



**RCEA
(SUSSEX)**

An Association for Retired Professional Engineers

NEWSLETTER August 2013

PROGRAMME OF EVENTS 2013 -2014

- | | | |
|-----------------|----------------------------------|---|
| Tuesday | 17th September | AGM and Talk, Field Place, Worthing.
'Excavation of Medieval Sugar Mill in Cyprus' |
| Thursday | 19th September | Coffee - at Spotted Cow, Angmering |
| Thursday | 26th September | Coffee - with Partners at the Swallows Return, Worthing |
| Tuesday | 8th October | Talk, Field Place, Worthing, 'Building and Flying a 1/3 scale Sopwith
Pup' |
| Thursday | 17th October | Coffee - at Spotted Cow, Angmering |
| Thursday | 31st October | Coffee - with Partners at the Swallows Return, Worthing |
| Tuesday | 12th November | Talk, Field Place, Worthing, Cooch Memorial Lecture. 'The Red
Arrows' |
| Thursday | 21st November | Coffee - at Spotted Cow, Angmering |
| Thursday | 28th November | Coffee - with Partners at the Swallows Return, Worthing |

Tuesday 10th December Talk, Field Place, Worthing, Talk ‘Industrial x-ray Inspection

Thursday 12th December R.C.E.A. Christmas Lunch, Windsor Hotel, Worthing

Thursday 19th December Coffee - at Spotted Cow, Angmering

All Talks and Meetings will commence at 2.30 pm and be held in the Chichester Room, Field Place, Worthing; unless another venue or time is indicated.

Timings for visits and outings will be as printed in the detailed description of the activity. Coffee mornings commence at 10.30 a.m.

2014

Tuesday 14th January Talk, Field Place, Worthing, ‘Thomas Brassey – Railway Builder’

Thursday 16th January Coffee - at Spotted Cow, Angmering

Thursday 30th January Coffee - with Partners at the Swallows Return, Worthing

Tuesday 11th February Talk, Field Place, Worthing, ‘Korean Rolling Stock’

Thursday 20th February Coffee - at Spotted Cow, Angmering

Thursday 27th February Coffee - with Partners at the Swallows Return, Worthing

Wednesday 5th March Visit, Brookhurst Wood Waste Processing Depot, Horsham

Tuesday 11th March Talk, Field Place, Worthing, ‘Meccano to email a career in engineering’

TBC March Spring Lunch

Thursday 20th March Coffee - at Spotted Cow, Angmering

Thursday 27th March Coffee - with Partners at the Swallows Return, Worthing

Tuesday 8th April Visit, Glyndebourne Opera House

Thursday 17th April Coffee - at Spotted Cow, Angmering

Thursday 24th April Coffee - with Partners at the Swallows Return, Worthing

Wednesday 14th May Outing, Mary Rose Museum, Portsmouth Historic Dockyard

Thursday 15th May Coffee - at Spotted Cow, Angmering

Thursday 29th May Coffee - with Partners at the Swallows Return, Worthing

Wednesday 11th June Outing, South Downs Planetarium. To be confirmed

Thursday	19th June	Coffee - at Spotted Cow, Angmering
Thursday	26th June	Coffee - with Partners at the Swallows Return, Worthing
Wednesday	9th July	Outing, West Dean College. To be confirmed.
Thursday	17th July	Coffee - at Spotted Cow, Angmering
Thursday	31th July	Coffee - with Partners at the Swallows Return, Worthing
Thursday	21st August	Coffee - at Spotted Cow, Angmering
Thursday	28th August	Coffee - with Partners at the Swallows Return, Worthing

Website for the RCEA

For latest information, log into www.rceasussex.org.uk

New Member

R. Rylatt, BSc, C.Eng, MIET

16 First Avenue, Worthing, West Sussex, BN14 9NT

Bob & Jan

01903 231466 bob@exjay.co.uk

1980-2005 Co-Founder and Director of Trend Control Systems Ltd, 1997-2002 Chief Technology Officer
Caradon PLC

Interests : Golf, Amateur Radio

NOTE

Can all members please check their own entry in the "new-style" Members Handbook, which was issued in November last year, to ensure their entry is correct in every detail i.e. address, telephone number, e-mail address, etc. Any errors or omissions should be communicated to **Malcolm Hind, Membership Secretary** so that the appropriate corrections can be made to the master copy ready for printing the 2013-2014 Members Handbook.

RCEA Insurance.

