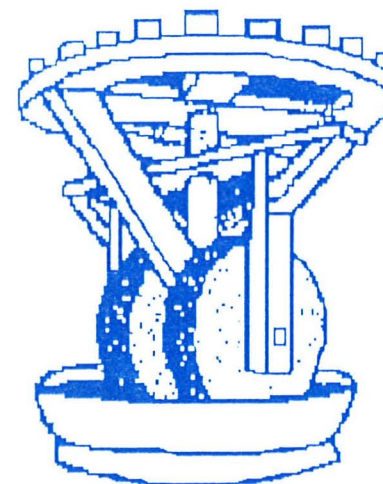


'TOUCHPAPER' ©

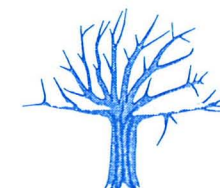
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Touchpaper

The Newsletter of the
WALTHAM ABBEY ROYAL GUNPOWDER MILLS
FRIENDS ASSOCIATION



DECEMBER
1999



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PLEASE NOTE: Deadline date for submissions for
the next issue is 15th February 2000



EDITORIAL

It has been a busy but very fruitful year for the Association. We have taken on more responsibilities at the Site, have increased our membership and there has been a large increase in the number of members at Working Parties.

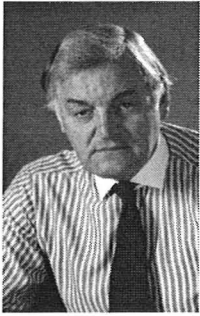
This coming year will see some great changes with the start of the capital works leading up to the opening in April 2001 - the first year of the next millennium!

It saddens me to see the increasing hype and perpetuation of the misconception that next year, 2000, is the start of the second millennium when, in fact, it is the last year of the first millennium and the last year of the 20th century. There! I've had my say on the matter and if the rest of the world wants to go along with such an elementary mistake, so be it.

Irrespective of that, what I would like to do is to wish you all a Very Happy Christmas and Very Best Wishes for the coming Year.

Norman Paul
Touchpaper Editor





A MESSAGE TO THE FRIENDS FROM TREVOR KNAPP

CHAIRMAN OF THE WARGM OPERATING COMPANY

To the members of the Friends Association:

The Friends Association is one of the strengths of the Company. A knowledgeable and active group, well integrated with the local community, its activities raise public awareness of the Company and its ambitions and reflect well on the project.

The Association has been able to take on increasingly essential responsibilities, from day to day care of aspects of the site, to cataloguing artefacts, researching the location of others which would be valuable to us and arranging for their safe storage on the site. As the project approaches opening the Friends, with their invaluable and close knowledge of the site, will be able to contribute in a number of further ways, which will be important to the success of the enterprise.

This year has seen a number of site visits and tours, excellently organised and well presented by the Friends, together with off site lectures and presentations. Although the site may be less accessible once in contractor's hands, I expect opportunities for this valuable work to continue. We aim to have a national standing as a centre of explosives technologies, but a prime aim of the Company must also be to establish local confidence and interest, and to work closely with the local communities. Here the Friends can play a crucial role.

It is therefore with considerable pleasure that, on behalf of my Board colleagues, I express our gratitude and appreciation for the hard work and enterprise which the Association has given so willingly to the Company in the last year; we look forward to your continuing help and support, both up to opening and in operation. I know that the Foundation Trust members are also very aware of the work that you do and have asked to be associated with the Company's thanks.

Trevor Knapp
Chairman WARGM Operating Company

November 1999

ASSOCIATION AGM

The AGM of the Association was held at the WARGM Site on the morning of Friday 8th October with some 58 members in attendance.

The Chairman reported that we have had a very successful and busy year since inauguration and that membership was increasing. He welcomed the fact that we were attracting many new members from the general public in addition to those who had worked on the Site. Thanks were given to those more active members who have carried out many tasks at working parties and acting as tour guides for visiting groups.

