

Electric Boat NEWS

The Journal of the Electric Boat Association



Supported by the Broads Authority



**EBA 21st Anniversary Day IN COLOUR • Solar Challenge in France
Rallies, Shows and Festivals**



NOTICEBOARD

WELCOME TO NEW MEMBERS

Private Members	Location	Boat where notified
Mike Manisty	Windsor	Corvelia
Richard Nissen	London	Gem
Mike Clark	Isle of Wight	
Rae Sedel	London	Duck Dodger
Chris Symonds	Moulsoford	Marlie II
Mr and Mrs Starkey	Warwick	Dinghy
K Rowley	Guildford	Lamornia
John Marsh	Cardiff	
Brian Cooke	Mount Sorrel	Blotto
Paul Falinski	Checkendon	Presto
John Hicks (welcome back John)	Henley-on-Thames	Ophelia
Graham Mackereth	Runcorn	Daphne
Keith Macey	Maidenhead	My Salad Days
Andrew Pocock	Goring-on-Thames	Fly
Andrew Baker and Fern Russell	Hook	
John P de Koning	Holland	
Timothy Carter	Hampton Wick	Old Lucius
Guy Ferguson	Henley-on-Thames	Cymba
Stella Wentworth and Dave Wedd	Kidlington	Huckyduckling
Graham Terry	Boreham Wood	
Bill Raynor	Ramsey	
Steve and Chris Phillips	Bray	
Brian Meek	Lymington	
Mr and Mrs J G Lacey	Lyndhurst	
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Paul Rusher	Warborough	Robins Nest

Prof. Philip K M'Pherson	Ely	
Dave Allen	Cholsey	JoJo IV
Val and Albert Lambert	West Beckham	Patience
David Cornet	Canterbury	
Richard Findlay	Derby	Jenny-Wren
Robert Paul	Horning	Ripple 3
G C and J Lyle	Argyll	
Richard E Jackson	Long Wittenham	

MALCOLM BATES

Sadly, we have to report the death in early July of EBA member Malcolm Bates. Malcolm was a long standing member of the Steamboat Association and discovered an affection for electric boats after he was diagnosed as suffering from cancer. He bought *Gorwell*, a Canadian Electric Launch Company's dayboat, and thoroughly enjoyed his silent cruising on the Thames. His attendance at the Launch and Laying Up Suppers was always welcomed as he entertained his fellow diners with anecdotes of his colourful life. Although he reluctantly accepted he was too ill to join us for our 21st Anniversary Celebrations at Bisham Abbey, Malcolm was kept informed of our plans for the event and supported the day in his thoughts. We shall miss his cheerful telephone calls and helpful suggestions for future promotion of electric boating.

STANDING ORDERS

One in six members is now paying by Standing Order, which is a tremendous help to the Secretary when subscription renewals are due, but at least half the remainder of the membership need one, two or three reminders. It would be greatly appreciated if either more members would arrange for their subscription to be paid by Standing Order, or renewals were made promptly without the need for reminders. With grateful thanks from your Secretary, who would like time to enjoy electric boating herself!

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I'm delighted to have four extra pages in this issue, and in colour too, for the feature on the EBA's 21st Anniversary Day at Bisham. Although that was certainly a highlight, this wonderful summer has seen EBA members and boats joining in a whole variety of events in this country and abroad, all of which have helped to raise the profile of electric boating.

With the current boating season coming to an end, the EBA is already making plans for events next year, which will start off in style with the London International Boat Show at a brand new venue in Docklands and featuring Inland Waterways.

Meanwhile, if you have a boat, there's some good advice in this issue on battery maintenance to see you through the winter and make sure that you start the new season on a positive note.

I have enjoyed meeting so many EBA members at a variety of events this year and I would like to thank everyone who has given me words, pictures and advice for the magazine. I'm looking forward to getting lots more interesting contributions from you for Electric Boat News in 2004.

A handwritten signature in black ink, reading "Sylvia Rutter".

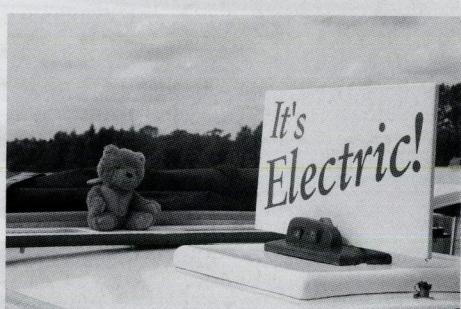
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Copy Deadlines:

Material to be considered for inclusion in the next edition of Electric Boat News should be sent to the Editor (preferably by email) by the following date:

Winter Monday 1st December



SOLAR CHALLENGE

Cedric Lynch, the only British competitor, reports on the international Solar Challenge which took place in Normandy this summer.

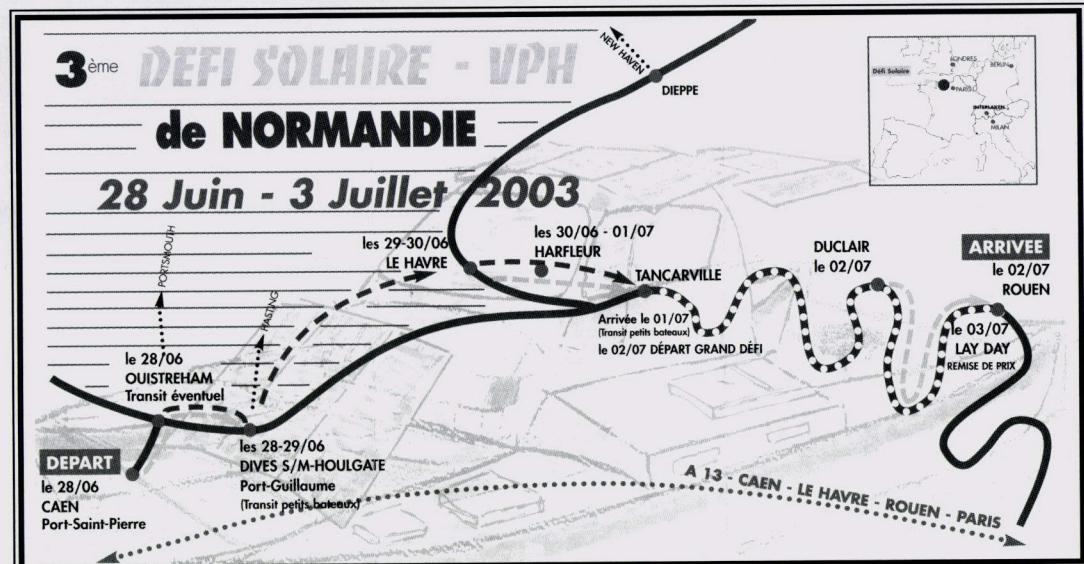
Ten boats competed in the Challenge, seven solar powered, two human powered and one a combination of both.