Members need to be aware that the insurance policy that the Association holds is solely for the protection for the assets and liabilities for the Association as an entity. The policy does not provide cover for personal injury or loss to individual members. Members therefore attend any of the Association's events at their own risk; although under some circumstances there may be some cover from the insurance arrangements of the venue owner.

Newsletter Entries

If you would like to provide an article for inclusion in a future newsletter it would be most welcome. We are always looking for new material. As a guide an article should be prepared as a Microsoft Word document, preferably in font size 10 and font style Times New Roman but this is not essential since all text will be 'standardised and formatted' when composing the newsletter. Pictures can be incorporated into the newsletter and are best supplied as JPEG images as separate files and separately from the text. (Word documents incorporating pictures can sometimes be very large files and are often not easy to manipulate into a suitable format for the newsletter.)

SOUTHERN RETIRED CHARTERED ENGINEERS

There is one event arranged by the SRCE between now and December to which our members have a standing invitation. This is a visit to the theatre in Salisbury on 30th November where they will have lunch in a hotel and see a matinee performance of Oliver. If anyone wishes to participate in this event, please email Tony Tomkins for instructions as how to do so.

Brief Detail – Talks, Outings and other activities September - December

AGM followed by Talk:

Worthing, Tuesday 17th September, 14.30

‘Excavation of Medieval Sugar Mill in Cyprus’

Mr Gerald Hennings RCEA

Gerald will give an illustrated talk detailing the excavation of a 16th century sugar mill in Episkopi Cyprus from an industrial archaeological viewpoint. Gerald will discuss the history of sugar, the process used to convert the raw sugar cane into sugar products and the layout and equipment used in the mill.

Talk

Worthing, Tuesday 8th October, 14.30

‘Building and Flying a 1/3 scale Sopwith Pup’

Mr Stephen Wessel BSc (Eng)

The headings to be covered in the talk on the 1/3 scale Mono Rotary Engine in a 1/3 scale Sopwith Pup are:

The concept of an unusual and challenging modelling project

The Rotary engine concept and brief history

Manufacture in a home workshop

Commissioning and installation. Flying it

Talk.

Worthing, Tuesday 12th November, 14.30, The Barn, Field place Cooch

Memorial Lecture, ‘The Red Arrows’.

Mr Dudley Hooley, Director Tangmere military Aviation Museum

A brief look at the history of aerobatics in the RAF and today’s Red Arrows.

Talk.

Worthing, Tuesday 10th December, 14.30,

‘Industrial X-ray Inspection’

Mr Alastair Sharp RCEA

A review of industrial microfocus X-ray systems from their initial development in 1930, to their practical applications from the 1980,s onward, including Computer Tomography (CT) X-ray.

Christmas Lunch

Worthing, Thursday 12th December, 12.00 for 12.30

RCEA Christmas Lunch, Windsor Hotel, Windsor Road, Worthing BN11 2LX.

The menu is as below and early booking is advised due to the limit on numbers catered for.

Applications should be received by 29th November 2013 to ensure places. The cost this year is £27.50 per person.

‘Resident’ parking tickets can be obtained from reception if hotel car park is full.
Handicap parking can be arranged by including car registration number with booking application.

Lunch Menu

Cream of Winter Vegetable Soup with garlic and chive roasted croutons
Trio of melon with mulled berry syrup
Thai Style Fishcakes set on a cucumber salad

Roast Turkey and Honey Roasted Ham With bacon wrapped apricot stuffing and Cumberland stuffing
Rosemary and Garlic Lamb served with a redcurrant jus
Individual Fish Pie. White fish in a creamy white sauce, topped with a cheddar and chive mash.
Vegetable and Bean Hot Pot (V)

Christmas Pudding with brandy sauce
Chocolate Parfait set on a cheery compote
Lemon Meringue Syllabub with a raspberry and mint garnish

Coffee and mints

REPORTS

Talk:

Tuesday 9th April 2013. Capturing the sun, the thermal story’. By Mr Tony Lord, RCEA.

In March, after one of the worst winters in these parts for many a year, Tony Lord gave a presentation about using the power of the sun to keep your home warm and dry; using Solar Thermal energy in your home. It is important to note that this is not solar electric which relies on big government subsidies to be effective. Tony had moved into Felpham village, near Bognor Regis, in late 2010. He and his wife had bought an extended 1930 built bungalow. Whilst in reasonable order, the new home needed redecorating and updating – a not uncommon story. However, Tony saw an opportunity to apply the latest green thinking to reduce energy consumption and improve living comfort.

By way of background we are all aware the energy prices are on the increase, an increase that is above the rate of inflation, and with international competition for oil this is not likely to diminish. Having bought a property with the correct orientation, bedrooms on the north side, living on the south and plenty of south facing roof space, it was decided to employ solar thermal energy as much as was practical.