The existing Officeholders and Committee were prepared to stand and in the absence of any other nominations were re-elected:

Chairman - Norman Paul

Treasurer - Jim Burgess

Secretary - Richard Penfold

Committee Members:

Ernie Cooke

Bryan Howard

Dave Manners

Dave Sims

John Wright

The following amendment to the Constitution proposed and seconded by the Association Committee was carried unanimously.

PARA 3. Membership, section (ii) Categories of membership -

add "Other Groups or Societies with similar interests may affiliate to the Association but such members will not be eligible to vote or stand as officers or Committee members of the Association".

The Treasurer presented audited accounts for the financial year ending 31st May 1999 showing a healthy balance of £1329.69. Since the end of the financial year significant expenditure had taken place with the ordering of the Friends Ties but this has been offset by income from annual subscriptions due from June this year. Also circulated was a financial statement of the financial position at present showing a very healthy balance. Thanks were expressed to the honorary auditors, Messrs. Atkins and Ives, who were appointed as auditors for the current year.

Those attending were invited to tour the site after the meeting.

RECOLLECTIONS OF THE EARLY DAYS IN THE RGPF MAIN LAB

When I joined the Lab staff in 1935 it consisted of a foreman (W C Blanchard), Alec Baynes, George Smith, Percy Smith, Ted Hitch, R H McLintic, Freddie Dell. 'Tich' Freeman, S E Smith (Jimmy), Les Grindrod and myself. Only one post was established (the foreman) all the rest were temporary, despite the fact that Alex Baynes was the lab boy when Sir Robert Robertson was Chief Chemist Research and both George and Percy Smith had joined in 1910. Eventually, in 1937, after representation by the Lab Assistants Association section of the IPCS, we were given 1 Assistant Two and 4 Assistant Three posts, all of which went to the longest serving staff. By then R H McLintic had moved off to ECP at Harwich and launched a career which went through A DOF(X) to become the first Director of ROF Burghfield where nuclear warheads were manufactured. Freddie Dell also got his degree and joined ROF Irvine soon after it opened.

In 1936 Les Cole and Alan Charter were recruited straight from school, followed in 1937 by George Whitbread and Jim Jeacocke, 'Snoop' Costen and Eric Speller. 1938 saw the advent of Cyril Povey, Harry Burr and 'Ozzie' Blay. A number of older people were also recruited during this time; Bill Roberts, 'Fanny' Adams, Charlie Picket, Gary Cooper, Larry Lerner and Boris Barrett are those I remember. There were other younger recruits whose names I cannot recall but they probably came from schools other than Latymer and Enfield Grammar.

The Main Lab had electric lighting (DC) but the apparatus was all heated by gas - even the fume cupboard was powered by a gas jet burning in the exhaust flue! There was no such thing as a thermostat and stability test baths were filled with constant boiling mixtures of glycerine/water fitted with condensers. Standard ground glass joints were not available and each joint was handblown and ground by hand on a treadle lathe. Aperiodic balances were unknown and we used 'riders' to obtain 3rd and 4th decimal places, even on the large balances in the old 'Gas Room' which had capacities of several kilos and had been used to weigh bomb calorimeters in days of yore.

