



Marconi Veterans' Association Newsletter

Number 24
January 2022

2022 Chairman's Foreword



by Brian Izzard, Chairman

2021 Reunion ...

The Management Committee had to rethink its plans for the 2021 Reunion quite a few times due to Covid-19 and I had begun to wonder if it would ever happen and how successful it would be!

I needn't have worried, over 100 Veterans and Friends (now Associates) attended the September Reunion at our new venue, Pontlands Park, right alongside the former Marconi Baddow Research Laboratories. I looked up at the Chain Home Tower (now Grade II listed) and recalled working in a laboratory almost directly under it during my apprenticeship in the early 1960's.

I am pleased to report that the new online booking form and BACS payment arrangements were utilised by most of the attendees and seemed to have worked well. This has led to a reduction in administration costs so thank you for your support in this respect.

Your Management Committee considered the venue worked well and the quality of the food and service was good. I am pleased to report that we have not received any adverse comments from members and have already booked Pontlands for the 2022 Reunion which will be held on Saturday 2nd July.

During the 2021 Reunion I reflected on the sad passing of our Patron, Robbie Robertson, in June 2021 but was pleased to report that my predecessor, Peter Turrall, had kindly accepted an invitation from the Management Committee to become our new Patron. I have no doubt that Peter will continue to contribute to the success of the MVA in the years to come.

My thanks to Veterans for approving the change to our constitution to reduce the qualifying period for membership to 15 years which I think is entirely appropriate in this day and age.

Finally on the Reunion – my thanks to our guest, Professor Lew Schnurr for his most entertaining speech on his past experiences which kept us all fully engaged. Lew was a lecturer at the former Mid-Essex Technical College & School of Art (to give its full name) in Chelmsford and had clearly not lost that professional touch.

Sandford Mill ...

Most of our members will be aware that a number of our Veterans have used their experience and skills to maintain and demonstrate broadcast studio equipment as volunteers over many years at Sandford Mill in Chelmsford. When I took my grandchildren there a couple of years ago, it was easy to appreciate the attraction and interest that working equipment generates when compared to static exhibits.

In May 2021, Oaklands Museum (backed by Chelmsford City Council) wrote a letter to their Marconi volunteers which can best be described as a 'kick in the teeth' for all their efforts over the years. If I summarise the letter, it says 'we have no further need of your technical skills and experience working with Marconi equipment so please remove anything that you may have loaned to us forthwith and don't touch anything else on site without express permission'. There was no prior consultation whatsoever with the volunteers.

Despite efforts by many interested parties, the decision was not reversed and most of the equipment is now lost to the Marconi heritage in Chelmsford.

BBC Centenary year ...

2MT (Two Emma Toc) at Marconi's laboratories in Writtle was the first British station to make regular entertainment broadcasts – this was

from an ex-Army hut and started on 14th February, 1922. The presenter, producer, actor-manager and writer was Captain P. P. Eckersley, a Marconi engineer. His regular announcement "This is Two Emma Toc, Writtle testing, Writtle testing", became quite well known.

The British Broadcasting Company Limited (as the BBC was originally called) was formed on 18th October, 1922 and led to 2MT's sister station 2LO in the Strand which began broadcasting on 14th November, 1922. John Reith was appointed the BBC's General Manager and Peter Eckersley became Chief Engineer.

The Writtle hut is still largely preserved at Sandford Mill and, at the time of writing, we wait to learn how it might figure in the BBC Centenary celebrations.

Our President for 2022 will be Veteran Dave Roscoe (one of our Management Committee members) and I am delighted to tell you that the author, journalist, broadcaster and historic consultant, Tim Wander will be our guest speaker accompanied by his wife Judith. Tim worked for Marconi for some 17 years worldwide including, Writtle, and he published '2MT Writtle – The Birth of British Broadcasting'.

And finally, my thanks ...

- to a former Veteran who made a generous bequest to the Marconi Veterans' Association in his will.
- to Leonardo UK for assistance with our newsletter printing and postage costs. Their ongoing support is invaluable and very much appreciated.
- to all members of the Management Committee for their continued support and prompt engagement with Zoom meetings during Covid-19. We all look forward to getting back to normal in this respect.

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Any updates on the Sanford Mill or BBC Centenary will be on the MVA web site

Secretary's Soapbox - All's well that ends well?



By Colin Fletcher, Secretary

Phew! That was my reaction on arriving home after the 2021 Reunion. But before going any further, I would like to thank my fellow colleagues on the Committee and the Members who decided to support the Reunion by attending the event. With your help and support the transition from one known venue to a new unknown venue went smoothly.

To paraphrase Donald Rumsfeld the new Reunion venue was full of 'known unknowns', the majority of which were dealt with in a straightforward manner. The 'unknown unknowns' are always a challenge and only appear when least expected or when one is feeling smug – that's when they strike and catch one on the back foot. With amazing good fortune the 'unknown unknowns' were few and far between.

Not just a new venue (Pontlands Park is situated in a pleasant landscape with ample free parking), but the addition of new ways to reply to the invitations and to pay. And don't forget the credits that were accrued due to the cancellation of the 2020 Reunion. Quite a lot with which to contend. (Never end a sentence with a preposition; it's not something to rely on). However the MVA is now heading towards Political Correctness now that payments can be made by Cash, Cheque and Bank Transfer. Payment by Debit and Credit card with 'Pin and Chip' and 'Contactless' is needed to catch up to the 21st Century and achieve full Diversity and Inclusivity.

During the pandemic and the lockdowns

the Management Committee was able to continue with meetings via Zoom. Thus the Management Committee was able to continue with business as usual, which includes design of the coaster and selection of the menu.

The new style of coaster design for 2021 celebrated the last remaining complete CH tower in England achieving protected status. For those that have not seen the design it is shown below.



This was significant not only because of the new protected status but also the 2021 Reunion was held at Pontlands Park, which is also in Great Baddow.

The 2021 Reunion was successful to the extent that the stock of the 2021 coaster sold out. However if there is sufficient demand more can be ordered. In addition table mats are also available in packs of four or six. Please contact secretray@marconi-veterans.org for further details.

2022 is the centenary year of the start of the BBC – British Broadcasting Company – in October 1922. Hopefully this will make up for the disappointment experienced in 2020 of not being able to celebrate the centenary of the first radio broadcast.

On a final note I wish you all a happy and healthy 2022 and may we meet up once again at the annual Reunion on 2nd July 2022 at Pontlands Park.

Coaster Swap Shop...

If you have any coasters from previous years and would like to swap them for coasters also from previous years then, provided they are in good condition,

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bring them along to the Annual Reunion. This is subject to availability and excludes coasters from the 2022, 2021 and 2020 Reunions.

Web Site and Newsletter

by Mark Watson-Lee

Website: marconi-veterans.org

I continue to try to keep the web site up to date with MVA events, and also any events which may be of interest to our members in the Chelmsford area. If you know of an event which may interest us please email me as below. Also the next annual Newsletter will start to be prepared in October 2022, so if you have any articles which could be included please email me as below or contact our MVA secretary.
newsletter@marconi-veterans.org

2021 Reunion

by Colin Fletcher

September 18th – the day of the Reunion started with a bright sunny morning; a good omen? And it was. The day continued to be bright and sunny, which added to the occasion in the pleasant surroundings of Pontlands Park.

The turnout was remarkable considering the disruption (and confusion) generated by the pandemic. 108 Guests and Members were seated in a well ventilated marquee, with its own bar.

Members started arriving shortly before 11 a.m. and were welcomed by Management Committee members handing out £3.00 drinks vouchers. This was due to a generous and anonymous donation towards the drinks bill for the 2020 Reunion.

Shortly before the Luncheon, the Committee members gathered for the annual photo shoot.

The Members then took their places for the meal and the Master of Ceremonies David Frost, introduced the Top Table. Before the luncheon, Veteran Brian



The Management Committee

Back Row Left to Right: Christine Powell (guest), Barry Powell (President 2020), Gillian Drake, Dave Roscoe, David Frost (Treasurer), Colin Page, Mark Watson-Lee (Newsletter Editor), Chris Gardiner, Claire Lucas (raffle) and Colin Fletcher (Secretary)

Front Row Left to Right: Valerie Cleare, Peter Turrall MBE (Patron), Brian Izzard (Chairman) and Eric Peachey (Vice-chairman)



Top Table

Left to Right: Brian Izzard (Chairman), Eric Peachey (Vice-chairman), Christine Powell (guest), Barry Powell (President 2020), Prof. Lew Schnurr (Guest Speaker) and Valerie Cleare

Izzard requested a one minute silence in honour of our former colleagues and families who suffered loss and our founder, the late Marchese Guglielmo Marconi GCVO, LLD, DSc.

The surprise of the afternoon came when during the Chairman's introductory

speech, Peter Turrall entered the marquee and Brian revealed that Peter had been asked by the Management Committee to be Patron to the MVA. An event that was clearly popular.

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The luncheon was well received by all and the service experienced was, dare I say, excellent.



Brain Izzard, Chairman

The new surroundings, the dishes the luncheon and the excellent service were well received. Nobody appeared concerned by having to pay for their own drinks and although the queue for the bar was sometimes lengthy, everybody appeared to be in good spirits

Following the luncheon our Vice-chairman Eric Peachey, proposed the Loyal Toast. This was followed by Valerie Cleare presenting news of and messages from absent Veterans.

