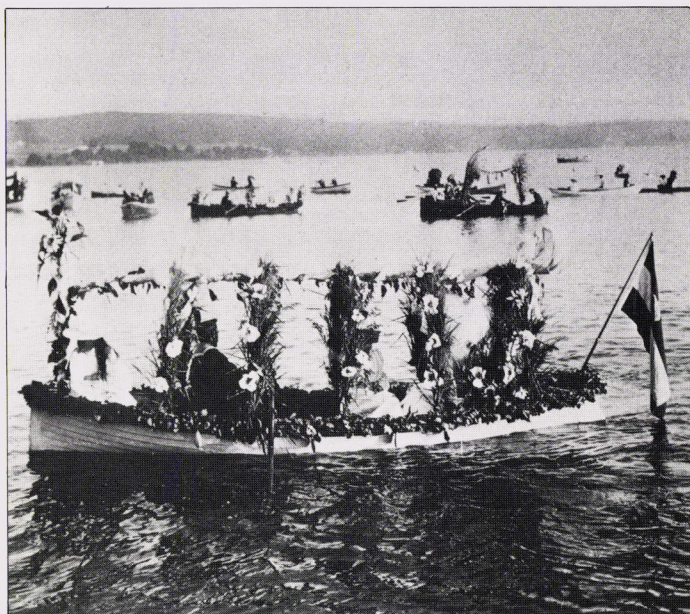


Enclosed with this issue, is a complimentary ticket for "MOVE ELECTRIC 91". According to a recent list supplied by organisers Trinity Trade Exhibitions, by now nearly all of the 57 stands available have

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16a Bridge Street, Caversham, Reading, Berkshire RG4 8AA.
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Wargrave IV

Once again, Ken Barge and colleagues have decided to host the fourth Wargrave Electric Boat Rally, scheduled to begin on the morning of Saturday June 8th, from Swancraft Marine - a fortnight after our Spring Meeting at Bourne End. Boats wishing to compete for the Wargrave Trophy should be suitably decorated - although not necessarily with flowers!



The idea of a Floral Regatta is not new as this 1901 German snapshot reveals.

The judges will be taking originality into account. They are hoping for an even better turn-out this year.
(Contact point: Mr Peter Butler on Tel: 0734 4 3614.)



Council Business

On Tuesday January 29th, an EBA Executive Council Meeting took place in the "boiler-room" of Boating Industry House, Weybridge, Surrey, thanks once again to the hospitality of BMIF. For reasons of serious ill health, Viscount St Davids tendered his resignation as Chairman of the Users' Group His Lordship explained,

"If someone else is able to take over, I would be delighted.

There is clearly a very considerable electric corpus forming up on the River Thames, of which, for example, Edward Hawthorne's house at Bourne End must inevitably be the centre." (see also tribute below).

Following a vote of thanks from President Rear-Admiral Gick, Edward Hawthorne was voted in as the new Chairman Users Group. Edward and his wife Dinnie have been interested in electric boats for twenty years. Edward's recent carefully researched paper on "Electric Boats The Way Ahead" and organisational efforts towards the forthcoming EBA Spring Meeting ("The Next Five Years") has already earned him the Association's gratitude. His Chairmanship of the Users Group was proposed by Admiral Gick and seconded by Gillian Nahum.

"I'm a bit diffident to take on this because Viscount St Davids's is a very hard act to follow" Hawthorne explained. "But I'll be happy to take on this job until such time as somebody else comes along better fitted and better able to move the whole thing further forward. We have today over thirty Association members residing in the Thames Valley. There are quite a number of people with electric boats who are not yet members. Hopefully we can increase our strength, and not only on the Thames - but also north of Watford Gap."

Membership Secretary Fraser Brown and his wife Anne, who recently mailed out some 80 membership forms, report that if all goes well this summer EBA membership should cruise beyond the 100 mark!

Also at this meeting, Viscount St Davids was made the second of the Association's three Honorary Vice-Presidents; the first is Fiona, Countess of Arran, whilst the third, also elected, was one of the Association's untiring workers in its early years: Mr Michael Mayer, formerly of the LDA.



