



**An Association for Retired Professional Engineers**

**NEWSLETTER**

**August 2006**

**PROGRAMME OF EVENTS 2006 – 2007 Session**

Every Monday 10.30 am. Coffee at the Denton Lounge, Worthing Pier.

12 <sup>th</sup> Sep	Tuesday	<b>Annual General Meeting:</b>
21 <sup>st</sup> Sep	Thursday	Coffee - at Spotted Cow, Angmering
28 <sup>th</sup> Sep	Thursday	Coffee - with Partners at Beach Hotel, Worthing
5 <sup>th</sup> Oct	Thursday	<b>Autumn Buffet Lunch and Outing:</b> 11.00 am. The Winery, Highdown Vineyard, Worthing
10 <sup>th</sup> Oct	Tuesday	<b>Talk:</b> Recollections and conclusions of Bluebird K7 and the 1967 Water Speed Record Attempt. By Ken Wheeler.
19 <sup>th</sup> Oct	Thursday	Coffee - at Spotted Cow, Angmering
24 <sup>th</sup> Oct	Tuesday	<b>Talk:</b> Woking Borough Council – Energy Saving Schemes in Woking, Field Place. Date and time to be confirmed
26 <sup>th</sup> Oct.	Thursday	Coffee - with Partners at Beach Hotel, Worthing

Nov	TBA	<b>Visit:</b> J T Howarth Ltd, Worthing.
14 <sup>th</sup> Nov	Tuesday	<b>The Cooch Memorial Lecture:</b> 19 <sup>th</sup> Century Sussex, continuity and change. Chris Hare, a well-known Local Historian. <b>2.30 pm. The Barn, Field Place, Worthing.</b>
16 <sup>th</sup> Nov	Thursday	Coffee - at Spotted Cow, Angmering
30 <sup>th</sup> Nov.	Thursday	Coffee - with Partners at Beach Hotel, Worthing
12 <sup>th</sup> Dec	Tuesday	<b>Talk:</b> Railway Signalling, by Roger Penny.
14 <sup>th</sup> Dec	Thursday	<b>Christmas Lunch:</b> 12.30 pm Beach Hotel, Worthing.
21 <sup>st</sup> Dec	Thursday	Coffee - at Spotted Cow, Angmering
28 <sup>th</sup> Dec.	Thursday	Coffee - with Partners at Beach Hotel, Worthing
<b>2007</b>		
9 <sup>th</sup> Jan	Tuesday	<b>Talk:</b> African Experiences by Colin Hammond
18 <sup>th</sup> Jan	Thursday	Coffee - at Spotted Cow, Angmering
25 <sup>th</sup> Jan.	Thursday	Coffee - with Partners at Beach Hotel, Worthing
Feb	TBC	<b>Visit</b> Three Bridges Railway Signalling Centre
13 <sup>th</sup> Feb	Tuesday	<b>Talk</b> Bitter Sweet Cuba, by Dave Stallard
15 <sup>th</sup> Feb	Thursday	Coffee - at Spotted Cow, Angmering
22 <sup>nd</sup> Feb	Thursday	Coffee - with Partners at Beach Hotel, Worthing
28 <sup>th</sup> Feb	Wednesday	<b>Visit:</b> 2.30 pm Pyroban Ltd. Shoreham-by-Sea

