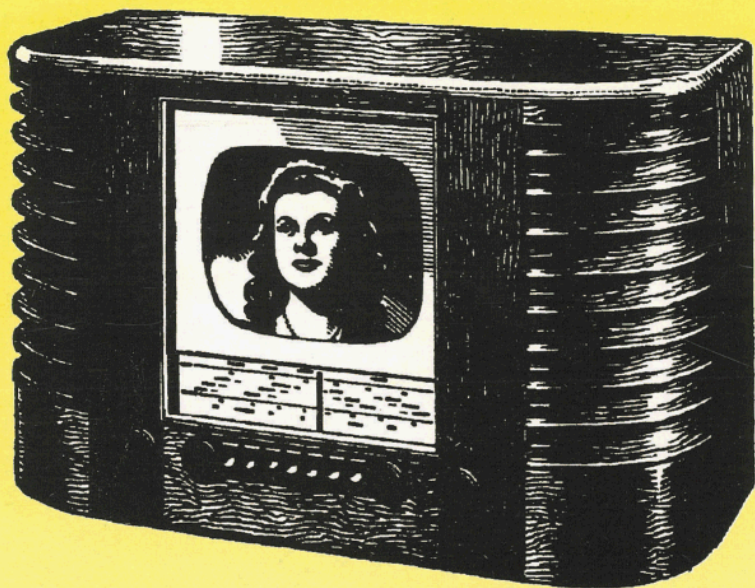


# 405 ALIVE

*Recalling the Golden Years of Black & White Television*



Issue 31 - Autumn 1996

ISSN 0969-8884

**IN THE MAGAZINE WITH ABSOLUTELY  
NOTHING NEW IN IT...**

New series on Test Signals starts

***Reconstructing the Dem Film***

HMV/Marconiphone Set Survey

***Top Of The Pops - Instant Replay***

Paff's Picture History of Television

***... and much more***

# 405 ALIVE

Founded 1989 by Andrew Emmerson, with title and inspiration by Bill Journeaux.  
Issue 31, Third Quarter 1996

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ISSN: 0969-8884.

## LEGAL WARNING, particularly for New Readers

By reading this magazine you are entering a Temporary Autonomous Zone (TAZ), where normal values, logic and timescales do not apply. At the least you may feel unable to put the magazine down until you have read it through to the very end. As you read it, you may also feel strangely mellow and entirely unable to consider doing anything else useful for 24 hours. Alternatively you may feel a sudden urge to have money extracted painlessly by one of our advertisers. Anything may happen and at the very worst you may enter a Permanent Autonomous Zone (PAZ) of your own creation.

We describe this magazine as *Your Escape from Ordinary Literature*, but be warned that unwary neophytes have been known to degenerate into hopeless wrecks gibbering meaningless phrases such as 'modulator', 'open reel', 'image orthicon', 'telerecording' and '10 kilocycle line whistle'. Sadly there is no cure, only deeper addiction.

DO NOT PROCEED FURTHER if you are unsure of your ability to handle hard-core old technology. You have been warned. This magazine should not be left out where children or people of an unsympathetic disposition may find it. Parts of the content may not be 'politically correct', whilst humour may have settled in transit. Because this magazine is produced on the 405-line system, you may need to make allowances for occasional reduced definition in illustrations.



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## FROM THE EDITOR ...

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One of the surprising things about editing a magazine like this is how little feedback you get. Yes, there are some appreciative comments with some readers' letters and a few bold people even ring up to discuss articles. But in the main I just trust my own reactions and print what *I* like in the hope that it interests *you* as well.

There's a hard core of 'techies' who enjoy the deeply technical articles and little else, whilst I know other people find those same articles a complete bore and yearn for the lighter pieces on old programming, music, television commercials and continuity. To a large extent I can only publish what is contributed but I do try to maintain a balance.

One other source of material is the Internet, parts of which are 'conferences' or news-groups where like-minded people discuss the most abstruse matters known to man (and woman, although the 'Net is rather male dominated). This electronic playground is a fertile source of material for the magazine and I shall continue to pillage its electrons to bring you some choice items from time to time. A lot of you have no time for computers, and that's fine... I have no problem with that. But I hope you will not object to my combing this treasure trove for material and in deference to the good people who contribute their wisdom for no gain or reward (except temporary fame in cyberspace), I shall continue to acknowledge the source of this material.

*Andy Emmerson.*

## APOLOGY

Once again time has had the better of me and several photo features intended, indeed promised, for this issue have been held over. This is extremely annoying to the kind people who submitted their photos and just as upsetting for me. However, until they invent a 48-hour day or some benefactor provides me with production staff to help compile the magazine, that's the way it must be. At least it makes something to look forward to in the New Year! [AE]

## LETTERS, WE GET LETTERS...

**Many thanks to all our letter writers, including those who didn't make it to this page. We try and fit in as many as possible, occasionally editing for space or clarity.**

### **From Colin Guy, Stickford:**

Just a quick note to say thanks for the magazines. Who cares if they are a bit late? They are still worth the wait. Don't take any notice of the moaners, they don't realise that quality has to be paid for.

A thought... if we can run classic cars over 25 years old without a licence fee, how about a campaign to exempt TVs from licensing if they are over 25 years old? My 1970 Sony KV-1300 is a good candidate for this!

### **From Bill Journeaux, Poole:**

Here's a sad story! I was recently approached by a local gentleman who is collecting bygone items to start a small private museum. He told me he had been given an old television set and asked me if I was able to get it working for him. I called at his storeroom and found the set in a far corner... and on removing the dust sheets I found a beautiful HMV model 902, serial no. 2094 (TV/radiogram of 1937).

Knowing this gentleman would not be willing to spend a large amount of money on restoration, I started to think which working set I could exchange him for it – and where at home I could store it. After moving many boxes and other items I was at last able to pull the set away from the wall. With mounting anticipation I removed the back... only to find that although the radio chassis and turntable were still in place, the tube, timebases and power supply had long since been removed!

### **From Gary Platten, Craghead, Co. Durham:**

Readers might like to hear of an interesting Ambassador TV set I recently found near my home. It has a rather curious cabinet; it could be described as a corner console, in fact on account of the shape of the cabinet it could not be sited anywhere else in the room. Another feature is the twin doors on the front of the cabinet which conceal the screen when closed; the implosion guard is a perspex moulding which follows the curvature of the cathode ray tube. The model number is TV4C.

When found the set had been fitted with a Brayhead twelve-channel turret tuner. I decided to return the set back to its original Band I-only, five-channel specification, so the turret tuner would have to be removed. The RF amplifier and frequency changer valveholders which had served as the connecting sockets for the turret

tuner required two Mazda 6F1 valves; these were in due course found and inserted into the valveholders. The set was originally tuned to channel 5, therefore the RF, mixer and oscillator coils required retuning to channel 1, which is the output frequency of my modulator. The tuning coils now required iron dust cores instead of the original brass items which were required to tune in channel 5. In due course the picture and sound appeared. It was evident however, that the CRT was low emission, however, over the past few weeks the picture brightness has improved. To sum up, a rare and interesting set, does any other reader possess or have experience of a Ambassador TV set?

**From Ken Tythacott, Event Manager for British Vintage Wireless Society:**

Now that the dust has settled on the Society's two-day commemorative event and outstanding matters have been dealt with, I am writing to thank you for your help and support in organising such a wonderful display of early television equipment. I have asked the Chairman to write and thank you on behalf of the Society, but thought I would just write and express my appreciation at a personal level.

I can't remember another occasion when 30 line working has been demonstrated using an authentic Baird televisor. The array of working 405 line sets was outstanding. Everything in the television display seemed to go like clockwork on the day. The demonstrations were excellent and would have needed a great deal of effort to set-up at Harpenden. Many members have contacted me to say how much they enjoyed the television.

Based upon feedback from members it is apparent that the Society had a very enjoyable and successful 1 week-end. Well over 400 members and guests attended on the Saturday and over 500 registered for the Sunday. Our usual 'swapmeet' attendance is about 325. I think that we could have done with another week to prepare as there were one or two squibs on the day, but not many people noticed.

Thanks again Andrew.

❖ *This was a team effort so I'm very happy in turn to extend Ken's thanks to all who helped in this exercise.*

**From Jerry Pulice, USA:**

You should check out this URL, if you haven't already. It has a lot of information on Philo Farnsworth

*<http://www.edge.net/noma/philo/index.html>*

When I was at the former RCA Missile and Surface Radar Div. of RCA, I noticed they held the former Rocky Point, Long Island, NY RCA labs library of RCA propaganda.

One issue on the EMITRON, in the early thirties of one of the RCA journals had marginal notes on one RCA's employees trip to EMI (there was a 23 per cent cross-holding of stock, but evidently little technical interchange) to see the Emitron.

This site is now owned by Lockheed-Martin – I hope that this material did not go to the dumpster, as it is irrelevant to Lockheed's mission. I did copy a lot of it while I was there. Rocky Point was where the rhombic pointed towards London was located, and they received channel one television frequently.

The URL sort of implies that there was collusion between EMI and RCA, introducing the same camera tube on both sides of the Atlantic, to squash competition.

One Russian journal I found here at Sarnoff, from the late seventies has a Russian HDTV device projecting the wonderfully complex 0249 test card on a ten-foot screen.

### **From Dinosaur Dave, 4, Kemble Drive, Bromley, BR2 8PZ:**

If you thought the Dinosaur was extinct – think again...

In this year of anniversaries it occurred to me that it was four years ago (at the Vintage Wireless Museum garden party) that I gave the first public demonstration of the prototype *Dinosaur* standards converter. This created sufficient interest to persuade me that I might be able to sell a few. A year later the Dinosaur went into production. Little did I know, that four years later the demand continues, so I'm proud to announce a worthy successor to the original product – the Dinosaur Mk. 2.

So what's new?

1). The original unit occupied three printed circuit boards; this meant that it was available to build without the interpolator. This did not prove a popular option and so the interpolator has been built in. The design therefore occupies only two boards.

2). The option to have the *Lil Dino* modulator built in proved to be very popular. For reasons of space, i.e. there was nowhere to fit the connectors, we could not make the modulator input available for use with a 405-line source (e.g. the *Testcards 'R' Us* pattern generator – a few still available £125). This problem has been solved on Mk.2 by incorporating automatic bypass: if you feed the unit a 405-line signal, it will detect this and pass the signal through unchanged. Neat eh?

3). With no input the Mk.2 generates a simple test signal known as 'Art. Bars'. This was the very first electronic test signal, which means that this signal is 60 years old! Another anniversary?

So how much is all this going to cost? Well, the provisional cost of a kit is £275 and the completed version will be £370 (or £445 with modulator). These prices are subject to final confirmation. I've just been taken to task for using the word 'completed', we can't really sell completed goods without CE approval! So, we will supply the Dinosaur with the fixing screws separate (the customer can fit them...). To place an order, drop me a note or ring Dave Grant (01689-857086) or Mike Izycky (01778-344506).

### **From Bob Netherway, Bristol:**

Just recently, as a result of my article about my experiences with 405-line television, I received two very nice letters. One was from Richard Bell of Melton Mowbray in Leicestershire, the other was from Keith Rann in Essex.

Both of these two gentlemen wanted old test cards and/or television idents. I think I was able to help Keith as he has just sent his thanks. Don't thank me Keith, thank the Amiga and the Photon Paint software, as they did most of the work! I am not too sure about Richard as I have yet to hear from him, but I will take this chance now to thank him via the magazine particularly for the 'start of day' cine sequence for Westward Television which I have always wanted.

Going back to the test cards I sent to Keith, I wonder what they would look like if they were playing on a 405-line set. You can just imagine it now. It's about three on a dull autumn afternoon, dinner well over, and teatime is still some way off and the music is coming out of that lovely speaker that the Pye VT4 was noted for.

It is good to read of readers' memories of trade test transmissions in the Crystal Palace area in the early sixties, as we used to get a very weak channel 1 signal up at the farm from BBC TV which after the dinnertime news would have programmes the contents of which I could not make out. It is obvious now that these were the colour trade test films that I have read about in *405 Alive*.

Well Andy, and readers, that is that for now. I shall try and send in another article shortly, but in the meantime lots of lovely 405 line rasters to you all.

### **From Paul Murton, Manchester:**

There has been some comment about the cost of *405 Alive*. All I can say, having tried other similar magazines in the last year, £4 for 96 pages of superbly written letters and articles is a bargain. Incidentally,

I didn't renew my subscription to the other magazines. PS: Like the glossy cover!

## FEEDBACK

**From Arthur Dugate, Hounslow:  
SPECIAL EDITION, Best of Issues 1-4.**

On page 9 Pat Hawker wrote about the pictures from a 4½" image orthicon camera being 405 at its best. Although I respect his views, it was generally conceded that no television camera of the period could match the superb quality generated from the Cintel telecine 35mm film scanners running a good print. That really *was* 405 at its very best!

On page 16 there's a mention of those awful 'colour' screens which could be put in front of the TV tube – blue at the top, pink in the middle, green at the bottom. One could say it did something for the HOP sequence (Houses of Parliament shot) but certainly nothing else!!!!

On page 49 Ken Bailey commented on the 'colour' experiment on some TV adverts in 1956. This was a gimmick relying on flashing images (rotating spirals, etc.) to try and fool the eye into producing a (fake) sensation of colour. It didn't work for me! Yet, during one of those, I was talking to someone in front of a TV and he suddenly said "Look! colour!" I looked, and saw only b&w.

In Paul Sawtell's three-part series on test card music he doesn't mention the French *Musette* music which was used a lot in the late 1950s. I have a tape of this, but I expect you have too.

On page 68, Malcolm Burrell has some reminiscences of the BBC colour tests (which used a modified NTSC system). On at least two occasions another feature film was screened, a reel at a time (i.e. over several days in the afternoons) and this was *Underwater* with Jane Russell.

**Issue 16:** On page 3 a letter from Simon Hamer mentions Eric Coates' march *Music Everywhere* (also called the *Rediffusion March*). This was written for the Rediffusion Company, which in many towns piped radio programmes over wires direct to homes, thus providing good quality and avoiding the reception problems associated with medium wave broadcasting of the time (1940s and 50s). At one stage, around 1951, I worked for a short time for Rediffusion in Blackpool, where there were three sound services provided – Prog A was the BBC Home Service, Prog B was the Forces Prog (later the Light Prog) and Prog C was a

miscellany culled from a receiver using high quality aeriels (Goniondas, etc.) situated at Inskip in Lancashire, away from built-up areas (and therefore free from interference). Radio Hilversum was the main content. Rediffusion was not the subsequent TV company which from 1955 had the Mon-Fri ITV franchise in London & the South East (although there was a distant connection via a 'holding' company).

On page 31 (in issue 16 again) is an interesting article about Keith Hamer. Is his collection of test card music complete (i.e. including the 1950s)? And on page 44 there is an oblique reference to the 1936 start of BBC television ("the show may have been filmed as the 1936 BBC event was"). It was my understanding that the 1936 sequences as used in the first reel of the Demfilm were 'recreated' in Studio A at AP in 1946. (I am open to correction on this, however).

In **Issue 22**. Jim Pople queries the use of the Suppressed Frame Coronation telerecording to send to America. It was not that it was considered better quality than the full frame (Moye-Mechau) system. It was not. But the Moye was intended as the *complete* record for the Archives, and the equipment was at Lime Grove. The Suppressed Frame was initially installed at AP (actually in Central Telecine, next to the two Cintel flying spot scanners) so that the resulting negs could be quickly sent to Kay's Labs at nearby Finsbury Park for editing (as Jim said) and then taken to Heathrow ('LAP' - London Airport) for despatch across the Atlantic.

It would have taken much longer using the Moye system. The Suppressed Frame was designed and built by BBC Designs Dept, and operated by them for the Coronation. Afterwards, it was dismantled and re-installed in the new Telerecording Suite at Lime Grove. When I moved, for a period, from Telecine to Telerecording at Lime Grove, it was operated by technical staff (including myself).

