

ELECTRIC BOAT *News*

The Journal of the Electric Boat Association

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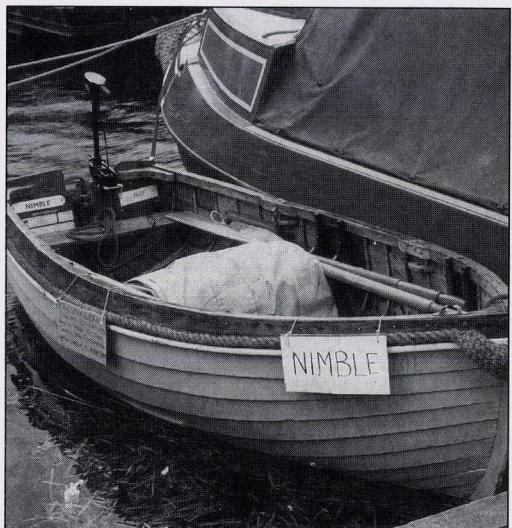


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IWA National Festival

Eco Boat '97



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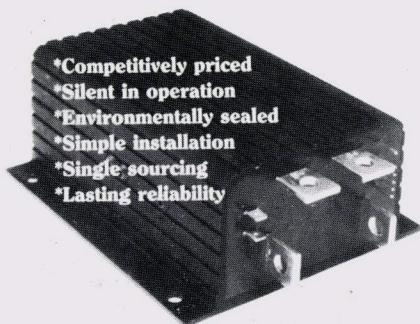


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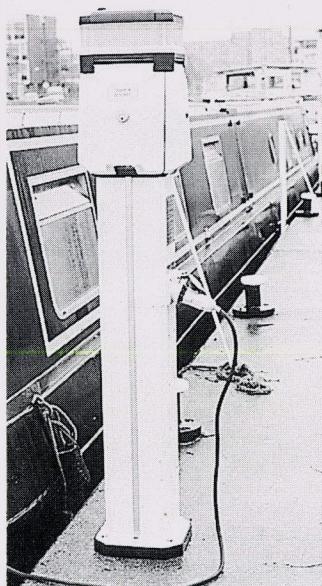
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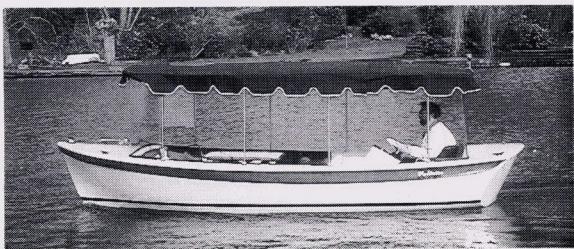
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EBA CALENDAR 1997

Some of the events which may be of interest to EBA members. The EBA may be present at some of the events, perhaps with its own stand.

1997

AUG 22-25 National Waterways Festival & Inland Boat Show, Henley-on-Thames.

Cookham Regatta.

SEPT 5-7 Boating for the Future, Conference & Exhibition, Wroxham.

SEPT 13-21 Southampton Boat Show.

OCT Laying-Up Supper (for details, contact EBA Secretary).

1998

JAN 8-18 London Boat Show.

FEB 14-22 National Boat, Caravan & Leisure Show, Birmingham.

For further details of any of the above, or notice of other events, please contact the Secretary.

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Electric Boat News welcomes contributions from readers and members. If you have anything you think might be of interest, please send it in. Bear in mind however that due to circumstances sometimes beyond our control, we cannot be held responsible for any damage or loss which may occur to this material.

Items of interest include letters, reports on rallies or events, reports of particular cruises or trips, articles or advice on building or running electric boats, and reports on items of equipment. We also welcome manufacturers' reports on new items of equipment or boats.

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The Journal of the Electric Boat Association

Volume 10 No. 4 Winter 1997

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Cover pictures: *Main picture* (Tony Ellis): Malcolm Moss running trips aboard his solar powered boat SB *Collinda* at the Eco Boat '97 event in September.

Malcolm made a successful 'solar-only' crossing of the Channel in July (see page 2)

Smaller picture: (Tony Ellis): *Nimble* at the IWA National Festival at Henley in August (see page 2). *Nimble* was trailed by EBA Member Peter Boyce and is powered by a Johnson electric outboard.

The Chairman writes.....

Well folks, as I write this we are in the middle of the laying-up season and I wonder where all the time has gone.

The last few months have certainly been busy for the EBA particularly in view of our involvement with the Inland Waterways Association National Festival at Henley in August and the Eco Boat '97 Conference and Show at Oulton Broad in September. I am pleased to welcome new members - both trade and private individuals - who have joined the Association as a result of our involvement with these events.

As a result of this obvious success in promoting the cause of electric boating, your Committee is now planning a strategic programme of attendance at similar events during 1998. These events are fun but demand time and commitment from your voluntary committee and supportive members. Anyone interested in assisting with the programme for 1998 should contact our energetic Secretary, Barbara. Also, if you have any ideas about events we might consider attending then please tell us.

I take this opportunity to thank our outgoing Editor, Roy Devereux for his sterling work in bringing EBA News up to such a high standard of professionalism and quality. He will be missed but I feel sure that we shall continue to see him at local EBA events.