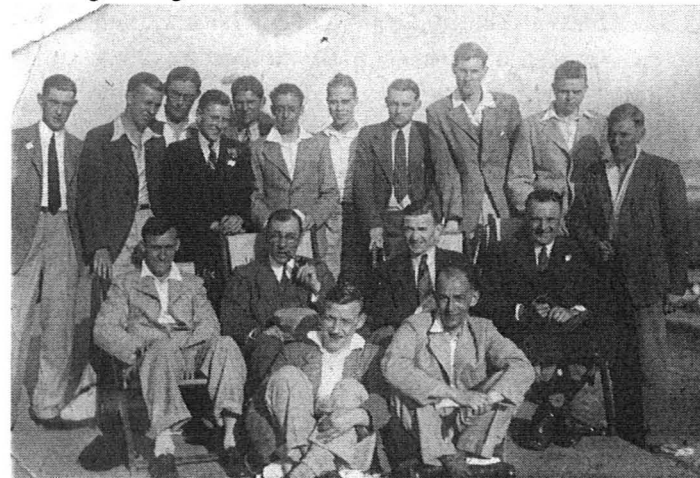
In the Heat Test Room, cordite was ground in a mill like a coffee mill but fitted with 2 handwheels just like those on old fashioned mangles. Similar hand wheels provided the drive for the Vacuum Pump used in the Vacuum Stability Tests on tetryl and this was used in a small room containing baths heated to 120½C.

Everybody rode bicycles, including Mr Blanchard, who was the slowest rider I have ever seen. I firmly believe that the lunch break was 1 hour and 10 minutes to enable him to cycle home to Enfield Highway and back (about 4 miles in total) and to clock back in on time. The junior staff were allowed 2 hours off per week; ¾ hour on each of 4 evenings in order to reach evening classes in London by 6.30 pm. Before leaving they had to spend at least 1/2 hour washing and drying all the glassware used by all the staff that day. Since we all cycled everywhere we clocked up several thousand miles every year and it was essential that bikes were kept in good order.

RECOLLECTIONS contd.

The tea club provided the morning and afternoon (including Saturday mornings !) tea and also shoe cleaning and shaving materials, all for the princely sum of 3d per week. The Manager (Mr Knapman) always took tea with the Lab Foreman in the afternoon and I seem to remember that, some one who had a grudge, sabotaging the milk with rennet. Unfortunately he picked the wrong bottle and it was the manager who got the tea with curdled milk!

With such a group of young people it was inevitable that all kinds of pranks were played. The cordite section book keeper (one Horace Holiday) who was housed in the Measurement Room returned from lunch one day to find a grass snake in his desk drawer. On other occasions, a Saturday lunchtime, someone's bicycle went missing and was eventually found suspended from the guttering of the Main Lab.



This picture was taken at a Lab outing in 1937 to Southend on a Saturday Afternoon. The back row (L to R) are: Bill Roberts, Phil Freeman, Fanny Adams, Jack Avis, Myself, Alan Charter, Charlie Packet, Les Grindrod, Jimmy Smith and Gary Cooper. Seated are: Freddie Dell, Alec Baynes, Percy Smith, George Smith and at the front: Les Cole and Ted Hitch. At Christmas we had trips to the circus at Olympia and held other celebrations in the Saloon Bar of the Britannia at the foot of Station Hill

It was a happy place to work, in unique surroundings, and must have provided excellent training since it produced; 1 ROF Director, 1 Inspector of Explosives, 2 Senior Principal Scientific Officers and at least 3 Principal Scientific Officers.

Dick Doe

The mention of 'pranks' reminds me of the prank, told to me by Jim Jeacocke, that they used to play on the person responsible for recording foreign matter in NC sent for Volatile Matter testing. They used to spike the samples with various bits and pieces which were faithfully recorded by their unsuspecting colleague. Dead flies and live spiders were a favourite but they were twigged when they started to include a selection of old coins! Ed.

ANOTHER ROCKET MOTOR STORY

I should perhaps have concluded my earlier story of the Aberporth rocket motors with the important detail that the following firings of our simulants were entirely successful. Moreover, detailed examination of the remains of the first round revealed a pre-existing metallurgical flaw in the coupling ring, which was deemed to be the cause of the failure.

And now for the story of a trial at P&EE Shoeburyness - this time of a genuine and quite large solid propellant rocket motor, the purpose of this trial being to observe the effect of attacking the motor with a small shaped charge.

