Winter 2017

TOUCHPAPER

The Newsletter of the Royal Gunpowder Mills Friends Association

American Civil War

BG&GC Railway

Membership

E Branch Photograph circa 1973

The Cost of Leaving

WARGM Narrow Gauge Railway

SS Richard Montgomery

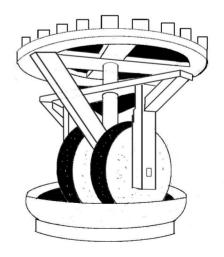
Julie's Nature

Column

Obituaries:

Tom Lewis

Alan Short



Winter 2017

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Deadline for the next issue is 23rd February 2018

Chairman's Chat

As I write this I have been watching the TV News and the flooding in N Wales and NW England. As on previous occasions of flooding I feel very sad for the people driven out of their homes and businesses. How can President Trump possibly disagree with climatic warming and not accept the scientific evidence. Higher ambient temperatures automatically allow more water vapour into the atmosphere which produces heavier rain and more flooding which we have just seen in N Wales and Scotland. It also means more melting of the ice in the Arctic and Antarctic and therefore higher sea levels threatening areas of low lying land close to the sea. Places such as Bangladesh and some of the low lying Pacific islands will become more likely to flood. We must reduce the amounts of some atmospheric pollutants which absorb solar radiation strongly.

I wish you all a very merry Christmas and a happy (and hopefully prosperous!) New Year.



Editorial

Once more I am putting together the final issue of the year noting how quickly it has passed. In the last issue I suggested it was time for a change of editor but no one has offered to take over so you are probably going to see more of the same next year.

The good news is that Geoff Hooper has finally retired and has been persuaded to sit on the committee and has been very helpful in assisting with future plans for the site. In addition he has written pieces for Touchpaper and I hope this will continue for next year. I have more material available to use in this issue which makes my job much easier, although I have had to hold some items over for a future issue! So many thanks to all the contributors. Unfortunately I have to include two obituaries.

Geoff Hooper announced that Jim Burgess had written a book of his career at Waltham Abbey and elsewhere and Jim has kindly agreed that I can use extracts in future issues, so watch this space; you may recognise yourself despite Jim disguising names!

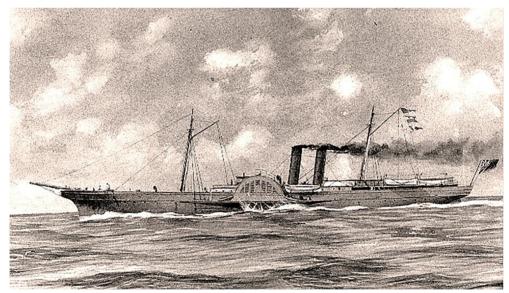
On page 14 there is an E Branch photo, some names are not known at present so if you can help identify anyone please let us know.



American Civil War - Southern Confederacy

Pt. 1 Saltpetre Shortage - A Poetic Response

Throughout the American Civil War the Southern Confederacy supply position for saltpetre -potassium nitrate, the vital gunpowder ingredient, was tight. The Confederacy mined calcium nitrate bearing earth from limestone caves and combined with potash to produce saltpetre, commonly termed nitre. This was supplemented by purchase from Europe, shipped into Confederate ports by highly profitable ships which used speed and darkness to evade the Northern vessels blockading Confederate ports. A proportion of these ships – blockade runners, were specially built for this purpose.



A sleek lined blockade runner - SS Advance

Led by a Colonel, the auspiciously named George Washington Rains – soldier, engineer and academic, search and mining teams scoured the South for nitre earth deposits.