Speeches

Unfortunately Veronica Reed our President for 2021 was unable to attend due to personal reasons. However she had kindly sent in a speech, which is in this newsletter.

In a change, due to the lockdown in 2020 there was a slight change inasmuch as Barry Powell the President for 2020 gave the speech he would have given had the 2020 Reunion not been cancelled.

Our Honoured Guest Speaker for 2021 was also due to give a speech at the 2020 Reunion.

Professor Lew Schnurr would have been known to some of those present and he



Far Left: Peter Turrall MBE (Patron) at a Basildon table



Left to Right: Chris Skidmore (Skidders), Ken Harvey, Paul Mordey, Nick Savin, Wade Hadley, Bob Barnes and Peter Brisley



Barry Powell—President 2020

would have tutored them in their apprentice days at Marconi. Indeed this was how Barry first met Lew.

Lew ended his speech with a poignant poem, which obviously had a personal meaning for Lew.

Raffle

The Speeches were followed by the excitement of the annual raffle, which along with the regular prizes also



Professor Lew Schnurr (Honoured Guest Speaker)

included matching sets of table mats and coasters for 2020 and 2021 – the table mats were a larger version of the coasters. (If you would like a set of table

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mats, please contact the Secretary for further details).

AGM

The AGM this year was unusual due to the special resolutions that were proposed, namely:

- The qualification period for a Veteran Member be lowered to 15 years' service
- That Friends be referred to as Associate Members.
- The Constitution be updated to reflect these changes.
- All resolutions were passed by the Veterans.

Thus ended the 2021 Reunion

Photographs courtesy of Graham Chorley

Sweepings from the cutting room floor



by Barry Powell

It is inevitable that, after 40 years of working, one builds up a collection of experiences and stories (some of them best left untold!). When I sat down to write my speech for 2020, I left quite a few out as I didn't want to make you suffer too much. I have included some of these below under "sweepings from the cutting room floor" – at least you can turn the page when you've had enough.

My first encounter with our speaker was in the second year of my apprenticeship. Of all the lectures we had to attend, his were the ones I particularly looked forward to. He would often drift away from the subject with an anecdote or an observation which would lead to a group discussion, after which, you would suddenly realise that you had learned something relevant. At the time, the Mid Essex Tech had roller chalk boards and Professor Schnurr would often make a deliberate mistake which, if not spotted (and it usually wasn't) would lead to the

conclusion that Black = Next Tuesday or that the speed of light was 1s/9d (it was pre-decimal). Lo and behold, when he rolled up the board, the "mistake" hove into view and the correction was set as homework. Amazingly this was timed perfectly for the end of the lecture.

Departmental placements were varied and packed with characters. I was working late one evening in Computer Systems Division when a complete stranger wandered in. He bought me a coffee and sat chatting while we drank. I found out that this was Eric Atkins (Divisional Manager) and it was common practice for him to do this. In Microwave research, I was working with Dr John Wallington (he was an Arsenal supporter – need I say more!). Another placement was with Frank Rider (a colleague of Jack Jolliffe) where I accompanied one of the engineers out to the old airfield at Great Saling to conduct experiments to assess the effect of rising ground on ILS signals. By far the most interesting was at GEC Semiconductors at Witham. Here, I was placed in the Quality department, investigating failed integrated circuits. At the time, microchips only had 10 pins and a handful of transistors (not the complex beasts we have today) all sandwiched between two ceramic plates which were glued together with glass. Investigation started with melting the glass with a blowtorch, taking the top ceramic plate off and moving away the blowtorch before it melted the insides and then examining the connections and testing the transistors to find the failure.

When I first joined Radar Field Services, I spent the first couple of years at UK test sites including a period of nights at Rivenhall where we were conducting 250 hour soak tests (continuous running) on a S600 Radar System. One night, I was taking readings in one of the cabins when I was asked, by a colleague, to come over to the office where I was confronted by an irate resident from the other side of the airfield demanding that we shut down the generators. As the generators were an integral part of the Radar System under test and the soak test was a contractual item, we could not do this. I must confess, I had some

sympathy with him but these tests were a common practice and I had been warned that he may appear. Luckily, a security patrol turned up just then and politely reminded him that he was on private property and he should make his objections to the Company.

Abu Dhabi was an eye opener. We were each allocated an apartment in the Air Wing Officer's Mess (Lounge, Bedroom & Bathroom) with meals being taken in the mess. But the biggest shock was I was allocated a servant. Having been brought up to make my own bed and keep my room tidy, on the second day I was told off by my servant because these were his jobs. There was a space on the room side of the air conditioner that served as a fridge so a visit to the (only) supermarket catered for cheese, biscuits, snacks and milk for tea/coffee. Every Friday was curry lunch day but our taste in curry was not the same as some of the other officers. The solution to this was a marvellous compromise whereby one of the tureens was labelled "English Curry". To phone home, one had to drive to the Phone Company offices, give them the number you wanted to call and sit and wait for the call to be set up.

In PDS, I met the legendary Ron Hammond who instilled in me two truths. "The man who has never made a mistake has probably never made anything" and "when you do make a mistake, don't try and hide it. Own up and most people will help you to sort it out."

In the Sales area of Marconi Radar, I was working with Paul Baird (Assistant Manager to John Crispin) but had to liaise with most of the other departments involved in preparing a tender.

I remember one occasion where we finally finished a tender, wrapped it up and labelled it at around 3 a.m. We then napped until the van arrived around 6 a.m. loaded it and set off to lodge the bid in London.

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It was common for the technical section to be delivered to one office with the commercial part to another. My job was to leap out at Tower Bridge (they kindly stopped the van) walk across and hail a taxi to take me to the destination of my part. Once there, I had to phone in for permission to lodge only to find that someone had spotted a mistake so I had to open the package, make the correction and re-pack. All in a telephone kiosk!

On my return from 5 years in the wilderness (STC), I joined Computer Systems Division which was, later, absorbed into Mobile Radio Division and I drifted, all the time dealing with the costing and pricing of tenders, until I retired in 2008. Just before I retired, I was invited, with Chris, to Florence for an awards ceremony. This was a lavish affair with a gala dinner (I forget how many courses, 6? 7?) followed, the following day, by a lunch at the airbase beside Pisa Airport with airshow. I had previously had to visit what became a sister company (OTE owned by Finnmeccanica), in Florence, to understand the configuration of their equipment as we were using it for Mobile Radio systems that we were offering to various customers. I used to explore the city in the evening so, when I went back with Chris, I could show her all the sights – only trouble was that, on the only day we had to ourselves, it poured with rain.

As I penned the above, another story came to mind (one I would have included in my speech had I thought of it at the time).

Whilst I was in Abu Dhabi, they would hold periodic "Road Safety Weeks" where they would erect stands on the central reservation of the main dual carriageways. They would then place wrecks from recent accidents on them to make drivers think. Ironically, for that week, accidents actually increased as drivers attention was drawn to the wrecks.

All that remains is for me to say how much I enjoyed my day as President –

even if it was a year and a bit late – and to thank everyone involved.

The Lone Austrian

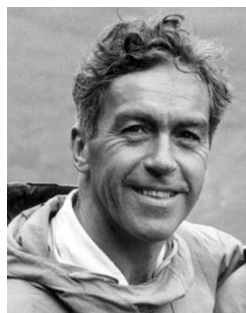
by Ken Earney

In the piece about Bawdsey Radar Trust on page 8 of the 2021 newsletter I made mention of the 80th anniversary of the Battle of Britain and, amongst the pilots from 16 countries who took part, a lone Austrian. Who was he, what was his background? Might he be Jewish or have Jewish ancestry, was he from the Austrian nobility? After Hitler's annexation of Austria in 1938 - the Anschluss - and with that background he would almost certainly not have been well disposed towards the Nazis.

From subsequent investigation following leads from a number of sources (see below) we now know much more about him.

Early life

His name was Alfred Lammer, but he was born Alfred Ritter von Lammer in Linz, Austria in 1909, of a father who was a retired railway official and mother, a very enterprising businesswoman in tourism and banking. The hereditary order of nobility Ritter (knight) was first acquired by Alfred's grandfather, an army officer, who was honoured after distinguishing himself in the Italian campaign of 1848. So, yes, he had noble ancestry and the family moved in the higher echelons of Austrian society. They



were friends and neighbours of the von Trapps of Sound of Music fame. Apparently he had taken his driving test in Captain von Trapp's car. Living near Zell

am See he became skilled at rock-climbing and skiing, and maybe developed an interest in photography, pursuits that would prove useful in later life.

Whilst at university in Innsbruck and Munich, disturbed by the rise of Nazi sentiments in Austria following Hitler's becoming Chancellor in Germany in 1933, he became involved in anti-Nazi movements in his homeland. In 1934, after university, he went to work at the Austrian Travel Bureau in London by virtue of his mother's contacts in England. However, her banking business failed in 1938 due to the Nazis stranglehold on the Austrian tourist industry. In the same year he was offered German citizenship, but by now fiercely anti-Nazi he declined and was thus declared stateless and marooned in London. With his meagre savings he embarked on a course in photography. Around this time he stopped using Ritter and von in his name.