I also welcome our new Editor, Tony Ellis. This is his first issue and I feel sure that Tony will build on the strong foundations laid by Roy and that EBA News will go from strength to strength.

A Merry Christmas and a Prosperous New Year to all our readers. Have fun dreaming of the 1998 season and take the opportunity to study all the new gear at the London/ Birmingham boat shows.



Phil Horsley, Chairman

..... and the Editor

Although I have yet to meet many of the members of the EBA I already feel so much a part of the organisation, having been involved since high Summer in the Henley event, Eco Boat and the endurance record - all of which I report in this, my first edition.

Electric boating is a relatively new field for me although I have been aware of its growth since coming into contact with Admiral Gick in the 1970's while I was working with the Water Space Amenity Commission. I have been involved in various aspects of boating and the water in a personal and professional capacity for over 30 years and find the challenge of following Roy Devereux into an area of such technical complexity a challenge indeed!

It is clear from the Eco Boat '97 event and the news from Holland, Switzerland and elsewhere that (a) we are not alone and (b) we can learn a great deal from the experience of others. This is true, particularly in the methods of sowing the seed corn that will stimulate public interest and acceptance of electric boating (whether solar or battery) as a feasible method of propulsion.

From my short time in this area even I can sense that we are on the verge of great things. The Channel Crossing by Malcolm Moss, the decision by BP to increase its research into solar energy are both indicative of a shift in opinion. Your Committee is set to consider the way ahead very shortly and I know you will wish to support them in making electric boats the automatic choice in certain areas - for the benefit of both the user and the industry that must grow to underpin this development.

Finally, may I say a big Thank You to the Committee and the Members of the Association who have made me feel so welcome. I trust that this first issue will repay your generosity.



Tony Ellis, Editor

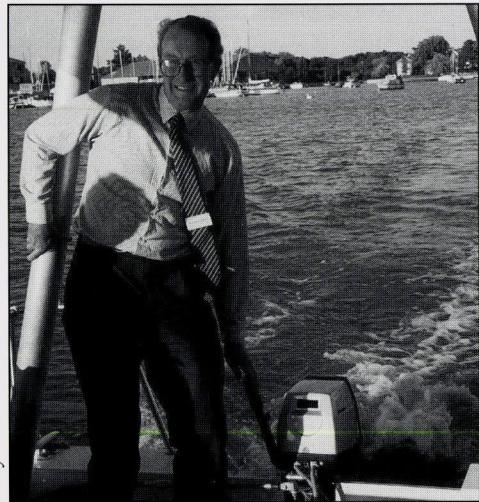
Solar success

S.B. "Collinda" makes solar Channel crossing

As reported in the *Stop Press* in the Autumn edition of EB News, Malcolm Moss made a successful one-way solar powered crossing of the English Channel on the 22nd July 1997 aboard SB "Collinda". The voyage between Dover and Calais was achieved in 6hrs 15mins under solar power alone (batteries disconnected). This voyage is seen as a major first step towards the successful achievement of the EBA Solar Cross Channel Challenge.

"Collinda" is a modified version of the successful Rapide 600 hull produced by Modular Mouldings of Gweek in Cornwall, with the addition of a canopy holding twenty 70W solar panels. She made a trial run across the Solent to Cowes in choppy seas several days before the Channel event when Malcolm decided to take advantage of a window of fine weather and the availability of a support boat.

During the Channel crossing broken cloud was later followed by hazy sunshine with the boat obtaining 830W at 13.00 hrs and 905W at 17.00 hrs. In the best conditions, the 1.4W solar panels produced 945W and a speed of 3.4 knots. Even at the end of the journey at 18.20 hrs 625W was being achieved.



Malcolm Moss at the tiller of "Collinda". Note the supports for the solar panel canopy.

TECHNICAL INFORMATION:

Crossing distance: 21.5nm (24.47 miles)
 Average speed: 3.4 kn (3.9 mph), Max speed: 4.32 kn
 Crew: 2
 Boat: loa 6.1m, lwl 6m, beam 2.44m
 Energy consumption kw/hr: 4.7kW
 Solar system: Solarex, twenty 70w panels. Output voltage: 27v Output power: total 1.4 kW
 Outboard: Lynch Motor Co. Input kw at rpm: 4kw
 Controls: Curtis

EBA at IWA

Success at Inland Waterways Association National Festival

This year the Inland Waterways Association National Festival and Inland Boat Show was held on the Thames at Henley for 4 days over the August Bank Holiday. It is estimated that between 30 and 40,000 people visited the event. Over 600 boats were present. The EBA was represented with a stand sited in a prominent waterside position.

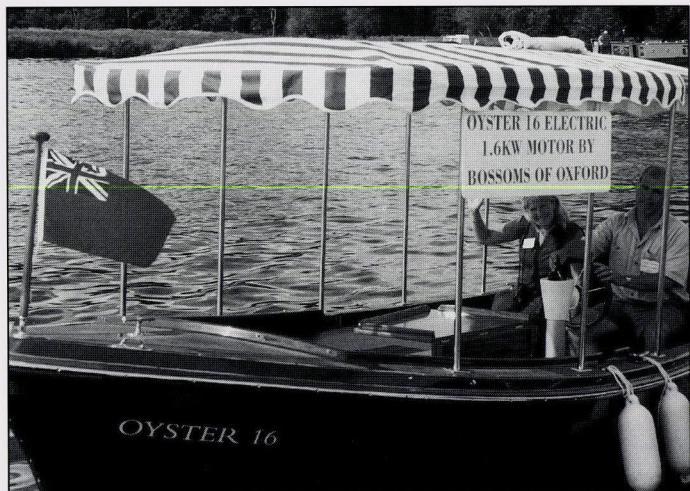
The Chairman of the Association reports:

"Our stand was manned by Committee Members throughout the weekend and our particular thanks go to Secretary, Barbara Penniall who attended all four days and to Jim Keating who left his family on holiday in Norfolk to be with us for a day."