The received wisdom of the vulnerability experts was that a moderately energetic deflagration would ensue and that only a small air blast was to be expected. Detonation Section was to measure and record the air blast waveforms at a number of points around the site. The motor was mounted horizontally some 2m above the ground on a steel framework which was sufficiently massive to prevent the motor moving. We had acquired a number of air blast gauges from the RARDE outstation at Potton Island, and others from AWRE Foulness. These were all mounted 2m above the ground on scaffolding frameworks at a range of distances out to about 20 m from the motor.

We took cover in a caravan located some distance away behind a blast wall and awaited the event. A moderately energetic deflagration it most certainly was not. Instead there was the most almighty thunderclap of an explosion. The caravan rocked violently, one of the strip lights was jerked off the ceiling and just missed someone's head.

After a suitable wait for all debris to have landed we emerged to an incredible sight. Where the rocket motor had stood there was a wide shallow crater in the ground. Of the rocket motor itself and its stand there was no sign - and no sign of our blast gauges! The site resembled nothing more than one of a large meteorite impact in somewhere like the Australian outback. After much searching we eventually found most of our blast gauges buried under varying depths of earth and in a very sorry state.

Needless to say all the airblast recordings had gone way off scale even though we had set some channels to an appreciably higher level in case the event was more energetic than expected.

After that I read vulnerability assessments with a jaundiced eye.

Jim Hawkins

AND ANOTHER TRIAL

Subsequent to the trials which Jim Hawkins attended, NCRE decided that they needed to carry out a trial to determine the effectiveness of Poly-X against an actual target. Permission was given for the target to be an old destroyer, with the proviso that it must not be sunk! I was given the job of making a 70lb charge and then attending the trial to act as safety officer, since the trial was to take place close to Rosyth Dockyard in the Firth of Forth and Poly-X had no safety certificate. The charge, suitable primed, was despatched to NCRE and, the night before the appointed date, I boarded the sleeper at Euston and asked the sleeping car attendant to wake me before arriving at Glasgow. This would give me time to get some breakfast before catching the local train to Inverkeithing, the station nearest to Rosyth. I awoke next morning to find the train still moving at a time when I should have been eating breakfast in Glasgow.

Hurriedly washing and dressing I found the attendant who informed me that the train had broken down in the night and because we were late he hadn't bothered to wake me! Fortunately we arrived in Glasgow just in time for me to rush across and catch my connection, but very hungry and thirsty. There was a car, with Wren driver, waiting for me at Inverkeithing which took me to a landing stage and then a boat which quickly transported me to a depot ship close to the Forth Bridge and the destroyer. All the instrumentation was in place and the recording electronics had been tested by the navy trials team. It only remained for the charge to be located at the predetermined spot, where its detonation would deflect the plates of the destroyer but not (hopefully) sink it.

The charge was duly produced and, with myself, lowered into a small boat and taken to where an oil drum, with red flag marker, was floating. The drum was attached to each end of the destroyer by cables of equal length and the charge, with detonator in place, gently lowered so that it was suspended at a predetermined depth on another cable, all being expertly carried out by a CPO. A third cable was attached to the drum and this was then towed out by motor boat till all three cables were taut and the charge accurately located. By then everybody had returned to the depot ship and the charge was duly detonated. A great column of water rose up followed by huge bubbles. The man in the motor boat immediately let go of the tiller, grabbed a large landing net and, steering the boat with his feet, was soon busy scooping up stunned fish that had come to the surface. Meanwhile other members of the team had been busy preparing potatoes and we all had a very enjoyable and (especially for me) a very welcome lunch of fresh fish and chips. Another tribute to Naval efficiency - incidentally the destroyer didn't sink!

Dick Doe

EVEN MORE TRIALS (AND TRIBULATIONS!)

Jim Hawkins account of the underwater trials at St. Thomas's Head brought back memories of my own. Even though the trials took place in the early '70's I can picture them as if they were yesterday.