"LSD"

Jestyn Reginald Austen Plantagenet Philipps, Viscount St Davids, Baron Strange of Knokin, Hungerford and de Moleyns has loved boats all his life. Crewing a Basque cargo boat during the Spanish Civil War, enjoying a Thames Sailing barge on the Essex Coast, crewing a square-rigger around the British Coast, stowing away to Guinea on an iron ore carrier. He also became a glider pilot above Dunstable Downs and still holds one of the earliest certificates. From his love of diving, down to four fathoms, he has built up a beautiful collection of shells one of which he has turned into his celebrated "Captain's Cup".



Lord St Davids at our Festival in 1990.

His Lordship first became involved with electric boats in 1981. "I heard about work being done by Roger Davis at Evesham. I was sure it was the only thing to do, in the long run. I had a boat built by Davis, sold a small amount of family silver to part-pay for it, hence the name Silver Sail. We cruised her up from Evesham to our home at Camden Town - her maiden voyage, including going up to Lechlade on the way (1982). Since then Silver Sail has cruised a total 365 days, covering 3,500 miles/1,560 lock gates. For the most part recharging was accomplished



using modest 13-amp power sockets. While Silver Sail originally had an Italian electric motor mounted on a Seagull leg, this was later replaced by twin Austrian Accumots, and more recently prototype Lynch motors.

As for the EBA, in 1982, St Davids, in touch with President Percy Gick and the LDA, arranged a meeting in a committee room of the House of Lords, where they officially formed our Association. Chairmanship of the Users Group happened automatically. Choosing Stoke Bruerne for the now memorable conference was on Jestyn's suggestion. Nor should one forget his several weekends of charity trips during the IWA Rally at Little Venice.

Thank you, Jestyn, for all your efforts. ■

Our Dutch Sister

In February, we received the most encouraging news that our only Dutch EBA member, Dr Hans Asyee, had succeeded in forming a sister organisation - the "Stichting Electrisch Varen". Hans and his wife Betty are hoping to be present at our Spring Meeting so that we can get some more details then. ■

Duffy comes to England

Literally days before the beginning of London Boat Show, EBA member Emrhys Barrell told me that he was awaiting urgent delivery, by ship, of an 18ft American-built electric dayboat.



Voltaire 18

If it arrived on time he would be exhibiting it at Earls Court as "Voltaire 18", built for the Thames Electric Launch Company of Goring-on-Thames by Duffield Marine." To Emrhys and Linda's relief, it **did** arrive and many of you will have been able to admire its cocktail cabinet and stereo system at the Show. Some of you may already have been given demo-trips up at Goring.

But what of its builder, 39-year-old Duffy Duffield of Costa Mesa, California?

Our story begins back in 1968 when it was suggested to a frustrated sixteen-year-old Duffy by his friend Kurt Olsen that one way to solve the problem of the unreliability of the family runabout would be to put a golf cart motor in it. Duffield's father was sufficiently intrigued by the idea to float his son a \$300 advance. So he went out and bought a dog-ridden old golf cart, took it apart piece by piece and fitted it into the runabout. On the first trial, the exposed motor with its chain-drive sparked and sputtered noisily - but the boat completed its voyage. Pretty

soon Duffy and friends were cruising Newport Bay in a mystifyingly quiet motorboat

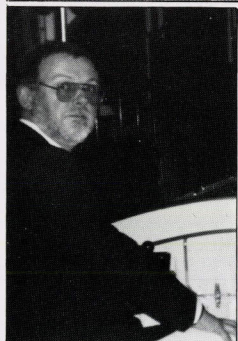
One of those intrigued was Ray Godber, especially because Duffield was using Trojan batteries manufactured by Godber's company. Encouraged to make a "water-going golf cart", with finance and contacts from Godber's brother Dick, Duffield built and sold his first boat before he was old enough to vote. By 1973, a tiny fleet of Duffy 20's had started to appear in Newport Harbour. Today, some seventeen years later, that Newport fleet alone manufactured at Duffield Marine, Costa Mesa, is 350-strong.