**Issue 25:** Page 55 - the film *Pembrokeshire - My County* was indeed an Esso film. In the early 60s I used to hire a lot of 'sponsored' documentary films from various libraries (Shell, Esso, BOAC, BTF, etc. etc.) and this one I booked more than once!

**Issue 26:** (letter from Mark Jurkiewicz) The *Z Cars* title music was called *Johnny Todd*. On page 60 following Peter Bowgett's article on clocks, your editorial comment mentions the scale model of Big Ben. This was affectionately known as "Little Ben"! And, in the early 50s, when Children's Television (which started at 5pm) closed at 6pm, the next transmission was at **7.30pm** with TNR (BBC shorthand for Television Newsreel). The sequence started with the Tuning Signal ("7.30 HOP Day" or "7.30 HOP Night", depending on the season!) which consisted of the clock (starting of course at 7.25pm), (music on track

being *Nat Airls*). Now, I recall it then went to the BBC crest, and then to HOP (Houses of Parliament, shot from near Lambeth Bridge) and this lasted (on the film) for several minutes (though on air it was faded to start of programme). On the film, HOP continued with a couple of barges going down river, and two people walked past (but this was never seen by 'viewers').

As you probably know (if, like me, you have a copy of 'Birkenshaw's Black Book'), at AP it was not possible to dissolve from one *different* television source to another (Emitron cameras in the same studio – and therefore running off the same sync generator – could be dissolved, in fact for a time it was the *only* way to change, a cut only being possible later....). In CCR the master fader could fade down the video signal, say from Central Telecine, and then when it reached black level, would change over to the syncs from the new source (e.g. the studio) and then fade up the video signal from the studio. It was a stud fader and so if it was operated slowly, the picture would fade out in jumps! Oh happy days!

**From David Boynes:**

#### **EMITRON CRTs**

On page 27 of issue 30 an advertisement appears for **Emitron** cathode ray tubes. I believe that the Emitron brand was used by EMI to market valves and tubes made by manufacturers other than Marconi-Osram. In the advertisement one can see that the CRTs 12Xp4 to 17ASP4 are American types – imported perhaps? – and that the 85K and 108K are Cossor-type numbers.

In the early 1950s many **Marconiphone**-branded TVs were fitted with chassis supplied by Plessey. The valves and CRTs were Emitron types and the valves were given American type numbers, for example the well-known types EF80 and PL81 were redesignated as 6BX6 and 21A6.

**From Bill Journeaux:**

#### **EF50 VALVES**

I was particularly interested in the article on the restoration of the Pye B18T as I have had quite a lot of experience with this set in the past. I must, however, caution readers regarding the use of the EF50 valves with the two black stripes on the top as many of these valves are not what they appear to be (namely a specially selected high-gain version).

In the early 1950s a dealer I knew in Tottenham Court Road, London sold new and boxed ex-RAF VR91/EF50 valves at 8s 6d each. The 'high-gain' version with the black stripes he sold at 9s 6d each. This dealer had an attractive young daughter who was a very talented art student and she spent most evenings in the back room of the shop

painting lines on the top of new EF50 valves. I found out later this was a very common practice among the government-surplus dealers.

### **COMPUTER IMAGES OF TEST CARDS**

Following the recent 'sad offer' of test card images as PC files (no more requests to me, instead please write to Dave Grant, 4 Kemble Dive, Bromley, Kent, BR2 8PZ), I have discovered the BBC has a site where you can download these. You can download Test Card F via FTP from the BBC at

*<ftp://ftp.bbc.co.uk/pub/video/stills/tcf.gif>*

In addition there is a so-called Test Card Museum with patterns from all over the worlds at

*<http://www.ping.at/users/staytuned/program.html>*

and more test cards at

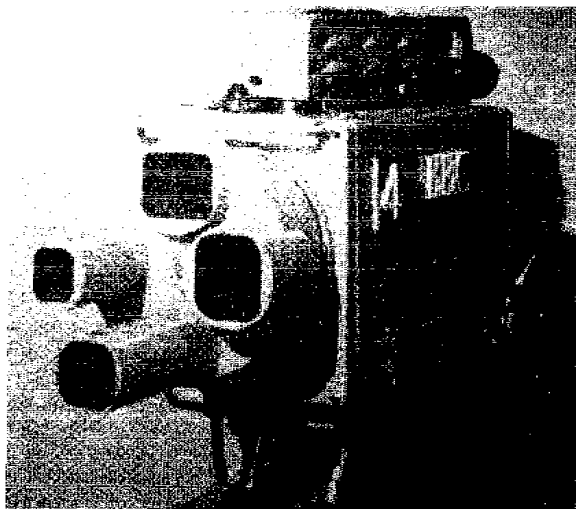
*<http://www2.dgsys.com/~jchill/video>*

and also at

*<http://wxweb.msu.edu/~henrich/video/>*

### **CPS EMITRONS**

In issue 30 of *405 Alive* Paul Murton asks whether any other ITV company (apart from Southern) used the EMI CPS Emitron (Mk III) 10764 camera. The short answer to that is Yes and TWW. But for how long the station used the camera type and in what quantity I have no idea. In detail, the EMI 10764 camera was very large and had a four-lens turret with a curious 'baked bean tin' detachable cover plus a large top-mounted adjustable viewfinder that snagged unwary fingers. The camera was introduced in 1956 at Lime Grove studio D (*see picture following*). The camera used a 3½ inch orthicon pick-up tube. The pictures produced were very 'photographic' and pleasant. However, by the time they reached the average home receiver they were much too degraded to be fully appreciated.



**BBC CPS Emitron 10764 camera**

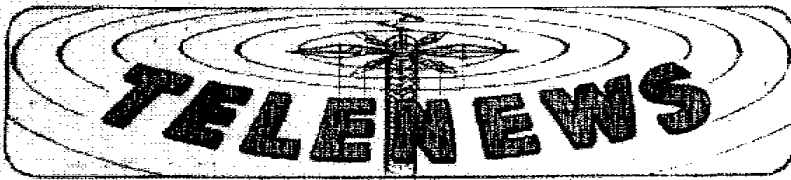
**From Alan Rattee, New Zealand (via the Internet):**

I have often wondered what became of all that 17.5mm film that was used in the Baird Intermediate Film system from November 1936 to February 1937, as this would constitute a true record of 'live' TV in those far off and fascinating days. I suppose some uncaring minion simply threw the film away.

- ❖ *No, it was far too valuable to throw away. In fact it was all sent back to Ilford Ltd for recovery of silver content.*

I'd like to think some may still exist somewhere. What a find that would be!

- ❖ *A few strips about 8 inches long survive in the British Film Institute archives. Sadly none other has turned up, although it would be a marvellous find, as you say!*



### **PRE-WAR SETS FOR SALE**

No fewer than 15 pre-war television sets will be on sale at the National Vintage Communications Fair on 1st December! This is a remarkable collection and an offer which may never be made again. See full-page advertisement at rear of magazine for further information.

### **BACK NUMBERS**

Yes, *405 Alive* is a sell-out! Virtually all stocks of back issues have been sold now, including the combined edition reprint. Copies of issues 25, 26, 27 and 28 *only* are available at £2 each post-paid from the Staffordshire address (cheques payable to *The Radiophile*). In a few cases the editor can lend originals of older editions for photocopying or supply ASCII files on floppy disk. In the longer term, it is hoped to upload the text of all back numbers to a WWW site on the Internet one day but this really is in the long-term!

### **BAIRD 'FIRST' RECALLED**

"On 5 August 1926, John Logie Baird's company – then known as Television Ltd. – received the first licence to be issued anywhere specifically for the transmission of television pictures. In his paper for the Radio Society of Great Britain read on October 20th 1926, Baird referred to the television transmissions from Motograph House in London, using 250W and the callsign G2TV. Just a few transmissions were made on 200 metres that year as there were only three receivers available." – *RSGB*

### **THE LATE FRANK COPPLESTONE**

The broadcasting career of Frank Coplestone spanned more than 35 years, beginning with the birth of commercial television and ending with the shake-up which followed the 1990 Broadcasting Act.

In 1958 he became the Independent Television Authority's northern regional officer, and saw Tyne-Tees Television on to the air. In 1960 he established the ITA's Plymouth office and supervised Westward Television's launch. Thirty years later, Frank relished the swing of fortune which made him Westcountry Television's deputy chairman in Plymouth.

He left the ITA as head of programme services. At the ITV Companies Association he set up and became controller of the network planning secretariat and was pivotal in the black arts of network scheduling, and balancing programme producers' claims. In 1976 Frank became Southern Television's managing director and, encouraged by his chairman, introduced Glyndebourne to the network. When Southern lost its franchise in 1981 Frank turned down an offer to head a major ITV company, and

remained managing director of Southern, selling its programme library globally until the company itself was sold. In 1990 he and Stephen Redfarn formed West-country Television.

Frank Henry Copplestone, independent television executive, born February 26, 1925; died April 30, 1996.

*Abbreviated from an obituary in The Guardian, 9th May 1996. Submitted to 405 Alive by Nick Fyffe.*

### **IMPORTANT BAIRD LECTURE**

If this appears in print before the event you will probably wish to know that the IEE is presenting an evening lecture entitled BAIRD – THE MAN AND HIS TELEVISION on Monday 18th November. The speaker is Ralph Barrett CEng MIEE MIERE and Ralph explains: “The name of John Logie Baird will always be associated with early television broadcasting even though it was not his system which eventually achieved success. I shall speak about the life of the man himself and describe his efforts to make a practical television system. With pictures displayed on an original 30-line Televisor, we will look at the life and work of Baird. He was a man of determination and an inventive mind. The amplifying radio valve was invented in 1906 and Nipkow had already devised the scanning disc; so when Baird started work on television in 1923, all the tools he needed were available.”

The lecture is being held under the auspices of the Institution of Electrical Engineers, Science, Education and Technology Division Professional Group S7 (History of Technology) and the venue details are:

IEE, Savoy Place, London on Monday, 18 November 1996 at 6.30pm, tea at 6.00pm. Admission is free and non-members are welcome. Any queries please contact LS(D)SA, tel: 0171-344 2205.

### **NEW TAPE**

Do you remember the crazy film sequences featuring “The Prof” in the BBC programme *Vision On*? If so, you’ll doubtless be pleased to hear that a VHS compilation tape with commentary and explanation is now available for £11.50 including post and packing. We’ve seen it and yes, it’s all there, a real blast from the past! You can order your own copy from “The Prof”, c/o 71 Falcutt Way, Northampton, NN2 8PH; please enclose stamped blank envelope for forwarding your order and a cheque for £11.50 with payee’s name **left blank**.

### **NEWS FROM THE MUSEUM OF COMMUNICATION**

This year the museum was able to supplement a John Logie Baird exhibition in Callendar House, Falkirk. As many will know, Baird had close connections with Falkirk, and a six week display to mark the 60th anniversary of his death opened at Easter. Many of the sets on display, including two Televisors, came from the collection of Foundation member Michael Bennett-Levy.

The Museum of Communication provided a basic working television studio equipped with two 1965 Pye Lynx cameras on wheeled dollies, monitors, control desk, lights and even a clapper board and a test card or two. We also showed an identical camera (with casing removed and all parts labelled) and an ex-BBC experimental camera from the early 1950s.

Further information from the Museum of Communication Foundation, 47 Grahamsdyke Road, Bo'ness, EH51 9ED.

## GRAMOVISION

Someone who had purchased a number of 78 rpm gramophone records found in the pile a 10-inch aluminium disc used in the thirties for home recording. On the label was the inscription, *Silvatone Souvenir, Television 1933*, with a warning that only fibre needles could be used. The chances of obtaining recognisable images from this 63-year old recording appeared to be remote because of the heavily corroded surface. However, Donald McLean, who had such success retrieving images from Baird's Phonovision recordings, has been able to produce pictures with sufficient detail to identify the performers as the Paramount Astoria girls going through their dance routine.

This video recording was made on 21st April 1933, during a late night transmission of the first television revue, *Looking In*, written and composed by Harry S. Pepper and John Watt. The cast included Anona Winn, Horace Percival and Iris Kirkwhite. The computer reconstruction was shown on BBC1's *Tomorrow's World* on 28th October and Donald has promised us a detailed article.

## HORIZON

A special edition of Horizon on BBC2 will cover the progress of television from the earliest days. Betty Bolton, a frequent performer both at Long Acre and Broadcasting House, will be giving her recollections. *Watching the Box* is the title of a programme provisionally scheduled for BBC1 that evening.

*Coming in Edition 33...*

### **THE STARGAZERS ARE O-O-ON THE AIR**

Tales of the 1950s vocal group who sang so many of the jingles on commercials.

### **REBIRTH OF A PYE OUTSIDE BROADCAST VAN**

Museum undertakes miraculous chassis-upwards rebuild of a now-unique Pye O.B. vehicle and all its original equipment.

*... and much more, so make sure you renew your subscription for 1997!*

# WRIGHT'S REPLAY

**Jeff Wright tests your memory again**

## Ronnie Corbett

Ronnie's TV career began in 1960 with the children's show *Crackerjack* and bit parts in series like *The Dickie Henderson Show*, *Three Live Wires* and *It's Tarbuck*. He first came to TV prominence as a member of David Frost's team in the BBC's *Frost Report* in 1964 with Ronnie Barker and John Cleese.

Like many comics, Ronnie was a graduate of National Service, in the Royal Air Force, doing concert parties and amateur dramatics while defending us from the Russian menace. He also went through the showbiz apprenticeship of £8-per-week summer concert parties and jobs like ice cream seller, barman, tennis court attendant and washer-upper to stave off hunger and poverty.

Newspaper and magazine sub-editors couldn't resist punning headlines about his size – five foot and one inch in his platform socks. He is always the little man with the big talent.

Following his success with Frost, his first starring comedy was the first series of *No – That's Me Over Here* in November 1967, with Rosemary Leach playing his suburban wife and produced by Marty Feldman.

A second series followed in March 1968, with David Frost on the credits as executive producer. *Frost On Sunday* was next for the new London Weekend Television with his name at the top of the credits. There followed a late night showcase series *Corbett's Follies* with an all singing and dancing Ronnie. Then it was back to *No – That's Me Over There*.

LWT's comedy output had taken quite a critical bashing, but the critics liked Ronnie. "He sparks television's new season into life" and "Corbett bounced back as perky as ever... a naturally funny man." In October 1968 a listings writer on *TV Times* may have planted an idea: "Helping David Frost keep tonight's show bubbling along are the two Ronnies – Corbett and Barker." Two years later it was announced that Messrs Corbett and Barker were joining the BBC, where for the next seventeen years the Two Ronnies made the nation laugh.

# DEAD DUCKS AND FORGOTTEN FORMATS

*Andy Emerson takes you on a fast forward history of home video.*

When did home video start? Easy question, difficult answer. Ask two people and you'll get at least five answers, and if there's confusion and debate, it lies in the difference between availability and affordability. Look at it this way... if you want to buy a giant-screen wide-format TV today there's nothing stopping you – except an unbelievable price. But no-one can deny they're available now. And so it was with home video in the early days; the price put them in the luxury bracket and they were definitely not mass-market products.

Today VHS is well-nigh the universal video recording format, simply because it's affordable. Earlier domestic video systems weren't and that factor alone was sufficient to ensure their rapid decline into obscurity, although it didn't seem that way at the time.

The first true home video outfit was brought out by Sony in 1966 and it rejoiced in the memorable title of **CV-2000**. It appears that CV stood for Consumer Video, although Sony never used that name to brand the system. Observers loved it and when Sony launched the CV-2000 recorder, noted hi-fi writer Gordon J. King named it 'a Japanese miracle'. Sold complete with a dinky little 9"-screen portable television, it was an instant hit with the press and other opinion formers.

Its price didn't exactly translate into huge sales, though; the recorder and TV cost £365, whilst the camera, lens and tripod cost an additional £131. A portable recorder and lightweight camera together with sound and vision mixers were also available, but this was in an age when you pick up a brand new car for around £600. As a consumer product it was a failure, although a fair number of outfits were sold into industrial and educational use. Today these equipments are highly collectable and tapes recorded at the time have yielded several lost television programme treasures.