The French boats were:

- **Ampere Peinard** a sailing cruiser with the mast removed and a strut-mounted canopy over the whole boat, covered with solar panels powering two large Minn-Kota outboard motors and also batteries.
- **Crea 2000** purpose-built solar racing boat with a narrow central hull and two outrigger hulls not normally in the water. Solar panels with just over a kilowatt nominal output mounted on the structures connecting the hulls. Electronically commutated synchronous motor rated at about 12 KW max which originally operated a tank turret, mounted in an underwater pod and driving a large propeller via epicyclic gears. About 10 KWH of batteries.
- **Ondulo** a small human-powered boat with a mechanism that swims like a fish, driven by pedals.
- **Photon Agile** a catamaran powered by eight solar panels with circular cells and an outboard motor with the original petrol engine replaced by an electric motor. Also has batteries.
- **Resyst Yole** a one-person rowing skiff.



Cedric at Harfleur



• **Tikebau** a purpose-built proa-type boat (two hulls of unequal size) with about 500 watts of solar panels on the structure connecting the two hulls, about 2 KWH of batteries and a drive converted from a petrol outboard motor by replacing the engine with a 550W Leroy-Somer electric motor. The motor is mounted inside the main hull with the lower part of the outboard assembly projecting through the floor.

• **Vel'eau Douze** a hybrid solar and human-powered boat with a narrow central hull and two outriggers, carrying 12 people, 10 of whom pedal. It has a tiltable roof with about 600W of solar panels feeding batteries and a Lemco 170mm motor coupled by a chain to the main drive shaft.

From Belgium

• **Solré** a sailing dinghy with the mast removed and fitted with about 350 watts of solar panels, batteries and a Yamaha electric outboard motor.

From Germany

• **Vechtesonne** a large catamaran built by a team of unemployed teenagers on a job-creation project which carries fare-paying passengers on the River Vechte in north-west Germany. It has about a kilowatt of solar panels, batteries and two 1200W Combi electric outboards, one on the front and one at the back to give good manoeuvrability.

And lastly, from the UK,

• my boat, an Ottersports 'Oulton Broad' Canadian canoe with 200W of solar panels, two Optima 12V 52AH batteries and a 130mm Lemco outboard motor driving a propeller with blades

IN FRANCE



from a model aircraft, mounted so that they hinge backwards when not rotating so they can get rid of weed. The gears and bearing are plastic and lubricated by the water.

We began on 28th June with the stage from Caen along the canal to Ouistreham. The weather was warm and sunny and I didn't need to use batteries. I got to Ouistreham ahead of everyone else because I could get under the swing and lifting bridges without waiting for them to open. The organisers had originally said that it wasn't safe for me to do the next section on the sea, but to my delight they allowed me to try it along with the other five boats which had got to the sea lock. *Tikehau* was back in Caen with its owner still working on it, *Ondulo* and *Solré* had suffered mechanical problems and *Vechtesonne* had arrived after the lock closed and had to be craned out. The sea wasn't completely calm but didn't cause problems apart from a few big splashes over the bow where I had to cross waves made by passing speedboats. Most of the boats were faster than mine and gradually pulled away ahead but I caught and passed *Photon Agile*. The sun shone brightly and I got a good speed on solar power alone. Just short of Dives-sur-Mer there was a lot of floating seaweed which caused problems for some competitors. My propeller got entangled and the folding mechanism wouldn't clear it, but I got rid of it by paddling in a zig-zag line and swinging the steering from side to side. *Photon Agile* became completely entangled and had to be towed in.

The next day's stage was across the sea to Le Havre but the organisers took me back to Caen to collect my van so I could take my boat out of the water and transport it by road. Le Havre is a huge industrial city and I was very glad of the excellent map they provided. The boats which made the sea crossing all had a good trip.

Monday started cloudy and much cooler, with occasional drizzle followed by sunshine and showers. All the boats (except the still incomplete *Tikehau*) went in convoy through Le Havre and through the lock into the Canal de Tancarville. I had to connect a battery to maintain speed but this returned to full charge while we waited for the lock. The mooring at Harfleur was just before a low stone bridge so there was no fear of the smaller boats being capsized or swamped by large boats speeding past.

Tuesday's stage was a timed run from Harfleur to Tancarville along the canal which is straight and wide with kilometre and half-kilometre posts giving me an accurate speed check. At top speed on the battery my boat did just over 8 km/h, too slow to catch *Crea 2000*, *Resyst Yole*, *Vel'Eau Douze* and *Ampere Peinard* ahead of me, so to save battery power I slowed down to 7½ km/h, at which none of the competitors behind could catch me. The finish was just before the Pont de Tancarville, a very high suspension bridge.

The next day the larger boats had just over 50 nautical miles from Tancarville to Rouen, with the smaller boats doing 19 nautical miles



Photon Agile at Harfleur

from Hénouville near Duclair. At the launch site there was a notice warning of the possibility of boats being swamped by waves from the passage of large ships and also 'à l'arrivée du Mascaret'.

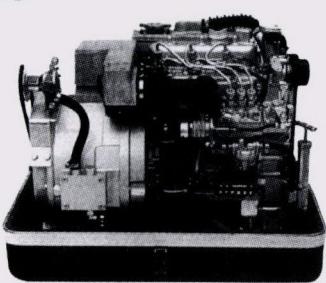


The race committee at Port Guillaume. Vel'Eau 12 on the right showing some of the pedalling positions



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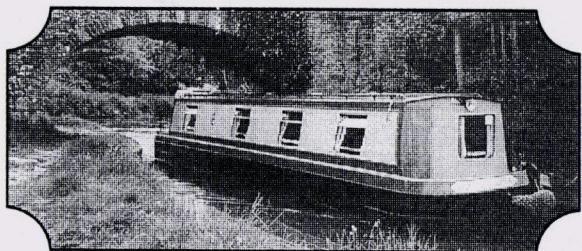
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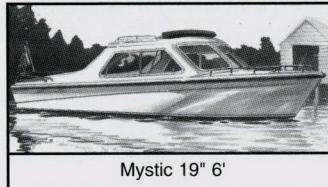
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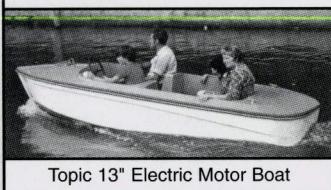
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SOLAR CHALLENGE IN FRANCE



Cedric (safely back in England) in his canoe

Photo: Linda Barrell

What is le Mascaret? "It is a tidal bore which in some conditions can be three metres high! But not today". Phew! But as we were launching a huge cargo ship came past at speed, sending foaming breakers towards the bank. *Ondulo* was already in the water some distance from the bank, with my boat and *Solré* in the water at the bank and the now-complete *Tikehau* not yet launched. I jumped into my boat just in time to get away from the bank and cross the waves at right angles with nothing worse than a litre or two of water splashed into the boat. *Solré* was lifted by the waves and bumped several metres along the rocky bank, resulting in a slight leak. Fortunately the motor and propeller were not damaged and they were able to continue with the rest of the small boats, each escorted by an outboard-powered rubber dinghy with a diver on board in case of accidents.

At the beginning the river was very scenic with forest on each side followed by chalk cliffs and small towns where I was able to check my progress on the map. At this point I was overtaken by a frigate heading for the large nautical festival at Rouen and causing some fair-sized waves which I managed to cross at right angles. On the northward stretch towards Rouen the banks became very industrial with large cargo ships loading and unloading.