Nickajack nitre cave - now flooded



Confederate soldiers in Nickajack cave with process equipment

The European process employed urine to speed up the procedure and keep the material wet when saltpetre was made in nitre beds, but urine could in itself be the basic raw material, the urea in urine being converted to potassium nitrate. The Southern saltpetre supply position was precarious and On 1st. October 1863 the Confederacy Nitre and Mining Bureau placed an advertisement, signed by Bureau chemist John Harrolsen, in the Selma Sentinel, Selma was an important military manufacturing centre, with a naval foundry, gun works, arsenal and gunpowder works, respectfully inviting the ladies to consider supporting the war effort by donating the contents of their night time chamber pots to the cause. A Nitre and Mining Bureau wagon with collecting barrel would tour the district each morning. The intent was serious, but not surprisingly the ad. provoked a certain degree of hilarity in the town. Poetry fostering loyalty, drumming up support etc. played an important part in the Civil War and similarly limericks following a humorous path. The unfortunate Mr. Harrolsen found himself named and the proposal satirised in a robust witty limerick:

John Harrelson, John Harrelson you are a wretched creature You've added to the war a new and awful feature. You'd have us think while every man is bound to be a fighter The ladies, bless their pretty dears, should save their p*** for nitre.

John Harrelson, where did you get the notion To send your barrel around the town to gather up this lotion. We thought the girls had work enough making shirts and kissing

But you have put the pretty dears to patriotic p***ing. John Harrelson, John Harrelson, do pray invent a neater And somewhat less immodest mode of making your saltpetre, For 'tis an awful idea, John, gunpowdery and cranky That when a lady lifts her skirt, she's killing off a Yankee.

The limerick was widely circulated, to the extent that Northern writers came to hear of it and published their version:

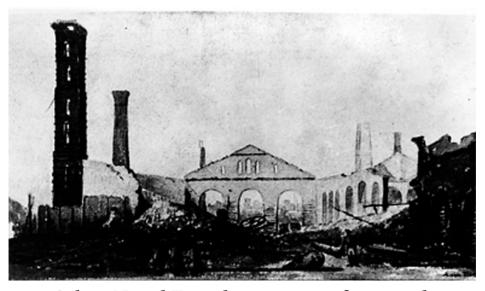
John Harrelson, John Harrelson, we've heard in song and story How a woman's tears through all the years have moistened fields of glory.

But never was it told before, how, 'mid such scenes of slaughter Your Southern beauties dried their tears and went to making water.

No wonder that your boys are brave, who wouldn't be a fighter If every time he shot his gun he used his sweetheart's nitre? And, vice versa, what could make a Yankee soldier sadder Than dodging bullets fired by a pretty woman's bladder.

And thus John Harrelson found a niche in gunpowder history.

Humour must have been in short supply in Selma when it later came under attack by Northern forces and after a desperate defence was captured. The military complex was substantially destroyed, including vast quantities of ordnance material.



Selma Naval Foundry in ruins after attack

To be continued.....

Les Tucker

PS

Nickajack was captured by Northern forces in 1864, denying the South an important nitre source, but other sources managed to make up the shortfall – it is likely Rains played an important part in this. After the War the cave lay in backwoods seclusion, visited occasionally by hikers and cave explorers, but history had not quite finished with it. In 1967 the country and western singer Johnny Cash, who lived in the area and had explored the cave some time before, returned to it. In bad health and mental turmoil arising from anxiety over his steeply declining performing career combine d with drink and drugs he intended to die there or hasten the end by suicide. However according to his later account whilst in the cave he experienced a spiritual conversion and ultimately this led to his redemption, a happy marriage and successful re- establishing of his singing career.



The Bangs Galore & Gunpowder Creek Railway

Ideas for a Petrol/Electric Railcar

I suppose I should start with, what is a Railcar and why do I want one.

A Railcar is a conundrum. For example, the early ones from the 1900's through to the 1920/30's were for light railway/narrow gauge railways, usually built by taking an petrol motor coach, removing the road tyres and fitting rail bogies to front and rear of the chassis, and attaching the petrol engine and drive train to the bogies and Bobs your uncle, you had a railcar.

See photo of a replica Model T Ford, the original was built on Charabanc chassis. With this one giving tourist rides on a 2ft gauge line in Maine USA.