Military service in WWII

At the onset of war, by then classified as a friendly enemy alien clearly wanting to fight against his country's occupiers, the Nazis, in February 1940 he volunteered for service and was granted an emergency commission in the RAF for training as an Air Gunner. After ground and gunnery training he joined 254 Squadron as a Pilot Officer and was immediately attached to 206 Squadron flying in Hudsons on convoy escort duty. In July at 5 OTU he converted to Defiants and was posted to night fighter squadron 141 at Prestwick. Because he flew with RAF Fighter Command between 10 July and 31 October 1940 he qualified for the Battle of Britain clasp to his 1939–45 campaign star.

Now, the electronic connection to this article: he later retrained as Radio Observer (essentially Radar Observer) on Beaufighters (see photo below) and was posted to 409 Squadron at Coleby Grange, Lincolnshire in November 1941. His role was to operate and interpret the airborne interception radar (at this time the Mk IV AI) display to guide his pilot onto the target. He went on to 255 Squadron at Coltishall in February 1942 as Navigation Leader.

The squadron deployed to North Africa in November 1942 operating from

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makeshift desert runways over Algeria and Tunisia, striking at German bombers at night. On one occasion, with one German aircraft downed they flew through the exploding debris of a second and damaged one of their engines. After a hairy approach and landing they ploughed into a parked Hurricane but escaped unhurt. The joke then was that they had scored three confirmed kills in a single night. He finished his tour there with a record of six enemy aircraft destroyed, a reflection of his skill as Radar Navigator.

He completed his time in the air force as a Squadron Leader, officer i/c the school for Radar Navigators at Charter Hall in Berwickshire - an exemplary service career, exceptional abilities, with a DFC and bar to his name. *(I've yet to discover what/when were the intermediate stages in promotion from Pilot Officer in March 1940 to Squadron Leader in September 1943)*

Post-war life

Alfred Lammer pursued his pre-war interest in photography, making it his civilian career. After joining a London firm of photographers he set up as a freelance photographer in 1946, then teaching at the Guildford School of Art in 1948, and a year later in London at the Central School of Arts and Crafts. At Guildford in 1952 he set up the first school of colour photography in Britain. Amongst those he taught there were Jane Bown, who for many years worked for the Observer, principally in monochrome portraiture of well-known artists, writers, musicians - the list goes on, and John Hedgecoe, best known for

his portraits of artists and writers, but also for several manuals of photography.

Lammer specialised in close-up photos of plants (using only natural light) and stained glass. A set of four special edition postage stamps in 1987 brought some of his photos of flowers to wider public attention (see right). In photographing stained glass in mediaeval churches he was again able to put his pre-war rock climbing skills to good use, sometimes manoeuvring himself, his tripod and his camera high above the floors of these buildings to capture the details of a mediaeval stained glass window. He worked in collaboration with author John Baker in 1960, taking the photographs for the publication of "English Stained Glass of the Medieval Period" by Thames and Hudson.

Following his retirement from Guildford he taught part-time at the Royal College of Art and was made an Honorary Fellow.

He was twice married, in 1941 to the Canadian violinist Kathleen Tierney then later in 1958 to the Countess Benedicta Wengersky. He died in 2000.

(References - RAF Benevolent Fund; RAF Memorial London website; obituaries in the Daily Telegraph and Guardian; Wikipedia; Victoria Taylor, PD History Researcher, University of Hull)



Godfrey Isaacs

by Mark Watson-Lee



On November 10th 2021 a Blue Plaque for Godfrey Charles Joseph Isaacs was unveiled by the Mayor of Chelmsford.

(note spelling mistake on plaque to be corrected!)

It is fitted on what was the Marconi New Street Power house, now 1 Dunn Side, Chelmsford (which is now a Gym).

Isaacs was taken on by Marconi in 1910 initially to run the Hall Street Operation in Moulsham Street. He did so well that within a few months the production had increased so much that they were running out of space.

He then organised the purchase of some land from the Church, which was being used as a Cricket ground. The New Street site was built on this land, with the main buildings completed in 17 weeks. The plan was to build a Manufacturing City within Chelmsford, so houses for the workforce were also built.

He had to take legal action against some of the competitors to protect the companies patents and ensure a good future for the company.

He was involved in the Pioneering broadcasts by Winifred Sayer (who became the 'First paid singer on British Radio'), which eventually resulted in the Dame Nellie Melba broadcast in June 1920.

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In May 1922 he attended a meeting with the GPO in London, and he suggested that a public funded broadcasting organisation should be set up, with no adverts, being funded by a licence fee. His idea became the BBC. He was appointed the first Director of the BBC in 1923.

He retired from the Marconi Company in November 1924, and died in 1925 aged only 58, which the Times obituary attributed to overwork.



Spam, Spam, Spam...

by Colin Fletcher
{with apologies to Monty Python}

We've all received spam at some time whether it be unwanted snail mail or email. With email we have probably been offered huge fortunes by the ubiquitous Nigerian prince, civil servant or government minister; we only have to provide our bank details or pay a fee to receive millions.

As time goes on these spam emails become more sophisticated. Even so, I, as secretary, receive numerous spam emails every week. These are mainly advertising 'Rayburn' sunglasses, website services, invoices, engineering services, and warnings that my password is about to expire. The list is endless. I once had a

whole string of emails written in the Cyrillic script. Most of these are an irritation at the very least but one amused me that I thought I would share it as it could only be described as crass.

YOUR UNPAID FUNDS TO CLAIM

We the U.S Department Of Justice is contacting you Regarding your funds, I feel it's best and more convenient for me to explain why I am contacting you. I'm

Merrick B. Garland, AG United States Department of Justice,...

This is interesting, why is the U.S Department Of Justice contacting me? And why does regarding start with an 'R'?

A few lines later it becomes clear.

I wish to announce our successful investigation which was carried out few days ago...

... it was truly confirmed that you have 100% Legitimate unpaid transaction and you have every right to claim this funds as you're been confirmed to be the rightful owner of the said amount \$55.9 Million dollars COMPENSATION/ INHERITANCE FUNDS.

Wow!!! I have been defrauded of \$55.9 million and the U.S. Attorney General's office is going to retrieve the funds for me. This is too good to be true.

Eventually the catch.

I want to know if you're interested in receiving your unpaid legitimate funds value \$55.9 Million usd however, I will only be of help if you agreed to follow my instructions. If you're really interested in receiving your unpaid \$55.9 Million USD, I advise that you get back to me immediately. All I need is your cooperation and understanding.

I wonder what form my cooperation will take? No prizes for guessing – certainly not \$55.9 million

Finally I looked at the address to which to the email had been sent – 'undisclosed recipients'. How many people had been defrauded of \$55.9 million, I wondered? In round figures I would estimate zero.

I always take care to double check where an email is from and ignore any links and buttons I am asked to click.

The Baddow Fire Team

by David Cannon

I worked at Marconi's 41.5 years. I started work at Marconi's New Street site on the 10th November 1958, after my Demob from the Kings Royal Rifle

Corps on the 31st of October 1958.

I started in the printed board section, and while there I was taught the art of silk screening, and was told that I was the first person to do that job in the Company.

Mr Ted Bennett taught me how to make printed Circuit boards. Ted then moved over to Baddow Research, then after a short time here he Emigrated to Australia. Before Ted left he put my name forward to follow him to Baddow. I had an interview with Professor L.E.Q Walker on a Friday and was told not to go back to New Street and to start at Baddow on the Monday, which I did and joined the Baddow Printed Board section. This section had three staff, Eric Ainsworth was in charge and Martin Wilde and me doing the work. The printed board section later became the Micro Circuit Techniques Laboratory (MAT LAB).



While there I met Peter McClinton who was into building and racing slot car racing kits and was also a track marshal at Snetterton race circuit. As I showed an interest in car racing he invited me to join him at Snetterton. I then became a Fire Track and Rescue marshal which I have been doing for 60 years and at 83 I am still doing it.



Baddow Fire Team

It was because of my exploits as a fire marshal, that when the Baddow chief fireman retired he put my name forward

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to take his place. I had an interview with Reg Norfolk, the Health and Safety officer, and I was appointed Chief fireman. I continued with this right up to the time I took Voluntary severance with only two years to Retirement.



When one of my Firemen left the Company he started work at Broomfield Hospital. Because of what he had learnt being a fireman at Baddow, he was given the job being in charge of the Heli pad at the Hospital, which is still there today.

During my time as chief fireman, if my memory serves me right, there was only one major fire incident in 1982. An accident in the MAT LAB plating shop in A block. This was when one of the plating baths caught fire and started to spread. The county fire brigade were called and we helped with our knowledge of hydrant location and firefighting Pond. The fume extractors over the baths were made of plastic and soon started to melt. We were able to tell the firemen that one of the Baths contained Gold solution that was suspended in Cyanide - so they quickly evacuated nearby residents. The firemen needed to know where in the plating shop the Gold bath was, so I donned my breathing apparatus and led them to the Gold bath. To our surprise we found that the pipe holding the extraction hood had melted and the hood had now fallen over the bath and sealed it. Since the fire was now out they could get everyone back to their homes, and the clean-up started.

Baddow also had an open day and a good time was had as the fire team put on a show. We had our hoses out and people had a go at aiming a jet of water at a target. We also demonstrated an indoor rescue of finding a person

trapped in a room and being found by firemen, wearing breathing apparatus, and transferred to waiting ambulance



crew.