13 <sup>th</sup> Mar	Tuesday	<b>Talk:</b> Safety Considerations, and Some Failures, in Weaponry by Jim Buckland
15 <sup>th</sup> Mar	Thursday	Coffee - at Spotted Cow, Angmering
22 <sup>nd</sup> Mar	Thursday	<b>Spring Lunch.</b> Northbrook College, Worthing
29 <sup>th</sup> Mar	Thursday	Coffee - with Partners at Beach Hotel, Worthing
18 <sup>th</sup> Apr	Wednesday	<b>Outing:</b> Pub Lunch and Skittles 12.00 The Old Bull Inn, Henfield, East Sussex
19 <sup>th</sup> Apr	Thursday	Coffee - at Spotted Cow, Angmering
26 <sup>th</sup> Apr.	Thursday	Coffee - with Partners at Beach Hotel, Worthing
16 <sup>th</sup> May	Wednesday	<b>Outing:</b> 2.00 pm. Herstmonceux Observatory, East Sussex
17 <sup>th</sup> May	Thursday	Coffee - at Spotted Cow, Angmering
31 <sup>st</sup> May.	Thursday	Coffee - with Partners at Beach Hotel, Worthing
6 <sup>th</sup> Jun	Wednesday	<b>Outing:</b> 2.30 pm Wisley Gardens, Wisley, Surrey
21 <sup>st</sup> Jun	Thursday	Coffee - at Spotted Cow, Angmering
28 <sup>th</sup> Jun.	Thursday	Coffee - with Partners at Highdown Towers, Worthing
7 <sup>th</sup> Jul	Saturday	<b>Outing:</b> 2.30 pm Rother Valley Croquet Club, Duncton, West Sussex
19 <sup>th</sup> Jul	Thursday	Coffee - at Spotted Cow, Angmering
26 <sup>th</sup> Jul.	Thursday	Coffee - with Partners at Highdown Towers, Worthing
16 <sup>th</sup> Aug	Thursday	Coffee - at Spotted Cow, Angmering

30<sup>th</sup> Aug.      Thursday      Coffee - with Partners at Beach Hotel, Worthing

**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., except at The Beach, which is from 10.45 a.m

## **Membership**

Currently our membership stands at 101

Life members 14

## **Subscriptions for 2006 / 2007**

These are due on 1<sup>st</sup> October; can you please send your cheque for £12 to the Hon. Treasurer, G Mathias, 16 Tamarisk Way, East Preston, BN16 2TL.

## **Website for the RCEA**

For latest information log into [www.rceasussex.org.uk](http://www.rceasussex.org.uk)

At least two similar organisations to our own also have their own websites, try looking at [www.rcec.co.uk](http://www.rcec.co.uk) and [www.rpec.co.uk](http://www.rpec.co.uk) to see how we compare.

## **Future Visits and Contacts**

The programme for the next year is now almost complete, but for future years we are in need of suggestions for visits within a reasonable travelling distance for our membership.

If any member has a suggestion for a suitable Technical Visit, and if possible a contact name for a first approach, it would be appreciated if this information could be given to Colin Harrison so that he can prepare a list of options for our future programmes.

Colin Harrison, 41, Cluny Street, Southover, Lewes BN7 1LN Tel 01273 447026.

## **Brief Detail – Talks, Outings and other activities September – December 2006**

**RCEA Annual General Meeting: Tuesday 12<sup>th</sup> September.**

The AGM will be held as usual in the Chichester Room at Field Place. An agenda, minutes of the last meeting and the annual statement of accounts will be issued separately.

**Autumn Buffet Lunch and visit to Highdown Winery.**

As an extra social event this year we have organised a visit to the Winery at the Highdown Vineyard...Harvesting of the grapes will be taking place through September and October. The visit arranged for the 5<sup>th</sup> October at 11.00 am will therefore coincide with this very busy time at the Winery.

The visit will include

□ **A tour, a talk, wine tasting and a buffet lunch.**

The lunch will consist of cold meats, quiche, salad etc followed by tea or coffee

The cost will be **£11.00** per person for the visit and this amount needs to be paid in full at the time of booking.

There is ample parking at the site, the numbers are restricted to about 40 people, and there is access for wheelchairs, but we have been warned that some of the ground in the vineyard is level but bumpy for wheelchairs.

Please return the reply slip at the end of this newsletter if you would like to attend.

The Winery at Highdown Vineyard is located on the A259 just before the turning into Highdown Towers. It needs to be approached from the Littlehampton / Rustington end of that section of the A259 dual carriageway going towards Worthing.

**Talk:**

**Tuesday 10<sup>th</sup> October. Recollections and conclusions of Bluebird K7 and the 1967 Water Speed Record Attempt. Ken Wheeler RCEA.**

The talk will be a tribute to Ken Norris, the Designer of Bluebird K7

**Visit:**

**Date in October to be announced. J T Howarth Ltd, Worthing. – Musical Instrument Makers.**

We have arranged a visit to the workshop of T.W. Howarth, generally recognised as one of the world's finest oboe makers. Their workshop is tucked away in Central Worthing just off Montague Street.