The system worked reasonably well but the fact that it used open-reel tapes at a time when consumers were becoming used to cassette tapes and cartridges for audio was recognised as a weakness. Within five years a consortium of Japanese manufacturers had collaborated to bring a new, cassette-based system to market. This they called **U-Matic**. It could record colour as well as black-and-white and it was very robust – virtually idiot-proof in fact. The equipment was heavy and extremely bulky, and like the CV-2000, it could record only one hour maximum. Systems were sold into the consumer market in the USA but it was only for the well-to-do. Like

a few other apparently dead ducks, U-Matic migrated rather than disappeared. It ended up finding an unexpected niche in the professional market, where it turned out ideal for training and promotional video productions, and the machines are only now starting to be replaced in a big way.

The first video recorder for the home using cassettes came in 1974, when Philips launched their model N1500 VCR or Video Cassette Recorder as 'a landmark in the history of television and the start of a revolution in home entertainment'. Cost once again meant this machine was only for the well-to-do; the recorder cost £388 in 1974 money, whilst blank tapes cost £25 an hour. A succession of video machines and formats followed – Betamax in 1975, VHS in 1976, V2000 in 1981 – with no obvious winner in sight for another decade.

Time will tell, they say, and for home video it already has told. VHS is well-nigh universal now, and its higher-performance partner S-VHS has made little impact except with the enthusiasts who appreciate its 60 per cent improved picture quality. Betamax, on the other hand, is now regarded as a dead duck, although considering the number of Beta machines sold around the world over a period approaching two decades, 'flop' is hardly the right word to use.

Even more, 'Betamax' has become the generic word for a video recorder in South America, just like many people call every vacuum cleaner here a 'hoover' and every ball-point pen a 'Biro'. Today there are still many video devotees who cherish their top of the line Beta machines, claiming better results than S-VHS, whilst the continuing sales of blank Beta-format tapes indicates there must be a mighty big population of humbler recorders still used for time-shifting.

Finally a word about the video disc. As a home video device, this was the oldest format of all – after all, Baird had offered recordings on gramophone records in the 1930s. What's more, Telefunken and Decca fooled with their TelDec system in the sixties. Later, growing affluence and a perceived dissatisfaction with the sound and picture quality of VHS tape led Philips, JVC and RCA to launch video disc products.

In Britain JVC's VHD system aroused little interest except for some industrial projects and only Laservision/LV (from Philips) and Selectavision/CED (from Hitachi, using the RCA system) came into the reckoning; it goes without saying that they were all mutually incompatible and aroused little interest, particularly once new releases on disc dried up.

These early video discs cost the manufacturers dear; Philips weathered the storm but RCA was bankrupted and had to sell out to Thomson of France. Format wars and regional releasing policies have always bedevilled video disc systems... and look set to continue even now with the new DVD

offerings. Truly those who ignore the lesson of history are condemned to relive it.

***And now, an utterly popstastic follow-up to an article which clearly struck the right note.***

# TOP OF THE POPS: INSTANT REPLAY

## **Over to Paul Murton in Manchester...**

Some additional information to add to Steve James's excellent article on the history of *Top of the Pops*, published in issue 27 (pp 26-31). Incidentally, this is mostly gleaned from an old **TOTP Annual**, bought in a second-hand bookshop.

**Donald Baverstock**, Controller of BBC-1 at the time, initiated the project. He wanted a show to match ITV's *Ready Steady Go!*. **Johnnie Stewart** was chosen to produce it, because of his experience on BBC music shows such as *Juke Box Jury*, *The Trad Fad* and *Twist*. **Bill Cotton**, in addition to commissioning the series, is also credited with having devised the programme's name.

In the pre-production stage, Cotton and Stewart appear to have had radically differing views on a key aspect of the format. Cotton wanted the show to concentrate on the Top 20 singles chart, whereas Stewart wanted it based on the Top 50. The reason for Stewart's strategy was he didn't believe enough Top 20 artistes would want to appear on the show. Cotton refused to give way and is quoted as having told Stewart, "If you don't get enough artistes, you'll just have to photograph the studio wallpaper!" Cotton is also quoted as having secretly told colleagues, "This will either see off all the other pop programmes, or it will be the biggest TV disaster ever!"

Originally there were four regular presenters alternating every four weeks: **Jimmy Savile**, **David Jacobs**, **Pete Murray** and **Alan Freeman**. It is possible that the studio at Dickenson Road, Manchester was chosen because of a shortage of BBC studio space in London. As most of the music industry is based in London, and always has been based in London, making the programme in the provinces was a bit strange. It is also interesting to note that the opening of the two large

8,000 sq. ft (743.2 sq. m) studios, TC6 and TC8, at Television Centre in the summer of 1967 coincided with *TOTP* being moved to London.

As a live show, it was not without its fair share of amusing incidents. Floor Manager Cecil Korer was obliged to wear a wig during transmission, after his bald head was caught in close-up among the dancers on the studio floor, on one occasion.

Johnnie Stewart also recalls that getting everyone up to Manchester for a live show each week could be a real headache. The singing duo **Peter and Gordon** arrived at the Dickenson Road Studio just as their record was playing, but too late to actually appear themselves. And the **Walker Brothers** on one occasion became the Walker Brother when Scott Walker made it to Manchester but the rest of the group were stuck at London Airport, because their flight was delayed.

Alan Freeman, with the show for six years, also remembers airport capers. "The thing I remember most about the show was when we did it from Manchester. There used to be a mad rush to catch the plane back to London after having finished the programme. We worked on such a tightrope. They got so used to us at the airport, that we actually used to be driven out onto the tarmac – like Royalty – to board the plane which was often held up, waiting for us to arrive.

"It was called 'The Top of the Pops Special' and was usually crammed full of showbiz people."

Jimmy Savile has a whole hatful of anecdotes about the show. "Those early days in Manchester were great. The fans were so enthusiastic! For a start it was always a great problem to actually get in and out of the studio, because the place was surrounded by hundreds and hundreds of fans who set up a non-stop noise.

"We had similar experiences in London. I remember when we used to do the show from Lime Grove, the time The Monkees were here. Such was the carry-on from the crowd outside, I said to young Davy Jones: 'Come with me onto the roof and wave to everybody' – which we did.

"On another occasion, I was wearing a zebra jacket. The camera started close up on me, and as it pulled back, viewers were stunned to find that I was surrounded by zebras. We did this at Belle Vue Zoo, Manchester, and I was actually in the pen with the animals."

The very first resident dancers on *TOTP* were **The Go Jos**, in 1965. They were a three-piece dance troupe choreographed by Jo Cook. The

fondly remembered **Pan's People** were: Ruth Pearson, Deedee Wilde, Louise Clarke, Barbara (Babs) Lord, Andrea (Andy) Rutherford and New York-born choreographer Felicity (Flick) Colby, who came to Britain in 1966. Andy was replaced in 1973 by Cherry Gillespie.

Of the original four presenters David Jacobs was the first to quit, in 1968. "The reason was simple, I enjoyed very much working on the show. It was great fun in those early days. But I became too 'square' for this particular pop scene – that's all."

In 1969, Alan Freeman and Pete Murray were also put out to pasture (some of you may remember Alan Freeman's short-lived pop music show from the previous year *All Systems Freeman* – which went out on Friday at 6.40pm on BBC-1 beginning on 5th January 1968 – and which he presented from a studio set built to look like a radio DJ continuity suite).

From 22nd January 1970 the show was extended to 45 minutes, with Jimmy Savile and Tony Blackburn alternating presentation every other week.

Tony Blackburn recalls on the 400th edition in 1971, a special cake was made with 400 candles. "But when we did the actual show the whole cake went up in a mass of flames!"

By the tenth Anniversary in 1974 the charts format had already been extended to a Top 30. And for some time musicians had not been allowed to mime to their records. Special backing tracks were made each week featuring **Johnny Pearson** and his 24-piece Top of the Pops Orchestra with singing group **The Ladybirds**.

During those first ten years, in addition to Johnnie Stewart, four other producers worked on the show at various times: **Stanley Dorfman**, **Mel Cornish**, **Collin Charman** and **Robin Nash**.

And just to prove that in over thirty years nothing really changes, here's how one newspaper critic sums up the show – note the date:

"It is time the BBC's 'Top of the Pops' had a new look to it. The whole thing has become a mechanical device."

Richard Sear, Daily Mirror, Friday October 9, 1964.

# RECEIVER PROFILE

*David Boynes introduces a new section in which he'll be covering all manner of issues relating to TV receivers of the past*

## **Part 1: A review of pre-war *His Master's Voice* and *Marconiphone* television receivers**

### **Original models**

The HMV and Marconi TVs of 1936 had dual-standard timebases to enable them to operate on the 405-line Marconi-EMI and the 240-line Baird systems, the line and frame frequencies being 10,125Hz and 50Hz for Marconi-EMI and 6,000Hz and 25Hz for the non-interlaced Baird system; a simple two-pole, two-way switch facilitated the timebase frequency change-over function. It is likely that only one or two receivers still exist with the system switch, since in later years EMI recommended that the switch should be removed during any servicing. Transmissions on the Baird system ceased in February 1937.

Right from the start all EMI sets employed blocking oscillators in their timebases, thus avoiding the use of gas-filled triodes, which are alleged to be somewhat unreliable. A. D. Blumlein is credited for the development of the blocking oscillator. The sawtooth waveform generated by the oscillators was fed to the line and frame output stages, the output valves employed being ordinary audio output types, Marconi N41 valves.

The vision section employed six Marconi MSP4 pentodes in a TRF amplifier circuit; they were followed by a diode valve demodulator, no video amplifier was employed. The demodulator output was fed directly to the modulating grid of the cathode ray tube. As far as the sound was concerned, the first two TRF stages were common to vision and sound; the 41.5MHz sound signal was then fed to the all-wave radio receiver. For television a special waveband was allocated on what was a modified radio set of the period. The vision and sound-only receiver model 901 employed a special four valve superhet sound receiver.

### **His Master's Voice**

The first HMV sets were designated as **900, 901 and 902**; all had the cathode ray tube installed vertically and the picture was viewed on a 45-degree mirror. The models 900 and 901 had the mirror installed in the cabinet lid, which when closed gave the receivers the appearance of a radiogram. The 902 was rather special; the 9-inch CRT was installed vertically like the other two models mentioned. However, the 45-degree mirror was installed inside the

cabinet and the picture viewed through a magnifying lens, which was mounted on the front of the cabinet.

The CRTs were magnetic deflection, electrostatic-focusing types; the types 6/4 and 6/6 had 12-inch diameter screens, the 6/5 a 9-inch diameter screen (as a consequence of the 35-degree deflection angle and the long electrostatic electron gun the 12-inch CRT was almost 29 inches or 73 cm long).

The heater and high tension supplies were sourced from a mains transformer. All the valve heaters were 4 volts, the 280 volt HT supplied from a full-wave rectifier valve, Marconi type U14. The 5000 volt EHT was sourced from an additional transformer, rectified by a U16 valve. The sound radio section of the 900 and 902 had its own power supply arrangement – when the receivers were switched to radio operation, the TV mains transformers were switched off. In the model 901 the heater and HT power supplies were common to the vision and sound receivers, the HT rectification being carried out by two parallel U12 valves. As with the 900 and 902, the EHT was supplied by a separate transformer, a Marconi U16 was the EHT rectifier valve.

Summary of models: the 900 was a television and all-waveband sound radio receiver, the 901 was a vision and sound only receiver, the 902 was a television and all-wave radiogram combination.

### **New Models for 1938**

The HMV 902 was redesigned in 1938. The 9-inch vertically installed CRT was replaced by a directly viewed 12-inch Emiscope CRT type 6/7. This new tube was described in the service documentation as an 'onion' tube and because the deflection angle was 50 degrees, the tube was considerably shorter when compared with the older type 6/6 12-inch type. Like the older tubes, electrostatic focusing was retained; an electromagnetic picture shift coil was also fitted. Later production 900 and 901 receivers had the shift coil fitted and it was also offered as a modification to earlier models.

Greater timebase power was required to scan the new CRT, and whilst the frame timebase required few modifications, the line output valve required replacement. A new valve, type KT44, delivered the extra power and was capable of withstanding the high voltage flyback pulse. The power supply was redesigned to deliver 330 volts to the timebases, whilst the HT rectifier was changed to type U18.

In 1938 EMI introduced three new models for the Radio Show: the 904 and 905 were 5-inch and 7-inch table models both incorporating a three-waveband radio. A major departure in design from the earlier models was the introduction of a superhet circuit for the television and sound radio. The 904 and 905 featured many circuit economies: the RF amplifier, frequency changer and first IF amplifier were common to television and radio;

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Model 905. Similar to specification on Model 904, but having a cathode ray tube with a 17" diameter screen. **35 Guineas**

### "H.M.V." ARE SHOWING TELEVISION SETS TO SUIT EVERY HOME

a five-position rotary switch selected the three radio wavebands, a gram pick-up socket and the fixed tuned television.

The IF amplifier valves were a newly introduced type, KTZ41, a valve with an impressive mutual conductance figure of 12mA/volt. However, the RF amplifier and the frequency changer valves were established types, MSP4 and X41C. The timebases employed a 6.3 volt heater range of valves, the blocking oscillator valves were KTZ63s and the timebase output valves were KT63s.

The 904 and 905 involved a different type of vision demodulator; instead of the usual diode detector, an anode-bend demodulator was employed and this type of demodulator will be familiar to radio enthusiasts. In the 904 and 905 a MS4B RF tetrode was biased to cut-off, the principle of operation being that the valve only conducted on the positive half-cycles of the vision signal. The negative-going video waveform developed across the anode load of the MS4B

was in the order of 35 volts peak-to-peak, it was filtered and fed to the cathode of the CRT.

A special sync pulse booster employing a diode valve also forms part of the anode load circuit, the positive-going sync pulses are applied to the grid of the sync separator valve, a KTZ63. Negative-going sync pulses are developed in the anode circuit of the sync separator, these then being filtered and fed to the blocking oscillators.

The CRTs employed in the 904 and the 905 were 5-inch and 7-inch round-screen magnetic deflection and focus types, the gun assemblies being simple triodes. The EHT requirement was only 2,400 volts. Connections to the electrodes, including the anode, were by a base having five side clips. These Emiscope CRTs were given the type numbers 3/1 and 3/2.

The power supply circuit employed two mains transformers: one supplied the high tension and the 4-volt heater supplies for the valves which are common to both radio and television. The other transformer was operational on television only; it supplied the 4 volt and 6.3 volt heater supplies, the 2,400 volt EHT, and a highly insulated heater winding for the U17 EHT rectifier valve.

The model 907 was the third new model to be introduced in 1938. It was 9-inch console which included a three-waveband radio. In many respects it was electrically similar to the 904 and 905 except it was not subject to the cost restraints of the smaller sets. For example, the radio had an independent frequency-changer stage and whereas the 904/5 was constructed on a single chassis, the 907 consisted of a two-chassis system with the power chassis mounted on the cabinet floor.

The CRT employed in the 907 was an Emiscope type 3/3, a 9-inch magnetic deflection and focus triode gun type.

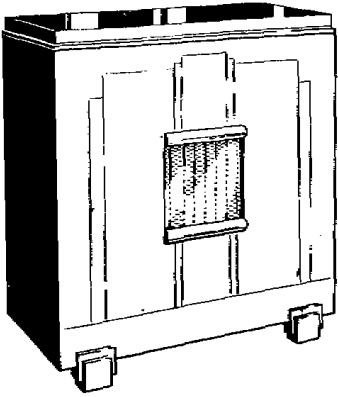
### **The 1800 series of 1939**

1939 saw the introduction of four new models, the 1800, a 10-inch table set; the 1801, a console version; the 1802, a 14-inch console and the 1850, a 15-inch console which also incorporated an all-waveband push button radio. The 1800 series featured an all-new single unit chassis, and like the 907, the sets were superhets. However, they were designed for television reception only.