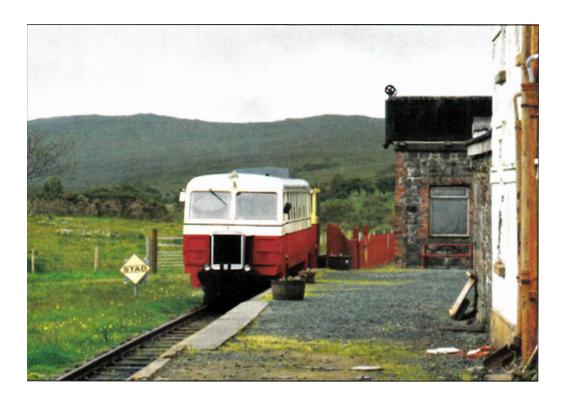


After WW1 the "find an old coach a whack some bogies under it" idea was replaced by purpose built vehicles. Probable one of the earliest makers in the UK would have been Sentinel, the steam lorry makers. They made a number of different types and gauges for use in both this country and the world, all based around a vertical boiler in the drivers cab. As late as 1928, they were supplying the Ceylon (Sri Lanka) Government with steam railcars for the island's 2ft 6inch railway system, and there are plans afoot to repatriate an example from Sri Lanka as I write.



Surviving Sentinel railcar of 1928

The next purpose built railcar can be seen and ridden in, at Flintown Railway, County Donegal, where it runs on a 3 mile line of 3 ft gauge. Dating to the 1930s, for passenger traffic, it now gives pleasure rides to the public. It is diesel powered and just gone through an overhaul.



The last example isn't strictly a rail car, but then given it is (or was a people carrier) before someone pinched its road wheels, perhaps it qualifies.

The photo was taken in Rumania in 2016 and is probably a track maintenance vehicle, but there is no information as to its history.



So why do I want one?

I love, quirky, unique machines and I have been playing with the idea of a Railcar for some months. I have three 8ft long passenger carriages that I purchased a couple of years ago, but they were a bad buy, being in very poor condition. They are an articulated set, with the middle waggon sharing it's two bogies with the front and rear wagons. Since need the old bodies totally scrapping and new ones made, they are ideal for this experiment.

I want to make something that looks like the photo of the Model T and have a 6.5hp petrol engine and 24v alternator, the aim being to create a hybrid petrol electric passenger carriage. After the 2017 season is over, I will start the experiment.

Watch this space to see how I progress.

John Wilson

Membership

Following the end of John Cook's term as Treasurer some of the tasks he used to perform have been separated from the Treasurer's role.

I have agreed to take on the Membership Secretary post only until the AGM in 2018, so please think about whether you would be interested in getting more involved with your Association and taking on this job.

The date for the AGM and Reunion has been booked for Friday 11th May 2018. There will be further details in the Spring edition of Touchpaper but I know a lot of people like advance warning of this important event.

WARGMFA Membership fees for 2018 will remain the same as last year. Please note that no cheques will be paid into our bank before the New Year.

Please return completed renewal forms and remittance to:-

Friends Association Royal Gunpowder Mills Beaulieu Drive Waltham Abbey EN9 1JY

email enquiries to:- WARGMFA@btinternet.com

Best wishes for a Happy Christmas

Daphne Clements

E Branch Photograph circa 1973

Here is another trip down memory lane; the photograph is of E Branch in the early 1970's and is taken outside L153. It is undated but I think that it is around 1973. Cyril Beck was the Superintendent, having taken over from George Whitbread a year or so earlier. George Taylor was his deputy. There are one or two faces missing from the picture, for instance Randal Wyatt and Peter Hart, but from my memory most of the then staff are featured on it. The reason for my dating of the picture at 1973 is that the Detonation (or was it Explosive Performance?) Section within E Branch was closed down a year or so later. Up until about 1971 that section had been headed by John Hicks, but he had moved to South site and had handed the reins over to Jim Hawkins, for whom I worked at the time that the picture was taken. Iim in turn was moved over to South Site soon afterwards and I then worked for Ken Bascombe when "Sensitiveness and Hazards" rather than "Explosive Performance" became the order of the day. Cyril Beck is looking uncharacteristically serious in this picture; not at all how I remember him. Whilst Jim Hawkins was on sick leave on one occasion I went in his place to one of Cyril's "management" meetings. It was a very amiable affair with much good-hearted banter until "any other business" came along. At this juncture George Taylor, always dour at the best of times, complained bitterly that whenever there was a promotion or retirement do, it was always the same people propping up the bar in the social club, and Cyril, he said, should do something about it. Cyril of course was no stranger to alcohol, being an expert in rather good and very strong home-made wine and a liking for the social life. He was most reluctant to intervene in this matter, much to George Taylor's chagrin. I am very glad that Cyril chose the right path!