Duffy believes in promotion. In April 1989, to prove an electric boat's long range, he took Battery Mate on an 11-hour, 60-mile round-trip voyage from Newport Beach to Avalon, Catalina Island, before delivering it to its new owners. (This is still below the 101-mile/24 hour record achieved by Rupert Latham in his Frolic 21).

Duffy also started the annual **Great Electric Boat Race** at Newport Beach. In the third running of this competition last year, 35 electric boats competed on the Newport Beach course, competitors having to answer questions based on local harbour history. Corrected answers lead them from checkpoint to checkpoint and clue to clue around the harbour course. Clues were stuffed in slit tennis balls and lobbed to competitors, still floating if they fail to reach them. The first two boats to finish each colour-coded heat qualified for the championship slalom race, which has such amusing rules as "your vessel must pass through the buoys with your transom **ahead** of your bow."

Now a Duffy is in England with a price tag with standard features of £8950 ex VAT., and still less than £10,000 with most options. We are reminded of what happened when the first Model T Ford car, the first Chris-Craft and the first crate of Coca Cola came over from America....

Good Luck, Emrhys and TELCO.



Earls Court The Driver's Tale

Those who visited the Earls Court Show and either inspected or travelled in Cockburns, the Frolic 21 going round and round the Pool, may well have wondered just how many passengers had finally travelled on her, before her dispatch to Portugal. According to her driver, Keith Welham,:

"I carried a few more than 5,780 passengers during the two weeks of the show, taking between 6-13 passengers per trip. A total 651 trips in all. Except for the very last trip I was the only driver. The very last was Paul Wagstaffe. A lot of people liked it and thought it was fun, but there wasn't time for a quantitative reaction to it. At some points I was doing nearly eleven trips per hour. The amount of concentration involved was very significantly higher than anything I have done before.

It is difficult to assess the stress or wear and tear imposed on both the system and pilot if the ten thousand plus control operations had been effected with a cable control system with its associated higher loadings. For this particular application, the steering was a little low geared. In fact were it not for

the fact that the wheel allowed the pilot to be positioned in the optimum position for manhandling the boat past an obstructing dinghy, a tiller would have been more appropriate. The positioning of the dinghy at the end of the tunnel was most unfortunate and had I realised what the condition of my back would be after twelve full days, I think I would have insisted it be moved!

"Finally undying thanks must go to 'Albert RN' and 'Jumper' for successfully on and off-loading 11½ thousand people without mishap. After all, had I squashed a finger or got somebody wet at that show, the fall-out would have been horrendous....."



Additionally, there was a collection box next to Cockburns which enabled a donation of £450 to be sent to the Bruce Charitable Trust, an organisation for taking mentally and physically handicapped children on holiday. Trustees David and Louise Bruce have stated that the donation has been paid into their deposit account for funding a new boat (electric?) for use on the Kennet & Avon Canal.

Well done, Keith!

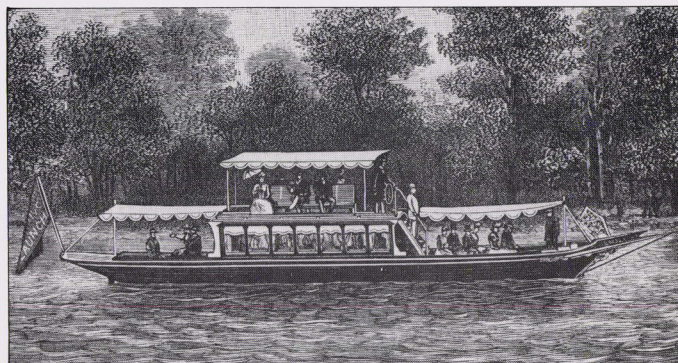
HISTORY

Viscountess For Sale

1888: "...an electric launch by name of Viscountess Bury was launched from the builder's yard, Standing Green, Chiswick on Monday October 8th. She is the largest electrical boat which has yet been seen on the Thames or probably in the world. She is intended for public use and will carry upward of 80 passengers comfortably.