The ERDE team consisted of Jim Hawkins, Jeff Munns and myself and, as it was summer-time we thought we would dispense with the usual B&B and rented caravans at nearby Burnham on Sea. The overnight allowance would just about cover the cost and we could take our respective spouses and offspring to enjoy the Somerset air. So it was that a certain holiday caravan site became a temporary Waltham Abbey centre of excellence - but more of that later. The trials site was approached via a track that led through a farmyard with the farmer acting as unofficial security guard. If his dogs like the look of you were in. If not it was a sharp nip on the ankles! Then on to the control point high above the Bristol Channel where our recording equipment was set up (4 double beam Tektronix oscilloscopes plus sundry bits of kit). Remember this was 25 years ago - no fancy transient recorders then. Power was by a large and old diesel generator which played 'old harry' with the electronics until we sorted it out. The object of the exercise was to record underwater explosive pressure profiles using transducers connected to the scope via long - very long- cables which snaked out over the sand and up the head to our control room.

As Jim has already said the Navy lads were very keen - sometimes too keen - they didn't always appreciate that there is a correct way to reel cables. Do it right and no problems; do it wrong and you end up with an unholy tangle as happened more than once causing Jeff to tear his hair and curse the Queen's Navy.

On one occasion, whilst waiting for high tide and taking the opportunity to catch up with some sleep in my car I was vaguely aware of a gentle rocking motion. Had I floated out to sea I wondered in my semi-somnambulant state? No, it was more mundane than that. We were surrounded by the farmer's herd of cattle and the rocking was caused by a cow scratching it's backside on the rear bumper. All very amusing until we realized that they were steadily munching their way towards our cables. We managed to head them off eventually - big things cows! - with only minor damage to our kit.

Perhaps my most lasting memory of the whole week occurred in the early hours of one morning prior to firing. Jeff and I had got up and made our way to the Jim Hawkins van - no signs of life so a gentle tap on the door was in order - no response. A slightly louder knock - still no response and so it went on. Louder knocks, yells, thumps on the window, rocking the caravan, all to no avail. What on earth had the Hawkins family had for supper? That's it we thought, we'll just have to do the firing without him and off we went. High tide that day was about dawn and we had just about set everything up and were about to push the plunger when up rolls Jim with a "Sorry lads, I overslept. Everything alright?" Personally I blamed the local scrumpy!

Eric Kendrew

RD 202

No, it's nothing to do with Star Wars robots! John Gooding's comments on RD 202 (Sept 1999 issue of Touchpaper) remind me of how it enhanced my reputation with the firework manufacturers (many more than there are now) when I joined the Home Office Inspectorate in 1963.

One of them came to see me bearing a polythene bag containing a pound or so of a black powder, a sample he had been offered. He had bought a number of wooden ammunition boxes from Defence Sales which he hoped to sell at a profit but was surprised to find that each one contained a rubberised canvas bag full of the aforementioned black powder.

He had carried out a few simple tests and reported that the material was "slightly contaminated ammonium perchlorate.". Trying to be a good inspector I asked "What is it 'slightly contaminated' with?" The reply was "Charcoal." With the comment that he was worried about the demurrage on the railway wagon containing said boxes.

I immediately said "That's RD 202." The surprised response was "That's what it says on the boxes !" I found that there was approximately 5 tons of the stuff and the wagon was on the sidings at Hertford North Station. I contacted Defence Sales and got them to take it back, what happened to it I know not. Anyway, the word went around the industry "That chap knows what he's talking about" which did me no harm at all.

Jim Jeacocke

PEBBLE POWDER

Following John Gooding's item on Pebble Powder in the last issue, I had not previously heard that term but have handled a material which could fit that description.

Towards the middle of the last war I accompanied Doc Williams to the trial ground at HMS Vernon, Portsmouth. A Y-Gun, designed for launching depth charges, was under test. This had been taken from an US dockyard as part of the Lease Lend Agreement. The depth charge was discharged satisfactorily and was then overtaken by a hail of fire balls which started numerous grass fires. After hosing down we collected some unburnt balls of 'gunpowder' which were more than 1/2 inch in diameter and could best be described as Pebbles.