Geoff Hooper





ċ	Tony Burton	Les Cole?	Bert Dunwoody	DickieDoe	Les Bates	į	Geoff Hooper	Chris Robbins	Bert Daniels			
40	41	42	43	44	45	46	47	48	49			
Dave Hartley	٠.	Ken Bascombe	Jim Burgess	٠.	Gordon Bromberger	Jim Sumner	Jim Hawkins	٠.	Eric Kendrew	Doug Tasker	Tony Whittaker	Charlie Cleves
27	28	29	30	31	32	33	34	35	36	37	38	39
Bill Walker	Pam Garrard	John Jenkins	Bob Benge	į į	Eddie Clarke	George Taylor	Blanco White	Charlie Miller	Ray East	Norman Smith	Cyril Beck	Roy Livermore
14	15	16	17	18	19	20	21	22	23	24	25	26
1. Ernie Cooke	2. Bob Lowe	3. Brian Locke	4.?	5. Bert Cordell?	6. ?	7. Reg Westlake?	8.3	5.6	10. Jeff Munns	11.?	12.? 25	13.?

The Cost of Leaving

Imagine the scene at;..... xxxxxxxxx Golf Club!!

Dave Davis is at the golf club returning his locker key when Mr Barnier the membership secretary sees him.

"Hello Mr Davis", says Mr Barnier. "I'm sorry to hear you are no longer renewing your club membership, if you would like to come to my office we can settle your account".

"I have settled my bar bill" says Mr Davis..

"Ah yes Mr Davis", says Mr Barnier, "but there are other matters that need settlement"

In Mr Barniers office Mr Davis explains that he has settled his bar bill so wonders what else he can possibly owe the Golf Club? "Well Mr Davis" begins Mr Barnier, "you did agree to buy one of our Club Jackets".

"Yes" agrees Mr Davis "I did agree to buy a jacket but I haven't received it yet". "As soon as you supply the jacket I will send you a cheque for the full amount".

"That will not be possible" explains Mr Barnier. "As you are no longer a club member you will not be entitled to buy one of our jackets"!

"But you still want me to pay for it" exclaims Mr Davis.

"Yes" says Mr Barnier, "That will be £500 for the jacket. "There is also your bar bill".

"But I've already settled my bar bill" says Mr Davis.

"Yes" says Mr Barnier, "but as you can appreciate, we need to place our orders from the Brewery in advance to ensure our bar is properly stocked".. "You regularly used to spend at least £50 a week in the bar so we have placed orders with the brewery accordingly for the coming year". "You therefore owe us £2600 for the year".

"Will you still allow me to have these drinks?" asks Mr Davis. "No of course not Mr Davis". "You are no longer a club member!" says Mr Barnier.

"Next is your restaurant bill" continues Mr Barnier. "In the same manner we have to make arrangements in advance with our catering suppliers". "Your average restaurant bill was in the order of £300 a month, so we'll require payment of £3600 for the next year".

"I don't suppose you'll be letting me have these meals either" asks Mr Davis.

"No, of course not" says an irritated Mr Barnier, "you are no longer a club member!"

"Then of course" Mr Barnier continues, "there are repairs to the clubhouse roof".

"Clubhouse roof" exclaims Mr Davis, "What's that got to do with me?"

"Well it still needs to be repaired and the builders are coming in next week", your share of the bill is £2000".

"I see" says Mr Davis, "anything else?".

"Now you mention it" says Mr Barnier, "there is Fred the Barman's pension". "We would like you to pay £5 a week towards Fred's pension when he retires next month". "He's not well you know so I doubt we'll need to ask you for payment for longer than about five years, so £1300 should do it". "This brings your total bill to £10,000" says Mr Barnier.