Viscountess Bury has been specially designed and built for the parent company by Mr W.S. Sargeant, the electrical launch architect. She is 65½ft long, by 10ft beam, with a mean draft of 22 inches and displacement of 12½ tons. She has been constructed to unusually high standards: the hull is triple-skinned, the two inner skins being diagonally planked teak, and the outer of narrow, horizontal planks of mahogany. The keel is a single piece of American rock-elm. She is equipped with twin three-bladed propellers turning at 600 rpm, made by Thornycrofts of Chiswick. Her energy is stored in 200 Electrical Power Storage Company's accumulators of the 1888 type each of which has a capacity of 145 ampere hours with a discharge of 1-50. Computed to hold electrical energy sufficient with one charge to propel the vessel for ten hours at 6mph as regulated by the Thames Conservancy Bye-Laws. Two seven-inch Immisch motors convert the electrical energy into power, 7½ bhp at 1,000 rpm, based under the floor aft."

It is interesting to know how she came to have the name Viscountess Bury, together with the carved figurehead complete in Victorian dress and coronet. The story is as follows: the then Viscount Bury went to Canada in the 1870's, being interested in certain railway projects in that country. While there, he met the inventor Thomas Alva Edison, and



1888 at Chiswick the 20 metre launch *Viscountess Bury*.

discussed, with him, the possibilities of railway vehicles powered by the type of electric-storage batteries that Edison had devised. These were the days of London's first Underground railway - the Metropolitan Railway had been in opened in 1863 - and the early Alpine railway tunnels. In both cases, the trains were steam-operated and ventilation problems were severe. The sulphurous fumes from the steam locomotives in the tunnels of the Metropolitan Railway were notorious.

It occurred to both Edison and Viscount Bury that if railway vehicles could be operated by electric power from storage batteries, the ventilation problems in underground railways would be solved. Certainly, there would be a ready-made market for such vehicles.

On his return to England, Viscount Bury formed a company The Westminster Electric Traction Company to explore this idea. Associated with this company was none other than engineer Moritz Immisch. The company acquired the use of a length of railway track on which to test and demonstrate their electric-powered vehicles. But, in the event, these vehicles did not come up to expectations and the company went into voluntary liquidation.

However, to return to the Viscountess Bury: although the railway idea had proved unsuccessful, Immisch felt that battery--powered pleasure boats presented fewer problems. With considerable finance from the Viscount, he therefore formed the Immisch Electric Launch

Where Royalty leads, the people follow . . .

HM Queen Elizabeth II about to board *Emma* for the opening of Wigan Pier.



HRH Philip, The Duke of Edinburgh in *Patricia* at Cowes, Isle of Wight.



HRH The Princess Royal with Messrs Latham and Nahum at Earls Court.



HRH The Prince of Wales and retinue on board *Electric Eel* at How Hill.

Company (see Vol. II No.2 of "Electric Boat News").

To return to Viscountess Bury: For the first four seasons after her completion "the world's largest electric boat" was stationed at Windsor, and was on charter to the Prince of Wales, afterwards King Edward VII. Viscount Bury was a close friend of the Royal Family.

By 1895 Royalty had finished with her, and the Viscountess Bury became a public passenger launch. To enable her to carry more passengers, various modifications were made. Exactly when the electric drive was removed and a petrol motor substituted is difficult to discover, but by the year 1910 when H.C. Banham of Cambridge, acquired the boat, the original twin screws had given place to one, and the petrol engine, of 20 hp, had taken over. The Viscountess was then taken from the Thames on a near-disastrous sea voyage to King's Lynn, thence to Ely where she has remained, for eighty of her 103

years, plying the Rivers Cam and Ouse between Cambridge and Denver. She has "got through" a number of engines, and her latest is a 50 hp diesel

To-date, no-one has conceived of returning her to electric propulsion, but a chance may now be in the offing. Viscountess Bury in some need of repair, is currently up for sale, price £70,000. Any offers to **Mr Dan Weller, Viscountess Marine, 109, Victoria Street, Littleport, CAMBS. Tel Ely 0353 862171.**



The *Viscountess Bury* on her moorings at Ely.



STAELCO NEWS

Cockburns' builders enjoyed an encouraging Earls Court Show, where they won the Best Stand Award and received fifty percent more enquiries, following up with a stand at the Birmingham Boat Show.