How much energy is available? At the orbit of the earth the sun’s energy is 1kw per square metre. At 50° North we have the weather (clouds) as well as apparent azimuth and the thickness of the atmosphere that reduces the effective value, especially when out of the summer period. For example the sun’s altitude above the horizon is

over 60° in midsummer but only 15° in mid winter. Compensating for that is the fact that this strip of the south coast is the sunniest in the country.

The principle is that panels on the roof (vacuum tube for efficiency) gather the solar energy and that is pumped to heat a large water store. The hot water store then supplies the domestic hot water and contributes to the heating in the spring and autumn on sunny days. A small, conventional boiler provides heat when the 'sun don't shine'.

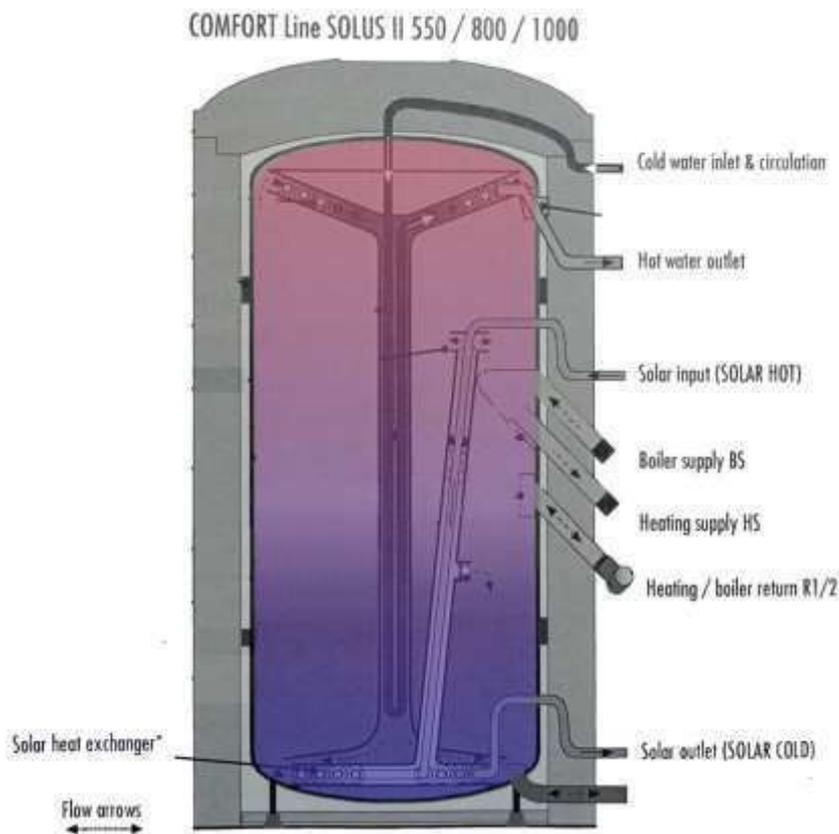
But before installing technology like this it is vital to insulate the building thoroughly. Cavity walls filled, roof insulation fitted (up to 150mm) and underfloor insulation fitted where possible. Great care was taken to ensure that the insulation envelope was complete and without gaps at corners, junctions and edges. Double glazed throughout any new window was A+ rated and all malfunctioning panes replaced.

The building was also sealed to prevent draughts. To provide controlled, pre-warmed, fresh air a ventilation system was installed that provides one and a half air changes per hour.

A control system, supplied by the storage tank manufacturers, is needed to manage the system. Once set up it only requires adjustment in the spring and autumn.

And the results? The heating costs have halved from the first winter, but the works are not quite complete and a further improvement is expected when they are. But more importantly the internal temperature in winter is maintained at over 20°, which is very comfortable, and the humidity and condensation, from which the home suffered over the first winter before the installation was made, has been completely eliminated. All in all a successful project.

For further information contact Tony directly.





Visit:

Wednesday 10th April, Network Rail Electrical Control Centre, Brighton.

The party comprised of two groups of 10 Members who visited the Electrical Control at Brighton which was accessed from Platform 2 at Brighton station.

The duty Electrical Control Operators explained their roles on controlling and operating the electrical switchgear within their area which extended to Havant in the West, Hastings in the East and East Croydon in the North.

The High Voltage switch gear was the 33kV equipment located in track side substations which are approximately 3 miles apart. They also operate the railway circuit 33kV switchgear in the Electricity Supply points. The track side substations contain the transformers, rectifiers, and the 750 volt DC switchgear that feed the conductor rails between the substations.