In my years at Marconi's I did several jobs

- 1) Printing and Etching Circuit Boards
- 2) Silk screen printing
- 3) Offset litho printing
- 4) Label making
- 5) Chief Fireman
- 6) Maintenance Technician

And I enjoyed the whole 41.5 years

Peter Turrall Interview

by Colin Fletcher

Colin: Hello this is Colin Fletcher recording for the Marconi Veterans' Association. It is the 17th of November 2021 and I'm with Peter Turrall. We are both in Peter's home and we're recording this via a PC

Can I just ask you to confirm your name for me please

Peter: My name is Peter Turrall

Colin: And can I ask your date of birth?

Peter: Yes, I was born on the 3rd of October 1930.

Colin: Okay, Peter if I can just ask you what was your first experience of Marconi?

Peter: My first experience of Marconi was through my Grandfather when he was an employee of the Company when it was based in Hall Street, Chelmsford. That was my very first experience and I've always been interested in what he told me about Cat's Whisker sets and also the things that he was making in the Carpenter's Shop in Hall Street.

Colin: Okay, and when did you first actually start working for Marconi?

Peter: I started work for Marconi on the 1st of January 1950, following 2 years National Service in the British Army. I applied for a job, which was announced as Installation Drawing Office staff and I was interviewed on the premises in New Street and started work the following week after the interview.

My first assignment was to go to the Drawing Office School, which was situated in Springfield in a very nice, new building, under the directorship of one called 'Lloyd', affectionately known as 'Blod'. He was very interesting character and for 6 months I had to learn the rules and rights of working in a Marconi type Drawing Office. I must admit it was quite different to what I had imagined because the intricacies of measurements and the style of drawing was quite different to what I had anticipated.

However, after 6 months I was allocated back to the factory in New Street where I was offered a position of Junior Draughtsman in the Installation Drawing Office.

I wondered why I wasn't going through all these intricate details of the Drawing Office School where I was going to work. In the place where there wasn't so much of the intricacies but the outlines of different equipments and the installations which the Company were involved in. I was allocated to a Section under the directorship of one Section Leader called Neville Clayton.

He put me on to a Drawing Board and asked if I would draw various installations using tankers and cabinets which were part of an installation in oil fields in Bahrain for which the Company had obtained orders.

Well, this went on for about a further 6 months. I was improving all the time learning about the various installations that the Company was getting involved in when I had a telephone call from the fourth floor of Marconi House, which was the occupancy of Broadcasting Division, saying that would I like to come up for an interview with a Mr Thomas Mayer, who was the Deputy Sales

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Manager of Broadcasting Division at that particular time. I said yes, but why does he want to interview me? When I arrived at Mr Mayer's destination, he said I'm looking for a junior person to work with a Phil Berkeley who is one of our leading designers in various studios and other complexes of which the Company was involved in. I said well yes I'm interested but whereabouts have I got to work and he said on the fourth floor. Well after due consideration, I accepted this vacancy, went back to the Drawing Office and told them what was going to happen. They were a little bit disappointed that I'd said yes but never the less I started there the following week on the fourth floor under the direction of one called Dusty Miller, who happened to be the Contracts Director of Broadcasting Division. Dusty showed me the ins and outs of equipment which the Company were supplying, it was the early days of cameras which were being bought by various organizations including the BBC.

After a few weeks of getting to understand the equipment, I was sent away to Worcestershire to a place called Evesham at the BBC Engineering School and there I had to spend six months learning all about the operation of wireless and television equipment. It was very interesting, I certainly did an awful lot there and would have recommended it to other people when I came back from the School.

So having come back into New Street well equipped with learning about wireless equipment and television equipment, I was then allocated again in a sales job with one called Arthur Paton, who was the Sales Manager of Broadcasting Division at that particular time, and I was to be in his section to learn about sales, not only in this country, but overseas as well.

My first job they gave me was to design, at the time ITV was about to be formed, a studio in Scotland. Well I had never been to Scotland at that particular time and I certainly didn't know much about the design of television studios, so I

asked around various other people and they told me what was happening at that moment and would Phil Berkeley who was the Company's leading light on the design of studios and also other equipment would give me an insight.

So I was allocated back to his Section which happened to be on the roof of Marconi House above the fourth floor and there I spent a few days understanding what equipment installations were like. I applied for a travel warrant to fly to Scotland. I'd never been on an aeroplane before. Now I must admit I was most scared.

However, arriving at London airport I met up with another guy who was also going to the same place as me and he was a member of Mole Richardson, the lighting people and they were arranging the lighting of the studio equipment.

He was a well-equipped traveller and said to me don't worry about flying have a Guinness and you'll feel fine when you get on the aeroplane. Well, I got onto the aeroplane, we took off and I was holding my stomach as I really felt queer and he came up with this bottle of Guinness. He said drink it and you'll feel better. I must admit that after about half an hour's flight I did feel better and I had another one.

We eventually landed in Glasgow and I went to the Theatre Royal and met the people there. It was an empty place, but it was going to be the start of Scottish Television and I was to design a studio where all the control equipment could be housed and the cameras would be effectively on the stage.

Well I found a nice hotel. Went round the studio, did a bit of measuring up, came back to the hotel.

The next day I flew back to London Airport and home to Chelmsford and laid out the equipment design of this particular studio. That was my first job; my first flight in an aeroplane.

It wasn't long after that I was asked to go back to the BBC but this time for six months attachment to various organisations within the BBC. One of the first attachments I got was as the

Camera Operator at the Lewisham train crash and that really was a gory situation because although I didn't come on air when the television pictures which were in black and white went out, I had had my Camera aimed at the various parts of the railway engine and the bodies which would be taken out. I had to be there for something like nine days until they recovered all the bodies from the crash.

Then I went back to the BBC Headquarters in London and was allocated various activities. First of all I had to go to the studios in Lime Grove, where I saw television plays being rehearsed. Then I went to the sound studios in another part of London and listened to programmes being broadcast with big orchestras and then again I was allocated to things like football matches at Wembley where I had to be a Camera Operator on behalf of the BBC, but under the watchful eye of course of BBC cameramen.

One thing I did learn about was the heavy weight of Marconi equipment. In those days it was the Mark III camera, a big and bulky camera and when one had to lift it from the floor or the turf of Wembley right to the top of the stands at Wembley it was an enormous task and it took two or three of us to lift these heavy cameras. However, I went on several occasions to the football matches not only Wembley but other places where the BBC were in operation and to be quite honest, I thoroughly enjoyed myself.

But after that I had to come back to Chelmsford and coming back after six months with the BBC, they thought that I was now fully qualified to go out and sell equipment. So they said to me we would like you to now undertake some overseas selling, in which case the first job I did was to go to Switzerland.

I took off from London Airport early one morning. My flight, which was to end up in Berne where I was to meet the Sales Director of the Company which Marconi employed to look after our affairs in Switzerland. This aeroplane was a Vickers Viscount and off we went to

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Switzerland in the very early morning. It was very dark and it was a little bit foggy. When we got almost over Geneva we realised that we couldn't see the ground, it was so foggy. The plane went round and round, eventually the pilot decided to make a landing however, he almost got onto the landing strip when suddenly the pilot upended the nose of the aircraft and flew back into the cloud. Apparently at that particular time he understood or realised that he could not land the aircraft. It was too dangerous. So we flew on to Zurich where a happy landing was made.

Well I had to be in Berne and I had never anticipated going to Zurich, in fact my railway ticket from the airport was to go straight into Berne and I did not have a railway ticket to go from Zurich. However, after a lot of 'umming and aching' and not speaking the language I did eventually get back into Berne.

I was supposed to meet the Sales Director of the Company which were looking after our affairs, but he realised that the plane had gone on to Zurich and very properly had come back to Berne to meet me. He took me off to the hotel. As this was my first real overseas visit I did not really understand what I had to take. I got all the Company papers and one or two bits and pieces. Some clothing, which I'd got, obviously a change of clothing. The Sales Director said I'll take you round to your hotel you'll stay there the night and I'll pick up in the morning. When we got to the hotel, I was absolutely astounded. it was called the 'Schweizerhof' hotel, and on the door of this hotel were two fully dressed flunkies. I thought what have I come to?

I was escorted to my room, which was a massive room with four poster beds and all wood surrounds and I thought my goodness me. Anyway to cut a long story short it was a big hotel.

I had hardly any clothes to wear, just the stuff that I travelled in and I was met next day by the Director of the firm and then taken around to the Swiss Programme and Television Department,

where I was discussing with them their requirements for a Television Outside Broadcast Unit. Well after various lunches out and meeting the customer on several occasions I then flew back to England and prepared quotations for the design of the Television Outside Broadcast Unit. It meant I had to go back again to present the offer to the Swiss PTT, which was successful and I won my first order with a magnificent Four Camera Outside Broadcast Unit in black and white and that was the start of my real career in selling.

The changes in the Company at that particular time meant that the person who had originally interviewed me, Tom Mayer, was now Managing Director of the Company and I was asked to be a member of his staff, but in a different capacity. Instead of being under a sales unit I was to run a section of my own called Subsection 'A'. It was to deal with all sales in the Far East and Australia.

Well I had a small staff allocated to me of three people and I set about obtaining orders for the Company in the Far East and Australia which was quite successful. After about a year in that position, there was other changes to be made and I was allocated to be Deputy Sales Manager of Broadcast Division under the jurisdiction of one Arthur Paton who was the Sales Manager. That lasted for something like two or three years and I went back to Switzerland on more than a half a dozen occasions to get orders which were quite successful until, Arthur Paton himself decided that he wanted to do another job and he left the Company and I was promoted to his position as Sales Manager with the staff of something like twenty people.