"Let me get this straight" says Mr Davis, "you want me to pay £500 for a jacket you won't let me have, £2600 for beverages you won't let me drink and £3600 for food you won't let me eat, all under a roof I won't be allowed under and not served by a bloke who's going to retire next month!"

"Yes, it's all perfectly clear and quite reasonable" says Mr Barnier.

"P**s off!" says Mr Davis

Now we understand what Brexit is all about.

Letters

IRA tale

Back in the days of the I.R.A crisis I employed a really nice young Irish guy, Frankie S. in the packing department. Unfortunately as time went on he became very friendly with a young female Irish activist whose name escapes me, but who featured in the press a lot. He was in her flat one evening when she got a call and said she would have to pop out for a few minutes, no sooner had she left than the police raided the flat. Frankie S. was taken into custody. The very next day our business was raided and the police went through the building with a fine tooth comb. All was well until they reached the workshop were we serviced and repaired sophisticated metrology equipment. There they found some rather volatile cleaning fluids we used, they considered them of an explosive nature and removed them, which was rather silly as we had more delivered the next day. Frankie S. was duly released, but we never heard from him again.

Russell Orchard

I enjoyed reading the item by Geoff Hooper regarding the medal ceremony in 1991. It was good to see some old friends pictured there. In the last picture right at the front is Ivor Quickenden looking straight at the camera, a former colleague in ISRG proudly wearing his 200 plus tie. Ivor was a great humorist but with a limited repertoire of jokes. To save time, we numbered them so he would walk past and shout out "number 16". I don't remember the joke now but thinking about it still makes me laugh.

A couple of other names not credited but I am sure known to many are Bill Pember and Dennis Wren, again former colleagues in ISRG.

Richard Burlend

WARGM Narrow Gauge Railway

The Story So Far

23rd August 2017 saw a milestone in the railway story; it carried approximately one hundred passengers (both site visitors and volunteers) between the Southern and Northern stations both of which have now been completed. The railway received many complements and much feedback, the train had been test run over many months and problems "ironed out". The second passenger carrying carriage is now complete and ready to go into traffic; this will increase passenger capacity to thirty. The seats in these carriages are church pews, so if organ music is heard whilst on board do not worry!

The Baguley Drewry locomotive has starter motor problems, it has been removed and is away at a specialist for replacement, this is proving difficult as it is an enclosed type (due to the explosive conditions in which worked)

The Southern run around loop still awaits completion, the railway group hopes to complete this before Winter (the area is not pleasant due to its proximity to the flood relief channel)

Dudley, the standard gauge Planet locomotive (ex North Woolwich railway museum) is now in Suffolk being restored by an enthusiast.

The railway group received a state of the art welding machine from ESAB Ltd who are a local welding company, they have over time given much support, materials and advice for which the railway is most grateful.

Railway volunteers and their families attended a barbeque in September given in gratitude for all the hard work (and tea drinking) that had been carried out over the past year. Rides were given both on the train and Peggy (Raymond Rowe's traction engine). A good time was had by all.

The railway have been offered a replacement Portakabin thanks to Rye House power station (this would replace their rotten locker/changing area) but due to its size is proving difficult to arrange transportation, further investigation is underway to resolve this problem.

A large capacity air compressor has been obtained and installed which will enable a wider use of air tools, which could prove more durable than electrical tools.

The points in the area of the main workshop have been repaired and re-laid, it is now hoped to run the demonstration trains again. The wagons of this train will require much refurbishment, but is much in demand. Two bombs have been located at New Hill which will add extra interest to the revamped demonstration train.

The railway group still has a lot to do, more volunteers are required in particular for train crews (guards, drivers, duty officers and an administrator) also help with ongoing and future projects and maintenance. Rule book and general training is still ongoing. So if you feel you would like to part of this fantastic project please contact Liz Went, volunteer manager at Royal Gunpowder mills on 01992 707340

Chris Humphrey

Julie's Nature Column

Autumn has been reasonably mild this year so far that it made me wonder whether the deer would delay their rut. It is said that once the first frost arrives it triggers the rut, but we hadn't had much in the way of frost in October. Turns out that our herd of deer don't wait for the frost, rut season is rut season! The big males separate during the day and find somewhere to rest up and recover their loss of energy. I had to move one or two on to another area as they were slightly hidden whilst resting and could startle someone nearby. I have to say that they looked ever so tired slowly plodding along.