Our second visit was more dramatic. We were at sea in a landing support craft, maximizing the range of a gun used for lobbing smoke floats. When seawater began to fill the cockpit we realized that we had, in fact, tested the vessel to destruction.

In those days Health & Safety was low on the agenda but we were grateful to be hauled aboard a support craft.

Vic Clifford

TOUCHBYTES

LAST OF THE SUMMER WINE

Moving the venue of the LSW to "The Crown" in the old cattle market in the town has proved popular and, as a bonus, they offer an 'OAP' meal of two courses for only £3-50.

Our 'country' members, Geoff Williams and Dick Doe haven't tried this venue yet, unless they came in July or August when I didn't manage to get there.

It is now 10 years since the South Site closed but the numbers at LSW have remained fairly constant despite a general migration away from Waltham Abbey. The latest to move away are Dave and Ann Manners who are moving to Leigh-On-Sea to be near their daughter. We shall miss Dave as he's been an active member of the Friday working parties. (*Dave tells me that despite the move he still hopes to get down to the site on most Fridays Ed.*)

As usual we don't expect anyone to turn up on the last Friday in December but look forward to meeting again on Friday 28th January 2000.

A Happy Christmas and New Year to all.
Bryan Howard

CONGRATULATIONS

- to Len and Laura Abbott who celebrated their Diamond Wedding on the 5th of September. To mark the occasion they received a card from the Queen and a superb bouquet of silk flowers from their family.

WE ARE SORRY TO HEAR OF TWO FURTHER LOSSES THIS YEAR:

"TESS' SMITH

Foreman Propellants 2 Branch
in July 1999

KEVIN THOMAS

Scientist Propellants 2 Branch
Spring 1999
from liver failure

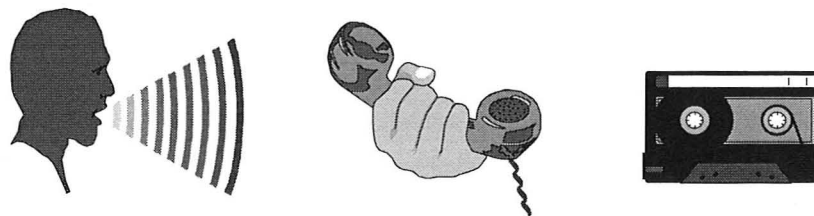
This particular section is unusually sparse on this occasion. The principal reason is that the majority of letters from members have been longer articles requiring more space and deserving of separate treatment. Indeed, I found it a bit of a struggle to fit them all in!

We are pleased to receive such articles but please don't be put off - we also appreciate short news or comments from members - even if it's just to say hello I'm still here!

The next, 'Spring', issue is due for publication in March 2000 and any articles, letters, comments etc. should be sent to the editor by 15th February to ensure inclusion.

ORAL HISTORY PROJECT

A NEW DEVELOPMENT



The Oral History project, aimed at recording on tape, for posterity, the experiences and recollections of past workers at the Site, is an on-going programme run by Ron Treadgold.

Part of the problem with this project is the distance involved getting to ex-workers who have moved out of the district. Ron Treadgold has now come up with a scheme whereby this can now be done over the telephone. Don't worry! He won't be 'cold calling' anybody. Everything is arranged by letter or phone giving the speaker a chance to collect their thoughts.

Ron has piloted this procedure with a couple of 'guinea pigs' and reports that the system works very well and a good quality recording can be obtained. It certainly makes things much easier for all concerned.