This carried on for about three or four years when there was another major reorganisation by the Company and I was allocated to be the Deputy Sales Manager of the whole of Broadcasting Division which was a big post but it also entailed me looking after a number of highly paid staff and new staff in the Export Department. So they renamed me as Export Sales Manager and my job was to mastermind about forty staff in the Company and to obtain orders which at

that particular time was to be a hundred and twenty million pounds per year.

Well, it was an onerous task to take but one I took willingly, but I also had to find time to travel abroad to various installations and also to obtain sales myself. Some people in the Sales Department had to go out themselves and I allocated them various areas but I still had to mastermind the whole plan.

After about four years in that position, the Managing Director said to me that you've got two or three more major projects, which you've got to do. I'd like you to go and sort these out as soon as you can. The first one is the World Cup in Argentina. I want you to go to Buenos Aires and you can take off any day after you have got your travel warrants etc.

Well during that particular time of asking, a request came into me to be there within forty eight hours at Buenos Aires. The only way I could get there was to go on Concorde so having put the application in to fly with Concorde, it got to the Managing Director, who wanted me to go to the Argentine but decided it was wrong and that I shouldn't be one of the Company's first employees to go on Concorde so he demoted me to another aircraft which took ages to get to Buenos Aires via Portugal, Brazil and all the way down with various changes.

I eventually arrived forty eight hours later. But fortunately, the Company in the Argentine which was called Marconi's Electric Light Company managed to get an extension for me and so I was able to go to the Directorate and meet them and discuss their requirements. To cut a long story short, after five weeks there - and this was getting towards Christmas - I eventually was able to make a presentation to the Argentine authorities of all the equipment with great help from the people in the Argentine Office of Marconi.

However at the very last minute I found out that the offer by our competitors, the Germans, instead of offering a five year credit as we were offering, they had

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offered seven years with a moratorium. Having messaged back to England and asked my Managing Director if I could go to the extension of seven years I received a reply direct from Sir Arnold Weinstock, MD of GEC-Marconi, to state that under no circumstances was I to submit an offer which was more than five years. So I had to change back all the documentation rushed off to the Centre of Buenos Aires with one of the Directors of the Marconi Electric Light Company and submitted our offer.

Having waited three more days to see what was going to happen, I was then told that although my price was a lot lower than the Germans, the Germans would be winning because of the best credit offer.

So I flew back to England. I arrived in my home on the evening of the twenty fourth of December, much to the disgust of my wife for being home so late, and told the Managing Director by telephone that after six weeks in the Argentine I hadn't got an order. However, that was probably one of the worst moments in my career.

One of the best moments was to go to Egypt, where I went on six visits to Egypt in the course of twelve weeks. The first one was to submit an offer for several television camera equipments to one studio then it went on for more studios on another visit then it went on to outside broadcast vehicles for another visit then finally the whole Egyptian broadcasting requirements for their television studios. And I had, as I say, six visits to Cairo in the course of twelve weeks, one of which of course was one day when I submitted an offer for Television Outside Broadcast Vehicles only for the Director of the division to say very sorry but there is going to be a three week delay so I went back to the airport got on the same plane as I came over to Cairo, back home.

To cut a long story short. Eventually after my last visit I was told that I had won all the orders for the complete television studios in Egypt, including all the outside

broadcast vehicles and there was enough work there for the Company for the next two years and the orders were worth in excess of a hundred million pounds. Well we had celebrations in Egypt and, confirming the order with all the people who I had been dealing with during that time. I came back to Chelmsford, and the Factory were absolutely elated with what had happened.

That was probably the pinnacle of my career with Marconi although of course there were other odds and ends happening. So after being twelve years in the job as Overseas Sales Director, the Managing Director said to me you're looking a bit tired you have done more than your three years allocation of travelling, you've done something like eight or nine years. I've now got a new job for you. You will now be the Company's Publicity Director. And your first job is on your desk in your new office which is on the fourth floor.

Having gone back to my new office wondering what I would find, it was a big envelope there which I undid and inside it was the invitation for me to run the Marconi Golf Tournament Hospitality at St Andrews in Scotland which is the British Open Golf Tournament. And there were tickets there for fifty people to be entertained for the four days of the tournament of which I was to be in charge.

Also as an addition to the job I was now allocated a Company car and there was the Company car ready to take me to Scotland with my wife. We were up there for a fortnight running the Golf tournament. I was joined by many people who flew in to the nearby airport to be entertained by me and my wife on the first day and then the Managing Director and other staff came for the other three days.

Following that I came back to Chelmsford and I was then now appointed in charge of all press relations, advertising, etc. and that was really the pinnacle of my career until it came to the time when the Managing Director said to me well there has been a change of course in staff we are now going to be

over taken by the Italians, people from Marconi Italiana are coming in to run the Company. Your services will be curtailed insofar as your sales and your publicity is concerned as other people will be coming. However, you'll be allocated the job as an Adviser to the Company and we hope that you will still remain with us and from that point onwards I was.

One of the surprises of it all was that the new Managing Director, an Italian, came to me one day and said that I hear that something is going to happen to you. It wasn't long before a letter arrived from London to announce that I'd been awarded an MBE, and that was on behalf of the Company for my services in overseas markets that I'd been awarded this award. Coming back to Chelmsford, the new Managing Director said to me well I think it's wonderful you've had this award you can now enjoy another three years extra for your retirement as an Adviser to the Company and that's where I ended.

Colin: Very interesting. Shall we take a little pause there Peter?

Peter: Yes please.

Colin: Okay Peter and now after that long career you sort of got involved with the Marconi Veterans' Association. Could you tell me how that happened?

Peter: Yes in the early days of the Veterans' Association I had just about reached twenty five years which would be in 1975, when I was asked if I would become a member of the Veterans' Committee by the then Chairman of that committee. Well this was something new to me and in between various events either travelling in the UK or travelling outside, I said yes. He said there are going to be something like four meetings a year where the main thing was to ensure that there was a Reunion of Veterans at sometime during the year which would either take place in the Marconi Canteen, or at other venues, and there would be a four course meal and entertainment afterwards, and all Veterans would be at that occasion.

Well in those days the number of people

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who were Veterans were well in excess of two hundred and most of them wanted to be at a Veterans Reunion in the Canteen. There were Raffles and the dancing girls came on after the meal and that was very good for all Veterans. And that went on for a few years until of course naturally people faded away and died and the number of people dropped out and of course it was impossible to have a Veterans Reunion in the Canteen, so smaller venues were sought elsewhere.

However, after a number of people on the Veterans' Committee decided that they no longer wanted to be members of that Committee or had retired I was asked if I would like to be Vice-Chairman of that Committee and I said yes I would. What did it entail? It meant helping out, writing to members; did I have any good connections? Yes I did etc. etc.. And eventually after about two years the Chairman decided he didn't want to be Chairman anymore and I was kicked upstairs to be Chairman.

Well that lasted for something like eighteen years. As chairman I had to organise all these functions mainly of course was the annual Veterans' Dinner, which was at various places. It took place at either Cromptons or it took place in the Marconi Canteen in the smaller area or it went out outside and eventually it went out to places where we accommodated something like a hundred fifty people mainly at the Marconi Club in Great Baddow.

Other things that happened on the Veterans' Committee; we met four times a year. I had to design something which we could give to each member of the Veterans as they attended the Annual dinner and that was a Coaster, except for one year when the then Chairman decided that he wanted a to have a glass which was a very large glass which had engraving about what was happening at that particular time.

But until about two years ago when I realised that time was getting on, I'd done almost twenty years as a Veterans'

Committee member I decided it was time for me to let somebody else, so two years ago I decided to retire and now I attend the Annual Dinner and now I've been kicked upstairs by the Veterans Committee as Patron an honour which I'm very appreciative for the support that I got from its Veterans. Thank you..

Colin: And I think there Peter thank you very much for being interviewed. I think you justly deserved Patron and MBE thank you very much indeed.

Peter: Thank you

Drones for the British Army

By Mel Bennett

{Editors Note: In this paper version the length of this article has been reduced for space reasons, but the full version is on the MVA Web site}

The use of unmanned drones is quite common place today but as this article shows the Electro Optics Systems Division development team at Basildon pioneered the work which saw the first generation of what is now accepted as the norm.

The requirement

During the early 1970's the British Army was seeking to improve fall of shot accuracy and intelligence gathering on red force locations/assets during all phases of potential engagement.

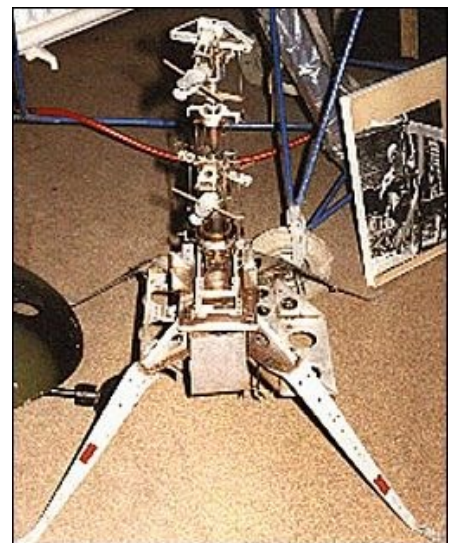
For the artillery User, the key need was for timely accurate ground co-ordinates of fall of shot so corrections could be achieved quickly; this favoured a helicopter based solution where the observing sensor system could hover over the impact area to maximise accuracy. Whereas the Intelligence User needs were for wide area surveillance to locate red force deployed assets, movement of stores, and operational command posts; this favoured a fixed wing aircraft solution to provide wide ground area surveillance.