In Norfolk, Pennant Holidays part of the huge Leisure conglomerate, Mowet Group plc, will be trying out two electric boats this year. Pennant have stated their serious interest in working with STAELCO and the Broads Authority on longterm development of the weekly hire cruiser.

In the English Lake District, Coniston Boating Centre has now taken delivery of its first two Mystics. There will also be two Frolics delivered to Lake Windermere for a new company calling itself the Windermere Electric Launch Company.

Two Mystics have also been dispatched to the Loch Erne Boat Services, near Belfast to start up **Northern Ireland's first electric hireboat operation.**

Finally, on April 22nd in Norwich there is to be a Seminar on electric boats and the electrification of the Broads, organised by the Broads Authority and Eastern Electricity, open to all electricity companies, boatbuilders, and electric boat users. (A report in our next issue).



NRA

Charging Points: What & Where?

*by User Group Chairman,
Edward Hawthorne*

"Interest in electrically powered boats is growing rapidly." - "Charging facilities installed now will have to meet boating needs for many years to come.

These two comments were faced at a recent meeting hosted by the NRA in Reading. Also present were representatives from BWB, BMIF, Electricity Companies, Electric Boat Builders, Hirers, Marina Operators and the EBA.

13 amp charging points are out. 16 amp maybe catered for during the next few years but the future seems to be with 30 amp points. As bigger cruisers go electric, users can be expected to want heavier charging in less time and even small charges during a short stop. Maybe a way could be found of safely splitting a 30 amp

supply into two 16 amp points. At present, marinas provide 16 amp sockets but should they be putting in some 30 amp points as well? There was however a general consensus that payment should be by "telephone" type cards, thus avoiding the search for coins, vandalism of coin boxes and the costs of collection.

WHERE?

Nobody really knows where charging points should be installed. Eastern Electricity are developing a computer programme for the hire boat business which will provide a starting point for setting up a chain of charging points on the Broads. If a boat can use "opportunity" charging during the day or be fitted with a hybrid system, it may then be moored overnight anywhere rather than at specified charging points. Now is the time for EBA members to make sure that their requirements for charging locations are made known.

COSTS

Installing charging points is not cheap. So there needs to be a sustained effort to get all sorts of waterside interests, involved: councils, pubs and restaurants, riparian owners getting mooring fees, conserv-

ation bodies and boat hirers themselves.

STANDARDS

At present, only the BWB has standards for installations on board electrically powered vessels. These requirements are pretty wide and mainly refer to British Standards and IEE regulations. At Reading, it was agreed that more comprehensive guidance is needed, particularly regarding gassing, prevention of battery shorting, connection methods and cabling specifications. Whatever standards emerge, it is important that they don't inhibit the development of electric boats. Standards have been talked about for more than ten years. It is charging points that are now needed. Should the EBA now **support** the 30 amp point with the proviso that some of the installations should be capable of taking 16 Amp also? Where do **you** want charging points to be installed? **Please send your suggestions to the Chairman. EH.** ■

SOLAR AFLOAT

by EBA member, Theo Schmidt

1990 saw more solar boat races than ever before, with about ten competitions held! Most of these were in Italy, with several Switzerland and a couple in Germany.

THE EUROPEAN CHAMPIONSHIP

An ambitious programme of racing was carried out at six venues in Italy and Switzerland: Milano, Como, Torino, Venezia, Lago Maggiore and Lago di Lugano.



Solar sport on Lago di Lugano.

These were all weekend races with two legs of usually 20-40 km each as well as sprints and slaloms. Participants could collect points and the team to collect the most was designated "European Champion". This title was won by Roland Spitteler from near Zurich with his modified Canadian canoe and custom-built drive. This boat was consistently fast even if a few others had slightly higher sprint speeds and well deserved the prize (about £1000 + expenses). Otherwise it was not very clear who deserved what. The organisers did distribute some rules proclaiming the races to be solar, ie. no other charging or changing of batteries allowed, but didn't enforce them. Several competitors were seen switching batteries or even charging from a noisy petrol generator! Much money was spent on the well-being of competitors and press with free hotels and food, so a good time was had, but in spite of lengthy speeches by local politicians, the environmental message has not yet been understood. Not only were the races timed in such a way as to almost maximise the driving distance between them, but a noisy and annoying helicopter was laid on which wasted more energy than the whole fleet could spend in a lifetime. Information was always on short supply and no results lists have been forthcoming. However in spite of these criticisms, we must be grateful to sponsor Longines for promoting solar boating in such a relatively big way, even if this type of "advertising circus" was not enjoyed by all.