The RF amplifier stage employed a Z62 valve, the frequency changer was a X41C, and these were followed by two IF stages common to sound and vision. The valves employed were high-slope KTZ41s, the vision-only IF amplifier was another KTZ41, and the vision detector was a D43 diode valve, which developed a positive-going video signal across its load resistor. This

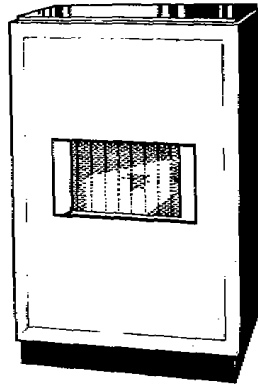
# "HIS MASTER'S VOICE"

MODEL 900



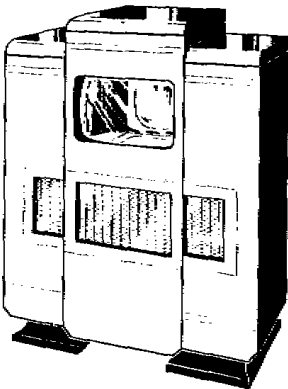
CONSOLE RADIO TELEVISION

MODEL 901



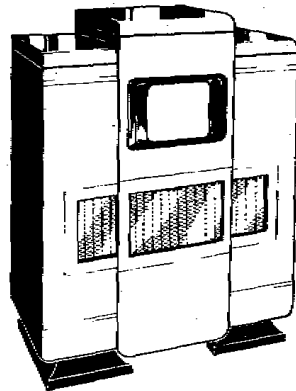
CONSOLE TELEVISION

MODEL 902



CONSOLE TELEVISION AUTO-RADIOGRAM

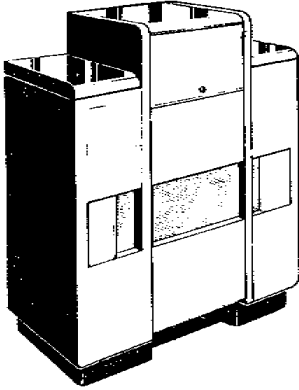
MODEL 902A



CONSOLE TELEVISION AUTO-RADIOGRAM

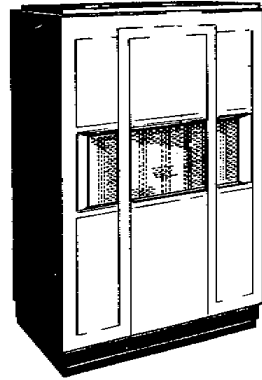
# MARCONIPHONE

MODEL 701



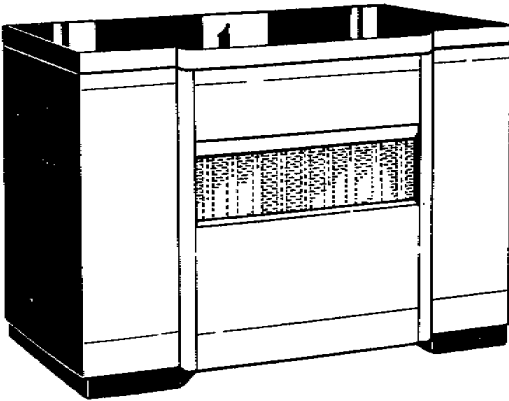
CONSOLE RADIO TELEVISION

MODEL 702



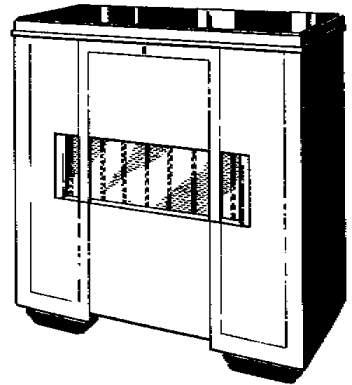
CONSOLE TELEVISION

MODEL 703



CONSOLE TELEVISION AUTO-RADIOGRAM

MODEL 705



CONSOLE RADIO TELEVISION

signal was supplied to the KTZ41 video output amplifier valve, the amplified video signal being developed across the tapped anode-load resistor. The full video signal was supplied to the sync separator and the CRT's cathode from the anode-load tap.

Partial DC and full AC coupling was employed to connect the CRT to the video amplifier. The sound IF amplifier was a KTW61, which was followed by a D63 double diode; one half was the signal detector and the other a noise suppressor. The audio amplifier consisted of a DH63 double diode triode, followed by a KT61 output beam tetrode.

The KTZ and KTW designation of the valves indicates that they are kinkless RF tetrodes, unique to the Marconi Osram valve company. The rest of the circuit design followed the techniques employed in the earlier models; the timebase oscillators were similar to those in the 904/5, followed by a KT44 line output valve, whilst the frame output employed a KT61.

The Emiscope CRT employed in the 1800 and 1801 was the 10-inch type 3/4, the 1802 employed an Emiscope 14-inch type 3/5, and the 1850 employed the 15-inch type 3/6. All the tubes were magnetic deflection and focus triodes; the deflection angle was 50 degrees.

The power supplies employed two transformers; one delivered the high tension and the heater supplies for all the signal valves, the other transformer supplied the 4000 volt EHT and the heater supplies for the timebase valves. A facility existed so that the TV-only receivers could be operated on sound-only, when the BBC used the Alexandra Palace transmitter to relay radio programmes outside television broadcasting hours.

### **Two rare HMV models**

A 9-inch directly viewed model appeared in 1937; the CRT was the Emiscope type 6/5 and as a result of installing the CRT in what would be considered the normal manner is that the cabinet was very deep. The circuit of the 903 is similar to the 901 vision and sound-only model, however, the chassis metalwork is quite different.

The other rare model is the 906, a projection set, and if any readers have any information on this set it would be most welcome.

### **Post-war sets**

After the war two models were introduced which were electrically similar to the pre-war sets; they are the models 1803 and the 1804, the main difference being the replacement of the 4 volt heater RF pentodes, type KTZ41, by a 6.3 volt type, Z66.



H.M.V. 1850 all-wave broadcast and television receiver.



The H.M.V. Model 907 vision and all-wave sound equipment with a 9-in. tube.

In 1948 the **1805** and **1806** models were introduced. They employ a two-chassis system of construction, the smaller RF chassis being mounted on the cabinet wall. As with all the earlier HMV sets, the cabinet construction was of a very high standard.

The HMV model **1851** was a 15-inch screen set, which also incorporated an all-wave radio; the television chassis was similar to that employed in the **1806**, the radio chassis featured three wavebands and three pre-set medium wave stations, all selected by a bank of eight push buttons. The other two buttons were employed as the Gram and Television selectors.

All the post-war HMV sets mentioned have all the characteristics of the pre-war models, features such as mains-derived EHT and large octal or B5 and B7 based valves are all there.

### **Marconiphone sets**

As far as Marconi-branded pre-war TV sets are concerned, all the models were given **700** series type numbers. By contrast, the post war models were designated as VT\*\* – for example the pre-war model **710** became the post war model **VT50**.

For the 1950 model year, the HMV **1807** and the Marconi **VT53** were introduced. This series of sets were quite unlike the previous sets in build quality, the company having to compete with other firms producing much cheaper sets.

But back in 1936 the Marconiphone television range consisted of two models, the **701** and the **702**. The **701** was a impressive set; it was similar in many respects to the HMV **902** except that the gramophone was not included. The all-wave radio receiver and the television power unit were identical to those found in the HMV **900**, but the TRF and timebase assembly had some slight differences, for example the line output valve was a 5-pin Marconi MPT4. Like the **902**, the CRT used in the **701** was a 9-inch Emiscope type 6/5. It was installed in a similar manner, i.e. positioned vertically and viewed on a internal 45-degree mirror through a magnifying lens.

The **702** was a vision and television sound-only receiver and was identical to the HMV **901** except for the veneer pattern on the cabinet front; even the cabinet dimensions were almost the same.

These early production models had dual standard timebases, like the HMV dual standard sets. An MH4 triode valve was included in the line oscillator circuit, it's function being to prevent hooking at the top the picture when receiving pictures on the Baird system (the Baird system transmitted no line sync pulse during the broad frame sync pulse period, therefore the line

oscillator frequency tended to drift slightly owing to the absence of the line sync pulses.

In 1937 the models 703 and 705 appeared. The **703** was a huge television and radiogram combination. It was marketed as the 'Mastergram' and the picture was viewed on a mirror in the cabinet lid. The all-wave radio was similar to the unit installed in the HMV 902; the TRF, timebase and power supply units were similar to those employed in the 702 and HMV 901. The CRT was the 12-inch Emiscope 6/6.

The **705** was a 12-inch mirror-lid TV set which incorporated an all-wave radio. It was in fact similar to the HMV 900 except for the cabinet veneer layout.

### **1938 Introductions**

Three new Marconi models were introduced for the 1938 Radio Show; they were the models **706**, **707** and the **709**. The **706** was a 5-inch table receiver similar in specification to the HMV 904, the only difference being the styling of the cabinet which was not as well presented as the up-market MMV set, although this could be considered one's own personal taste. The model **707** was the 7-inch version of the **706**.

The console model **709** was a 9-inch CRT receiver similar to the HMV 907. Again, it differed only in cabinet styling.

### **New sets for 1939**

The 1939 Radio Show saw the introduction of the Marconi-branded models **710**, **711** and **712**. These receivers shared the same chassis as the HMV 1800 series. The **710** was a 10-inch set similar to the HMV 1800, the **711** a 10-inch console and the **712** was a 14-inch TV set with an all-wave radio.

It likely that few if any of the 1939 Show models exist, as hardly any would have found themselves into dealers' showrooms on account of the outbreak of war shortly after their introduction. For that reason the 1939 sets must be considered a much greater find than some of the earlier sets. One 1939 HMV 1850 console receiver is known to exist. A Marconi version of the HMV 903 was designated as the **704**, again it was a 9-inch direct view receiver and must have had a very deep cabinet on account of the length of the Emiscope 6/5 CRT. A projection set, the **708** was similar to the HMV 906. Again, if anyone has information we would like to hear from them.

### **Collectability**

Pre-war sets are always highly sought after, although faulty or missing CRTs are bound to cause a disappointment because they are virtually impossible to replace. Substitution without major circuit surgery is also difficult. At the same time, the early post-war sets are well worth looking out for. They are very close to their pre-war cousins in design and styling (so just as interesting),

whilst their circuitry is also essentially pre-war (making them just as lethal). Yet these post-war sets are much easier to find and so far their prices have not gone through the roof.



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If you thought pre-war UK sets were scarce, then consider pre-war French ones. None of these French versions are known to survive and presumably only a small number were shipped across to Paris. The transmission characteristics of the British and French systems were so similar that very little modification was required. *Photo courtesy France Télécom/CNET (original print is rather smeary – sorry).*

❖ *David's next set under the magnifying glass will be the Beau Decca.*

# IN PRAISE OF A.E.

*Bernard Wilkie*

A few miles from Television Centre was this wonderful old pub – The Hop Pole at Wandsworth, a genuine antique with faded curtains and the smell of stale fag smoke and spilled beer (remember when beer *had* a smell?). It was a foggy evening as we trooped gratefully into the bar, and there on the counter was the tiny wooden cask of Courage's Winter Brew. We asked for three pints (although the landlord knew our order because we'd been calling there every night for years). But even at the exorbitant price of half-a-crown a pint, Winter Brew was the most wonderful stuff ever devised by man – a beer with no equal.

The landlord, a delightful Frenchman who shared my interest in radio and television, wanted to know how far I'd got in the construction of my tape recorder. I said it wasn't going well. I'd been to the shop in Croydon where I'd bought the three obligatory motors (one for the drive and one each for forward and reverse), a suitcase-sized box that had a lid and a speaker grille and was covered in snake-skin vinyl. I had already bought the record and erase heads.

But the project was proving troublesome. The ferocity of the mains hum was equalled only by the unacceptable wow and flutter. I'd reached a despondency which even Winter Brew required two pints to soften.

"Look" said the landlord, "I'm going to buy a new one, an Elizabethan – why don't you have my old one? It's yours for a fiver." He brought it from a back room and I took it home, promising to give him the fiver when I got my pay slip.

The tape recorder he'd given me was a Baird. It stood upright, with a sloping front and two tape reels (were they 5-inch or 7-inch? – I can't recall.) I played with it all weekend, recording classical music and comedy radio shows. But it had a snag; to rewind, one had to remove the reels, reverse their positions and switch to 'Play'. This proved a nuisance and reluctantly I returned it to my friend without eventually buying it. (Well, five quid was five quid in those days.) I think he flogged it to someone else.

But why didn't I buy it and *keep* it? It would have been a classic by now (has anyone ever seen one?). But stupidly I couldn't see the reason to hang on to anything old. I even sold the car I used to get us to The Hop Pole – a four wheeled B.S.A. Scout saloon with a gear lever that came up between the legs (I was told that B.S.A. made only six of them).

But you'll be asking what all this has to do with 'a tribute to Andrew Emmerson'. Simply that we owe A.E. a debt of gratitude – if he didn't produce **405 Alive**, drivelling reminiscences of this kind would never be told. Like Baird taperecorders, B.S.A. Scouts and Winter Brew they would vanish in the mists of time.

# **BRINGING BACK THE FIFTIES: A TALE OF DISCOVERY AND RECONSTRUCTION**

*Andy Emmerson and Tony Clayden*

Ask any musically-inclined person who was lucky enough to watch television in the early 1950s which programme stands out in their memory; the chances are it will be the daily Demonstration Film. That's because this programme played day in, day out every weekday at 10AM and with this kind of regularity, it's inevitable that it would get under your skin.

But this article is not just another nostalgia trip; it's a tale of discovery and hope in the face of the unassailable, which may even inspire others to follow in our footsteps. It also demonstrates how with the goodwill of kind people, especially Robert Farnon Society members, almost anything is possible.

Back to the Demonstration Film (or Dem Film as it was called by BBC insiders). In the early 1950s television was still a pleasure for the very few, and both the BBC and the set manufacturers were desperate to extend its appeal to a wider audience. It was all very well to display shiny new sets in dealers' show-windows, but without daytime programmes, television would not have much of an impact. There was no budget to transmit 'real programmes' all day, but a compromise technique already introduced before the war was to transmit a 'demonstration film' every weekday morning, showing highlights of what you would see if you had television in your home.

Feedback from the radio and TV trade indicated that nice as a Dem Film was, it was capable of improvement. For instance, when a new set was sold, the installers needed to view the test card in order to set up such essential features as picture contrast and linearity. Lengthy periods of test card would be a deterrent to showroom demonstrations, however, so an acceptable compromise was reached whereby the test card (Test Card C for the technically inclined) would be shown in 15-minute segments interspersed with the remainder of the Dem Film. Technicians setting up or repairing sets in viewers' homes would thus be able to tune them in to optimum standard and so as not to bore anybody else viewing, the BBC thoughtfully chose some pleasant music to accompany the pattern.

Inevitably the same pieces of music repeated month in, month out started to become desperately predictable, even boring. Yet the very repetition actually ingrained them in viewers' minds, which is why some people now recall these piece so nostalgically.

For all these reasons and more we decided we would try and see the Dem Film once more. The quest started in 1991 and how successful we were you will see when you reach the end of this article.

But how do you get hold of it? You can't just ask the BBC for a videotape copy; they don't sell programmes to the public just like that. But if you can supply a fairly cogent reason their special liaison unit will often sell you a copy 'at BBC cost'. This expression means they will have the tape prepared by an external facilities house (they cannot waste collective resources paid out of licence-payers' money on individuals' personal whims) and you must pay the 'BBC cost', that is what the job costs the BBC, albeit without additional profit. Using professional facilities is not cheap of course; you can expect to pay several hundred pounds for a lengthy programme.

In this case, we had some enthusiasts who were prepared to share the cost of regaining sight of the Dem Film after all these years but it was not to be as simple as this. Despite extensive searches in the BBC Film & Video Library and letters to regional film archives around the country, nobody was able to discover a complete print of the film. At this point it's worth noting that film may survive as original negatives, master positives or as a transmission print.