Contracts were awarded by MOD (PE) to Westland Helicopters and GEC-Marconi to develop system components for the Supervisor programme and assist the MOD establishments with trials.

The GEC-Marconi Electro – Optics team based at Basildon Essex, had a proven track record in the development of high performance stabilised sensor platforms based on the then unique stabilisation technology developed by the Marconi Baddow team lead by Maurice Johnson. This technology harnessed the use of direct drive motors on a three axis inertial balanced sensor package mounted in near frictionless bearing in combination with gyro stabilisation/steering.

The Heli-Tele system (lead by Terry Lewis), was developed several years earlier for the British Army in conjunction with Westland Helicopters based at Yeovil using the above technology) and had fully demonstrated how long range surveillance with high magnification optics was possible even in the high vibration environment of a helicopter was achievable.

Indeed the high performance sensor 14 inch diameter turret eventually designed for Phoenix was the fore-father of the majority of sensor turrets universally seen today on most airborne surveillance systems.



MOTE

1975 Early sensor trials

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Westland Helicopters had a team of designers, Reg Austin, Tony Ives, David Wright and Mike Breward who were developing a contra-rotating helicopter concept MOTE which would result in a small air platform capable of hovering over a target area as well as powered flight in any direction; this demonstrator was used to trial the concept which led to the second generation of a vehicle known as WISP.



The WISP platform (*above*) carried a stabilised daylight TV sensor from the Basildon team nominally pointing downwards with 30° lookup capabilities from the vertical to provide more general viewing of ground targets. A two way radio link (developed by the Basildon team), enabled the ground controller to fly WISP (within visual range) and carry out fine positional manoeuvring, whilst the down link transmitted the video scene for the ground based observer to carry out the surveillance and fall of shot correction functions.

Meanwhile other sensor studies were being carried out to determine the optimum sensor (daylight/ low light/ colour etc) to maximise system performance; these trials (overseen by Ken Earney) involved manned helicopter flights over specifically deployed targets with the majority being flown by a Wessex 5 helicopter operated by the Royal Aircraft Establishment Farnborough with mainly sensor systems supplied by the GEC-Marconi team. Video recording of the imagery was analysed by the MOD establishments and was used in war

gaming scenarios to assess the effectiveness of the sensors system deployed. In addition imaging material was recorded on a MOD owned DC4 to obtain higher altitude fast crossing rate video material employing a line scan system from Vinten's and other sensor suppliers.

1977 Development of the WIDEYE

The WISP platform had demonstrated the ability to provide high quality black & white daylight TV images in battlefield situations but lacked load carrying capability or endurance to match the user requirement.

The MOD commissioned further work, now named the SUPERVISOR programme requiring the development of a larger contra-rotating platform called WIDEYE (known as Bennett's flying barrel colloquially by the Westland development team) as the next step forward.



Bennett's Beer Barrel

Again the Westland team, now led by Professor Dr Jeff Jones and the GEC-Marconi team led by Mike Howe carried out the development tasks. The Westland team rapidly developed the WIDEYE vehicle and the Marconi team worked on a ground control station integrated into a converted 3 tonne Bedford Army truck; this truck housed a mission controller, air-vehicle controller



work station and an image interpreter's work station along with computing, recording and monitoring equipment. The ground station became a second home for Tony McQuiggan who spent many hours refining the system performance. To increase the stand-off range of the WIDEYE platform from the ground station, a steerable directional antenna system was mounted on the roof of the ground station in place of the Omni directional aerial used in earlier WISP trials. Also distance measuring equipment (DME) capability was added to the two way radio link allowing WIDEYE direction and distance from the ground station (hence location) to be computed. The Westland team were responsible for integration of the sensor platform into the WIDEYE platform and the air platform control elements in the work stations in the ground station. The overall integration/functioning of the ground station and computing systems were the responsibility of the Basildon team.

The work stations could both display a moving map of the terrain under the platform and/or the visual scene as gathered by the WIDEYE sensor. Tony McQuiggan and Peter Turp spent many weeks in the ground station commissioning the computing software.

The Flight Controls team from Rochester (Tony Bargery) developed the navigation/moving map system and introduced "flying the footprint" concept where a pre-determined route could be programmed into the system so required intelligence data of target location/ disposition could be gathered and added to previous intelligence reports.

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However the limited computing power of the MOD BATES modules resulted in agreement that more powerful/faster processing chips should be used.

Eventually all the component sub-systems were integrated with the ground station and WIDEYE was moved to the Salisbury Plain Larkhill firing ranges. A series of flights were undertaken each extending flight envelope and gathering data, however after several air platform mishaps including starting a WIDEYE with its safety harness still in place; the programme was put on hold by the Procurement Executive (PE).

It was never determined if the crashes were due to loss of the radio link or mechanical issues within the platform, however after deliberations, it was concluded that the WIDEYE power plant produced far too high levels of vibration causing connecting linkages to become loosened resulting in mechanical failure of the platform.

1980 The PHOENIX Programme

The MOD decided to go for open tender to find a new system to meet its needs. After analysing contending bids, British Aerospace, Ferranti and GEC - Marconi were short listed to offer detailed proposals for consideration. What follows is the sequence of events taking place within the GEC-Marconi team and I'm sure the other contenders had viable solutions but were not eventually selected for full development.

The Marconi Tiger team is born.

The senior management of GEC-Marconi (Bill Alexander/Ron Howard/Peter Hearne/Wally Patterson/John Shepherd) appointed a Tiger team to take a fresh look at the GSR and put aside all past solutions. The team included myself for sensor/radio link solutions, Stan Armstrong for flight control and navigation solutions and retired Commander Doug Taylor RN for "out of box thinking." Doug already had a track record for novel "solutioneering" as seen with his proposal to the RN for the "Ski Jump Launch Ramp" for



launching aircraft from aircraft carriers which is now universally accepted and a big step in improved launch safety.

Doug's first solution, namely a powered regallo wing (a hang glider like wing arrangement) under which was suspended a payload pod containing all the major surveillance and radio link sub systems for the mission. This solution emulated a manned hang glider arrangement but recovery would involve parachuting the pod from the wing to ensure recovery of the costly and technically sensitive sub systems whilst the wing/engine components could either deploy a separate parachute or just be discarded as expendables. This concept also offered mission growth for alternative payload pods which could offer radio relay capability, electronic jamming/spoofing, chaff dispensing, or radar surveillance if the User community had such needs. The pod would house the sensor turret in the lower central region of the pod and at each end steerable antennas would be housed so as Phoenix manoeuvred the antennae would be steered to point towards the ground control station. Once an antenna

reached its limit of movement, the antenna at the opposite end of the pod would take over thereby providing continuous 360° communication between Phoenix and the ground control station.

Following presentations to senior management it became evident the regallo wing solution had a major failure issue in meeting the needs, the



maximum forward airspeed of the solution was calculated to be 60 knots but the requirement called for the ability to operate in 100 knot headwind conditions. Under such conditions the platform would be "flying" backwards at 40 knots, clearly not what was wanted, so another approach was needed.

GEC-Marconi had been working closely

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with Flight Refuelling Limited (FRL) based at Wimbourne on aircraft conversion packs where a Meteor aircraft could be flown completely unmanned and used as a target drone on the Aberporth firing ranges. Agreement was reached for FRL to join the tiger team and Peter Turner (Chief Performance Engineer) of FRL joined the team as the airframe designer specialist.

1981 Phoenix air platform configuration

The regallo wing concept was recycled but this time the wing was replaced by an airframe/engine configuration which had forward air speed more than adequate to operate in a 100 knot headwind.

A tractor option (propeller at the front) was adopted to permit the unusual proposed recovery sequence to be achieved. As stated earlier the "sensor pod" with its potentially costly sensor/radio systems ideally needed to be recovered for re-use, but now as the platform included a more costly airframe configuration it was deemed all parts of the system should be recovered if possible. The logical solution for recovery would have been to house the parachute in the "cockpit" area of the airframe, cut the engine - deploy to parachute and allow gravity to do the rest, but that would mean the sensor pod would become the first point of contact when hitting the ground with the most vulnerable part (the sensor turret) being exposed to certain damage as it would take the brunt of the impact.

By adopting a tractor configuration and twin tail booms this allows for the parachute to deploy from the rear of the airframe underbelly after the engine power is cut, and the forward motion of the aircraft to fully deploy the parachute. Once the aircraft was falling vertically with propeller nose first it would be possible to release a second set of parachute lines thereby allowing the vehicle to turn over onto its back during recovery. By adding shock absorber material in the cockpit area and using



expendable tail booms, it would be possible to achieve a 3 point contact landing with the ground with minimal damage to the most costly sub-systems being avoided.

It was decided to roll stabilise the pod during aircraft manoeuvres, effectively the pod remains horizontal and parallel to the ground to simplify the antenna and sensor control.