"The prime purpose of attending the festival was to capture the interest of visiting boaters and the general public. In my opinion we achieved our objective. Over 450 leaflets were issued together with back copies of EB News."

"Sales of stock totalled £46 and Watershed Ltd signed up as a new trade member during the show. Contact was also made with further potential members, both trade and private individuals. Our position also enabled us to act as reference source for electric boating at the festival, giving us the ability to steer potential clients in the direction of our trade members."

"Next year the festival will also take place over the August Bank Holiday and will be held at Salford Quays, Manchester. It is intended that the EBA should also be represented at this event, with the opportunity to promote electric boating in the North."



Barbara Penniall, EBA Secretary takes time out during the IWA Festival to try the Oyster 16 electric launch demonstrated by Richard Caldwell from Bossoms of Oxford.



Electric Boat sets new World endurance record of 100 miles in 24 hours

Paul and Pat Wagstaffe and their 29ft electric cruising launch *Wagtail V* were the star players in a new attempt on the World Endurance Record on the 15th-16th August 1997 set up by Emrhys Barrell and his Thames Electric Launch Company.

The record of 100 miles in 24 hours was established on the River Thames over a measured distance between Goring and Wallingford, starting at 12 noon on the Friday and ending at 12 noon on the Saturday. The distance covered consisted of 12 laps of a nine mile course, up and down stream to balance the effects of the current. Relays of teams to man the boat through the test period included Emrhys and Linda Barrell, Paul and Pat Wagstaffe, Cedric Lynch, Keith Langridge, Phil Horsley and Tony Ellis.

Wagtail V was fitted with a Lynch electric motor, which provided high power and efficiency, combined with low weight and size. The latest extended-range traction batteries from Chloride Motive Power were also installed, giving an extra 20% extra range and performance over more conventional batteries. The cost of the power consumed during the 100-mile trip was less than £1.50 and it was estimated that at the end of the test there was still sufficient energy left in the batteries to carry the boat for a further 16 miles.



Tony Ellis
The endurance team stand next to *Wagtail V* at Goring.

Even our logo - the Great Crested Grebe - gets a look in

Association News



Tony Ellis



Members of the Middle Thames Region relaxing on the foredeck of Showboat at Harleyford on the 19th October
(inset) Clivella Legato and Irene moored ahead of Showboat

Middle Thames Region

Derek Chamberlain and his Middle Thames Region have been busy this year. A lunchtime picnic and barbecue get-together was held on the 3rd August at Cliveden. This was followed by another lunchtime meet on the 31st August on board the *Showboat* at Harleyford, above Temple Lock. This was repeated with a further gathering of a dozen members at the same venue in magnificent Indian Summer weather on Sunday 19th October. Three electric boats, including *Irene* (Ian and Sylvia Rutter), *Legato* (Derek & Hilary Chamberlain) and *Clivella* (Ron & Margaret Callard) were brought to the gathering and moored ahead of *Showboat*.

A further meeting is planned for the early Spring and initial thoughts are that this event will consist of a presentation by John Amos and Roy May from Bisham Abbey on the Boat Safety Scheme and the particular needs of electric boats. Further details can be obtained by ringing Brian Pickess on 01628 823089.

All Thames Region Members should note the following change concerning the Environment Agency Maidenhead Navigation Office:

The telephone number of the Environment Agency Maidenhead Navigation Office is now 0118 953 5577
Environment Agency Lock & River Closures

The Environment Agency has issued the programme of lock and river closures for the Winter period. River users should contact their local navigation office to check on the progress with works or ring the Navigation Information Line on 01189 535520

East Anglia Region

The new East Anglia Region under the direction of John Williams held its first meeting on the 1st June. A further meeting during the winter season is being planned. Anyone interested in participating or contributing to the work of the Region should contact John or Sandy Williams on 01692 580953

Efficient Electric Boats

Jim Keating gives his views on the current use of control technology on electric boats

It is true to say that present day industrial control technology is far superior to that in use when electric boating was first popular at the turn of the century. It would also be true to say that present day electric boats have not kept up with the control technology now available. It is essential that the boat industry of today should commit itself to improving the efficiency of electric boats so that they achieve their full potential and thus enhance their popularity.

Boats lend themselves to electric propulsion more readily than any other form of vehicles because:

1. *the relatively low speed and hence the low power requirement;*
2. *battery size is a smaller proportion of the volume of the boat, unlike the space demands on battery powered road vehicles;*
3. *battery weight is not so critical as there are no hills involved;*
4. *range between charges is less problematic.*

Efficiency is all important in electric boating due because batteries can only store about 2% of the energy that could be stored in a fuel tank of a similar volume. The propulsion efficiency must be improved from the present 55% on a good installation (to as low as 15% on a bad installation). Increased operational efficiency results in increased range from batteries, and to this end we need efficient system monitoring.