The buzzard has been seen many times this year, often flying low through the trees or on the ground taking off after being spotted. I have a feeling that they have nested on site, but have yet to discover where. It is also quite possible that a pair of Hobby's nested on site or very nearby. Once the chick has fledged the calling is constant to the parents and this is what alerted us to their whereabouts. What a lovely sight to see. The Hobby arrives in April and usually leaves in September. They eat insects and other birds and are so agile that they can catch them on the wing.



In my last report I mentioned that we had three Barn owl chicks nesting in our owl box and we had them ringed by an expert. They were different sizes due to hatching several days apart. The hope is always that the smallest one survives with it's siblings being much bigger. Well I am pleased to say that all three chicks fledged successfully. They can spend up to a month being dependent on the parents for food after fledging. I witnessed them sitting on the box constantly calling the parents for food, what a noisy bunch they were.





I have mentioned before how all sorts of animals come together and don't mind sharing the same space. You could be forgiven for thinking that a fox would try to catch anything that moves to satisfy it's hunger, but this is not always the case, they know not what to tackle. To see them side by side with another animal may seem quite unusual, but the Mills is such a special place that I'm sure the wildlife knows it too and offer us some lovely findings. Here's hoping for some more during the winter months

Julie Matthews Mills nature conservationist

Obituaries

Tom Lewis 30.7.31 - 9.11.17



In an MOD career spanning almost 45 years, Tom was well known to many, mainly at Waltham Abbey but also at Westcott and Fort Halstead.

He grew up in Wood Green, North London and attended Trinity Grammar School where he stood out as a very

bright pupil and captained the School Chess Team. He went on to UCL where he studied Chemistry obtaining a BSc and eventually a PhD to be followed by doing a Postdoc in Chicago USA where he met Caroline. They married and returned to UK in 1958 buying a house in Bishops Stortford, their new home and convenient for Tom as he had accepted a post at ERDE Waltham Abbey.

Over the next 30+ years he headed various fundamental research programmes involving energetic materials, the one exception being work on production methods of silicon based whiskers (an alternative to carbon fibres). Some such studies were part of International Defence collaboration with USA, Australia and Europe and he enjoyed the convivial aspect of working with, and visiting, counterpart staff overseas. As ERDE entered its twilight period Tom was made up to SPSO and took on managing the synthetic chemistry group that was later disbanded as WA closed. By his own admission, not the most comfortable part of his career, coming when it did. His final project with already 40 years service

completed was at Fort Halstead back with a small team studying an aspect of rocket motor chemistry.

Tom, with his unassuming and affable nature, was a popular figure and away from science greatly enjoyed collecting paintings and porcelain. He also bird watched and took up moth recording in his garden when he could no longer travel. Despite the loss of his wife and passing of many colleagues, he retained a clear mind and positive attitude to life in his remaining years that served him well in coping, mostly alone, with old age and infirmity.

He died quietly at the age of 86 shortly after my last visit to him.

David Debenham

Alan Short 10.11.30 - 8.10.17



Our sympathies go to Alan's family as his wife Marjorie also died earlier this year. They were a happy couple and lived on the Monkwood estate before moving to Honey Lane and then to Milton Court.

Alan almost made 18 years in retirement as he left on 30th November 1989. He continued to support the Abbey church organising the financial side of the biennial flower festivals and he still supports the church in that his son David and grandson James both sing in

the choir.

Alan had inspired us to get a fire alarm pillar in a working condition as he showed that it could be done. The rocket simulator, which is a possible item for restoration, is another example of his work. We're all saddened by his death.