The arrangements for the visit are rather different from our usual practice in that their production is on a batch basis and they cannot predict very far in advance when our visit would be appropriate.

Accordingly, your Committee has decided that the following will apply:

- Members should send an Application Form to Richard Norton with either an email address or a stamped addressed envelope.

Richard will keep in touch with the company and inform successful applicants of the date and time of the visit. Applications will be recorded in order of receipt in case there are more than 10 applicants- please see below

The visit will not be before October 2006, as the Company will be taking delivery of a new lathe, which they wish to show us.

Because of space restrictions, the visit is restricted to 10 persons and your Committee has decided that the visit will be for Members only, however, the indications are that if more than 10 apply and there is a wish by partners to visit Howarth's, further visits may be possible.

The Application Form is at the end of this Newsletter

**Talk:**

**Tuesday 24<sup>th</sup> October: Woking Borough Council Energy Saving Schemes**

Woking Borough Council will give a presentation at Field Place describing their work establishing and running district energy saving schemes.

**The Cooch Memorial Lecture**

**Tuesday 14<sup>th</sup> November: 19<sup>th</sup> Century Sussex, continuity and change by Chris Hare, a well-known Local Historian.**

The lecture will outline the development of Sussex from a rural economy to one of industry and commerce during the 19<sup>th</sup> century.

**Talk:**

**Tuesday 12<sup>th</sup> December. Railway Signalling, by Roger Penny.**

The talk will outline the signalling systems controlling the Rail Network and recent developments.

**Christmas Lunch:**

**Thursday 14<sup>th</sup> December, the Beach Hotel, Worthing.**

Because the support for the Annual Dinner has been in decline now for a number of years, it has been decided to replace it this year by a Christmas Lunch. The lunch will be held at the Beach Hotel, Worthing on Thursday, 14<sup>th</sup> December. Lunch will be served at 12.30 pm. The cost will be **£18.50** per person.

The menu will be:

*Trio of smoked fish; salmon, halibut, and trout drizzled with a light horse radish cream*

*Fan of seasonal melon with a fruit coulis*

*Tomato and fresh basil soup*

\*\*\*\*

*Roasted fillet of sea bass served with a king prawn and saffron cream sauce*

*Roast Norfolk Turkey breast only served with pigs in blankets, sage and onion stuffing, cranberry sauce and fresh turkey jus*

*Vegetarian Dish of Brie and asparagus roulade with béarnaise sauce*

*All served with a selection of fresh vegetables*

\*\*\*\*

*Christmas pudding with brandy sauce*

*Homemade triple chocolate terrine on a pool of chocolate sauce with café curls*

*Cheese and biscuits*

\*\*\*\*

*Coffee served with mince pies*

Please return the reply slip at the end of this newsletter with your choices not later than **21<sup>st</sup> November**

Record your choices here for your own records: Number of

Trio of smoked fish.....

Number of Melon.....

Number of Tomato soup.....

Roasted fillet of sea bass..... Roast

Norfolk Turkey breast.....

Vegetarian Dish..... Number of

Christmas pudding ..... Number of

Chocolate terrine .....

Number of Cheese and Biscuits .....

## **RCEA Archives**

Thanks to the work of Brian Buckroyd, our Chairman, we are able to add to the end of this newsletter a copy of a booklet produced by the RCEA, then called the Association of Retired Engineers, summarising the formation of the Association and its activities in the period 1951 – 1957.

It is intended to publish further extracts from the archives in future Newsletters if Brian finds any further interesting material.

## **REPORTS**

### **Outing:**

#### **Wednesday 5 April 2006, Newhaven Fort.**

26 members and their ladies enjoyed an afternoon visit on a day which was sharp, clear and sunny, showing the views of Newhaven, its Harbour and the coast to Seaford Head, to their advantage. On arrival we went to the Lecture Room, one of the many restored areas of the Fort. Our guide for the afternoon, Paul Baldock, gave a half hour slide presentation on the history of the Fort to the present day.