If a print is considered 'archival' it is generally not possible to make a video transfer from the film (it is considered too delicate); instead a new film print must be struck first, adding to the expenditure and cost. If you're lucky a film print will exist, which will hopefully be Comopt (combined picture and optical sound track) or Commag (combined picture and magnetic sound track). Quite often the archive will be able to find mute film only, however, the Sepmag (separate magnetic) sound track having been lost. Transferring Sepmag film also involves more effort than a combined print. It can be quite a complex business...

Two people who worked at Alexandra Palace at the time recall exactly how the film was made up; first Jim Pople who was then a film operator at AP, now living in retirement in Lyme Regis.

'I worked on the 'Dem. Film' – Job 200 for those who used it for a multitude of petty cash vouchers. It consisted of a reel of archive or new

transmitter building interspersed with one reel (1000ft of 35mm) of our old friend Test Card C. It was always being re-cut and updated as new transmitters opened up."

The actual film played out each day would have been the transmission print but the BBC no longer have this in their archives; all they possess is the master from which some of the inserts but most of these are missing their brief introduction by Sylvia Peters and some of them are mute – their sound track is missing.

Arthur Dungate, a telecine operator at AP, elaborates: 'The demfilm was made up for each transmission print. When we got a new print, the fades in and out of Test Card C were on separate short lengths of film and had to be cut onto the fronts and the ends of the reels. Thus it is most likely that Sylvia Peters' introductions were also separate and have been subsequently lost. Without seeing the film for many years, I can still hear her in my mind saying 'And now, for any engineer who may wish to test or adjust a receiver, here once again is Test Card C' – and she said it grandly as if for a royal occasion!'

Video tape copies of the remaining fragments were in fact acquired, but they are not enough to reconstruct the Dem Film in any way. Fortunately the film's predecessor, *Television is Here Again* (made in 1946) does exist in its entirety, but this film had no musical element.

The Demonstration Film was first shown on 15th May 1950 (edition no. 100), running for two hours. It was a pot-pourri of elements from pre-war television highlights, post-war achievements and, as mentioned, these musical interludes accompanying the test card. The final version, Demonstration Film No. 106, was last shown on Wednesday 21st September 1956.

Recreating the musical interludes appeared to be a relatively easy task. Slides of Test Card C are available so all we had to do was identify the music played behind the test card. Finding the music afterwards ought to be easy. Ought to be. But how do you find the running order of old BBC programmes? That's easy too – in theory. You contact the BBC Written Archives Centre (its address is BBC Written Archives Centre, Caversham Park, Reading, Berks., RG4 8TZ. Telephone 01734-472742) and make a booking. The place is open by appointment from 0945-1300 and 1400-1715 Tuesday to Friday and two weeks' notice is required. Nowadays there is a charge (not exactly insubstantial) to use their facilities and a letter of introduction may be necessary; when we started this research the rules were less strict.

In the event, we made our visits and were afforded every facility we needed, and we were soon able to discover detailed records which we could transcribe or photocopy. The records we used are known as P as Bs or 'Programme as Broadcast' records. For every radio and television programme a listing was made at the time giving the programme's timing and content. Musical items are listed, even down to where a character whistles a few bars from a melody. Amazing!

Enthused, we left with comprehensive details of every record title and number used in this programme and the following is a list of the actual records used in the Test Card C sequence in 1952 (there were minor variations over the years).

#### *Reels 3/4*

Marche Fantastique (Leighton Lucas)  
Wiener Blut (Strauss; abridged version arr. Leighton Lucas)  
Selling's Round (arr. Leighton Lucas)  
Tritsch Tratsch Polka (Strauss; abridged version arr. Leighton Lucas)

#### *Reels 7/8*

I Hate Dancing (The Danceland Ballroom Orchestra)  
Song of the Willows (The Danceland Ballroom Orchestra)  
Pila Pilo (Melachrino's Orchestra)  
Bobby-Sox Bounce (Melachrino's Orchestra)  
Smooth Kisses (Melachrino's Orchestra)

#### *Reels 11/12*

Cuban Moonlight (The Danceland Rumba Band)  
Ah! The Argentine (The Danceland Samba Band)  
Trip Tropicale (The Danceland Rumba Band)  
Bang Go The Bongos (The Danceland Samba Band)  
Part of My Life (The Danceland Ballroom Orchestra)

#### *Reels 14/15*

Symphony no. 4 'Italian' (Mendelssohn, abridged version of last movement)  
Symphony 102 in B Flat (Haydn, abridged version of last movement)  
Symphony 104 in D (Haydn, abridged version of third movement)  
Symphony no. 3 'Scotch' (Mendelssohn, abridged version of second movement). All four pieces arr. Leighton Lucas.

None of these pieces were special BBC recordings so we breathed a sigh of relief; getting hold of commercial records should be child's play. All except the Danceland records were EMI discs; that made it look easy because generally you can buy, at a cost, tape recordings of most EMI records from the company's archive (EMI Music Archive, 1-3 Uxbridge Road, Hayes, Middx., UB4 0SY. Telephone 0181-561 8722). This facility has copies of most EMI Group records issued since 1898,

with charges (at that time) of £30 per track or £100 per LP for cassette copies; lately they seem to prefer to deal with commercial customers only.

In fact it wasn't easy at all. In this case EMI was were unable to assist with the tracks we required, presumably because they were from a rare edition of library discs, published by Arcadia Music but produced and issued by EMI in the *EP* and *EPX* series. However, two other enthusiasts, Alan Heinecke in Australia and Bill Knight in Bristol were able to come up with the goodies – well done both of you!

The Danceland records were a harder catch, however. They were non-royalty discs produced for use in Mecca ballrooms; in other words they could be played over and over again without royalties accruing to the copyright owner. According to a feature article in the Robert Farnon Society magazine *Journal Into Melody* some while back, the playing was dire and the tunes awful, but that's beside the point – how could we find them? The Mecca organisation was acquired by Rank Leisure in 1990 but no-one there could help. I was referred to an ex-chairman of Mecca but this lead fizzled out too. Eventually appeals in record publications left, right and centre brought a response from Graham Davies, who is a keen collector of ballroom dancing records. He didn't rate these Danceland discs highly but was good enough to make a copy on tape. At last we had all the music even if we didn't have answers to all the questions!

It was unclear why the BBC had used these obscure Danceland recordings; they were not in the same league as the EMI discs but Arthur Dugate seems to have the answer. He writes: 'Some of this accompanying music on the optical soundtrack had been recorded on 78rpm discs with the label of Danceland, played by Stuart Crombie and his band; Crombie was also the Sound Editor for Television Newsreel. These recordings were never properly copyrighted and their details were kept rather 'hush hush' for some time, and thereafter the BBC Gramophone Library kept the 78rpm discs locked away so they wouldn't 'escape'.'

There the matter rested; we didn't have enough material to reconstruct the film, but over five years we had done a lot of detective work and had a lot of fun in the process. Then in the last month two 15-minute sections of the transmission print have turned up in a private collection. Still no titles but we're getting closer. They say travelling hopefully is better than arriving but we may yet achieve a complete reconstruction of the film, and when we do there will be some rejoicing! Well, it keeps us off the streets...

## Here's a fascinating memo, issued by Pye Ltd

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To all sales representatives, from the Chairman:

"We have to go out and sell, looking for orders in quantity with a positive feeling of optimism and inspire the Dealer to divert the interests of the public from rumour and gossip to the need for buying better radio - radio that will get more distant stations - in these stirring times, and new radio now that there is money in circulation and there is an opportunity for creating new employment.

There are more people at work today than for ten years. There is more money in circulation than ever in the history of this Company. There are more things to hear on the radio today than ever before. Savings are increasing as evidence that the public can spend money. Feel these things and you can make your Dealers feel them"

---

The date of this memo.... 4th July 1939.

# VERA Recalled

To the layman recording video signals on magnetic tape may sound as 'simple' as recording sound but it isn't! This is not the place to explain why, suffice to say that a technical advance of outstanding importance to the whole of magnetic recording was the development in 1954 by engineers from the Radio Corporation of America of the first practical system for putting the complete television waveform onto magnetic tape.

A complete television signal contains components with frequencies ranging from 50Hz to, say, 5MHz, representing a spread of nearly 18 octaves. Due to the inherent 6dB per octave drop in output of a magnetic reproducing head it is found that about 10 octaves is the maximal bandwidth that can be recorded and reproduced by a magnetic tape system. The RCA recorder operated at a tape speed of 360 in./sec., and one of the major problems the designers had to tackle was to limit unwanted speed variations in the transport system to less than one part in a million.

Despite the disadvantage of the large quantity of tape which was needed to record even a half hour programme, the particular timing and networking conditions under which the American television stations operate made the RCA system tolerably attractive. At the same time there was a great stimulus towards the development of an alternative system which permitted greater economy of magnetic tape, and at the same time permitted a less demanding mechanical specification.

In 1958, the British Broadcasting Corporation demonstrated, and for a limited period used in its own programming, a recorder known by its initials as VERA (Vision Electronic Recording Apparatus). This was also a high speed machine, working at 200 inches per second. Using precision three-track heads of BBC design and manufacture, VERA was capable of very satisfactory results, but was soon made obsolete by the introduction of the 'Videotape' recorder developed manufactured by the Ampex Corporation of America.

VERA or more correctly V.E.R.A. was the BBC's pioneer attempt at producing an all-British video tape recorder. The initials stood for Vision Electronic Recording Apparatus. Here are some technical details from a contemporary description (almost certainly a BBC press release).

## BBC's VIDEO MAGNETIC TAPE RECORDER

Standard grade half-inch magnetic tape running at 200 inches per second is used in the BBC's new Vision Electronic Recording Apparatus (called 'VERA') which television viewers have recently seen in operation. The method of recording is the straightforward longitudinal one, and 15 minutes of programme can be accommodated in a 20<sup>7</sup>/<sub>8</sub> inch spool of tape. A complete video recording channel consists of two of the machines controlled from a central desk.

Actually the method of recording is not quite straight-forward, in that the incoming 3-Mc/s video signal is split into two frequency bands of 0-100kc/s and 100kc/s-3Mc/s, which are recorded in separate tracks. The high-frequency band is recorded directly, but the low band is used to frequency modulate a 1-Mc/s carrier signal, and it is the frequency deviations of this signal which are carried in the other track. The modulation is only in one direction, so that 1Mc/s corresponds to minimum video amplitude at the bottom of the sync waveform and 400kc/s to peak white.

This f.m. carrier system has been adopted mainly to avoid the effects of tape imperfections and spurious amplitude modulation, which experience has shown to be more noticeable in the low-frequency components of the television picture (for example, as fluctuations in large-area brightness). It also avoids the fall-off in low-frequency response which occurs during playback as a result of the slower rate-of-change of flux at low frequencies and the increase of wavelength at the high tape speed. A limiter is used in the f.m. channel just as in f.m. receiving technique. Unwanted amplitude variations also occur in the 100kc/s-3Mc/s video band but these do not noticeably degrade the picture.

The television sound signal is recorded in a third track, and the opportunity has been taken of again using an f.m. carrier system, which simplifies the problem of recording and reproducing the low frequencies at the high tape speed.

Extreme precautions have been taken to maintain constant tape speed past the recording and reproducing heads, since very small fluctuations can cause noticeable horizontal displacements in the reproduced picture similar to line tearing. The initial tape drive is on the spools themselves, with automatic adjustment for the amount of tape they carry. The final drive is from a capstan which operates inside a loop of tape, providing drive for both oppositely moving sides of the loop at once. This system effectively isolates the tape loop

from speed fluctuations in the spool drive. During recording the capstan drive is synchronised with the 50c/s mains. On playback its speed is controlled by a servo system which compares the reproduced sync pulses with the station sync pulses and applies appropriate correction signals. A tape speed accuracy of 0.04 per cent is said to be obtained.

The three-channel recording and reproducing heads, which are independent and situated in the tape loop mentioned above, use ferrite cores for efficient operation at the high frequencies. They are surfaced with Mumetal where the tape passes over them and have gap widths of the order of  $2 \times 10^{-5}$  inch. The gap width, of course, in conjunction with the tape speed, is the thing which determines the maximum resolution of the recording system. In terms of frequency response, the equipment is flat to 2Mc/s and falls 3dB at 2.5Mc/s.

For marking editing points on the tape a 30-kc/s burst of signal is switched on to the sound track. This becomes audible on playing back at slow speed.

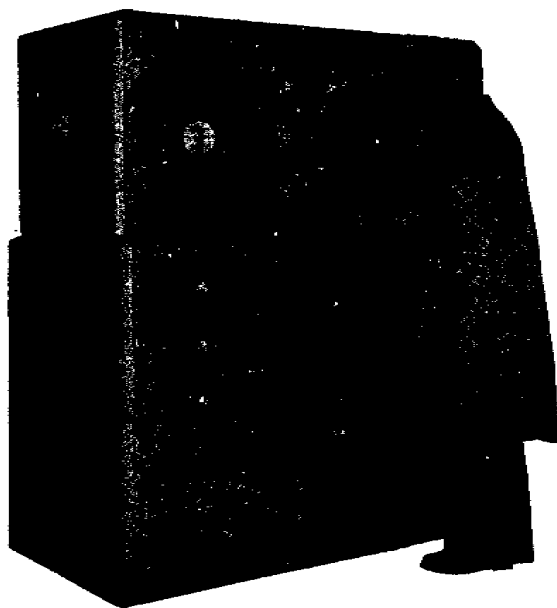
Although VERA led a relatively short life, a few remnants survive. The racks VERA stood in were re-used in the BBC's standards conversion suite at the Television Centre, says Tom Mitchell G3LMX, whilst Peter Delaney G8KZG says he knows of a surviving tape recording made on VERA (too bad we have no machine on which to play it!). The late Gordon Sharpley G3LEE had one module of the power supply in his collection and Grant Dixon G8CGK was kind enough to give me an engraved label from one of the racks.

This led me to wonder how these fragments had survived and Gordon was able to explain... It appears that in the early 1960s VERA was about to be dismantled and the BBC invited the British Amateur Television Club (BATC) to remove any parts of VERA they wanted. So Gordon and Grant made the trip to London and joined up with fellow BATC member John Ware (an architect by profession, he designed studios for ITN and Southern Television).

The two units of VERA were lying at Alexandra Palace, and that's where our intrepid trio now went (to load up their cars with 'bits' that would come in useful for making amateur radio and TV equipment). Gordon recalls he had not come very well prepared and was struggling to dismantle these heavy units with just a small screwdriver! In the end, though, the deed was done and off the BATC trio trundled in the dead of night...

Incidentally, Gordon remarks they were shown some old cable ducts that still contained pulse distribution cables from the pre-war studio installation. Apparently these cables had a characteristic impedance of 180 ohms and the pulses used were 4 volts across 180 ohms. He relates that video and syncs were mixed in the transmitter on a 50/50 basis, not on the 70 per cent video, 30 per cent sync ratio used today. This was because the transmitter was relatively non-linear and did not have the sync-stretching circuitry used nowadays. So by applying a 50/50 signal to the transmitter input, the result was about 70/30 anyway!

On the same foray the BBC gave them some early colour picture tubes made by RCA. These were made by RCA and had a metal cone; the phosphors were on a flat plate internally, with a similar flat shadow mask. The diameter was 15 inches and the CRTs were considered a very rare prize in those days before colour TV sets were available commercially. Whether any of these CRTs has survived is unclear but probably unlikely! [AE]



**The BBC's Vision Electronic Recording Apparatus (VERA). There are not many photos of this beast and this is the best one we could find!**

# 525 ALIVE!

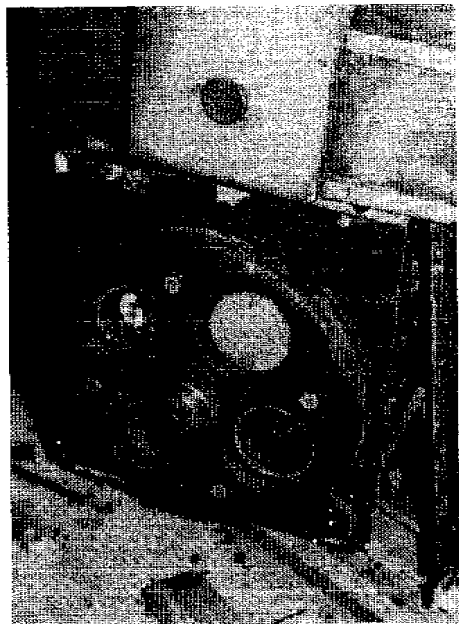
*Dicky Howett's latest classic camera is rescued from the scrap heap*

Dicky reports: 'Recently I hauled out this American RCA TK31A three inch image orthicon television camera from under a pile of junk. It had lain neglected and unrecognised for 15 years. Previously the camera had been used in Hollywood! Fortunately, there were several pieces of RCA camera kit lying around, enough to reconstruct a whole camera. Luckily, the interior, bodywork and camera badges were basically sound but the base-plate had crumbled into something resembling puff pastry. This I had to re-make and re-mount. The camera is now re-built, with a complete and accurate re-spray. All I require to finish the restoration are the four fixed-focus screw thread lenses (Kodak Ektar/Ektanon). Anybody?'