Another frigate came up behind, one of the new 'stealth' designs apparently, although I thought it was quite conspicuous. It had a tug attached at the stern and just ahead another tug came towards me and then did a U-turn at some speed to meet the frigate and attach to its bow. The waves now got bigger and bigger to the point where when I was in the troughs between them I could not see over the top of the next one. Nobody had warned me that this could happen, for which I am very grateful as it would certainly have

scared me off the competition! I was, however, glad to be accompanied by the rescue boat. Fortunately the waves were not breaking and not so steep as to come in over the bows or stern and they gradually subsided.

It began to rain heavily as I approached the finish at the Bassin St. Gervais. I had to wait a while as the stealth frigate, fortunately clearly visible, was turned round in the river by its tugs. I reached the finish at 3.30, three hours after starting. *Ondulo* and *Tikehau* arrived next, *Tikehau* supported by a rescue boat having suffered structural problems in the waves. A short while later *Solré* arrived and there was then an hour's wait for the boats which had started from Tancarville. *Crea 2000* was first, followed by *Resyst Yole* and *Vel'Eau Douze*. *Ampere Peinard* and *Photon Agile* had not reached Rouen when the tide turned against them and were towed in by the organisers. *Vechtesonne*, having tried and failed to launch at Duclair or Hénouville, was craned in at Rouen but had to be towed to the finish when the tide turned.

I would like to thank the organisers for the competition and I look forward to the next one.

The overall winner of the Solar Challenge was *Crea 2000* which made 83 miles in 12 hours 37 minutes, an average speed of 6.6 knots. Cedric, over the second course of 51 nautical miles, clocked some 8 hours at an average speed of 6.3 knots, making him a clear winner in the section for small boats.

The Solar Challenge was organised by Concept Hélios Propulsion, 13 Allée Aliénor d'Aquitaine, 76 240 Bonsecours, FRANCE Tel/Fax 0033 2 35 80 29 77.



NEW CHAIRMAN FOR THE BROADS AUTHORITY

A world expert on environmental economics and management has been appointed Chairman of the Broads Authority. Professor Kerry Turner is the Director of the Centre for Social and Economic Research on the Global Environment and also of the new Zuckerman Institute for Connective Environmental Research at the University of East Anglia. He served for five years on the board of the former National Rivers Authority and was awarded the CBE for services to sustainable development in the Millennium Honours Awards.

Martin Broom, managing director of Broom Boats, boat builders and hire fleet operators at Brundall, was re-elected Vice-Chairman. He is Chairman of the Broads Hire Boat Federation, a council member of the British Marine Federation and sits on the Inland Waterways Committee of the Royal Yachting Association.

LIVING LAKES CONFERENCE

The Broads Authority and the conservation charity BTCV, whose vice-president is David Bellamy, hosted the eighth international Living Lakes Conference in Norwich in early September. Living Lakes is a network of organisations which work together to protect lakes and wetlands on four continents, including Lake Baikal in Russia, Lake Victoria in East Africa and the Broads in Britain. As part of the conference, delegates had a taste of sustainable tourism with a trip on a traditional wherry and the Broads Authority's solar boat *Ra*.



Delegates on Solar Boat 'Ra'

CHANGES IN BRITISH WATERWAYS

British Waterways is changing to a much simpler structure, with six regions and 25 waterways replaced by ten new Waterway Units. Each unit will have its own engineering, environmental and conservation specialists. Introducing the changes Robin Evans, British Waterways Chief Executive, said "Ten years ago, the waterways were dangerous liabilities. Today, the network is a valuable public asset, with the potential to deliver significant social, environmental and economic benefits to the people of Britain. Our challenge is to make sure we unlock that potential. These changes will give us the right structure to achieve it."

SYDNEY INTERNATIONAL BOAT SHOW

Charles Fitzhardinge reports from Australia that he had to work flat out on his return from the EBA 21st Anniversary Day at Bisham to prepare his new 'Woolwich 20' for the Sydney International Boat Show in early August, which was a great success.



Woolwich 20

RIVER THAMES ALLIANCE

The new River Thames Alliance, a partnership to reinvigorate the non-tidal Thames, was launched at a conference in Reading on 25th June. Delegates representing a variety of organisations from local authorities, government bodies, boating associations, environmental groups and commercial operators discussed leisure, tourism, business development, conservation, access and sustainability (including the promotion of 'green' alternatives such as electric boats). Information from the discussions will be used as the basis of the future work of the Alliance and for the new Waterway Plan for the river.

More information is available from Victoria Leason at the Environment Agency Tel: 0118 953 5480, E-mail: victoria.leason@environment-agency.gov.uk



NEWS FROM FRANCE

The French Electric Boat Association's main sponsor, Electricité de France, has signed a new agreement to continue its support in 2004. This will mean that the association, among other things, can have a presence at main exhibitions such as the Paris Boat Show.



Capitan

The company Propelec, based at Mouvaux in northern France, have developed an asynchronous, low-tension, submersible outboard engine filled with fluid dielectric oil which allows excellent cooling. Its 'AI' power electronics module enables the motor speed to be adapted to its load, a characteristic that does not occur in classic asynchronous motors and which ensures that the motor provides optimum power and efficiency under all circumstances. Propelec have sold around 50 of these units as far afield as Italy, Poland, Finland and Belgium.

Inboard versions of their engine have been used in two hybrid trip boats: the 27 metre steel-hulled *Fénelon* on the River Lot and the 140-passenger *Capitan* (2 x 22KW) which cruises on the Canal du Midi at Beziers.

LADIES LOVE ELECTRIC LAUNCHES



Festival 23 with birthday balloons

lunch. Most of the ladies on board had never tried boating at all and taking them for a leisurely, silent cruise was really the icing on the

Sandy Williams proved that boats, especially electric ones, aren't just for the boys when a group of ladies from Stalham in Norfolk cruised from John Williams Boats to a nearby hotel for a birthday

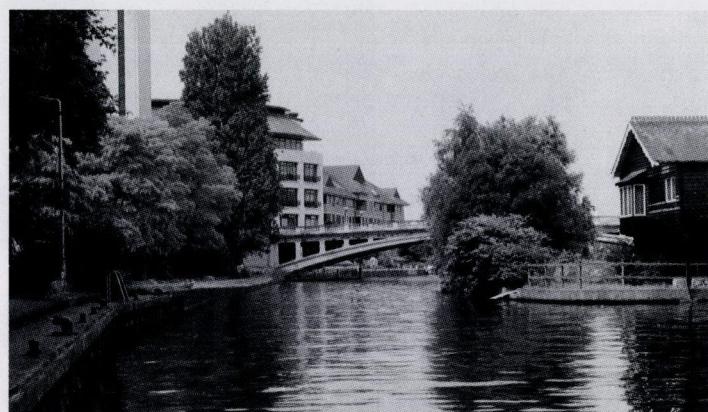
cake. "Whose birthday is it next? And when can we do it again?" was the universal cry.

Meanwhile EBA Secretary Barbara Penniall is delighted with her new boat *Sparkle*, an electric 'Ranger 13' with a Combi 700 24v outboard motor from the Thames Electric Launch Company. Barbara has been taking advantage of the fine late summer weather to explore the Thames around Benson Lock and Shillingford Bridge.