THE SWISS RACE

A complete contrast was the race held on the Swiss lakes on August 25th/26th. Rules were published well in advance, conforming to most other solar boat rules so far, except that here **sailing with the solar panels was expressly allowed, not that anyone constructed with this in mind or was able to gain any advantage from this rule.** ►

After several thousand km solar boating, Mathias Wegmann reckons that the average daily range of a good solar boat is well above that of most sail boats in our latitudes. The Swiss race, which was organised by the Neuchatel section of the Society for Solar Energy, was in two legs with a total distance of about 50 km. The three lakes are connected by two canals and the race was very pleasant due to the variation in scenery, the course being from Murten to Neuchatel to Biel (incidentally the home town of the winning solar vehicle in the 1990 World Solar Challenge in Australia). 14 boats were entered, 7 each in the "prototypes" and "series" categories. All but one finished the first leg and all but 3 the whole race, in spite of the poor weather with heavy overcast and frequent drizzle. The winner, Michael Gallay in Scholl's large planing catamaran, averaged 6.5 knots, the last to finish, yours truly on Josef Jakober's converted "Seacycle" catamaran at 3 knots. We had not checked the batteries prior to the race and 2 of the 4 failed completely within minutes of the start. The fastest sprinter, a combined Wegmann/Witzemann/Schmidt light plywood trimaran put together in two weeks, could achieve 8-10 knots but couldn't finish the course due to the lack of any controller other than a rheostat!

"Venezia"

On January 30th, the manufacturing group (Alutekna, Ansaldo, Magneti Marelli) which sponsored E.1, the vaporetto ecologico (environmental waterbus) presented a report on its first year of service (3,000 hours trouble-free running up and down Venice's Grand Canal) to the Authorities of that Northern Italian city. The latter is now seriously planning to part-finance the construction of an additional sixteen waterbuses, together with a complete recharging station. The ultimate plan is for thirty. Whilst main re-charging will take place overnight in the "power house", there will also be a fifteen-minute opportunity charge every 3 hours. With 40% of the finance supplied by the EEC. Once the go-ahead has been given, construction of the first batch at the Scardellato Shipyard should be at the rate of one waterbus per month.



Alas, poor *Basilisk*

Roland Spitteler and Hermann Bayer, both consistent winners, are combining to make a solar boat for cruising along the coast of Florida, USA. Mathias Wegmann had completed 98% of his planned journey from Basel, Switzerland to Ibiza, Spain when *Basilisk* came to grief. During an attempted crossing from the Spanish Coast, poor winter weather left *Basilisk* drifting until Wegmann had to hitch a lift on a passing freighter, abandoning his beloved solar boat. Commiserations!



MotorGuide



For trolling anglers wishing to stand up in their small boat and remote-control their power, what better than the foot-controlled, bow-mounted MOTORGUIDE FB28 electric outboard - the only one of its kind in this country. Our new Trade members, BABS Ltd of Redditch, are the UK agents for

the Motorguide line - with a thrust range of 18-34 lbs for hulls between 10-22ft, and a price range of £149-399. With their permanent magnet Whisperguide motor, Motorguides have been built for the past 26 years, currently by Zebco at Tulsa, Oklahoma, a division of the Brunswick Corporation.

They have weedless props (Hannon System 2) and their own unique propulsion system. A switch control on top allows you to select 5 forward and 2 reverse speeds; models fitted with a DuraAmp 2 (cruise control) have a touch slide variable speed control. The best feature on some models is that the power draw can be adjusted to match the speed set and the work load. By using a series of electronic pulses fired at precise intervals instead of a constant draw, the charge life of the battery is extended by up to 250% - a healthy 10 hours of use.