Bryan Howard

SS Richard Montgomery

The name "SS Richard Montgomery" features regularly in the media; In June this year the Sun newspaper reported that "A World War Two wreck on the bottom of the Thames Estuary is packed full of explosives and could go off at any time". There have been similar reports for over the past seventy years, but the close involvement of ERDE and PERME in the story is rarely related. So what was the tale of the SS Richard Montgomery and how were we involved? The SS Richard Montgomery was an American Liberty ship built during World War II, one of the 2,710 used to carry cargo during the war.



In August 1944, the ship left Philadelphia, where she had been loaded with over 6000 tons of munitions. She travelled from the Delaware River to the Thames Estuary, and then anchored while awaiting the formation of a convoy to travel to Cherbourg, which had come under Allied control on 27 July 1944 during the Battle of Normandy. When the Richard Montgomery arrived off Southend, the Harbourmaster responsible for all shipping movements in the estuary ordered the ship to a berth off the north edge of Sheerness middle sands. On 20 August 1944, she dragged anchor and ran aground on a sandbank around 250 metres from the Medway Approach Channel. As the tide went down, the ship's back broke. A Rochester-based stevedore company was given the job of removing

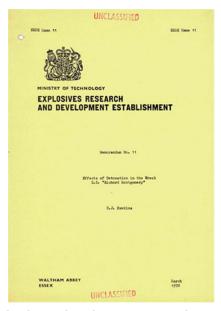
the cargo, which began on 23 August 1944, using the ship's own cargo handling equipment. By the next day, the ship's hull had cracked open, causing several cargo holds at the bow end to flood. The salvage operation continued until 25 September, when the ship was finally abandoned before all the cargo had been recovered. Subsequently, the ship broke into two separate parts, roughly at the midsection. Around 1,400 tonnes of explosives remain on board to this day.



The masts of the ship are visible at all states of the tide, whereas at low water some of the superstructure also appears. The condition of the wreck has been a cause of concern for many years, with the structure inexorably deteriorating. The wreck lies very close to busy shipping lanes and is in close proximity to the town of Sheerness and therefore the risk of an unplanned event and the associated consequences have attracted regular attention over the years.



At the beginning of the 1970's ERDE was actively involved in the decision-making process as to what, if anything, to do about the wreck. Jim Hawkins, then a Section Head in E Branch, took the lead. He was secretary of a Working Group comprising several government departments, the Port of London Authority, the Medway Ports Authority and Flag Officer, Medway to look at a 'Dry Dock' salvage proposal and to make anassessment of the explosive hazards associated with such a scheme. He also wrote a detailed technical report on the likely consequences of the whole ship blowing up.



By now George Whitbread, who was Cyril Beck's predecessor as Superintendent of E Branch, had moved from ERDE to become HM Chief Inspector of Explosives and he wrote "I do not disagree with Hawkins' technical assessment" – praise indeed from George! He went on to say that "There is obviously a great temptation to say "let us do something" but I counsel caution and careful consideration of the risks involved". At the core of the problem was the question as to whether the munitions were getting more or less sensitive with age and in particular whether the highly sensitive copper azide would form and accumulate as a result of sea water corrosion in close proximity to the detonator and booster charges

and thus pose a real risk, or whether such materials would simply be washed away. Moving on to the end of the seventies and PERME days. Iim Hawkins was in detailed dialogue with the Superintendent of Diving at the Admiralty Marine Technology Establishment (AMTE) Experimental Diving Unit at HMS Vernon on the possibility of recovering any fuzes from the ship for examination. George Whitbread again intervened, stating "I remain unconvinced that it is safer to move the bombs than to leave them for a further period". That is the situation to this day. Since Jim Hawkins' work there have been various other studies. In 2005/6 Ian Wallace (then at Cranfield University) did work on the consequences of a ship colliding with the wreck and Tony Kinloch (then at Imperial College) did a general review of sea-bed munitions, making reference to the SS Richard Montgomery. A couple of years ago I participated in a further review of the likelihood of problems with the wreck and Eamon Colclough (now at OinetiO) took part in that exercise. I little thought when I joined ERDE in 1972, and shared an office with Jim Hawkins, that the story would see me through to beyond retirement. I expect that it will rumble on for many years to come.

Geoff Hooper