Two members, Ian Wetherell and Derek Webb, were on hand to answer technical, design and historical questions.

Derek Webb

Outing: Wednesday 29th May, St. Mary's House and Gardens, Bramber.

Twenty nine members and their guests attended the visit to St Mary's House, Bramber. The weather was overcast and damp but fortunately the rain kept off.

The visit was divided into three parts. First we were shown around the house by two knowledgeable guides who were able to point out the most interesting aspects of the house and relate its history. This tour of the house started on the ground floor, proceeded to the first floor and then returning to the first floor we finally ended up in the ball room (music room) where the summer concerts and wedding ceremonies are conducted. We then went into the garden area to the café / shop for tea and delicious homemade cakes. (We were all somewhat surprised expecting only tea and biscuits! No complaints, just plenty of complimentary comments to the staff.) Our final destination was a guided tour of the gardens with Roger Linton, one of the current owners and one of our guides from the house. The 5 acres of gardens, tucked away behind the house, have been a major rescue project for the last few years and all of the hard work is now starting to show. Many of the features of the garden as they were in Victorian times have been re-established and further development is planned. Our scheduled house and garden tour planned to last for about 2 hours lasted almost 3 as a result of the many questions and discussions that took place as we went round.

Ray Wort

Outing:

Wednesday 19 June Pub Lunch and Skittles The Bull Inn, Henfield, East Sussex.

Twenty four members and their guests enjoyed a very pleasant afternoon of skittles and lunch at the Bull Inn just north of Henfield. It was a gloriously sunny day which meant we were all able to enjoy the garden patio area for our lunch and drinks between the skittle matches. The scoring was very even between the two teams, Engineers and Walkers until the very last skittle when the 'visitors', the Walkers, managed to win by just three points. There was ample food for everyone and even 'doggie bags' to take home the surplus for those so inclined. The buffet consisted of Nibbles (Crisp, Peanuts, etc.), Marinated olives, Bread sticks, Garlic bread, Garlic bread with cheese, Dough sticks with garlic and pesto mayonnaise, Spicy chicken wings, and a large selection of Pizzas and Salad from their standard menu.

It was generally agreed by those who played that this skittle facility was superior to others we have visited in the past and a consensus that we should repeat this activity in the future.

Ray Wort

Outing:

Wednesday 17 July, The Royal Pavilion, Brighton

On a glorious sunny afternoon, eighteen of us (ten members and guests) gathered outside The Royal Pavilion to await our guide. Once inside she gave us a brief background to both the various phases of the construction of the Pavilion and King George IV, for who it was built; and then its eventual sale by Queen Victoria to Brighton Corporation. The tour included the spectacular dining room with its enormous chandelier, the "kings" kitchen, the drawing rooms and finally the music room where concerts were held.

After the tour of the ground floor, which lasted about an hour and a quarter, we were free to make our own way to the first floor where the guest bedrooms were situated. However, it was necessary to pass the tea room, where most of us enjoyed a cup of tea and a piece of cake, before viewing the bedrooms and finally visiting the shop.

A good visit which I hope was enjoyed by all.

Glyn Mathias

REPLY SLIP 1

To: Brenda Whitmell, Inglenook, Old Salts Farm Road, Lancing, BN15 8JD email bcwhitmell@talktalk.net

Can you please reserve me places to attend the Christmas Lunch at the Windsor Hotel, Worthing on Thursday 12th December. 12.00 for 12.30.

Full name:.....(Block capitals)

Address.....

.....

.....

Telephone Number.....Name of guest/s

E mail address.....

I enclose a cheque made payable to RCEA for **£.....(£27.50) per person**

(Separate cheque for this event please)

Applications by 29th November

Menu choices

Name 1	Name 2	Menu choice

		Cream of Winter Vegetable Soup with garlic and chive roasted croutons
		Trio of melon with mulled berry syrup
		Thai Style Fishcakes set on a cucumber salad

		Roast Turkey and Honey Roasted Ham With bacon wrapped apricot stuffing and Cumberland stuffing
		Rosemary and Garlic Lamb served with a redcurrant jus
		Individual Fish Pie. White fish in a creamy white sauce, topped with a cheddar and chive mash.
		Vegetable and Bean Hot Pot (V)

		Christmas Pudding with brandy sauce
		Chocolate Parfait set on a cheery compote
		Lemon Meringue Syllabub with a raspberry and mint garnish

(Please keep a note of your requests)

August 2013