Yerman's Discovery

A new development in electric motor technology has the potential of extending battery life two-fold, says Ronald R. Yerman president and CEO of Photon Systems Inc. The principle behind the development is that a battery will partially recharge itself whenever current drain stops. Yerman's electric propulsion energy management system incorporates a microchip that senses the energy levels in a pair of battery banks and regulates switching back and

forth between banks at optimum times allowing each battery the chance to bounce back between discharge periods. The company claims 12-14 hours use out of six batteries when running at a reasonable speed. The system uses standard deep-cycle marine batteries and 12- or 6-horsepower DC electric motors. An electric outboard motor and inboard sail and powerboat systems are available from **Photon Systems Inc. 1303 Dockside Place, Sarasota, FLORIDA 34242 USA. Tel 813 349-2534.**

Good News from Hurley

Peter Freebody & Co, the Hurley (Berks) boatbuilders, are currently restoring Kelpiette (1912), a 36ft "umpire's launch"-style dayboat. When ready she is to be fitted with a 3kW electric motor. In February, four Freebody boats went on view at the Boating, Caravan and Leisure Show at NEC/Birmingham. For one of them, Electricity,

this was her first public exhibition since she was originally shown at Olympia back in 1924.



US Challenge . . .

In "Propeller" magazine, the official journal of the American Power Boat Association, President Edgar Rose has been encouraging his members to build a powerboat to break Lady Arran's Electric World Water Speed Record average of 50.8 mph for the Kilometre. Rose states that the only electrically propelled US powerboat to exceed that speed was Jim Auguston's radio-controlled scale model with 61.788 mph at Marysville, Washington on October 20th 1990. The measured distance? 1/16th mile! Whilst we have also received serious interest in Lady A's Record from students at the Engineering Faculty of Turin Polytechnic, Italy, it was good to hear that during the two-day Racing Powerboat Show at Weymouth (UK), just over 3,000 visitors filed past what by now has become an immensely famous hull. This is all good stuff for the An Stradag design team, especially Cedric Lynch, who has further improved the performance of his 34 Kg racing engine to give even more power...

Dundas Developments

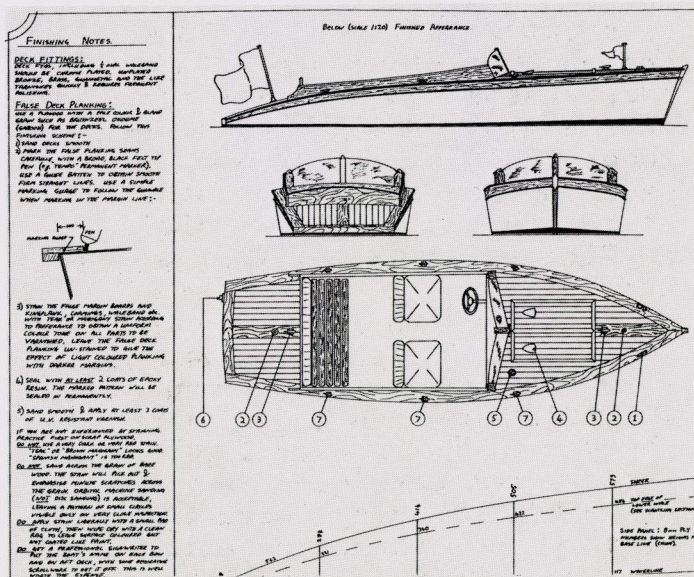
Tim Wheeldon's Bath & Dundas Canal Co's day-hire fleet on the Kennet and Avon Canal goes from strength to strength. Alongside Dundas Delight, Dundas Dream, Dundas Dabchick and Dundas Isgolden, they now have Dundas Duck (ex-Wireweed from the Concoform fleet at Weedon on the Grand Union Canal - advertised "for sale" in "EB News"). Tim tells us that after the 1991 Season, they will be giving up narrow boat hire and concentrating entirely on electric day boat hire, with a further expansion of their fleet. Tim sent us this information to help swell **OUR ELECTRIC BOAT SURVEY**.

Have you sent us **YOUR** entry yet? ■

DIY Electric Slipper!