*If you can help, please ring Dicky on 01245-441811.*



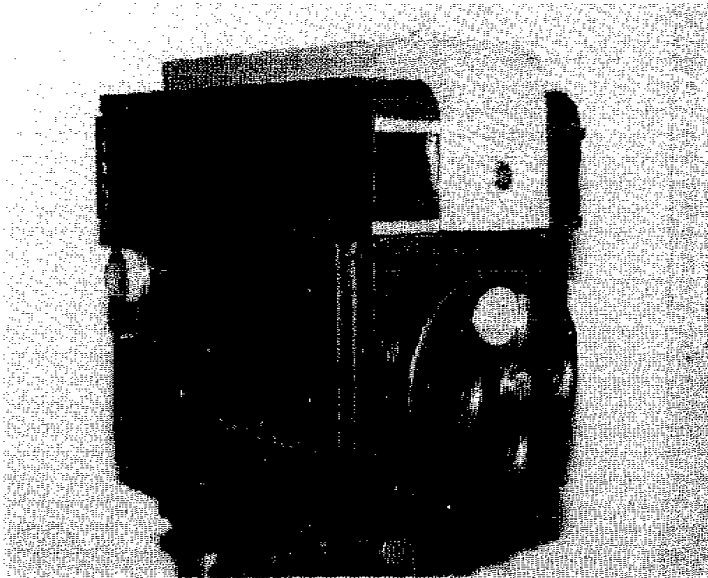
**Dicky wields the restoration brush on the 1951-vintage RCA TK31A camera.**



**The RCA TK31A turret rusted tight.**



**The crumbling base.**



**Restored and almost complete.**

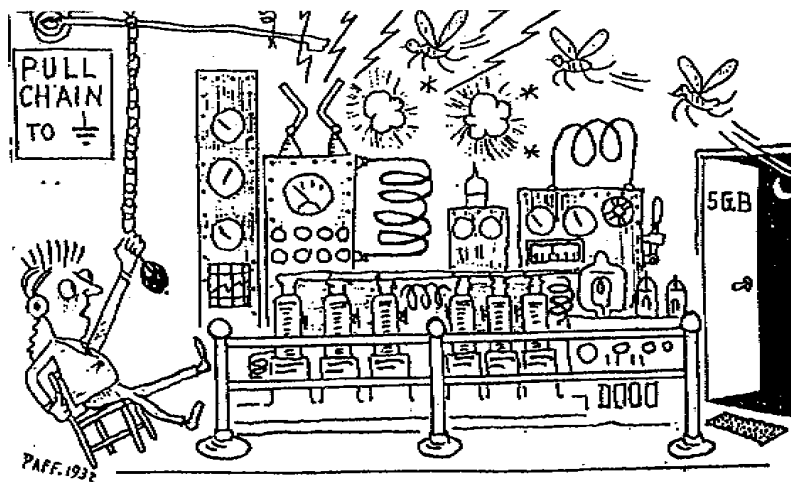
## ***FROM PAFF'S SCRAPBOOK***

*We commence a series of extracts from the scrapbook of 'Paff', otherwise known as Wilfred Pafford, who has kindly agreed to share his personal Cartoon History of Television with us.*

The pioneer days of television were extremely exciting, as I can well remember the first night when I was sent up to 5GB transmitter station at Daventry in 1932. In those days the BBC broadcast the sound for the Baird system from 5GB Daventry, whilst the TV pictures came from the London studios.

There had just been an unfortunate fatal accident to one of the engineers at 5GB transmitter, and I was sent there to fill the vacancy. It was an unprotected transmitter built before the days of safety regulations. Although it had a safety handrail and earthing switch operated by pulling the ball chain level smartly down before entering to work on any apparatus inside, the unfortunate engineer forgot to earth the 10,000-volt HT before entering to clean one of the

water-cooled valves. Today of course this cannot happen as all high-voltage circuits are interlocked.



I shall never forget my first night on duty. There were always two engineers on together for safety reasons. Our hut was on top of a hill. It was black as night outside... my colleague went outside to relieve himself; unfortunately he left the door open to the weather and other elements... when in flew a swarm of long-legged mosquitoes from the fields outside. Obviously they were attracted by the bright lights, and they flew straight into the 10,000-volt transformer. There was an almighty bang and a flash. I thought we had been struck by lightning. I had been monitoring the Baird television programme on headphones... the mains fuses had blown and we were in complete darkness until I got my torch. After 5 minutes we were back on the air with an apology for the break in the Baird sound due to "interference beyond the BBC's control."

**More fascinating tales from long ago in the next issue....**

*From thirty years ago:*

# THE CASE FOR VHF 405-LINE COLOUR

The article following first appeared in the Autumn 1966 issue of *Fusion*, the Rediffusion TV house journal. It makes interesting reading in the light of subsequent history (many thanks to John P. Hamilton for making the text available).

*As things now stand at the time of going to press, Government policy is to broadcast colour transmissions using a 625-line standard, to be radiated by the BBC on an Ultra High Frequency in Bands IV and V.*

*This decision will effectively preclude the 47,000,000 viewers who normally watch the Independent Television channels from receiving colour transmissions on their normal channels and means that the programmes will reach the minimum audience at the maximum, indeed astronomical cost.*

*These questions and answers by general manager, JOHN McMILLAN, attempt to discuss a possible alternative in terms comprehensible to the non-technical reader. The technology of the subject is such that any discussion of colour must additionally cover the frequency bands to be used for transmission and the line standard. These things are closely connected.*

## **1. There is much talk regarding the relative quality of 625 and 405-line television pictures. What determines the quality of a picture?**

The quality of a television picture is fundamentally determined by the amount of 'information' transmitted, and received. More 'information' = better pictures.

The 'information' in its turn is limited by the frequency bandwidth of the video signal. More bandwidth = better pictures.

The line standard adopted affects the bandwidth. More lines = more bandwidth.

The more bandwidth used, the fewer transmitters can be accommodated in a particular slice of the available frequency spectrum allocated to television broadcasting.

## **2. What line standards are in actual use today?**

In order of theoretical 'goodness' and somewhat simplified, they are as follows:

<i>Lines</i>	<i>Video Bandwidth Mc/s</i>	<i>Channel Bandwidth Mc/s</i>
819 (French)	10	13.15
625 (Russian and Europe VHF 625)	6	8
625 (Europe, except VHF)	5	7
625 (UK - BBC 2)	5.5	8
525 (USA, Japan and S. America)	4.2	6
405 (UK)	3	5

**3. We seem to be right at the bottom of the league table. Surely a change to a 'better' standard is most desirable?**

Not so. It so happens that the British Standard as specified by Messrs. Schoenberg and Blumlein of EMI some 36 years ago was a singularly good choice in all respects. It is a fact that it is possible to transmit enough information to give a first class picture on a 3 Mc/s video bandwidth.

**4. What about the actual line structure? Does not 405 lines give a coarse-grained picture?**

Viewed at the proper viewing distance, the line structure of any standard is virtually invisible.

**5. So you think 405 lines is an adequate standard?**

Yes. If a 405-line receiver has a good aerial and is properly tuned it gives a very good picture. Above all things, a 405 lines system is already in being and gives excellent coverage with the minimum number of transmitters.

**6. Why did the Government of the time elect to move to a 625-line standard?**

Largely due to a desire to operate on a common European Standard and so facilitate interchange of programmes. This was a nice idea rather than a useful practical facility. It is no longer a nice idea because Europe has now decided on two different methods for colour.

**7. BBC 2 transmission is often heavily criticised. What are the facts?**

Of the frequency bands available under international agreement for TV broadcasting two Bands, I and III, are VHF and two Bands, IV and V, are UHF. The transmission and reception characteristics are quite different.

On VHF the BBC attains 99.5 per cent coverage of the country with 30 main stations and 62 major fill-in stations. Similar figures for 97 per cent coverage by the ITA are 32 main stations and 30 fill-in stations.

For UHF and an estimated coverage of 95 per cent some 64 main stations and 250 major fill-in stations are required.

To extend this to 97 per cent a further 1,000 minor fill-in stations are estimated to be necessary. Further extension to a higher coverage figure is considered to be economically impractical. At 97 per cent coverage over 1,500,000 people will be without television on UHF due to local screening difficulties.

Present official policy is to abandon the present economic Bands I and III and move all television broadcasting to Bands IV and V. Surely a most unsound scheme requiring a huge increase in cost for an inferior result.

**8. If the VHF bands are so effective and economical why does the Government not convert them to 625 lines?**

Because the additional channel bandwidth required for 625 lines (8 Mc/s) restricts the number of transmitters which can be accommodated in the space available to a level which would not give the high percentage national coverage deemed to be necessary for mass viewing.

**9. So if we are to adopt 625 lines for colour we will positively have to go to UHF and accept the costs and consequences?**

Yes. However, it must be re-emphasised that on all counts reception in lay hands is much worse on these bands. They have never been a real success in any country (USA, UK, Germany).

**10. Is there any way out of this?**

There is indeed. We could transmit colour on 405 lines on the existing VHF channels and forget about Bands IV and V except for additional programme services if, indeed, this country feels it can afford them.

**11. Are there any technical difficulties?**

None at all. On the contrary, certain features of the 405 lines transmission characteristic (positive modulation, amplitude modulated sound) are peculiarly suited to the transmission of colour.

This is by far the cheapest, quickest and most efficient way of getting colour TV off to a flying start with an immense potential audience on both BBC and ITV channels.

**12. It is being said that the compatible picture in monochrome is inferior on 405 lines. Is this true?**

Practically speaking, no. All things are, however, relative. It is true that compared with 625 lines the black-and-white compatible picture is, technically, slightly inferior as indeed is the case in normal

black-and-white transmissions. This, however, is a third-order effect and would quite certainly not be noticed by the normal viewer.

All compatible black-and-white pictures from a colour channel are slightly inferior to those from a monochrome channel. This is the inevitable price of introducing colour. It is of no practical importance.

**13. Is it true that this country will not be able to sell colour receivers overseas unless we adopt 625 lines UHF standards for Great Britain?**

That allegation is false. A receiver designed and originally manufactured for VHF 405-line colour and UHF 625-line black-and-white can be produced at minor additional expense in the factory for any other system. Our export prices would still be competitive. Incidentally, one of the main arguments some years ago for the adoption of a UHF 625-line black-and-white standard in this country was the same export argument. It was adopted for BBC 2 but there is no evidence of large export results.

**14. If the existing BBC 1 and ITV VHF networks were converted to colour as you suggest what would happen to BBC 2?**

It would stay in black-and-white. . . at least for the time being. Thus viewers would have two reliable colour programmes and one black-and-white instead of the present plan which provides for one unreliable colour service and two black-and-white.

# ALIGNMENT ALERT

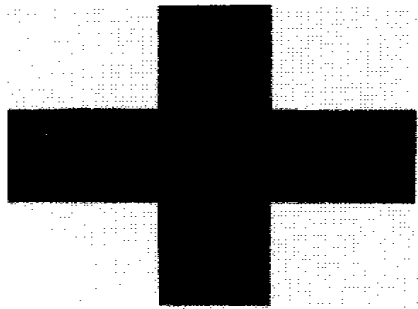
*Kelvin Mallett*

In days of old, when knights were bold, and dragons still breathed fire; on the box there was not a lot of programmes quite so dire!

In fact, there weren't that many programmes – period. This gave the broadcasters the chance to dabble a bit in what they transmitted when programmes weren't scheduled. Some readers will be familiar with a multiplicity of Test Cards, not to mention Trade Test Colour films, but this was not always the case.

No doubt readers are also familiar with the age old rhyme, A is for art bars and not Test Card A, no matter what the pundits say. B is for Bach whom we all know well, etc.. (*What do you mean you've never heard of it?*) Anyway, the rhyme reminds us that before any Test Card hit the airwaves, the only Television Test Signal was the Art Bars. For anyone not familiar with the term, it is not a reference to artistically produced multicoloured test patterns resembling dart boards as often featured on American television; it is in fact an abbreviation for Artificial Bars, so known because they were electronically generated!

In those days, Test Cards and Tuning Signals were invariably produced on card, approximately 3 - 4 feet wide, and placed on easels and 'shot' by the TV camera. This, of course, was not exactly resource-effective, as the cameras had to be aligned before the signal could be transmitted. It was far easier to have a large box, (well they used valves in those days), which could just be switched on and left for as long as necessary. And that is exactly what they did. The Art Bars, as can be seen illustration below, is a cruciform pattern, and by golly doesn't it look basic? Please remember that at the start of the Television Service, there were very few sets, and the technology was far from advanced.



The Art Bars, at that time, were satisfactory for all testing purposes, and because the picture screens gave out so little light, a black and white with no intermediate shades pattern was not just easy to produce, it was

essential! The testing of low frequency response of both sets and the transmitter chain was achieved by noting whether the black areas smudged over into the white areas, and likewise, the high frequency testing was achieved by noting whether there was a crisp transition from black to white. If the transition was blurred, the high frequency response was lacking, and if there was 'ringing' (a sort of white after-image), then the high frequency response was too sharp.

In this way, engineers at the transmitters or in the shops, or peoples homes could tell how well a set or Transmitter Chain was operating. In addition, the Art bars were excellent for aerial riggers, as this signal showed up ghost images beautifully. So, there you have it, a thoroughly basic test signal, doing a thoroughly good job.

A word of caution however, the Art Bars signal was not the only test signal available to the BBC; they did have Test Card A, and latterly, Test Card B, but these were never transmitted during scheduled transmission times. This perhaps needs a word of explanation. A scheduled transmission refers to programmes or test signals announced in advance. The use of pulse and bar prior to Test Card F or Ceefax pages counts as scheduled, not because it appears in the Radio Times, but because it is a regular feature of daily transmissions, and full particulars are available on request. *(Please don't all ask at once, all will be revealed in these pages, so please be patient).*

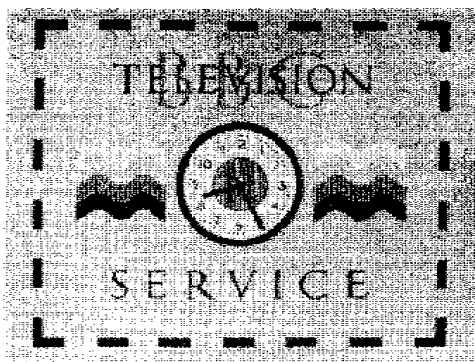
In the beginning, prior to the demonstration film, Art Bars would normally be used; however, other signals such as the 'window', 'slice', and sawtooth appeared occasionally, together with specially prepared signals and idents. After the Demonstration Film, Art Bars would be used if required, and Test Cards A/B might be used if a signal was required as a matter of urgency, and a camera was set up for it at the time. Please remember that Test Cards A and B were for setting up cameras and for no other purpose, and their use on the transmitter would be most unusual.

So, we have the Art Bars to warm up the transmitter, and the TV sets in shop windows; but you can't just cut from Art Bars to Demonstration film! So, for about 4 minutes, you would have the BBC Coat of Arms, together with the *Television March*, or the *National Airs* or what have you. Records are of course very scant, as space is scarce for storing important things like programmes, so it may not be possible to get a full picture of all these events.