Barbara in Sparkle at Shillingford Bridge

THE FUTURE OF THE THAMES AND KENNET



Caversham Lock cut on the Thames

The Environment Agency (which runs the Thames), Reading Borough Council, British Waterways (which run the Kennet and Avon Canal), the Waterways Trust and the Oracle Corporation want people's views on the future improvement of the area around the Thames and Kennet where they meet near Blake's Lock in Reading. The area concerned covers the Thames from Caversham Lock to the Thames Valley Business Park and the stretch of water from the Kennet and Avon Canal County Lock to the mouth of the Kennet in Reading.

A draft document on the development proposals will be available from October 16th at local libraries and on www.visitthames.co.uk/waterspace.doc. An open forum to discuss the draft will be held on October 22nd at the Environment Agency offices in Kings Meadow Road in Reading from 5.30 to 8 pm. For more information contact Rachel Crozier on 0800 389 4276 or email rachelcrozier@blueyonder.co.uk.

STEAM AND ELECTRIC ON THE STOUR

The River Stour Trust held a Steam and Electric Boat Day at Sudbury on July 13th. Pictures from Nick Goldring and words from John Hustwick.

Once again a hot and sunny Sunday in mid July saw steam and electric launches on the River Stour. Actually it should be electric and steam, as there were more electric launches this year!

Unfortunately the question of insurance had been raised and as most of us are not covered for hire purposes (and if people pay to go to an event at which we are giving rides, even if we do not charge ourselves, this is considered hiring) we could not take members of the general public. This was left to the River Stour Trust with their electric launch *Rosette* and Robert Baker of the Steam Boat Association, who had a dispensation for carrying passengers at a fixed number of events per year and so was able to take some people on his steam launch *Firebird*. This should serve as a reminder to

anyone who gives rides to the general public at events to check that either their insurance covers them or the event organisers have the appropriate cover.



Anyway the EBA was well represented with John and Sandy Williams and their 'Festival 23' launch, Nick and Yvonne Goldring and son Richard with their *Silent Explorer* canoe, Jeff and Georgina Waterson with family and friends and their 21ft Frolic *Georgie*, plus yours truly in my 18ft Frolic *Rhapsody*. Once again through the kindness of Robert Baker we were all able to launch our boats from his excellent private slipway at Cornard. After going through the lock at Cornard and some cruising between Cornard and Sudbury,



The flotilla at The Granary

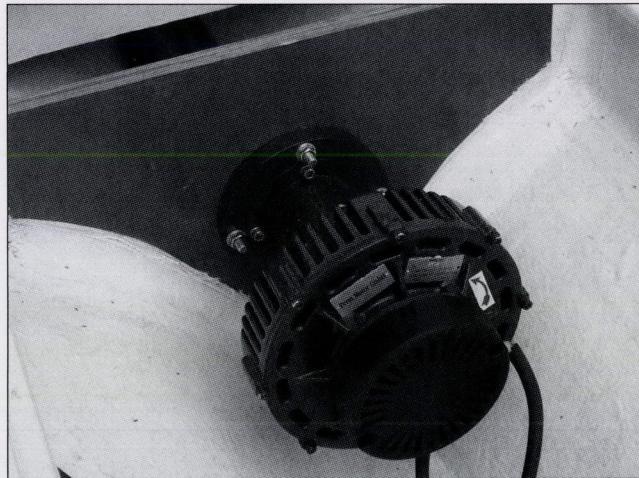
it was decided to go back through the lock and downstream a couple of miles to Henny and have lunch at a riverside pub called The Swan. The pub was very busy and our little flotilla attracted some attention when we moored in the cut beside the pub gardens. A relaxing lunch was had by all before cruising back along this delightful stretch of river to Cornard.

This is a lovely part of the country and although the feasibility study on the use of the River Stour has come out in favour of portable craft only on the majority of the navigation, it is hoped that a further study in the future, centred around electrically propelled craft, might encourage a rethink.



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EBA 21st ANNIVERSARY DAY

On 21st June the largest ever gathering of electric boats in the UK took place on the Thames, appropriately the birthplace of electric boating over a hundred years ago, when the EBA marked its 21st Anniversary with a day of celebrations.



26 boats, ranging in size from the tiny *Jubilee J* at 6 ft. 8 inches in length to the elegant launches *Lisbeth* and *Shiel Water* at 38 ft. 6 inches, assembled at Bisham Abbey near Marlow, along with invited guests and over a hundred EBA members from all over the country as well as from France and Australia.

After the formal proceedings of the Biennial General Meeting, a report of which follows, members and visitors gathered at tables outside the Abbey for a light lunch and lively conversation.



The afternoon was taken up with a grand cruise of all the boats (along with passengers who had come by car) from their moorings at Bisham upstream to Temple Lock. The flotilla attracted a lot of interest from walkers, other boaters and spectators at the lock as well as official photographers from the boating press. Fortunately there was plenty of sunshine for the four solar powered boats, including *Collinda*, which holds the record for the first crossing of the English Channel under solar power, and *Solar Flair* which had travelled from Lechlade to Bisham using only the power of the sun.

Boats and passengers then returned to Bisham Abbey for afternoon tea. The special anniversary cake was ceremonially cut by

Viscountess St Davids and members and guests celebrated the EBA's first 21 years with a slice of cake and a glass of champagne.

The day was rounded off in some style with a tasty barbecue and yet more animated conversation as the sun set over the moored boats on the river.



Our special thanks to Chloride Motive Power for their generous sponsorship of the event and for the other donations (some anonymous) from EBA members. We are also very grateful to Roy May of the Bisham Abbey Sailing School for his help with the planning and organisation as well as to all the staff at the Abbey who contributed to making this such a memorable day for the EBA.



EBA 21st ANNIVERSARY DAY IN COLOUR



Three solar sailors Malcolm Moss,
David Williams and Paul Lynn



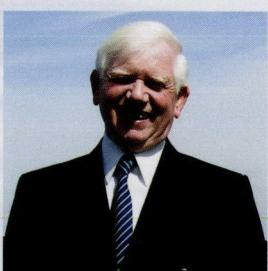
Gillian Nahum,
EBA Chairman 1992-1994,
with Edward Hawthorne



Thames Waterway Manager Eileen McKeever
with her family



Kevin Desmond,
EBA Chairman 1987-1992



Jim Keating,
EBA Chairman 1999-2001

Photographs by Ian Rutter and Linda Barrell

EBA 21st ANNIVERSARY DAY IN COLOUR



Charles Fitzhardinge driving Collinda



Temple Lock



The fleet sets off



Heading for the lock





EBA Treasurer, Brian Pickess, steers clear of the weir

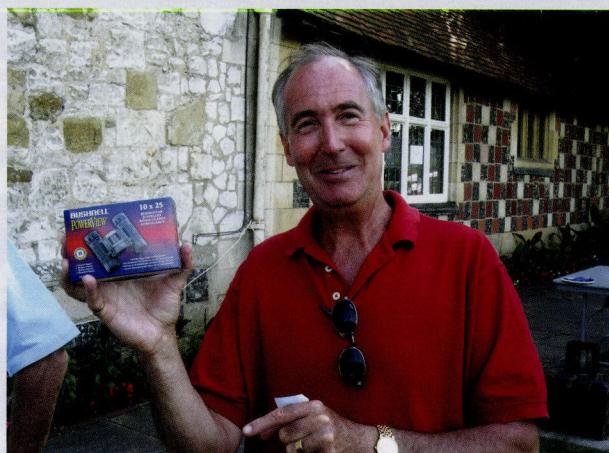
EBA 21st ANNIVERSARY DAY IN COLOUR



Marjorie, the Viscountess St Davids, cuts the anniversary cake with EBA Chairman, John Hustwick, and Secretary, Barbara Penniall