We have electronic speed controllers, ammeters, and units to monitor the battery state of charge. However, the market does not offer a unit which will enable the boat owner to confidently **predict** his range, constantly update and

efficiently monitor and report during the voyage, or control the battery charging while the craft is on its mooring or laid up for the winter.

A digital microprocessor is required to bring the original 19th Century electric boat technology firmly into the 21st Century. Such a product incorporating liquid crystal display and a key pad could be used in conjunction with existing control equipment, provided that this is sufficiently high-tech to produce the level of information required to monitor the performance of the boat. To obtain the ultimate benefit from the microprocessor it should be fully integrated with a speed transducer: such features are not available commercially at present.

One might ask why it is necessary to have this information (although it is little more than we expect in our cars)? There are three reasons why the need is even greater for electric boats:

- 1. to give greater confidence to the user that the batteries will last for the duration of the planned journey;*
- 2. because of the small amount of energy stored in the batteries it must be used efficiently;*
- 3. displacement boats have an optimum speed at which they travel through the water without the need for the application of excess power. A microprocessor could indicate the point at which excess power to speed was being applied.*

With regard to point 3 above, the optimum speed is indicated by the formation of a pressure wave along the hull sides. This is a function of hull waterline length and a great deal of power is required to get through this pressure wave barrier. In general, electric boats do not have sufficient power available to achieve this extra speed.

In addition, one can see daily examples where boats are travelling poorly trimmed, generally down by the stern. This presents additional drag and the boat is essentially travelling up-hill and consuming a lot of extra power without any increase in speed. This is particularly serious on electric boats because it causes a large reduction in battery range. However, it is not easy for the inexperienced to detect how close they are travelling to hull design speed.

On installation, the digital microprocessor could be very simply programmed with the parameters of the particular boat. Starting with waterline length, the processor will then calculate and display the corresponding maximum boat speed. During the voyage if the boat exceeds 90% of this speed it might be set to display a warning that you are going **too fast**. This assumes that a speed transducer is fitted.

The other parameters to be programmed are the nominal battery volts and capacity in ampere hours. Armed with this information, the time left in the battery at current demand level could be displayed as follows:

Upstream: the time available to cruise upstream and return to the starting point;

Downstream: the time available to cruise downstream and return to the starting point;

Total time: the time available to go in one direction only, to the next charging point.

In this way it would be possible to set demand (speed) so that your voyage can be completed with confidence. Your speed does not have to be reduced by very much to make a significant difference to your range. Typically, a 10% reduction in speed might result in a 20% increase in range.

Under normal conditions, the microprocessor screen would scroll through:

Boat speed

Battery voltage

Battery current in Amps

Power consumption in Watts

Battery percentage charge state.

Pressing a key would hold any parameter and screen warnings would appear when battery volts / capacity is low or the boat is being driven faster than 90% of design speed.

A two-position key switch would enable the processor to perform two functions. One switch would control voyage functions while the other would control moored functions: with long term monitoring of the battery voltage and the automatic battery recharge timer. Such a timer might switch the battery charger on for 8 hours every 14 days. **More thoughts from Jim in subsequent issues**



us... News... News... News... News... News

Shell to invest £300m in solar research

The world's biggest oil company is to invest serious money in solar power over the next five years

In mid-October it was announced that the Anglo-Dutch oil giant, Shell is to invest £300m in expanding its capacity to make solar cells and in growing trees to be burnt in electricity generation. Jim Dawson, president of Shell International Renewables said that no other single company was investing as much as Shell in this field and their aim was to capture at least 10% of the world market for solar or photovoltaic panels by 2005.

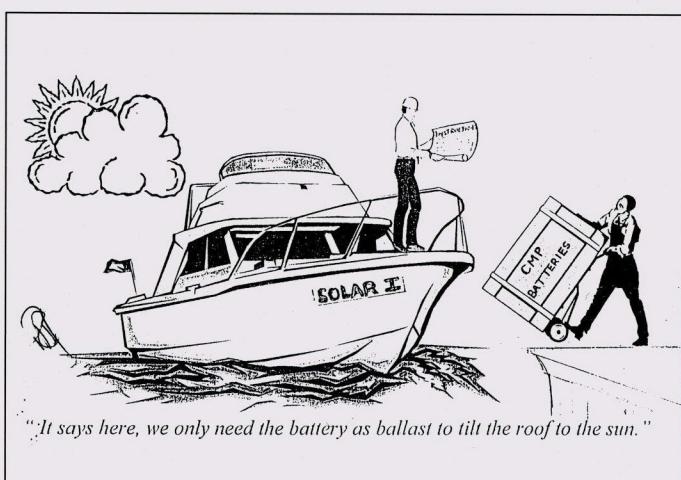
While considerable, this programme only represents 1% of the total annual investment by the company in all areas, including oil and gas exploration. It is reported that the proposed annual level of investment by Shell will almost match that currently being invested in renewables by the entire British private sector.

British-based oil giant BP already has 10% of the market in solar panels which is reported as being worth £600m a year with a growth rate per annum of 14%.