In 1946 the Tuning Signal was introduced which was like a sort of Test Card, but its use was restricted to approximately 30 minutes prior to programmes, and a clock was later incorporated into the signal for use between programmes. These were not alignment signals as such, but just there to tell the viewers that something was due on shortly. Don't forget that those early sets needed to warm up and settle down for about 20 minutes before they were in optimum operating condition, and adjustments to brightness, contrast and height were often required prior to viewing.

In 1947 in bounced Test Card C, so what happened to the Art Bars? Well the Programme as Broadcast log tells us that the Art Bars were occasionally used after the Demonstration Film, prior to warm-up for the afternoon schedule, and since no Test Card C transmissions occurred on Sundays or Bank Holidays, the Art Bars etc., reigned supreme.

Other alignment signals there were, and indeed still are, and we shall look at these in our upcoming features, and if you have any photographs or reminiscences of these signals, particularly on ITV, and in the BBC regions after 1949, we shall be pleased to hear from you, care of the Editor, and will include as much of your submissions as possible. You may have wondered what happened to Test Cards A and B once C was introduced. Well, it appears likely that Test Card A found its way to the regions, as it is claimed that it was seen transmitted from the Kirk o' Shotts transmitter. By the time Kirk o' Shotts began preliminary transmissions prior to programme service, Test Card A had been discarded in favour of Test Card B, so its airing north of the border suggests an odd copy found its way up north, to be used for setting up and settling-in adjustments during periods where there were no scheduled transmissions.



**Tuning signal (below), combined with clock (above)**



## **Postscript**

Some time elapsed between the commencement and conclusion of this article and during that time new information came to light.

The article suggests that Art Bars formed the BBC's transmitter alignment from the year dot right up until 1963. This ain't necessarily so!

For approximately six, or perhaps, seven years prior to late 1963, the BBC transmitter alignment routine consisted of the following:

5 minutes Window and tone.

5 minutes Spike and tone.

5 minutes Sawtooth and tone.

Window simply consisted of a white block in the centre of a black screen. Spike was a white needle pulse in the centre of a black screen. Sawtooth was a really weird picture consisting of a dark grey background with black border arrows. Four tests were included, and from the foot of the picture were:

Black block next to white block.

Five step greyscale.

Vertical resolution test next to horizontal resolution test.

And, at the top, a white sawtooth on a black band. Hence the name 'sawtooth'.

This is not the same as the electronically generated line sawtooth signal.



*Tony Clayden*

**Issue 29, page 10 – Idents**

Tony Currie is very slightly incorrect in that the original LWT ident comprised the words *This is London Weekend Television* (white on black as the author states). It was not until LWT nearly toppled over that the three-colour device was introduced as part of the ‘new image’ that the company promised to adopt, in order to get itself back in the IBA’s good books.

**Issue 29, pages 10/11 – Arthur Bliss composition**

Alex Gleason makes reference to this on page 17 of issue 16.

**Issue 29, page 32 – The Adventures of Aggie/Born For Trouble (see also my comments on page 58, issue 23 – High Stepper)**

In his article, Cy Young calls it, as above, *Born For Trouble*. My source called it *Born To Trouble*. Does anyone out there know which *is* the correct title?

**Issue 29, page 47 – Where Did They Go?**

In my wasted youth (and before I was even dimly (!) aware what a Red Light district was), I would frequent Lisle Street regularly to buy electrical components and all sorts of other stuff, which my mother (and subsequently, my wife) always referred to as ‘junk’. There was always a peculiar and very distinctive ‘aroma’ in those shops (damp, mildew, old cardboard boxes, etc. and your purchases usually retained that awful smell long after you had got them home), but they were an ‘Aladdin’s Cave’ where you could buy, often for pennies, so many bits and pieces which would definitely ‘come in handy one day’. Nearly forty years later I still have a garage full of them! [And your editor testifies to the *stink* that infested London Central Radio Supplies in Lisle Street; it was disgusting, sort of like rats and goodness knows what, but tolerable on account of the goodies on sale there!]

**Issue 29, page 82 – Neon lamps, but nothing to do with Red Light districts!**

I recently acquired several mains-voltage neon bulbs (made by Philips, Mazda and some manufactured by Osram and sold under the name Osglim trade mark) which all have a similar ‘beehive’ shape electrode structure contained within a normal GLS (general lighting service)-type glass envelope. These are probably 30 to 40 years old but were unused when I bought them; they all seem to work just fine so perhaps the absorption of

the neon gas by the glass is too slight to be of any consequence under storage conditions.

**Issue 29, page 87 – Newly Pressed**

I'm not really sure but I have a feeling that Brian Matthew introduced this programme, which I think went out on a weekday evening (or am I getting my wires crossed with *Album Time* which Brian Matthew certainly presented on Radio Two?).

**Issue 30, page 58 – Emergency Ward 10**

Looking at a re-run of an old *EW10* episode recently, I was amazed and amused just how 'tame' the whole thing was in comparison to modern equivalents such as *Casualty*. But Jill Brown always looked fabulous in her nurse's uniform (sadly, she died in 1991) and the show was the launching pad for a number of distinguished television acting careers. You can sample the delights of its signature tune in the recent CD *Vintage Themes* (EMI Premier 7243 834996 2 5). [The playout theme to be precise; *EW10* was unusual in having different pieces of music to open and close the programme. *Editor*]

**Issue 30, page 72 – Amos 'n' Andy**

I sometimes used to watch this show (must have been on early ITV, I think) and what strikes me is not so much the racist overtone (very non-PC) but how absolutely un-funny I found it. I'm afraid the same applies to most USA comedy programmes – their humour is so different from ours and leaves me totally unmoved.

and finally...

**Issue 28 – Belling-Lee**

This company was the brainchild of the engineer Mr Frank (?) Lee and was financed by the same Mr C.R. Belling who had previously founded Belling & Co. Ltd., which was just around the corner (at Bridge Works, Southbury Road, Enfield) from Belling & Lee's factory on the Great Cambridge Road. Unfortunately, a few years ago, Belling, which had at one time been the most successful British manufacturer of electric fires and cookers, went broke and the site is now a huge storage depot for Pickfords.

Belling & Lee Ltd was always a totally separate company and many years ago was absorbed into the Philips group. Mr Belling was also an original partner in the north London firm of MK Electric (at Edmonton, just down the road from Enfield), manufacturers of plugs, sockets and other electrical accessories. The initials MK derived from 'Multy Kontakt' (sic), which was a patented feature of the design of the socket contacts used in their products from the beginning. This company is still thriving and now owned by the Caradon plc Group, although most of its production has been shifted from several sites in the Edmonton area to deepest Essex.

# Good Times, Bad Times – You Don't Want to Lose Them

*Jim Lindner*

Thanks to magnetic tape, the last 40 years have become the most documented period in history. Man's first walk on the moon, the Oswald shooting in Dallas, Martin Luther King's "I Have a Dream" speech, the Beatles' first appearance on the Ed Sullivan Show are indelible images that have been captured on videotape. Although permanently etched in our minds, the magnetic tapes that these and thousands of other historic events were recorded on are disintegrating at a rapid pace.

Popular belief has always been that the information stored on audio – and video – tape is permanent. Magnetic tape has become the archival storage medium of our age. In the short term, magnetic tape has allowed us to save and replay history at will – whether a major national event or important personal moment. Only recently have we realised that with audio-and videotape there is no long term. Magnetic media has a very limited life span and priceless sounds and images are in danger of being lost.

## **Thank You Bing Crosby, Wherever You Are**

In his time, Bing Crosby was one of the biggest names on radio. He was also tired of doing a live radio show and needed some time off. He first attempted to pre-record programs on discs, but the results were poor. Under tremendous pressure from the radio network to return to live broadcasts, Crosby asked his engineers to look into a device called the Magnetofon that had been developed during the Second World War. He liked what he heard and hired Jack Mullin to develop a more sophisticated audio recording machine based on the Magnetofon.

Working closely with a newly established company called Ampex, Mullin and his engineers produced their first high-quality audio recorder in the fall of 1947. In 1948 came commercial television. To broadcast the programs in different time zones, kinescopes or 'kines' – films shot directly off studio monitors in New York – were used to rebroadcast the shows three hours later to the West Coast. This process was costly, time-consuming and, most importantly, hard to watch.

In 1951, David Sarnoff, Chairman of RCA and Founder of NBC, gave a speech in which he challenged engineers to come up with a machine

that could record video signals using inexpensive tape. This sparked one of the great technological races in American history. By the spring of 1956, Ampex developed a machine that recorded commercial television broadcasts on 2" magnetic tape manufactured by the 3M Company.

Since that time, countless videotape formats have come and gone. After 2" Quad came 1" type A, followed by U-Matic ¾" and half-inch helical, followed by 1" type B, 1" type C and Betamax, and on into the age of digital recording.

### **The Problems With Magnetic Tape**

Magnetic tape was never meant to be a long-term preservation medium. The main intent was to allow Bing Crosby to take a short vacation from radio and for David Sarnoff to play his New York programs three hours later in Los Angeles. In fact, magnetic tape was routinely reused by the networks. Very few early programs were saved on tape.

Audio – and video – tape can be thought of as being comprised of three different layers: a polyester base, an adhesive binder, and metal oxide particles. When a tape is exposed to extremes of temperature and humidity, the layers expand and contract. As magnetic tape ages, the oxide particles whose magnetic properties hold the image may begin to separate from the base. Age may also adversely affect the adhesive binder, causing the tape to become sticky - thus making playback impossible.

Improper storage creates additional problems. Excessive humidity can cause micro-organisms to flourish. Tapes not properly wound may have uneven tension resulting in tape stretch and warpage. Stretched by just one per cent, the tape will be unusable. Food and coffee are frequently spilled on tapes in control rooms. My company, VidiPax(tm), has even found videotapes held together by staples.

Even when magnetic tape is kept under the most ideal conditions, if a working machine is not available, the information stored will be irretrievable. Recording machines rapidly become obsolete and unavailable. Those machines that still exist are often poorly maintained and seldom able to give optimal playback. In addition, the expertise needed to maintain and operate these machines is hard to find.

### **When All Seemed Hopeless, Jim Lindner Came To The Rescue**

In 1991, the Andy Warhol Foundation asked Jim Lindner to help them play back some half-inch videotapes that artist Andy Warhol recorded

in the 1970s. Warhol constantly recorded the comings and goings of what he called his Factory, and these tapes had irreplaceable images of the leading artists and celebrities of the time.

At first Jim, who had over 20 years of experience with audio and video production, thought that it was a simple mechanical problem with the aged videotape recorders. But as he worked with the problem, he found that the magnetic tapes were disintegrating and their images were in danger of being lost forever. He spent the next two years developing techniques to save the entire Warhol collection. To share his knowledge and help save other endangered libraries and archives, Jim Lindner founded VidiPax(tm).

For his pioneer efforts Jim won a number of awards, including the prestigious Anthology Film Archives Preservation Award - the first such award ever given in the field of magnetic media preservation. He has subsequently published many articles in leading video and audio magazines and has given seminars at many professional associations, universities, and museums. In the spring of 1996, Jim Lindner testified as a key witness and panel member before the Library of Congress concerning the growing crisis facing magnetic tape.

VidiPax is now the largest and most advanced magnetic tape restoration company in the world. The firm is dedicated to restoring magnetic tape and keeping the stored information accessible and usable in the future. With headquarters located in New York and local offices in Los Angeles, San Francisco, and Canada, VidiPax is now in the process of opening offices world-wide. VidiPax has the staff and the facilities to evaluate, restore, and remaster virtually every form of magnetic media.

We own a museum of recording equipment that spans the history of recorded media including every conceivable broadcast, corporate, and consumer format - domestic and international. In addition, VidiPax has recording options that are state-of-the-art and include digital recording as well as direct output to computer files in all formats. VidiPax has been involved in the restoration of magnetic tape used in major television and motion picture productions, including Oliver Stone's *Nixon*. In working with older broadcast material, VidiPax has invented a proprietary process called Kine'mazing - restoring the 'video look' of film that was used to archive video images.

Professional users are invited to call VidiPax for printed information on magnetic tape restoration and make an appointment to talk to one of the company's Restoration Specialists about their needs.

*This series of articles will be continued in coming issues. Jim Lindner is the President of VidiPax, an American videotape restoration service bureau that specialises in old, damaged, and obsolete videotape, and are associates of the National Media Lab. They provide a help line on +1 800-653 8434.*

## A BIT OF THIS AND A LITTLE OF THAT...

### **Sounds like a nice place...**

This past weekend, I had the opportunity of visiting the Pavek Museum of Broadcasting in St. Louis Park, Minnesota as part of the Central States VHF Society conference. St. Louis Park is a suburb of St. Paul. If any of you people get to the St. Paul area please add this to your list of things to do. Most of the collection was that of Joe Pavek W9OEP who passed on in 1989. The museum is quite large and covers radio and TV from the beginning. Here are a few items that stand out from the tour:

- Live demo on their Spark Transmitter.
- Saw three RCA 77DX mics.
- They have the tape recorder that was brought over from Germany after WWII and used by Ampex to develop their recorders. This was working and was demonstrated.
- Lots more, and 95 per cent of the stuff can be touched and opened up. They even let us roam around the storage and lab area to drool over parts and to-be-fixed-up stuff.

Hours are Tuesday-Friday 10:00AM-6:00PM and Saturday 9:00AM-5:00PM. Call them if you plan on hitting the area at (612) 926-9761.

[Don Buska, spotted on the Internet]

### **Mechanical television on show**

Paul Walto comments on MZTV Museum (Toronto) sending 30-line signals to a working 1930 set. Last summer I was admiring a group of mechanical sets on display in Moscow's Polytechnic Museum (Politeknicheskyy Muzey, about a block north-west of Red Square). An elderly female guard walked over, muttered something in Russian, and threw a toggle switch on the largest of the units in the exhibit. In a few moments the unit was displaying a test pattern (maybe 3 in. by 2 in. that I found to be startlingly clear; I had never seen an operational mechanical set before. Is it demonstrated similarly in any of the Western museums? Also, as we reminisce about the history, we ought be looking at the

Russian claims, for I suspect, as with much other technology, they were on a parallel, independent path.

Also check out the website of MZTV Museum, Canada's private television museum. There is a picture gallery of mechanical sets. The museum has also sent 30-line signals to a working 1930 Baird Televisor (QuickTime video clip included). <http://www.bravo.ca/mztv/gallery.html>

[R. Leshuk]

### **The Lone Ranger rides again**

The narrator of the Lone Ranger on television was Fred Foy. In fact, Fred tells an anecdote of how he taped his narration in Detroit (he was still working at radio station WXYZ) and air-mailed it to Hollywood each week. He never met any of the TV cast until he met Clayton Moore at a convention many years after the program went out of production.

[Alan Chapman]

Sorry, Alan there was another narrator. Originally, he did the opening narration ("A fiery horse...") and plot narration in specific episodes. At some point, Fred Foy's voice was used for the opening, and plot narration within the story-line was dropped (a narrator on TV show is not really that necessary). When the program ceased production and went into syndicated re-runs, Fred Foy's voice was used for the opening on all episodes (including the earlier ones). But within the episode, you can still hear the voice of the original (uncredited) narrator.

Narration was not used in all episodes, and was being used occasionally by the time John Hart left the program and Clayton Moore returned. By the time Wrather bought the character from George W. Trendle (and the program was filmed in color), the narrator was no longer used (also dropped were the musical bridges used in the radio show from Republic Pictures, except for the William Tell Overture).

The Lone Ranger is currently broadcast on Encore 2 (Westerns), two episodes each afternoon starting about 4pm ET (times vary). Episodes – including the pilot/origin story – are available on video. Hear for yourself.

Now, regarding the TV narrator: Who was that man?