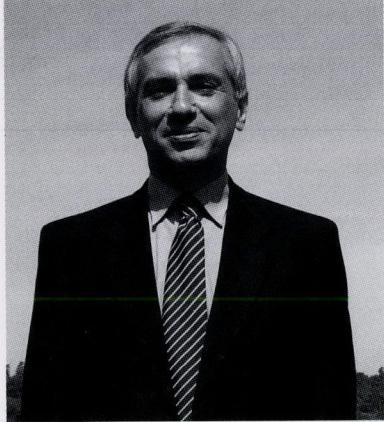


Phil Horsley, EBA Chairman 1994-1999, draws the raffle



The raffle winner, Chris Tassell

EBA BIENNIAL GENERAL MEETING



EBA Chairman, John Hustwick

Agency, British Waterways, the Broads Authority and the British Marine Federation. John Hustwick and Stephen Hames of British Waterways had given a presentation on small craft and inland waterways to the marine based technical audience at the All Electric Ship Conference in Edinburgh. The EBA had also provided comments and information for the Environment Agency to use in their feasibility study of navigation options on the River Stour in Suffolk. Although the original study opted to restrict the river to light portable craft it was hoped that the EBA would be involved in a further study considering environmentally friendly craft such as electric boats.

John went on to mention a number of meetings and forums which EBA representatives had attended, including the Parliamentary Waterways Group where there was the opportunity to meet members of various waterway user groups, to table questions in some cases and hand out copies of Electric Boat News. The EBA had also been represented at the main boat shows and events, usually with the EBA stand, promoting electric boating in general, our business members and EBA activities and recruiting new members. The EBA had also organised the Electric Boat Show at Huntingdon as well as social gatherings.

Finally, in early 2002, EBA representatives had the sad duty of attending the memorial service for Admiral Percy Gick, someone

EBA Chairman John Hustwick opened the meeting by reminding members of the activities undertaken in the last two years to promote and raise the profile of electric boating. These included the presentation to Lord Whitty (then of DEFRA) which was set up by the previous Chairman, Jim Keating, and attended by representatives from the Environment

who was instrumental in setting up the EBA and who had done so much to promote electric boating.

ELECTION OF OFFICERS

The current officers of the EBA were re-elected, proposed by Phil Horsley and seconded by Anthony Oliver.

Regional Representative for Thames and the South East: Paul Wagstaffe, proposed by Dinnie Hawthorne and seconded by Kevin Desmond.

Business Non-Executive: Rod Boreham of Fischer Panda, proposed by Edward Hawthorne and seconded by Brian Pickess.

PR Officer: position still vacant but it was agreed that the work would be shared between the Editor of EB News Sylvia Rutter, EBA Secretary Barbara Penniall and Thames and South East Representative Paul Wagstaffe.

APPOINTMENT OF AUDITOR

Derek Chamberlain, nominated by Paul Wagstaffe and seconded by Phil Horsley.

All Council members and the Auditor were thanked for their contribution towards the efficient running of the Association.

There was some discussion on providing promotional literature. Members agreed that a new version of the promotional booklet produced in the early 1990s in co-operation with SEEBoard should be considered.

TROPHIES

Presentations were made by Marjorie, Viscountess St Davids. The St Davids Trophy for a significant advance in the field of electric boating was awarded to Kevin Desmond for his services in the promotion of electric boating including as EBA Chairman from 1987 to 1992 and from 1988 as founder Editor of EB News.

The Emsworth Trophy was awarded to Piers Erskine for the longest cruise undertaken solely under electric power (Teddington to Lechlade) in 2002.

Barbara Penniall presented a flower arrangement to the Viscountess.



Kevin Desmond receiving the St Davids Trophy from Viscountess St Davids



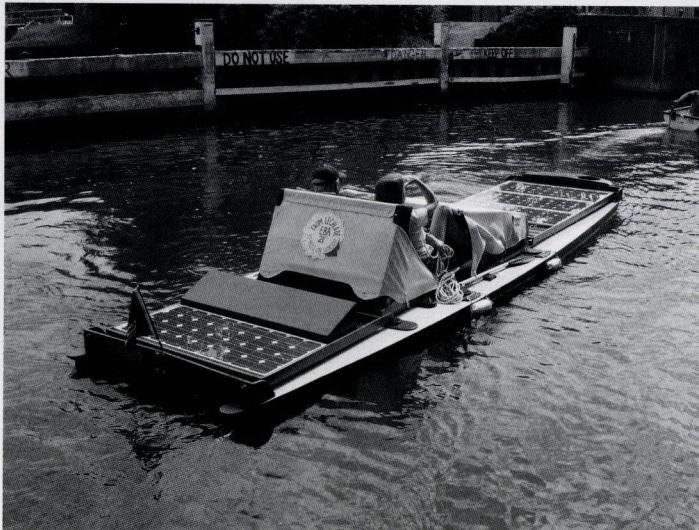
Viscountess St Davids presents the Emsworth Trophy to Piers Erskine



EBA Secretary Barbara Penniall presents flowers to the Viscountess

124 MILES ON SUNLIGHT

Paul and Ulrike Lynn recall Solar Flair's summer voyage along the entire non-tidal River Thames from Lechlade to Teddington.

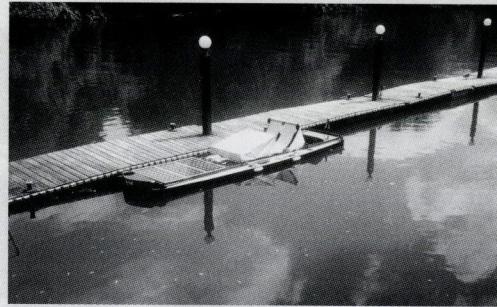


Paul and Ulrike Lynn in Solar Flair on the Thames

Photo: Ian Rutter

Our experimental boat was not designed for this! *Solar Flair* had never travelled more than 8 miles in a day, yet here we were about to attempt a much longer voyage entirely on sunlight. Calculating that average June sunshine would propel us about 12 miles a day, we said rather a nervous goodbye to Lechlade at the head of the navigable Thames on a cloudy-bright June morning, loaded to the gunwales with camping gear, luggage, food and drink (including mini-bar). We prayed for sunshine and in the days which followed were rarely disappointed.

Camping for the first two nights beside Rushey and Eynsham locks on the Upper Thames, we savoured the early mornings when we had remote stretches of river to ourselves – apart from numerous crested grebes (of course!) with babies on their backs, swans, reed buntings, ten kingfishers, copious banded demoiselles, and our first-ever wild otter. On day three we navigated the twisty centre of Oxford without mishap and found a 'B&B' near Iffley. Then came Abingdon, Wallingford and a rural campsite at Day's Lock. Progress was so good that we reached Streatley and its swish hotel on day five with 58 miles and 20 locks behind us. The EBA's 21st Birthday celebrations at Bisham Abbey on June 21st now beckoned enticingly: just 27 miles to run with several days in hand. We returned home to mow the lawn and left the boat in the tender care of Robin and Eve Bentham in Caversham.