It is forecast that by 2050 as much as half the world's energy will come from renewable sources such as solar power, wind, running water and green plants, rather than hydro-carbons or nuclear sources.

It would appear that time is on our side (together with the oil companies).

Batteries or ballast?



Courtesy of our Chairman, Phil Horsley



Daily Telegraph 18th October 1997

Commute by electric canoe

Richard Hicks commuting from his home in Wargrave to his office in Henley aboard his Edwardian electric canoe Beazie. The 4 mile journey takes Richard 45 minutes but he expresses his satisfaction at avoiding the busy commuter traffic on the local roads.

Silver Sail moves North

Silver Sale, renowned for her former owner, the late Viscount St Davids, co-founder of the EBA, has been bought by Fraser Brown, former Treasurer of the Association as a Birthday present for his wife Anne. *Silver Sail*, a narrow beam craft of 27 feet is powered by the prototypes of Cedric Lynch's motors and will continue to be powered by electricity.

The boat is currently berthed at Iver on the Slough Arm of the Grand Union Canal. Fraser and Anne will be carrying out some work on the boat before she is lifted on to a lorry and transported North. Investigations are being made concerning a mooring on the Yorkshire Derwent near Sutton Lock — handy for the family home in York.

Given the potential problems with finding suitable re-charging points, Fraser might investigate the possibility of fitting solar panels to the roof of the boat in order to provide an environmentally-friendly charging system.

Charging points

Norfolk Broads

Details of the 8 charging points presently available will be issued with the Spring edition of EBN.

Thames

The Environment Agency are reported to have appointed a consultant to advise on the requirements of the long forecast charging points to be installed at strategic points on the river. Committee Members have already been approached for their views. Hopefully we shall have more information available for the next edition of EBN.



In a timely speech at the Eco Boat '97 Conference on the 5th September Gordon Harris, Managing Director of Pegasus Yachts, urged the Broads Authority to increase the toll discount for electrically powered boats and the differential between power craft and sailing cruisers.

The day before the conference, the Navigation Committee of the Authority considered proposals for an increase in the discount for electric boats from 25% to 50% and a grant support scheme to encourage day-boat operators to transfer to electric power. However, the Committee deferred a decision, asking for further supporting information.

Eco Boat '97 Conference

The Eco Boat '97 Conference, Chaired by Paul Wagstaffe was held in the Wherry Hotel, Oulton Broad, Lowestoft and attracted a

'The cost of converting from two stroke outboard to solar power is economically justified" Malcolm Moss

world-wide audience of 86 environmentalists, boat builders, and operators, navigation authorities and naval architects. The conference programme included 16 sessions on every aspect of environmentally-friendly boating with developments from as far afield as Canada, India, Thailand, Australia, Germany, Holland and Switzerland. Subjects included solar powered and electric boats, naval

architecture and ecology. Of the 16 sessions, nine were of direct relevance to the work of the EBA. The EBA was one of a handful of organisations allowed to set up a display in the Conference Hall.

Malcolm Moss spoke on his experiences of introducing a solar ferry on Lake Pichola in Udaipur, India. The ferry now operates for 12 hours a day, 365 days a year and has a guaranteed performance life of 30 years.

In his view the cost of converting from two-stroke outboards to solar power was fully justified on an economic basis. A 1kW installation - panels, electronics, batteries and electric outboard would cost £8,600. However, comparing this with an equivalent two-stroke outboard with operating costs of up to £15 per day would lead to a pay-back in under 2 years.

Malcolm was surprised to find that panel performance in the UK Summer was similar to India. Days are longer and temperatures lower and even in cloud the panels still produce

power. Having reached this conclusion, Malcolm went on to develop the *Collinda*. The result is now well known (see report on page 2). As a further personal challenge, Malcolm has set himself a target of 10 solar powered hire cruisers operating on the Broads by the turn of the Century and for boating to achieve zero emission standards on the Broads by 2007.

Jeroen Verschelling gave a paper on the

Thermie project which was started in 1995 to stimulate the introduction of solar boats in the Netherlands and Germany. By placing solar powered craft at key high-profile locations on ferries, passenger services and tourist boats, public interest has been stimulated and the



Some of the many visitors to the Eco Boat '97 event who tried out a variety of craft, from electric launches to a pedal powered cruiser

Tony Ellis

range of commercially available Solar craft is growing. Continuous product development makes solar power competitive with internal combustion and the high public profile has led to improved aesthetic design. The integration of photo-voltaic panels during the construction phase has gone some way to improve public acceptance. The development of sustainable forms of tourism is expected to boost the demand for solar boats for use in wetland nature reserves.

In the view of Jeroen, solar powered boating has now clearly emerged from the pioneering phase and it is now time for full scale market introduction. Co-operation between the manufacturers of solar panels and the conventional boat construction industry was an important prerequisite. The dissemination of information to the wider public would also improve the public acceptance of solar power.

Theo Schmidt spoke on the introduction of solar and pedal powered ferries on the Swiss Lakes. The trip boat *Solifleur* carries 12 people and in a single year its panels produce more



Electric Event

power than it can use. When the craft is laid up during the Winter it pumps electricity into the Swiss national grid.

Jim Keating of Designeta (and EBA) gave a paper on ways of improving the efficiency of electric boats, including purpose built system monitoring units and Speed Control units.