So the Phoenix emerges from the ashes as a twin boom tractor airframe with a roll stabilised pod slung underneath and a full recovery capability with a few frangible easy replaceable parts, and with mission creep capability. This concept was presented by the tiger team to the management of FRL and GEC-Marconi and was approved for further company investment to complete the competitive bid package to the MOD (PE).

However during early flight trials an unusual launch method was adopted; namely a "May Pole" type launch; the airframe was mounted on a trolley and a wing tip attached by a retaining wire to a vertical pole. Once the airframe was powered up it "flew" in circles around the pole and the ability of the antennae to maintain the radio links and the sensors to de-rotate and provide a "fixed" picture was checked and proven. The next step was to release the wing tip connection and allow Phoenix to take off and provide images from over the Larkhill ranges. The first launch was nail biting but became a regular

achievement.

1982 The introduction of Thermal Imaging Common Module 2 (TICM 2) mini scanner and Zulu telescope to Phoenix

Another team within the Electro-Optical Systems Division (EOSD) at Basildon led by Charles Richardson, Bob Akhurst and Glen Cuthbertson had the responsibility of developing the UK's TICM 2 which was secured under competitive competition by MOD (PE) Terry Dorothy/Les Large. The electronic modules were developed by Basildon and the scanner module by Rank Taylor Hobson based in Leicester and led by David Domaine. The TICM programme was a very successful MOD (PE) activity with the aim of producing affordable thermal imaging for all of the UK Services by adopting a common set of modular elements which could be configured into land/sea/air platforms. A key element to ensuring the UK were world leaders in this technology was the Tom Elliot detector (TED), Dr Tom Elliot was an eminent material physicist at RSRE Malvern who pioneered the development of a unique detector and its fabrication which resulted in outstanding thermal sensitivity and resolution.

I examined the detailed drawings of the TICM 2 scanner and determined it was possible to remove the complete outer

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casing of the scanner and replace with thin side plates; this resulted in the "mini scanner" which was half the size and mass of the original scanner. These drawings were presented to David Domaine of RTH, who was upset initially at the "vandalisation" we had carried out but fully accepted my rationale for doing so and the potential business this "variant" of TICM 2 could generate.

As an adjunct to this but not related directly to Phoenix, I was also addressing use of TICM2 for a programme known as Night Bird (AST1010) which required the electronic modules to survive in high performance aircraft environments. The Flight Controls Division of GEC-Marconi were well versed in such requirements, so I sought their agreement to use their printed card layout experience; so the Army TICM2 modules were re-configured onto cards with integral heat planes, all hybrid components were soldered onto the card and given a conformal coating.

The final component of the thermal sensor package was that of the lens (or telescope as the thermal imaging specialists call them), Pilkington Perkin – Elmer (PPE) based in North Wales was a key optical supplier to Basildon. David Morris and Mike Roberts of PPE were approached for a two field of view (FOV) telescope which could provide the image interpreter with the ability to look for finer details once a potential target had been located in the wider FOV. Because of the need to work within the overall diameter of 14 inches (the size of the turret we were intending to use), once the length of the mini scanner was determined I was looking for a very short telescope with minimal weight. An issue with dual field of view telescopes was that to achieve change of magnification, a carousel arrangement was needed to rotate additional elements into the ray path. This would create issues with our need to maintain an inertial balance central payload. In discussions with David and Mike it became evident PPE had been looking at the concept of a (thermal) zoom telescope, something which had never been built yet but

offered short length, low weight and minimal change in centre of gravity. PPE developed the Zulu telescope and this completed the sensor package for Phoenix.

1984 Trials at Bovington firing ranges

As part of the MoD competitive procurement process, they called for a "fly-off" of the systems proposed by industry to demonstrate capability and credibility. For the GEC-Marconi/Flight Refuelling team the air vehicle was launched from a pneumatic ramp mounted on an army truck and a short flight took place to demonstrate control and recovery. However the "electronic payload pod" was mounted on a helicopter with a TICM2 sensor turret and a two-way Ku band microwave link for control of sensor functions and enabling display of the images on the ground to the MoD observers. The previous day pre-MoD trials had gone well for the GEC-Marconi/Flight Refuelling team, however on the actual day heavy overnight rain caused major multi-path data link issues due to saturated surfaces acting as excellent reflectors at Ku band. Fortunately once the helicopter was at 100ft and above these issues disappeared with impressive thermal images being seen. One most remarkable (and perhaps most fortunate for the team) event arose during the trial: a column of tanks were observed on the move on the range area and these were tracked by the payload pod but due to patchy low cloud cover the helicopter flew into the clouds; however the thermal outlines of the tanks were still observable albeit just a hot blob and when the helicopter came clear of the cloud cover the full detailed image was restored. As all the images during the trial had been recorded, the observers asked for this sequence to be replayed and it certainly made big impressions on how good thermal imaging was in this role; perhaps this incident combined with the rest of the impressive trials resulted in MoD awarding the Phoenix a full development and production contract to the GEC-Marconi/Flight Refuelling team.

1985 Phoenix production

Production of 200 Phoenix systems commenced and entered into service with the British Army. The programme had indeed seen many twists and turns both early on and since. Phoenix has seen limited use perhaps because the environment and application over the northern European plains was too restricting and of course the envisioned mechanised land battle in northern Europe never happened. So attempting to use Phoenix in hot high altitude arenas such as Afghanistan would have limited success. But what is very clear Phoenix was the pathfinder project for the use on unmanned vehicles for surveillance in hostile environments and many of the key elements of the technology developed are now seen in those systems in-service now as well as commercial exploitation of small hovering drones.



Veronica Reed Speech

MVA President 2021

Good Afternoon to you all. Firstly, I would like to apologise to you for not being with you today. Unfortunately, the pandemic has meant we have all had to make some changes which include dates in our diaries and difficult decisions had to be made. I feel very honoured to be your President

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for 2021 and I hope that next year I will be joining you all for the Reunion Lunch in much more settled times.

My Service at The Marconi Company & Marconi Social Club.

I started my employment in the Marconi Company in 1965, at SQG (Small Quantity Group), Widford Site 1, working in Production Control. This site worked on Outside Broadcast Vans and Radar Equipment. My mother was a signwriter here and my grandfather was working in the WIP stores, which meant that there were three generations of one family at Widford at the same time. I then moved to New Street where I worked in Change Note Control I left the company when I had my family in 1972, and eventually joined the Marconi Athletic & Social Club as a part time receptionist in 1987. At this time, the club was very busy. The membership was in the hundreds, comprising mostly of Marconi staff and their families, with a few associate members.

The club boasted many activities, and had six Squash Courts; six Grass and four Hard Tennis Courts; three Football Pitches; two Cricket Pitches and Hockey. There was a Snooker Room, three Bars, Ballroom, Pool Room and Kitchen. Off-site there was the Sailing Club, Angling Club, Rifle and Shooting and Outdoor Bowls.

In the early 1990's I became the of Social and Entertainment.

In my role as Social and Activities Manager I was responsible for the arranging of Wedding Receptions, Dinner Dances, Discos Stag and Hen Nights. And of course, the Marconi Veterans' Reunion Lunch.

The Stag and Hen nights were the scariest of all- often I would be pacing up and down the car park waiting for the strippers to arrive, with a hall full of 300 men or ladies waiting for a good night out- many of whom had knocked back a few drinks and were getting a little loud. Thankfully the artiste would eventually arrive, and the show would go on; and a good time was had by all.

The Veterans' Reunion Lunch was not too difficult as most of the work was done by the Veterans' Committee, although I did have a few disagreements as to how many people could be sat at a table! There were also disputes over how many tables you could get into a hall, but I am pleased to say that we always managed to work things out in the end. I also had the great pleasure of meeting Princess Elettra Marconi Giovanelli when she attended one of the Veterans' Lunches.

I also met with other personalities from TV and stage. These include Mike Reid from EastEnders fame, Cockney duo Chas and Dave, and The Glen Miller Band (which was headed by the nephew of the great Glen Miller).

When Gerry Wignall departed from the club, Peter Wright became the Manager. He had been working at the club founding the Over 50s daytime club. Peter introduced extra activities including Short Mat Bowls, Tea Dances, Day Trips, and Holidays in the UK and abroad.

Monthly theatre trips to the top West End Shows were also very popular. The amount of work required to arrange these trips could be daunting at times- coaches and Hotels had to be booked, tickets had to be purchased and then sold.

West End Theatre tickets always had to be purchased in advance, sometimes 6 months ahead and if they were not all sold, we did not get a refund- so it became common place that I could be found outside a London theatre touting tickets before a show! Usually it was only ever a couple of tickets when someone couldn't make it at the last minute. I must admit this was not one of my favourite jobs but if I was successful, I could give a member a refund.

The holidays were very popular, and we often took two coaches amounting to 100 people.

We went to Ireland, Scotland, Cornwall, Blackpool, Yorkshire, Germany and even Egypt. I did not go to Egypt, but I think that was the only one I missed. I was never off duty as it was my responsibility to make sure everyone was having a good time. This was no mean feat,

believe me!