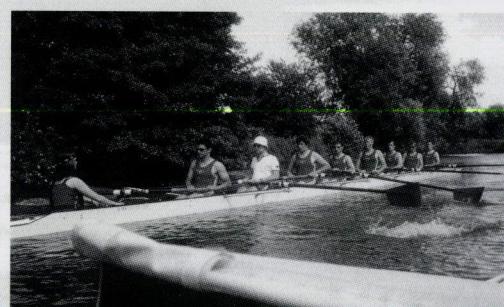
Solar Flair near Boulter's Lock

Photo: Paul Lynn

Next to Henley, where we mixed with the sculls of Ladies' Week, and on to Bisham in brilliant weather. *Solar Flair* was now in reassuring EBA company and we accepted generous weekend hospitality from Edward and Dinnie Hawthorne. A fine weather forecast for the following few days gave no decent excuse to dither, so we set off again downstream along the beautiful stretch of river beneath Cliveden and through Boulter's Lock. Our journey towards London proved challenging – not so much the boating part as the difficulty of finding safe public moorings and accessible overnight accommodation. We will therefore always remember the encouragement and private moorings kindly offered by EBA members Clive and Helen Hicks (Wargrave), Geoffrey and Joan Desborough (Eton), Lynn and Val Lewis (Chertsey) and Michael and Elizabeth Watson (Garrick Island). We booked four nights at a 'B&B' between Windsor and Staines, which incurred rather too many taxi fares but at least avoided the need to locate a different bed every night.

Inevitably we had many comments from the shore, almost all highly enthusiastic. From the frequent "Is that really powered by solar?" to "I love your power source"; and the more sceptical "Is that a pedalo?". Oh, and we had to endure one young blade sitting at the next table during a pub lunch who dismissed our solar gem as "One of those battery jobs". There were other human interactions, from the legendary helpfulness of the Thames lockkeepers to the worst moment of all when we were hit from astern by a rowing eight at considerable speed. We prefer to forget that one!

Solar Flair, deprived of her lifeblood sunshine, battled the last 12 miles to Teddington mainly against a strong headwind and reached her destination after 11 days of travel. A total of 124 miles and 43 locks on sunlight, with the help of 300 watts of PV, inexpensive electric outboards and two cheap leisure batteries. The lockkeeper's welcome was sweet indeed.



Close encounter with a Rowing Eight Photo: Paul Lynn (not the one that hit us!)

TRADITION ON THE THAMES

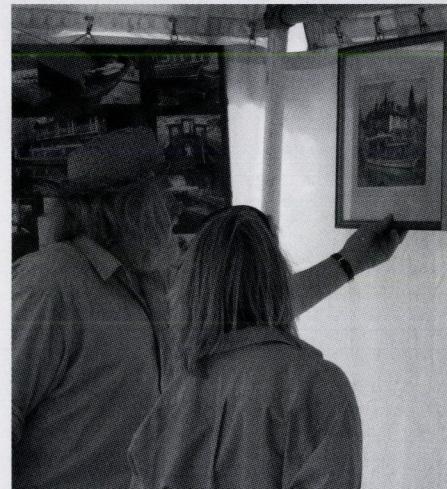
Fawley Meadows, Henley-on-Thames was the venue for the popular Thames Traditional Boat Rally over the sunny weekend of 19th and 20th July with skiffs, punts, sailing boats, slipper launches, Dunkirk Little Ships, steam boats and, of course, electric boats on display.



The EBA stand



Shiel Water on parade



Peter Freebody

The EBA stand, next to the EBA trade members, was manned by Barbara Penniall, John Hustwick and Tony Edwards who were kept very busy. Lots of existing members came to visit and 6 new members joined the association. By the end of the weekend Barbara at least had almost lost her voice through having to talk over a rather noisy PA speaker planted alongside.

Exhibitors at the show included Creative Marine, the Thames Electric Launch Company and Henwood & Dean with their traditional-style yurt (the sides open to the sun instead of closed against the elements at its debut earlier in the year).

Peter Freebody's stand was showing the 27 ft. electric launch *Tadpole*, based on a design of 1884 with an original 72 volt DC electric motor from the same era, and Hambleden Sales & Charter were displaying their electric-powered punt, very suitable for a day on the river at Henley.

Throughout the weekend there were regular parades of boats with detailed commentary on their construction and history (hence the noisy PA). Electric launch *Shiel Water*, dressed overall, attracted a lot of interest both when moored up and when making stately progress on the water.

The Thompson family from Marlow had all dressed for the occasion in traditional Victorian outfits and posed for the camera on their elegant launch *Swift X* which they bought as a steam launch in

2001. *Swift X* was built of carvel teak on oak in 1892 by Horshams of Bourne End and was converted to electric propulsion with an AC motor by Rupert Latham of Stelco Yachttechnik.



The Thompson family on Swift X

Photos: Ian Rutter

INLAND WATERWAYS NATIONAL FESTIVAL

The Inland Waterways National Festival and Boat Show, which is held every year at different locations throughout the country, came to the Thames at Beale Park near Pangbourne over the bank holiday weekend at the end of August. More than 600 boats signed up for the event along with over 200 exhibitors showing new and used boats, boating accessories and boats for holiday hire.



Waterscape, Colne and the Oyster 14

Photos: Ian Rutter

The first National Waterways Festival on the Thames took place in 1977 and it was last held on the Thames at Henley in 1997.



Richard and Sally Howard with Keith Langridge on Electron

The main sponsor of this year's festival was British Waterways who unveiled their new canal boat *Waterscape*, which is fitted with the Thames Electric Launch Company's Selectric system, enabling it to be powered either

by the diesel engine or the electric motor. *Waterscape* carried on downstream after the show and tried out both motors on the tidal and non-tidal river.

The festival was also financially supported by the Environment Agency who brought their inspection launch *Colne*, again with a Selectric hybrid system.

EBA business members exhibiting at the show were Bossoms and the Thames Electric Launch Company.



New Minn-Kota motor

Bossoms were showing their new electric motor and the 'Oyster 14' open launch, with examples on the stand and in the water. Thames Electric were demonstrating their *Dragonfly 12* open boat and their new Minn-Kota 2 horse-power electric outboard motor, designed for full-time propulsion of heavy displacement boats up to 30 feet.

The EBA stand was in an excellent position by the Beale Park lake and John Hustwick and Barbara Penniall were kept busy over the weekend handing out literature and answering questions. Seven new members joined the association and more took information away with them and joined over the following weeks. One couple joined on the first day and, keen to start boating as soon as possible, went over to Bossoms and bought the electric 'Oyster 14' on display. We look forward to seeing them afloat at future events on the Thames.



The EBA stand among the canal boats

TECHNICAL REPORT

Electric Points 'Fully Charged'

In the second of a series of short articles on technical aspects of electric boating, EBA Technical Officer Paul Lynn discusses batteries and battery maintenance.