As mentioned above, **Gordon Harris** of Pegasus Yachts made a plea for improved

running a fleet of Broads sailing yachts with electric auxiliary motors.

Eco Boat '97 Show

The supporting show held over the subsequent weekend in the adjacent Nicholas Everitt Park

"Solar electric boats have emerged from the pioneering stage" *Jeroen Verschelling*

economic incentives for the introduction of electric craft while **Peter Howe** of Camelot Craft spoke of his practical experience of

attracted an estimated 8000 visitors, many of whom took the opportunity to take trips on a variety of boats

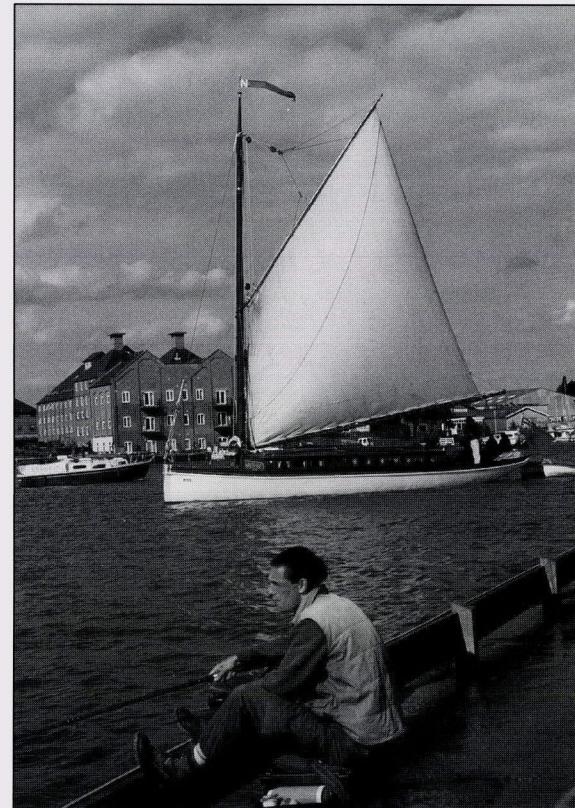
powered by alternative means. These included electrically powered cruisers and day boats, electric launches, sailing wherries and yachts, the pedal-powered cruiser Escargot and the Channel-crossing solar powered boat *Collinda*.

The EBA display was manned throughout the weekend by Barbara Peniall, Tony Ellis and Derek and Hilary Chamberlain. Support was also offered by our Chairman Phil Horsley in between manning the CMP stand.

Among the many exhibitors at this public event were:

Brimbelow
British Marine Industries Federation
British Waterways
Broads Authority
Chloride Motive Power
Designeta
Electric Boat Association
Environment Agency
Hawkins Electrical
Phoenix Fleet
STELCO Electroyacht
Thames Electric Launch Company
Wherry Yacht Charter
John Williams Boats

Eco Boat '99 Following the success of Eco Boat '97, the



Tony Ellis

Wherry Yacht Olive under sail, with electric auxiliary power. Symbolic of the environmentally friendly approach to boating promoted at Eco Boat '97



Tony Ellis

The EBA Stand at the Eco Boat '97 event. Phil Horsley on the left with Barbara Peniall flanked by Hilary and Derek Chamberlain

Broads Authority has announced that it intends to run a further event in the early Summer of 1999

We hope to have copies of the full Eco Boat '97 Conference Proceedings available for Members (price to be confirmed). Please tell the Secretary if you are interested.

STOP PRESS

On the 16th October the Navigation Committee of the Broads Authority decided not to change the discount rate for electric boats but agreed to support the establishment of a grant-aid scheme. The scheme will assist the conversion of existing Broads-based day boats to electric propulsion or help those operators contemplating the purchase of new boats to bridge any gap between the cost of a new diesel or petrol unit and an electrical installation.

The Broads Authority have agreed to set aside £20,000 a year for the next 3 years with an additional £5,000 each from Broadlands and North Norfolk District Councils. The Authority is now planning to expand the fund by seeking matching funding from European and other sources.

This three-year scheme will be introduced in April 1998 with first applications to be considered in time for new purchases or conversions to be put in hand during the Winter season 1998/99.

Electric Boat Association Management Committee Meeting: 16th October 1997

....EXTRACTS.....

The Management Committee met on the 16th October at Nauticalia Ltd., Shepperton, courtesy of Lynn and Lindon Lewis. Details of the event had been circulated and six EBA Members observed the organising team in action.

Below is a selection of extracts from the many matters discussed:

Solar Challenge Trophy

A Solar Challenge Trophy is to be awarded to Malcolm Moss for his solar powered Channel crossing in July aboard *Collinda*. An Armillary Sphere was selected from the Nauticalia catalogue which was considered appropriate with its references to the relationship between the Earth, the planets and the Sun. Lynn Lewis kindly donated the sphere to the Association. It was agreed to invite Malcolm to the laying-up supper for a formal presentation.

International Storage & Handling Exhibition

The Chairman reported that he had arranged for the display on the Chloride stand at the International Storage & Handling Exhibition to include a reference to both the solar cross-channel event and the Endurance test.

Shows & Rallies 1998

The Committee reviewed a range of venues and events for 1998.