England has not been successfully invaded since Roman and Norman times, when the landings were made on this south-eastern coastline. The Spanish Armada sailed close by but was not able to attempt a landing. The history of conflict with nearby France was ever present, and when Napoleon III in mid 19<sup>th</sup> century, fortified his coastal ports and armed them with ironclad ships, England responded. Under Lord Palmerston, a series of coastal fortifications was built from the Thames Estuary and along the south coast.

Newhaven Fort was built to guard the entrance to the River Ouse, an important route to London. It was designed by a young Engineering Lieutenant Ardagh and constructed by his team of 250 men throughout the 1860s. The Fort featured the first military use of concrete, and instead of standing prominently as castles of old, was blended into the surrounding land. Much use was made of local materials, beach shingle for the concrete, the 6,000,000 bricks made from local clay. The guns came from Woolwich and were first fired in 1872.

The French threat did not materialise, and for the next 40 years the Fort was manned by Volunteers and updated with modern gunnery and equipment. During World War I, the Fort guarded the Harbour, which supplied the British Expeditionary Force. Following the Armistice, the Fort was little used and reduced to a skeleton staff.

At the outbreak of World War II, the importance of coastal defence in this area was realised and Newhaven Fort was re-garrisoned and armed. All Seaford Bay was mobilised to resist invasion. Again it did not take place but there were many air raids. The raid on Dieppe in 1942 was the single event of military importance involving the Fort, when 5000 men, Canadians, U.S. Rangers and British Commandos, with

equipment, sailed from Newhaven to briefly occupy Dieppe, as a trial for the later D Day Invasion. The Raid did not proceed according to plan, but bitter and valuable lessons were learned.

The years following World War II saw major neglect and failed projects affecting the site. However, finance became available, the Fort was taken over by Lewes District Council and restored to its present state as an attraction and educational facility. Though much remains to be done, it is an achievement that Newhaven Fort has been saved and restored.

Following the presentation, our party went on a tour, which included exhibitions of the two World Wars, the magazine, gun emplacements, the magnificent coastal views and finally refreshments in the Searchlight Café. Our Guide and Organiser were thanked for a splendid afternoon. C Harrison



### **Outing:**

#### **Tuesday 16th May 2006, Michelham Priory and Gardens**

Twenty-three members and guests attended the outing to Michelham Priory, a Tudor mansion hidden away in the Sussex Countryside where the Cuckmere River winds between the South Downs and the Pevensey Levels. The site was originally that of an Augustinian Priory, set on a moated island and surrounded by seven acres of beautiful, tranquil gardens. It has the longest medieval water-filled moat in England and the gardens are a mix of formal gardens and wilder, more natural areas.

The outing took the form of two guided tours, the first around the gardens and then after a short interval for tea, a guided tour of the Priory.

The Head Gardener for the Priory showed us around the gardens, basically within the moated area, pointing out the various features and planting arrangements, answering many questions en-route relating to the various types of plants and planting regimes used to produce a year round magnificent display. Many of the features were based on medieval planting schemes, which our guide explained in some detail.

The walk around the gardens took a little longer than originally planned, but luckily, was almost completed before we had to take cover from the rain. The tour had, without doubt, enhanced the visit to the gardens for both the gardeners and the non-gardeners in our party.



The second tour of the afternoon was conducted by one of the senior Priory Guides. The tour commenced with a comprehensive explanation of the history of the Priory and the site. The building has been inhabited for nearly 800 years so we were able to see how it has gradually evolved through time from being an Augustinian Priory to a Tudor Mansion and then on to the present day.

The tour continued with the guide taking us through the various rooms explaining how the structure had been modified or added to over its life, pointing out the many original features which still exist and how they had been incorporated into the current structure. In each of the rooms there were displays and exhibits to look at, many of which our guide explained in more detail or demonstrated to show how these items had worked in the past.

Once again, taking this tour with our very knowledgeable guide had enhanced our visit to the Priory.

In addition to the gardens and the Priory, there is a forge, an interesting museum, a working watermill and a gift shop on site. Since the two tours lasted longer than originally schedule, most of us were unable to visit these on this occasion.