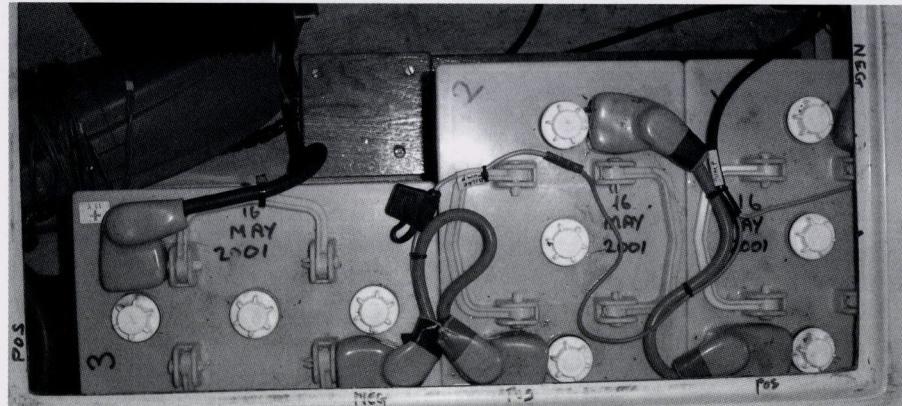
Generally hidden from view, often taken for granted, occasionally cursed – batteries are a vital and expensive ingredient of electric boating. Properly looked after they give us years of reliable service, but abused or ignored they may let us down. So what do we need to know and do about batteries – especially as the laying-up season approaches and (sorry, Australia!) our thoughts turn to winter pursuits?

The so-called lead-acid battery is the workhorse of most electric boats. Made up of an assembly of cells, each filled with dilute sulphuric acid and generating about 2 volts, its basic operation – a complex electrochemical reaction – is the same as in a car battery. However there are some important differences. Whereas a car battery's most arduous duty is to supply a very large current (typically hundreds of amps) of short duration to start the engine, a boat's batteries supply much smaller currents (typically tens of amps) to the propulsion motor for hours on end. And whereas the car battery is not designed to cope with 'deep discharge', we quite often need to discharge our boat batteries heavily (say down to 20% – try not to go further than this) before recharging them at a charging point. So they should ideally be capable of many 'cycles' of charge-discharge, and are commonly described by terms such as *leisure, deep cycle, or semi-traction*.

Whatever the precise description it is probably fair to say that you get what you pay for. Give high prices for high quality and be a proud owner, or opt for cheap leisure batteries (widely advertised for caravans and boats) and accept that you will probably have to replace them more often. Whatever the decision, there are certain do's and don'ts which should help you get the best from them.

In Use

- Keep your batteries topped up with distilled water, so that the liquid electrolyte comfortably covers the plates.
- Always recharge your batteries as soon as they have been discharged. Never leave them discharged for long, as they may suffer irreversible damage.
- Avoid heavy overcharging, which can also damage batteries and cause excessive 'gassing' and loss of liquid electrolyte (Note: a good battery charger automatically regulates its current to prevent this).
- If your boat is idle for more than a month or so, do not assume that all is well. All batteries discharge themselves slowly when not in use, and should therefore be given a top-up charge from time to time.
- Keep the batteries clean and ensure that the terminals are



connected tightly. A little Vaseline (or approved grease for battery terminals) on the terminals helps ensure good electrical contact.

In Winter

- Do not simply 'switch off and forget'. Ensure your batteries have sufficient electrolyte in each cell and are fully charged at the start of winter.
- It is important to recharge the batteries every two months over winter and keep an eye on the electrolyte level, topping up with distilled water if necessary.
- Remember that devices like a battery meter use a small amount of current, which is insignificant in the short term but can flatten a battery over several months. If the boat is in the water, small leaks can lead to the bilge pump switching on regularly, again using up battery power.
- When charging is completed, the battery charger should be disconnected from the mains. Most battery chargers switch off and stay off after charging. They will not start up again automatically but have to be switched off and on again.
- Give your batteries another full charge before using them again (Note: you may find that they need to go through a few charge-discharge cycles before getting fully back into their stride).

And finally, 'In Earnest'

- Always remember that a charging battery tends to 'gas', the more so as it approaches full charge. The hydrogen gas given off forms a potentially explosive mixture with air. It is therefore essential to give batteries adequate ventilation – whether they are on the boat or elsewhere.
- Never forget that a lead acid battery is a powerful beast which can cause damage or personal injury if mishandled (for example, by accidentally short-circuiting its terminals). Please don't mistake apparent lethargy for impotence! If in doubt about any connections or procedures, always obtain expert advice.

So stay 'Fully Charged' and look forward to the next electric boating season with confidence!

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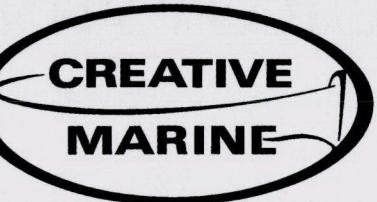
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CRUISING BY NIGHT – SILENT

John Hustwick reports on the Norfolk Cruise Weekend at the beginning of September. Linda Barrell took the pictures.



Moonglow

It was that time of year when the EBA looked to the east for entertainment – well as far as Norfolk anyway! Our well established cruising weekend had begun again, with a small group of members gathering at John Williams' boatyard in Stalham for the Saturday cruise and dinner. Members had travelled far and wide to take part, Tony and Janet Dunning coming all the way from Cumbria, they think it's that good!

The boats taking part this year were *Electron*, which Emrys and Linda Barrell had towed from their home by the Thames, *Moonglow*, Tony Fogarty's very successful electric conversion cabin cruiser, Cedric Lynch with his solar powered canoe – still displaying the registration numbers from his visit to the Solar Boat Challenge in France and the 'Festival 23' from John Williams' yard. Richard and Diana Hyde slipped their launch *Oscar* at Wayford Bridge and joined us there.

With wine and strawberries at the ready for a preprandial, we quietly slipped our moorings and cruised leisurely from Stalham towards Wayford Bridge in the September sunshine, going as always via the top of Barton Broad and Barton Turf. Already well relaxed and getting hungry, we tied up at Wayford Bridge and walked across to the hotel where we met those who had opted to go by road to the dinner. So, like last year, 24 of us sat down to a very enjoyable dinner, all served up by very friendly and helpful staff. Everyone



Broads Authority launch Charles Collier

found time to renew acquaintances, or make new ones - several members were taking part for the first time. Relaxed conversation and jollity was only interrupted by the need to eat the delicious food, and what a choice there was! Then all too quickly the meal was over and we were saying goodbye to old friends, but it meant we were about to start that very special part of the weekend - the moonlight cruise. Just like last year the conditions could not have been better, with a clear starlit sky, no wind and the moon glinting on the dark still water. As we slid silently through the darkness, a newcomer to electric boating was heard to remark "This is a perfect evening, it's just so quiet and relaxing!"