From EBA member, boatbuilder Charles Beddingfield of Wirral, Merseyside, we have received interesting details of DIY plans for the Daisy 16, a small slipper launch designed for building at home. Charles explains,

"I designed the D16 in response to comments received at the 1990 Wooden Boat Show, when many people said they would like to build or own a proper river launch like the Daisy 20 which we exhibited there, but smaller so they could build it at home, trail it easily and store it in the garage to save mooring problems."



Although most slipper launches are well over 20' long, Beddingfield wanted to design a boat that would still be well proportioned and look like a proper slipper launch despite the reduced size. For ease of building, D16 has a flat-bottomed hull form similar to the original Andrews launches, and the plans show the method of assembly developed on the Daisy 20. Part of the framing is glued into place on the flat panels before they are set up to form the hull of the boat. The remaining framing is arranged so that each piece is simply a straight piece of wood, fitted after the panels are erected and

requiring no bevelling and no joints at the chine. Combined with epoxy adhesives this method makes a very strong and quickly assembled hull, so that the home boatbuilder can produce a substantial boat without taking so long that the project becomes a burden. Other details worth noting include the false deck planking which gives the boat a traditional appearance, and the epoxy bonded GRP sterntube which avoids the need to bore an accurate shaft log. Both are fully described in the plans.

A practical building time for one man with occasional help is around 280 hours, so even allowing a generous margin for slow workers it should still be a one-season project. The cost of good quality materials, including sterngear and fittings is about £1300 + VAT excluding engine. The plans are printed on four sheets and all measurements can be made straight onto the wood; tedious lofting and messy paper patterns are unnecessary. Charles Beddingfield concludes:

"The plans are very detailed, and when you consider that a set represents some 200 hours of design and draughting work, I think the price (£50 per set including postage to any part of the world, VAT not applicable) is very reasonable."

Plans will be despatched by first class post on receipt of a personal cheque, eurocheque, bank draft, postal order of cash to the appropriate sterling value. **Charles Beddingfield, 9 Sheringham Close, Upton, Wirral, Merseyside L49 4LJ**

(Whilst Beddingfield recommends a 1.5 kW electric motor for the Daisy 16, technical tips for electrifying a boat such as this are available from the Chairman, although please enclose an SAE.) ■

Minn Kota "Turbo 65"

Minn Kota's latest addition to the family, uses a combination of interpolar magnets and a 12 segment armature to compress magnetic fields and eliminate dead zones and surges caused by

field fluctuations. Its 36 lbs thrust, weedless prop, hydrodynamic shape, telescopic grip and quick lock height adjustment all retail for just £293.25 (inc VAT).

(Contact: **Thompson Electric Outboards, Windy Ridge, Old Guildford Road, Frimley Green, SURREY GU16 6PH. Tel: 0253 335228**) ■

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MotorGuide

ELECTRIC OUTBOARDS

ARE SILENT AND POLLUTION FREE

A warm summers afternoon on the river, birds sing overhead, dragonflies buzz by, cattle low in the fields, lambs play and all is right in the world – all is peace and tranquility.

You motor by effortlessly, noiselessly, even the moorhen ahead has not heard you coming.

A dream? No – a reality!

The fact is that in the USA fresh water users have been moving silently, on the water, for 26 years. MotorGuide outboards are the 'state of the art' with their revolutionary stirrup head design with a squeeze on/off trigger control. A separate switch is used to select forward or reverse. On the DA models there is a touch slide variable speed control.

No wonder these are the most popular electric outboards in use in America.

Model Number	Thrust Lbs	Speeds	Column Type	Max. Boat Weight Lbs	Dura Amp 2	Price
HT18 12v	18	5	30"Ch	1350	No	£149.00
HT24 12v	24	5	30"Ch	1800	No	£189.00
HT28 12v	28	5	30"Ch	2100	No	£229.00
HT24 DA 12v	24	Variable	30"Ch	1800	Yes	£239.00
HT28 DA 12v	28	Variable	30"Ch	2100	Yes	£279.00
HT34 DA12V	34	Variable	30"Ch	2550	Yes	£339.00

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