Possibilities considered include:

River-based rally
The Annual Electric Boat Association Rally with the Upper Thames Sailing Club to be considered as a suitable venue;

Windermere: to investigate the suggestion that the EBA organise an electric boat rally in association with the Windermere Steam Boat Museum;

IWA National Festival, Salford

Quays: The EBA should attend this event over August Bank Holiday to interest boaters in the North West and the Lakes.

Liaison: The EBA



Electric Wine! Nauticalia can create personalised wine labels and your Committee was met with appropriately labelled bottles on arrival at Shepperton. Nauticalia have a comprehensive catalogue (which includes a brass plaque which states Electric Boaters do it quietly) obtainable by phone 01932 253333.

Autumn 1998 The First European ELECTRIC SEA BOAT CHALLENGE

B.E. MAR 1

The 20 Nautical Mile course will be from La Rochelle and Boyardville on Oleron Island, returning to La Rochelle

ALL INTERESTED IN TAKING UP THE CHALLENGE (European boat builders and equipment suppliers, Universities and Colleges, electric boat enthusiasts)

are invited to contact EBA Member Michel Rabaland, 13 rue de Suede, 17000 La Rochelle, FRANCAIS

The challenge is being organised by the French Association for Electric Boats with the support of the Community of La Rochelle, the French boating trade, La Rochelle University Centre for Research into Solar Powered Boats, the School of Industrial Systems Engineering, La Rochelle and Electricity Utility de France

should liaise with the Steamboat Association on matters of common interest.

Data & Information Sheets:

These are being updated and will be re-designed to present a cohesive EBA image as well as providing a useful source of information for newcomers to electric boating.

Sales items:

Stocks of ties are healthy - very good value at £10.

New designs for the EBA pennant are to be considered at the next Management Committee meeting.

Discounts:

A list of companies willing to supply goods and services at a discount for EBA Members is to be prepared. Plans are also in hand to run a trial period where purchasers of electric boats and engines should be offered a free 1-year subscription to the EBA (in the belief that a percentage of these purchasers will continue in membership beyond the first year).

The Way Forward

A special Meeting of the Committee is to be held on the 11th December to consider the strategic report drafted by Paul Jackson.

Next Meeting:

The next meeting of the Committee is to be held on the 15th January 1998. EBA Members wishing to raise any particular items should submit details to the Secretary.



International News

America

The magazine produced by the Electric Boat Association of the Americas for the third quarter of 1997 includes a Buyers Guide. This is an annual production and sets new targets for the EBA. The magazine also includes 2 pages of classified ads. which is an area we hope to develop.



Australia



Our Australian reporter, Bob Slatyer sends news of the electric cruise boat Wagonga Princess which operates on the Wagonga Inlet on the South Coast of New South Wales. The vessel was built of huon pine in 1905 and has had steam, petrol and diesel engines and was converted to electric propulsion in 1996. Charlie Bettini, her owner was encouraged to visit the electric boat Rubbeena based on Lake Tyers (see EB News, Spring 1995) and came away convinced of the effectiveness of electric propulsion. The boat is 30 ft long and carries 30 passengers. Two banks of Trojan batteries (48V each) feed a Lynch motor of 48 Volt, 3000rpm maximum. The maximum speed is 9 knots with a cruising speed of 6.5 knots.

The range at cruising speed is 6 hours on each bank of batteries and recharging after a 3 hour trip costs the equivalent of 15p Sterling.

France

News has been received from EBA Member Michel Rabaland of the first European Sea Boat Challenge B E MAR 1 to be held in the Autumn of 1998. The course set is between La Rochelle and Boyardville on Oleron Island - a round trip of 20 nautical miles (see further details on page 8 opposite).



Our Reporter (and interpreter) Jan Smulders offers the following selections from the first (March) edition of A.F.R.E. infos - the Newsletter of the French Association for Electric Boats.

An opening letter from the Jean-Luis Aucouturier, President of the Association establishes the aims and objectives of the organisation:

"The Association was established to promote the design, construction and use of electric boats, to establish plans for electrical charging points alongside waterways, to contribute to the protection of nature and the environment, to establish contacts with similar foreign associations, to exchange ideas with organisations connected with other types of electric vehicles and to consolidate the activities of Association members."

The newsletter includes details of a new solar boat developed by Professor Christian Bouly to increase public awareness. The boat has a single 9m hull, balanced by two 5.5m floats. This construction reduces the wetted area but increases the area available for solar panel display.

Holland

Jan Smulders also reports with extracts from the August 1997 edition of Electrisch Varen, the newsletter of the Dutch Electric Boat Association. Of interest is the fact that electric boats were used in wartime Holland in 1944-45 in the clandestine transport of British and Canadian troops and equipment.



India



Malcolm Moss sends us this picture of the solar powered ferry which he has helped introduce on Lake Pichola in India (see report of Eco Boat '97 Conference). The main difficulty appeared to be in establishing the correct voltage, changing from 24V to 48V, back to 36V and finally settling on 24V in order to cope with the controller overheating. During the trial 16 people travelled around the lake and at 14.30 hrs 60% of the available power was being used to drive the boat with the remaining 40% charging the batteries for operation after dusk.