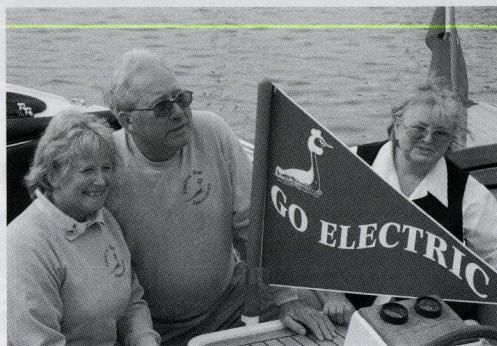
Sunday morning dawned bright and sunny and bode well for the cruise to South Walsham Broad and Silent Sensation. The previous night's flotilla

gathered once again and then we were off, but unlike the moonlight cruise we were not alone. In fact we were stem to stern with hire craft all the way down the River

Ant, meaning everyone had to be very vigilant, especially poor Cedric in his canoe. Anyway about two hours later, having met the Hydes with *Oscar* at Fleet Dyke, we arrived safely at the waterfront of John and Pat Atkins' property on South Walsham Broad, where a number of people and members had gathered already.

Silent Sensation had attracted several electric boats for the day and so we were joined by David Williams with *Terrapin*, the sailing

cruiser *George Betford* on hire from Camelot Craft, the narrowboat *Silver Sail* with Fraser and Ann Brown and *Patience*, a Freeman 25 cruiser owned by Albert and Val Lambert which



John and Pat Atkins with Barbara Penniall

SENSATION BY DAY



John Williams had very recently and successfully converted to electric propulsion. Hopefully *Patience* and *Moonglow* will be followed by many more electric conversions now people can see it is totally practical, especially for the Broads environment. Later in the day the Broads Authority launch *Charles Collier* joined us, cruising at the time under electric propulsion – what else!

Lots of talking took place on the waterfront as technical details were exchanged, hatches lifted to reveal their secrets, ideas discussed and ad hoc trips taken in the boats to demonstrate the benefits of electric boating. Just as well Pat Atkins had plentiful supplies of tea and coffee on hand! Barbara also found time to discuss electric boating with a

reporter from the Norfolk Afloat publication and so hopefully more publicity will make people aware of what we are all about.

Finally, a much smaller flotilla made its way back to Stalham in the late afternoon, as some members recovered boats at South Walsham in preparation for long drives home.

In closing I would like to thank Sandy Williams for organising the dinner at the Wayford Bridge Hotel and John and Pat Atkins for their hospitality at Silent Sensation. If you haven't been to the cruising weekend before, it is well worth the trip to Norfolk, even if you can't bring a boat.

LETTERS

From James Andrews, Windermere

Dear Sylvia Rutter,

I want to say how much my wife and I enjoyed the Summer issue of Electric Boat News. We especially loved the wonderfully written narrative about Geehi's double crossing of Gulf St Vincent, and the very comprehensive article outlining the EBA's first 21 years. So many achievements!

Seeing our old Frolic Humming Bird getting an honourable mention in the bit about the 1998 Windermere EB Rally, was a pleasant surprise. We understand that Humming Bird went south to be a hire boat on the Thames. (We keep looking for background glimpses of her in EBN photos, but no luck yet!) Her place at our jetty has been replaced by a really far more suitable and happily silent green Mystic, named Peaceful.

I've lost count of the number of electric boats now using Windermere and, incidentally, elsewhere among the Lakes, but here there's quite a variety of Frolics, large and small, and hire-out Mystics. I suspect that once the Windermere Speed Limit comes into force in March 2005 and quietness reigns to a more satisfactory extent, electric boats will be even more favoured.

I happen to be one of a small working party set up to review The Arthur Ransome Society's publications, and when I showed off EBN to the group, everyone was hugely impressed with its quality, both of paper, print and artwork. Well, you certainly have my congratulations on the recent issue!

I do believe that more narrative copy would go down well – certainly in this household. Do encourage it!

With kind regards,

Jim Andrews

From Alan Fry

Dear Sylvia

Re: Fuel Cell Cars (Kevin Desmond's letter)

Honda will be the first to build twenty fuel cell cars. Information can be obtained on their international web site. The cars are only for lease at the equivalent of 6,000GBP per month!! For those few members who cannot afford this princely sum do not despair; the chain store 'Cash Converters' are now selling electric bicycles!

Regards

Alan Fry

From somewhere in the Norfolk Broads!

From Richard Hyde, Huntingdon

Dear Barbara,

On behalf of my wife and myself, thank you so much for organising a delightful weekend we spent in the Norfolk Broads. We felt we were most lucky with the weather and the accommodation that had been planned. The meal on the Saturday night was absolutely superb, and the camaraderie was of the highest order. Often, when one organises these types of events, there are many brick bats. However, on this occasion, you can be sure that you have two very satisfied "customers".

With my kindest regards, and looking forward to meeting you again.

Richard Hyde

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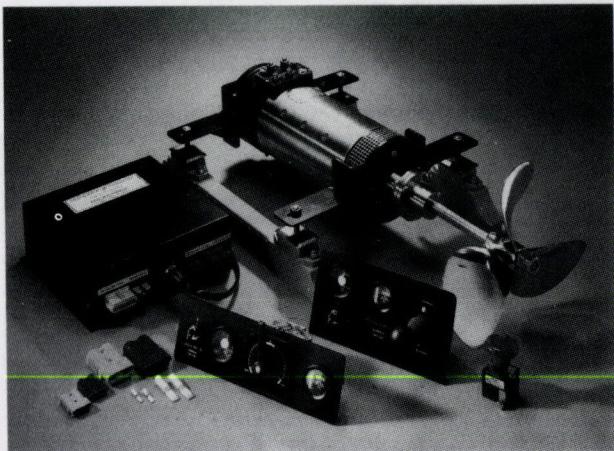
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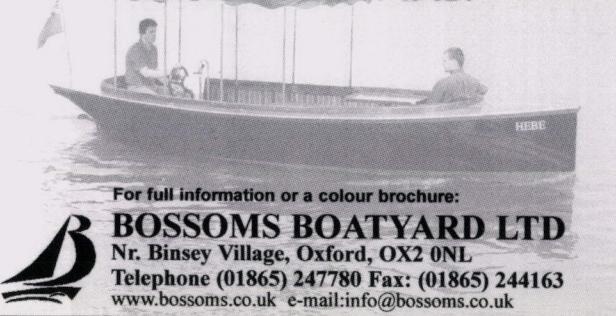
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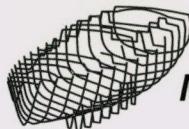
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Members wanting to buy or sell electric boats, motors, fittings or associated equipment are invited to submit a 50-word entry direct to the Editor (Note: No agents or brokers).

The information contained in members' private advertisements is provided by the advertiser and the Editor is unable to vouch for their accuracy. It is the responsibility of prospective purchasers to satisfy themselves as to the accuracy of the information given and of the condition of goods advertised.



Information sheets from the Electric Boat Association

1. **PRODUCT GUIDE & EBA TRADE MEMBERS**
(free upon request)
2. **SOLAR PHOTOVOLTAICS** by Paul Lynn
3. **ELECTRIFYING YOUR BOAT** by Hawthorne & Wagstaffe
4. **HULL DESIGN FOR ELECTRIC BOATS**
by Andrew N Wolstenholme
5. **LEAD ACID BATTERIES – OPERATION & MAINTENANCE**
by CMP Batteries
6. **HIGH SPEED ELECTRIC BOATS** by Lorne Campbell
7. **HYBRID POWER** by John Hustwick

Available:
Free to members Nos. 2-7
Non-members @ £1.50 per copy

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