These new activities were required due to the demise of the Marconi Company and membership was now open to all. After Peter Wright retired, we had another ex-footballer as Manager for a short period of time. This was Ralph Coates. I continued with all of the activities by myself during this time. It was also during this time that BAE became the owners of the club. When Mr Coates left I became the Manager. Then the long round of meetings started regarding the new club being built. I sat in on virtually every one of these. The first thing that happened was that the Football and Cricket was moved to West Hanningfield Road, with a lovely new club house/sports pavillion which has up-to-date changing and shower facilities and bar area. This was always very busy at weekends, and I often went over to help. It was on one such occasion that I had the pleasure of making a bacon sandwich for Sir Geoff Hurst, World Cup hero from 1966.

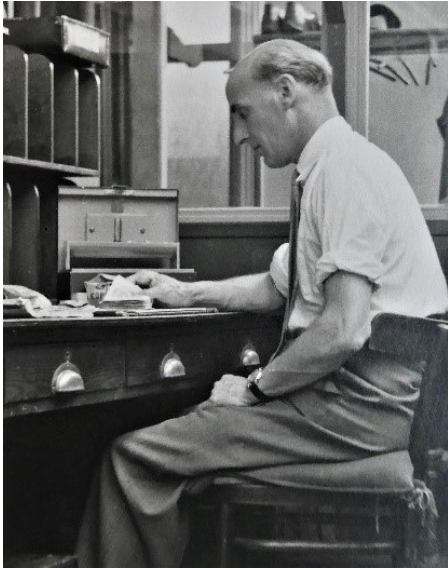
The new club in Beehive Lane was finally completed in November 2012 a decade after it was first mentioned by BAE. One of the first functions to be held was a Conservative Party Dinner with a guest speaker. No one was to be told who that speaker was. I was told as I had to meet with some very high security personnel The staff got very suspicious when the sniffer dogs appeared. That guest speaker was of course Theresa May- she was The Home Secretary at the time. There were that many police in the building, all plain clothed- it was unreal. Not that long after we also had the privilege of being the host venue for the BBC programme Question Time with David Dimbleby. The programme went out live from the club. I was very lucky to meet and have my photograph taken with both Theresa May and David Dimbleby, and I can honestly say that they are both very nice people. I decided in 2019 that it was time for me to retire and to have some leisure time for myself, but I have many happy memories of my time at Marconi and Marconi Social Club.

EMAILS / LETTERS

Sidney Joseph Bardell

by Mike Bardell

My late father spent much of his life working for Marconi in the Chelmsford area. On retirement we teased him that the company would surely collapse!



Dad was a butcher by trade but worked for the company from September 1937, returning after war service in the army, and received a 35 year certificate immediately before retiring at 65 in January 1973. He always answered to Joe Bardell at work, Sid to the family.

Life was not all plain sailing however. In 1950, working a night shift as a hot press moulder he was told to remove the safety guard in order to increase production. His hands were caught in the press and he lost his right hand index finger, taken out back to the wrist, and his two left hand middle fingers, one at the first knuckle, the other below the first knuckle. He never felt pain at the time.

Dad's devotion to Marconi developed from the company's aftercare. They settled out of court and he received compensation of £3500 plus damages from which he was able to buy outright a brand new three bedroom house in Braintree and a car. He was promised an office job for life and could not be made redundant. All this happened when I was

a baby but my memory is of him working for Radar Division at Church Green, Broomfield.

His title was cashier but I am sure he did much more - organising hotels, air tickets and other travel arrangements. Judging by the gifts the travelling staff gave him at Christmas it seems clear that he was well regarded. It would be fair to say that his accident was one of the best things to happen to him.

Just one example of his devotion involved a rear collision to his car at traffic lights in Chelmsford. He was returning from the bank, it may have been New Street, with a large amount of wages cash in the boot and, fearing a robbery, accelerated through the red light only to be waved down by a policeman who had witnessed everything. When he opened the boot and revealed the money he was allowed to drive away; he received a commendation from the company.

On reflection I think it must have been New Street because he often said he was surrounded by huge amounts of cash in the strongroom. Dad would never gamble and put himself and the family at risk by the temptation to clear the inevitable debts!

I have my own memory of Church Green because to occupy my school summer holiday in 1964, dad took me into work for several weeks where I was given various office jobs by Bob Hefford (I think) and a few shillings pay, I suspect from dad's own pocket. Two other Marconi people I remember, because dad tipped them off about new houses still being built near our home, were Freddie Beales, who I know died a few years ago, and Dickie Hayward, probably the most amusing person I have ever met.

OBITUARY: Roy Simons

by Chris Simons

Professor Roy Simons passed away on 20th October 2021 at the age of 97.



Roy sitting in the doorway of a wartime communications cabin with some of his close colleagues (Len Whitaker, Joan Parker (later Joan Whitaker), and Jean Lelivre.

He was a keen follower of the MOGS website and the conversations of the members, even though many of the topics were about projects and products that came after his time, so I thought it would be appropriate to send you a summary of his career.

Marconi was a very big part of Roy's life. In his youth he spent a lot of time building radios in the loft of his father's garage business, which no doubt helped him with his application for a job in the Research Division of Marconi's Wireless Telegraph Company at Baddow in 1943. After developing special receivers for direction finding, he became a founder member of a department established to develop radar systems in 1949. He held many positions in the organisation and had responsibilities for project management, design, manufacturing and installation of various radar systems.

In 1965 he became Technical Manager of Radar Division, and then Technical and Quality Director of Marconi Radar Systems in 1969. In 1973 he was given

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the additional role of General Manager for Chelmsford when there were about 3,500 employees. In 1974 he was given responsibility for Health and Safety, and in 1976 after a major reorganisation he became responsible for all MRSL development and production in Chelmsford, Leicester and Gateshead. Further reorganisations followed, but he retained his role as Technical Director until he retired from MRSL in 1986.

After leaving MRSL he worked with the GEC Technical Directorate and the Canadian Marconi Company, and also with several Universities structuring courses, lecturing and examining. He became a visiting Professor at Sussex University in 1996.

Throughout his career he was very active with the IEE and the Engineering Council, and supported many Marconi engineers with their membership applications.

He researched the history of Marconi and the Marconi Company, and presented an IEE lecture entitled "Marconi the Father of Wireless" which he repeated many times at several different venues.

Most recently he provided background material to support the listing of the Chain Home tower at Baddow.

Strangely in 2017 I finished my career in Radar in A Block in Baddow in more or less the same area where my father started his in 1943.

OBITUARY: Robbie Robinson

By Peter A.T. Turrall MBE.

The death occurred in July 2021 peacefully at his home in Leamington Spa, Warwickshire of Robin "Robbie" Robertson at the age of 86.

Robbie in the late 1980's, was appointed Managing Director of Marconi Communication Systems Chelmsford following a very successful career within the Company progressing through various departments where he held senior positions.

Starting life after leaving Enfield Grammar School, Robbie took up an apprenticeship with a TV Company spending much time on the roof of houses installing TV Aerials. His apprenticeship covered three years before he joined the RAF as a deferred entrant. When he returned to civilian life, he joined Marconi's working in various countries including mainly Turkey and Aden installing Marconi products.

In 1963 he was engaged to Helen his future wife, and then went on business visits to Hong Kong, coming back to England to marry Helen in August of that year. Robbie and Helen travelled widely living in Hong Kong, Pakistan, Iran and Nigeria and then to Bermuda where son David was born. In Bermuda Robbie was seconded to Cable & Wireless to assist on the "Man in the Moon" project for NASA. Three years later daughter Kate was born in England.

Over the following years, Robbie was appointed to various Senior positions

within Marconi Communication Systems and still carried out many overseas visits promoting the products and systems of the Company, before becoming its Managing Director. He was at this time awarded the Prince Philip medal for his major contribution to British Industry. In the late 1980's Robbie moved to GEC Coventry where he was appointed to head up their Export team.

Retiring in 1995, Robbie pursued a new career in gardening but continued to serve on the GEC/Marconi Pension Advisory Committee for a number of years. Church life was an important aspect of Robbie's life and he was deeply involved in a group masterminding the rebuild of local St. Nicholas Church following a major fire.

Robbie leaves a wife Helen and two children David and Kate and three Grandchildren Alfie, Gabriella and Martha all of whom were his pride and joy.

Robbie was cremated in Leamington Spa on Monday 26th July 2021.

Tributes:

An Obituary/Tributes page can be found on the MVA web site, look under Membership > In Memoriam > Biographies / Obituaries.

This includes links to various on-line Tribute pages

Issue 22.05

In Memoriam

We extend our sympathy to the families of those who have died. *For an up to date list please refer to our web site:-*

<https://www.marconi-veterans.org> Menu > Membership > In-Memoriam

Notified to our secretary from Nov 2020 – Dec 2021:-

Mr. AJ Baldwin, Mr. AL Batchelor, Mr. JFH Binns, Mr. K Bradley, Mr. JP Brand, Mr. C Clarke, Mr. DR Doe, Mr. ME Doolan, Mr. RG Eley, Mr. R Godfrey, Mr. DL Gomm, Mr. DG Gray, Miss B Herries, Mr. RFT Holloway, Mr. KH Hughes, Mr. IW Jack, Mr. RE Jackson, Mr. TM James, Mr. EW Jeffery, Mr. JF Jones, Mr. C Lax, Mr. ML Martin, Mr. T Mayer, Mr. DAS Mott, Mr. EG Owen, Mr. RS Potter, Mr. RK Robertson, Mr. J Sellick, Prof RW Simons, Mr. G Thomas, Mr. WM Titford, Mr. G Wheeler, Mr. JC Witter ;