If you have a story to tell, however small or large, and would like to add it to our growing collection:

Please contact Ron at:

9 Mark Avenue
Chingford

London E4 7NR

tel: 0181 529 5673

ASSOCIATION AFFAIRS

ANNUAL REUNION

After the AGM on 8th October the Reunion was held in the Royal British Legion Hall in Waltham Abbey. Over the past few years the numbers have been falling but we are very pleased to report that, this year, there was a significant increase with about 120 people attending. Many old acquaintances were renewed and the air was thick with reminiscences and updates on what people are doing and where they are now.

The facilities and ambience of the Legion premises are excellent, as was the splendid in-house catering. Our grateful thanks to the Waltham Abbey British Legion for their hospitality. It is difficult to think of any other place that could offer such an ideal venue.

The Editor forgot to take his camera and no one has provided any photographs so we are sorry that the usual 'Rogues Gallery' isn't available.

ASSOCIATION TIES

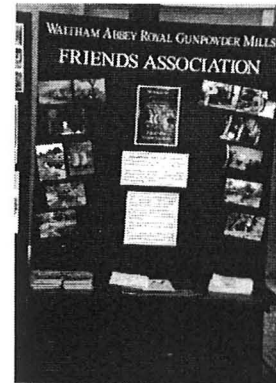
Ties sales have been going very well with a large number being sold at the AGM and the Reunion in October. Unfortunately we have now sold out of the maroon ties and have only a limited number of those in green. In hindsight, perhaps we should have ordered less blue and more red. Nevertheless we can't reorder until we near the end of the current stock.

As we have no further events planned until next year you can order them by post at an inclusive cost of £6-50. Cheques should be made payable to the WARGM Friends and can be ordered through the Editor.

CHRISTMAS CARDS

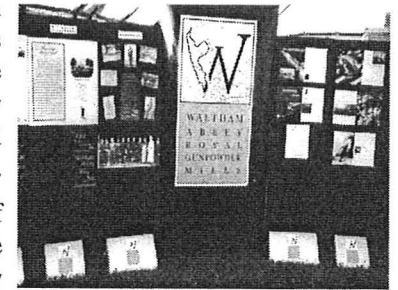
As an experiment the Secretary, Richard Penfold, designed a Christmas Card for sale in aid of funds and produced a proof copy at the AGM and Reunion in October to gauge members interest. The response was overwhelmingly in favour and orders were taken at both events. Unfortunately the timing did not allow for circulation to the entire membership and we do not believe that we can supply any additional cards in time for you to post out this Christmas. It does seem, however that there is sufficient interest to repeat the exercise next year when we will advertise in the September issue, in plenty of time for printing and despatch for Christmas 2000.

'MILLENIUM ATTACK' EXHIBITION August Bank Holiday Weekend



As reported in the last issue the Association built and manned an exhibition stand at this event on the Lee Valley Park Showground on Cheshunt Marsh, adjacent to the Lea Navigation Canal. The event was organised by Broxbourne Council and sponsored by the Lee Valley Regional Park and Inland Waterways.

From the perspective of those manning the stand we judged that it was probably



one of the best on display but then, we may have been biased. We can say however that a large number of visitors agreed with us and made a point of saying so. That the interest shown was genuine is evidenced by a significant number of new members arising (about 20), some of who signed up and paid on the spot.



Judging by the interest shown over the whole two days it was certainly well worth doing and our thanks to all those who assisted with the erection and manning of the stand. Our special thanks to Dan Gallacher, one of the Site contractors, who provided transport of the exhibition to and from the site. He refused any payment but is now a proud owner of a Friends Tie (He says he only wears a tie at 'Weddings, Funerals and Court Appearances! but was really pleased to accept it).

The stand is currently on display in the Library Hall A203 and has come in very useful when various groups have visited the site. **It was well worth all the effort.**

OPEN DAY VISITS

Association members continue to act as guides for site tours and ran the two day visits set up by the EFDC Museum in September. Both days were fully booked with many disappointed members of the public. We gathered as many names as we could and decided to run a special additional day to accommodate them on Saturday 9th October when over 80 people were given tours. It is unlikely that any such tours will be held next year because of contractor working.