### **Outing:**

#### **Wednesday 14 June 2006, Harvey's Brewery, Cliffe High Street, Lewes.**

Hamish Elder, Joint Managing Director, who was our Guide for the evening, met some 20 members and their ladies, joined by an equal number of local visitors, at the Brewery Yard. Hamish, a direct descendant of John Harvey, was very knowledgeable and enthusiastic and played a major part in the success of the evening. The Brewery building itself reflected both its long tradition, with much wooden and iron architecture, and modern technology reflected in glowing copper and stainless steel vessels and tubing.

John Harvey and Thomas Wood started the Brewery just before 1800. Their main business was as wine merchants, and since beer was only brewed in spring and autumn, when the temperature was suitable, this allowed time for other business interests. (To this day a variety of business is maintained by the Group, including food and as coal merchants). At that time, Lewes had 7 breweries and 70 public houses. Their business continued until the death of Thomas Wood some 30 years later, when the present site, by the bank of the River Ouse was purchased. The beer produced was a dark coloured brew called Porter. It was consumed heavily even by children, water being of poor quality for drinking.

Beer is brewed by the fermentation of malted barley heated, over time, in contact with water. This action releases starches, yeast and sugar, which further produces carbon dioxide and alcohol. Beer is therefore water, with 5% to 10% alcohol with a characteristic flavour. Barley is first malted by roasting, to a degree dependent upon the required flavour and colour. This

is then crushed and ground (grist) to separate the husk. Samples of malt were tasted. The distinction between ale and beer is the addition of hops, which in England were introduced in the Tudor Period. Hops inhibit bacteria and prolong beer life. The hops are also ground to release their distinctive odour that also affects the beer taste. This odour was confirmed by the party on hops that were hand ground. Further sugar is added as required.

The vats were examined where water and grist are mixed and slowly digested at 152 degrees F. Overall 6 pints of water are required to produce 1 pint of beer. Harvey's use water from their own bore hole. The next stage is in the Copper House, where the above mixture is heated to 200 degrees F for 3 hours. Hops are added and the brew becomes sterile. Following this, the brew is transferred to the Fermentation Room, where it is cooled by heat exchangers to 63 degrees F and allowed to ferment for 7 days. This stage involves much activity within the brew with copious evolution of carbon dioxide. The surfaces of the large vats are covered with yeast, which is recovered. Finally the brew is sent to the Cask Room, where it is casked, secondary sugar is added for conditioning and flavour, and stood for 12 days.

After the tour of all areas, our party partook of a generous sampling of up to 7 beers, following which we were well disposed to thank Mr Elder and Harvey's Brewery for the excellent tour.

C Harrison

### **Outing:**

#### **Wednesday, 5 July 2006, Portsmouth Harbour Attractions.**

Over 20 members and ladies joined this Outing. The Dockyard, rich in Royal Naval history, is today given over to visitors and its attractions include, a Harbour tour by boat, Action Stations, a popular interactive display, the Tudor warship Mary Rose, raised from the seabed, and its associated Museum, HMS Victory and its Museum, the Royal Naval Museum, and HMS Warrior. Nearby is the latest attraction, the 170metre Spinnaker Tower. Our Outing had all-day tickets, allowing entry to all attractions. We concentrated on two these as a party, the Spinnaker Tower and HMS Warrior.

#### ***HMS Warrior.***

This is one of the most prominent exhibits in the Dockyard. Riding at anchor near to the entrance, HMS Warrior is over 400ft long, has three tall masts and a long bowsprit.

Following careful restoration at Hartlepool in the 1980s it is in excellent condition and is unique example of the major naval development, the transition from sail to steam.

Built in the mid 19<sup>th</sup> century to maintain Royal Naval superiority, mainly over the French, HMS Warrior represented the latest in naval might. With a displacement of 9200tons, the hull was of wrought iron and wood, propulsion was mainly by sail, but included the coal fired steam driven engines, the speed range was 13 to 17 knots. Armament was from guns that fired through ports as in the days of sail. 26 of the guns were 68lb muzzle-loaders and 14 were 110lb and 40lb rifled breechloaders. The core of the ship was the armoured citadel, an area over 200ft long, lined with a 4inch thickness of wrought iron and 18 inches of teak. This area housed most of the crew of 700, the guns and other vital equipment.