Post Bag

This issue we have a lengthy, hard hitting but well-intentioned letter from Geoff Warren of GCW Technology. Because of the length of this submission it had to be paraphrased, hopefully without losing any of the sense or intention:

Dear Editor

"At last you have caught up with Electric Boats by Douglas Little. The book is distributed by Airlife Publishing Ltd, 101 Longdon Road, Shrewsbury SY3 9EB."

"If the Association really wants to promote popular electric boating, it has to break a few icons, the hardest being peoples prejudices. Perhaps the easiest way to do this is to promote the building of the sort of electric canoe-cum-flattie that Douglas Little describes. Very few are the individuals who can go the whole hog and invest in an electric cabin cruiser or Thames day boat. But there are many people who have the skills to stitch and glue a little boat that they think might of as a bit of an experiment that they might think of as a bit of an experiment, a woodwork and physics practical test bed for schools, a youth club project for those sited near canals or controlled rivers, and so on.

But they will run up against one big problem: where to get the UK information. The EBA does a dreadful job at the moment on this front."

"Individual members can do a fantastic job, but it shouldn't be necessary to see the whites of somebody's eyes before coughing up information. What potential builders and converters need is a guidance handbook and a list of the suppliers of specialised equipment. I cannot believe that openness will do us any harm, probably the reverse.

I have often been amazed by the amount of information given by US magazines and books. When questioning American friends about it they seem surprised, as though I cannot work out for myself that the information acts as a bait, gives confidence and adds to the reader's enthusiasm.....Just try and get the information in the UK: I tried and blood would be easier from a stone."

"It will be interesting to see what radical designer Phil Bolger's plans for the electric launch Lily look like. For an outline of his design see Wooden Boat Magazine for July / August 1997. Eight sheets of plans and a 27 page building key can be obtained for 100\$ from Phil Bolger & Friends Inc. PO Box 1209, 29 Ferry Street, Gloucester, MA 01930, USA."

"I am afraid that we are not going to get electric boating noticed just by organising garden parties, although this is undoubtedly a pleasant pastime. The EBA needs to be less blinkered and look away from the Thames and the Broads. Perhaps the canoe cum flattie project or Bolger's launch can act as the Mirror dinghy of the electric boat world."

"The EBA might even promote an annual competition for the Little boat of merit, for similar designs within a similar raw materials cost or for novel designs which are easy to build, relatively inexpensive and which will promote the topic of electric boating."

Geoff Warren

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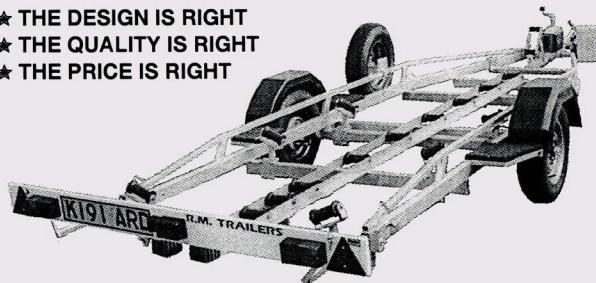
Details of restoration project for Thames Sailing Barge *CAMBRIA*. Contact Tony Ellis, 157 St Saviours Road, Reading, RG1 6EY

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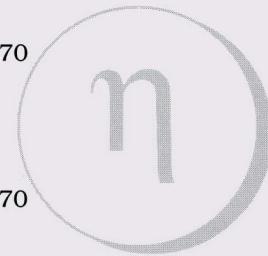
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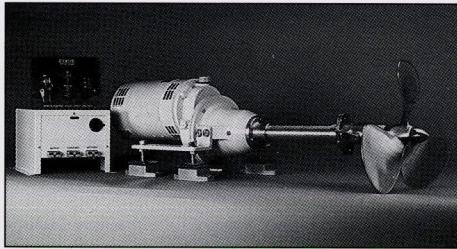
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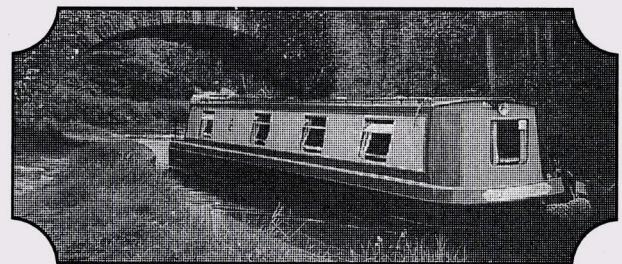
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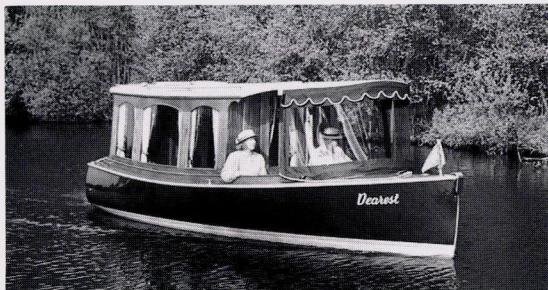
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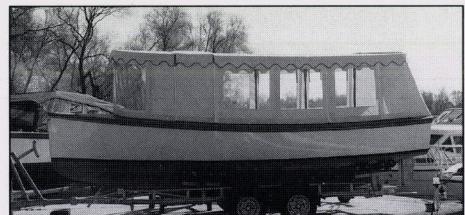
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