In the late 19<sup>th</sup> century, the Royal Navy massively expanded and moved into the era of the Dreadnoughts, driven by the First Sea Lord, Admiral Fisher, who in his early career was Gunnery Officer aboard HMS Warrior. Following 10 years active service and 12 years in Reserve, HMS warrior had a number of minor duties, as HQ for the then new torpedo boats, depot ship, floating workshop and an oil jetty. Though offered for scrap in the 1920s, it could not be sold, and in modern times was rescued and restored. Members are referred to the excellent website [www.hmswarrior.org](http://www.hmswarrior.org) which includes many interesting photographs.



### ***Spinnaker Tower***

The Spinnaker Tower is 170 metres high and weighs 30,000 tonnes. The concrete used to build the tower is enough to fill five and a half Olympic sized swimming pools.

There are 3 viewing platforms and the lift takes you up the first level v1.at 100 metres above sea level. The lift, which is very smooth, travels at 4 metres per second and gets you to level1 in less than 30 seconds. There is also a glass floor to walk over (if you are brave enough) which gives a view down.

You can walk up the stairs to the next level where there is a touch screen that tells you what's on 3 sides and gives some info on each. This links in with the other attractions such as the Mary Rose. There is a gift shop selling the usual souvenirs.

Next you can walk up to the Crows Nest, which is open at the top and is bigger than expected but with much the same features as the previous level. There is an owl on the very top outside but you have to be quite good to spot it.

A person who tells you basic info on the level you are going to mans the lift and the trip ends at the Tower Café Bar where you can recover and sit down and have a well deserved drink.

Visiting the Spinnaker Tower is a good experience being completely safe and secure, well run by well-trained staff. Full information can be found on the Spinnaker Tower's web site.

[www.spinnakertower.co.uk](http://www.spinnakertower.co.uk)

John Harding.



**REPLY SLIP 1:**

**To Ray Wort, Sylvan Glen, Longlands, Worthing BN14 9NS Tel 01903 217747**

I/We wish to attend the **Autumn Visit to the Winery at Highdown Vineyard,**  
11.00 am Thursday the 5<sup>th</sup> October 2006.

**Full name**.....(Block capitals)

**Address**.....

.....

.....  
**Phone number**..... **Number of persons**.....

I enclose a cheque made payable to RCEA for £.....(**£11.00 per person**)  
Applications please by **21<sup>st</sup> September 2006**.

**REPLY SLIP 2:**

**To: Richard Norton, 106, Wallace Avenue, Worthing BN11 5QA Tel 01903 242204**

I/we wish to join the list for the proposed visit to **J T Howarth Ltd, Worthing. – Musical Instrument Makers. (Date to be confirmed)**

**Full Name**.....(block capitals)

**Address**.....

.....  
..... **e-mail**  
**address** ..... **Phone**  
**No**.....

**Applications please by 1<sup>st</sup> Oct 2006.**

**I have enclosed a SAE for reply (if no e-mail address listed above.)**

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## REPLY SLIP 3:

To **Brian Buckroyd, 6 Fosters Close, East Preston, Littlehampton BN16 2TL**  
**Tel 01903784926**

I/We wish to attend the Christmas lunch on **Thursday 14<sup>th</sup> December, at the Beach Hotel, Worthing.**

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

**Address**.....

.....

.....

**Phone No**..... **Number of Persons**.....

Number of Trio of smoked fish..... Number  
of Melon.....

Number of Tomato soup.....

Roasted fillet of sea bass..... Roast

Norfolk Turkey breast.....

Vegetarian Dish.....

Number of Christmas pudding ..... Number  
of Chocolate terrine .....

Number of Cheese and Biscuits .....

I enclose a cheque made payable to RCEA for      **£.....(£18.50 per person)**

**Please return this reply slip by 21<sup>st</sup> November 2006**

**Archive Material to follow:**