[Michael Carraher]

The answer to Mike's question is Gerald Mohr. He also played Philip Marlowe on radio. In Dunning's book **TUNE IN YESTERDAY**, they say he was the toughest Marlowe. I guess his deep voice conveyed that toughness. His opening was great: "Get this and get it straight, crime is a sucker's road, and those who travel it wind up in the gutter, the prison, or an early grave". If you haven't heard any of the shows give them a listen, they are very well written. [Pete Greco]

# THE 405 TRANSMITTERS LIST

This is an update to the list printed in issue 29. Keith Rann adds some valuable information.

**Extract from BBC Ceefax, 4th January 1985:**

## TRANSMITTERS 405-LINE VHF TELEVISION CLOSURES

The last 24 405-line television stations listed below will close down between 2nd January and 6th January.

	Channel
ASHKIRK	1
BETTWYS-Y-COED	4
BLAEN PLWYF	3
CRYSTAL PALACE	1
DIVIS	1
HAVERFORDWEST	4
HOLME MOSS	2
KIRK O' SHOTTS	3
LLANDRINDOD WELLS	1
MELDRUM	4
MELVAIG	4
MOEL-Y-PARC	6
MORECAMBE BAY	3
NORTH HESSARY TOR	2
PENIFILER	1
PONTOP PIKE	5
REDRUTH	1
ROSEMARKIE	2
ROWRIDGE	3
SANDALE	4
SKRIAIG	3
SUTTON COLDFIELD	4
WENVOE	5
WINTER HILL	12

## Extract from Channel 4 ORACLE 4th January 1985:

### 405-LINE VHF CLOSURES

The remaining ITV 405-line stations (listed below) closed on 3 January 1985

Black Hill	Ch. 10	Llandoverly	Ch. 11
Black Mtn	Ch. 9	Llandrindod Wells	Ch. 9
Burnhope	Ch. 8	Moel-y-Parc	Ch. 11
Caldbeck	Ch. 11	Mounteagle	Ch. 12
Caradon Hill	Ch. 12	Presely	Ch. 8
Chillerton Down	Ch. 11	Selkirk	Ch. 13
Croydon	Ch. 9	St. Hilary	Ch. 10
Emley Moor	Ch. 10	Stockland Hill	Ch. 9
Lichfield	Ch. 8	Winter Hill	Ch. 9

Keith confirms that Glencairn used channel 1 and Redmoss used channel 4 and adds that he recalls reading that a station was planned for Limpley Stoke in Wiltshire on channel 4 but this does not appear in any station lists.

Finally, he points out it is worth noting that Tacolneston is pronounced *Tackleston*.

### Another update:

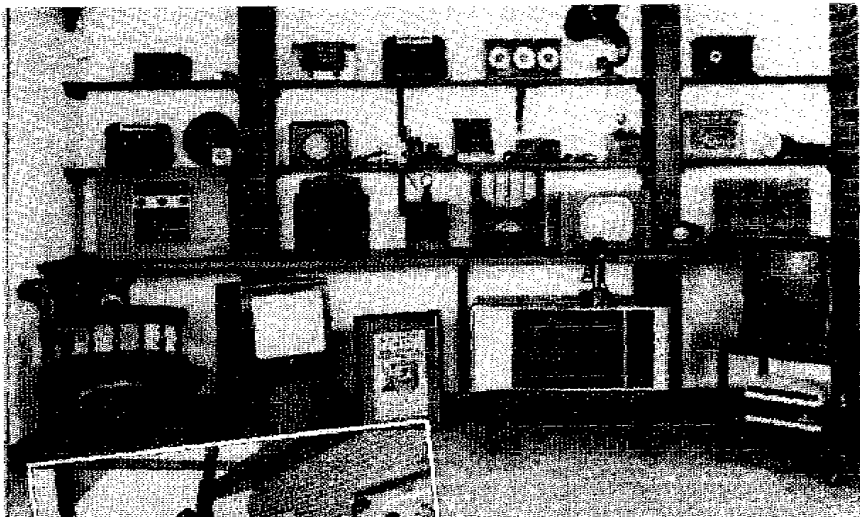
#### ITALY

Rome (Monte Mario)	40.50	44.00
Milan (Torre del Parco Nord)	42.00	45.50

Note: the Rome station had a power of 2kW and a range of 30 miles. It opened in August 1939 and was still transmitting in October of that year. It is not clear if the Milan station went on the air before the war.

## R.C. Snelling Ltd

405 Alive subscriber Roy Snelling has sent us his firm's leaflet in order, as he says, "to show how we are trying to keep our history 'Alive'". They sound like a good firm to deal with and if you'd like to visit them, you'll find the showroom at Blofield Corner, Blofield, Norwich, NR13 4SQ (01603-712202). Now read on...



*Soclings Service: In our Service RECEIPTS  
A history of Underhill's past.*



*Service Reception: If you're having an operating  
problem, our hands-on staff is a virtual  
atmosphere.*

**I**f you were wondering why Soclings is out in the country, it's because that's where it all began, in a garden shed in 1951. Roy Snelling became a hero for getting TV where no service existed, so that when Tullington opened, all the locals knew where to come.

Always one jump ahead, Roy was the first with radio telephones in the cars and vans, first with TV (the Pye VTC, as displayed in our new service reception museum, needed no tuning when the service came), first with TV on Broad's Cruisers, and first with Satellite. Soclings always put the customer first. When Channel 4 came, all their sets had been pre-tuned two years ahead

## 40 YEARS OF TELEVISION HOW IT ALL BEGAN

Now that the microchip puts more electronics into a TV than there was in the whole of 19th century England before the war, Soclings, despite the recession, have built

their new Service Workshop beside the original site so that they can give the best treatment to the equipment they sell and rent. Their radio car and van fleet provides the first contact with a customer in a reliable, but now they are backed up by even better expertise at base. It makes Soclings one of the few dealers who still carry out their own repairs and sell after prices which compare with, and often beat, the 'big boys'.





# The 'PICTURE' valve

*Fraser Ramsay*

While employed as a Television engineer in the late fifties, the above all-embracing and often erroneous expression regularly trotted out by the customer, never failed to irritate. When presented with a 'blank screen' fault the customers would inform you with the utmost confidence that what was required was a 'Picture Valve', and no amount of explaining that there was no such animal would convince them otherwise. They were referring of course to the failure of the EHT rectifier valve, and annoyingly, nine times out of ten they turned out to be correct in their diagnosis. So it was that the EHT rectifier valve became familiar to the public and was known as the 'Picture Valve'

The valves employed at the period were the Mullard EY51 and the Mazda U25; these being wire ended, i.e. they sported no pins but were connected to the LOPT by three wires; the anode connection protruding from one end, and the two heater wires from the other. These wires were secured to the LOPT with neatly rounded blobs of solder to prevent arcing.

Many of you older readers will remember those Perspex formers used in the line transformers fitted to the EKCO at that time, and how they used to disintegrate around the U25 valve with varying degrees of fizzing and spluttering, accompanied with that pervasive ozone smell. Messrs Radiospares and other such firms used to supply replacement paxolin formers into which the LOPT innards were transposed.

The 405 line time base whistle presented somewhat of a problem at the time although we engineers barely gave it a passing thought. Actually, it may sound rather Irish, but I don't believe that we were really aware of it until it wasn't there! Having said that, I recall my niece marrying a Frenchman and the poor fellow, being used to the 625 and 819-line systems employed in his own country, reacting rather badly to ours while on holiday with us. Indeed he became quite demented, and would cover his ears and yell 'Mon Dieu! Quel

Bruit!" (loosely translated as "Corblimey! What a racket!"). The majority of the viewers came to accept and largely disregard the whistle and there were very few complaints in that department. However, some of the set manufacturers took the matter more seriously and tried to lessen the whistle to some degree.

Perhaps you recall those attractive Murphy V310, 410, and 510 models; the ones with pop up lids on top and rounded cabinets. The LOPTs and EHT valves in these and subsequent models were contained in aluminium, oil-filled cans, in an effort to dampen the line whistle. On failure of the U25 valve it was a case of carefully opening the can and decanting the light oil temporarily to another container. The valve was then replaced, the oil returned, and the soft aluminium brim of the can crimped to effect a seal.

A similar approach to the problem was made by HMV with their 1845? model; actually I'm not quite sure of the model number but it was the one with the nice looking cabinet and dark screen and utilising an EF80 as a sound output valve! In this instance the LOPT and EYS1 valve were encapsulated in a grease filled, bakelite container and the replacement of the valve proved to be a rather messy operation.

The Philips projection models used an oil filled EHT unit containing no less than three valves, but I personally had little success in the repair of these.

With the passage of time plug-in Mullard EY86 and the Mazda U26 types were subsequently developed employing ceramic valve holders. These were a much welcomed advance over the wire ended ones and gave little trouble apart from the tendency of the heater winding to corrode and go open circuit. It was a simple, if sometimes awkward procedure to replace the single turn winding; often with a length of thin fuse wire, suitably insulated.

Perhaps at this juncture mention should be made regarding the Ferguson 306T model: it being the only set to my knowledge to have an EHT rectifier tailor made for it. The Ferguson 306T was designed to operate with an EY86, but due to constant failure of this

component, Mullard brought out a more robust type exclusively for this model. For Messrs Mullard to have made this unprecedented concession, I suspect that there may have been a legal wrangle going on behind the scenes between the two manufacturers regarding valve specifications and the like. Incidentally, you won't find this 'maverick' listed in any of the valve data manuals, but if my memory serves me correctly it was designated TY86F or something similar

CRTs were now steadily increasing in size, requiring higher EHT drive voltages and the EY86 was superseded by the DY86 and DY87, and finally the DY802, the latter type being universally adopted until the end of the valve era.

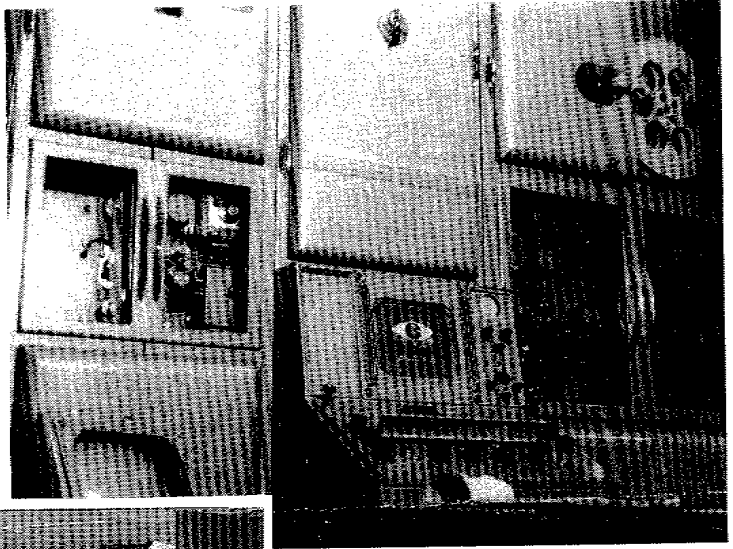
As I had previously remarked, the simplistic term the 'Picture Valve', much used by the customer, had become slightly irksome to the repair man. I recall, on one occasion on asking a lady customer, somewhat sarcastically, how she knew it was the 'picture valve', and being told that Jim from next door had informed her. "Ah!" I said, "This Jim, is he in the trade then?" "Why no!" she replied, "But Jim knows about these things ...he's a PLUMBER!" "Grrrrr \*#\*#i!"

*This article appeared first in the Bulletin of the British Vintage Wireless Society (Spring 1996) and is reproduced here with acknowledgement. For details of how to join the BVWS write to the address given inside rear cover.*

# FOLEY STREET, circa 1958

Peter Jones, who worked at ATV's central London facility in Foley Street (now headquarters of the Independent Television Commission) sent in these pictures which he took many years ago. He writes: "The photos all show the EMI-made telecine equipment, as first installed. One picture shows the 16mm section removed and a blimp put there instead. This was to house the horizontal scanning tube assembly and eliminate the flip-over mirror, also giving superior registration. I was the one who pushed for this and it was my baby!"

❖ An article about similar equipment, *The Flying Spots*, appeared in issue 19 of *405 Alive*.



# From the TV NOSTALGIA DIGEST on the Internet

First of all, allow me to introduce myself. My name is Bill Groves, and I'm managing editor of a publication called *Television Chronicles*, which many of you may find of interest. If you want to check us out, our web site is at <http://www.general.net/tvchronicles>.

There's somewhat more detailed information at the site, but here are the shows we've covered thus far (more or less chronologically by issue):

*Elvis, The Green Hornet, I Spy, Moonlighting, T.H.E. Cat, The Rifleman, Yancy Derringer, The Adventures of Brisco County Jr., Jonny Quest, The Monkees, New Monkees, Sable, The Beatles* (cartoon), *Checkmate, My Three Sons, The Phil Silvers Show* (aka *Sgt. Bilko*), *Trackdown, F Troop, Rod Serling's Night Gallery, Sea Hunt* (both versions), *Blue Light, The Magician, Petticoat Junction, The Roy Rogers Show, Doorways* (unsold pilot), *The Doris Day Show, Life Goes On, St. Elsewhere, and Wizards and Warriors*.

We've also featured exclusive interviews with:

Curtis Armstrong (*Moonlighting*), Henry Diltz (*Monkee* photographer), Marty Ross (*New Monkee*), Robert Culp, Lloyd Bridges, Stanley Livingston (*My Three Sons*), Chris Burke (*Life Goes On*), and Doris Day.

For the person who is looking for *Route 66* on video, it's recently been offered as a subscription series from Columbia House Video Library. We have a link to their site at ours.

Currently featured in *Television Chronicles*:

*Doorways*, an unsold pilot created by George R.R. Martin  
*The Doris Day Show*, including an exclusive interview with the star  
*Life Goes On*, including an interview with Chris Burke  
*St. Elsewhere*  
*Wizards & Warriors*

<http://www.general.net/tvchronicles>

## **MISSION: IMPOSSIBLE 30 years**

September 17, 1966 saw the premiere of this durable action series. Fx showed the original pilot just last Sunday night. The primary attraction of the first show was the look it had. Very visual. But it really was not as intricately plotted as later shows. But I guess the intention of the pilot was to introduce the function of the characters and show us the undertaking of

a highly dangerous impossible mission. And that it did. The team had to break into a vault, steal some nuclear warheads and race to the airport with the military in pursuit.

In the first season the show was not as formatted. There were the episodes that would later identify the series such as convincing a man he has had amnesia, cheating a prince out of a million dollars in his own casino, and others. But it seemed the producers would include several episodes that were not as gimmicky. Perhaps, at the time they were not sure if too much gimmickry too much of the time might wear thin. So you would have an assignment, that was just as dangerous but without the gimmicks and gadgetry. You often would only have one or two of the team on the job as well. Whether it was a highly plotted episode, an episode to explore Cinnamon or Rollin on a more personal level, all were slickly produced. It may have been 30 years ago but it was a GREAT first season. Voted outstanding Dramatic series for its first two years.

## IT MAKES YOU THINK

At school I once conducted an experiment to determine the melting point of nails. A 4" nail blew at about 100 amps; the 6" nail eventually went at 150 amps, which was the limit of the apparatus we had available. In neither case could the nails be described as quick-blowing fuses. [Graeme Thomas]

Two counties in northern Minnesota have failed to follow a new state law which prohibits place names containing the word 'Squaw', which has been declared by the state legislature to be offensive to American Indians. Lake County attempted to comply with the law by renaming *Squaw Creek* to *Politically Correct Creek* and *Squaw Bay* to *Politically Correct Bay*, but the Department of Natural Resources vetoed those names. A spokesman for the department says he hopes the counties will "just quietly do the right thing." [AP]

Never buy you lottery ticket on a Monday: you have more chance of dying than winning the jackpot in the draw the following Saturday! [Woody]

"Just say NO to lssy cmprssn"

"Some of us are cursed with memories like flypaper. Stuck to them are scatterings of insignificant data – mostly useless." [Sherlock Holmes in *THE PRIVATE LIFE OF SHERLOCK HOLMES* (1970)].

# Can't get enough?

**Would you like an *extra* issue of 405 Alive this year, full of interesting articles about old television?**

## **First, the bad news**

Sorry, we can't oblige...

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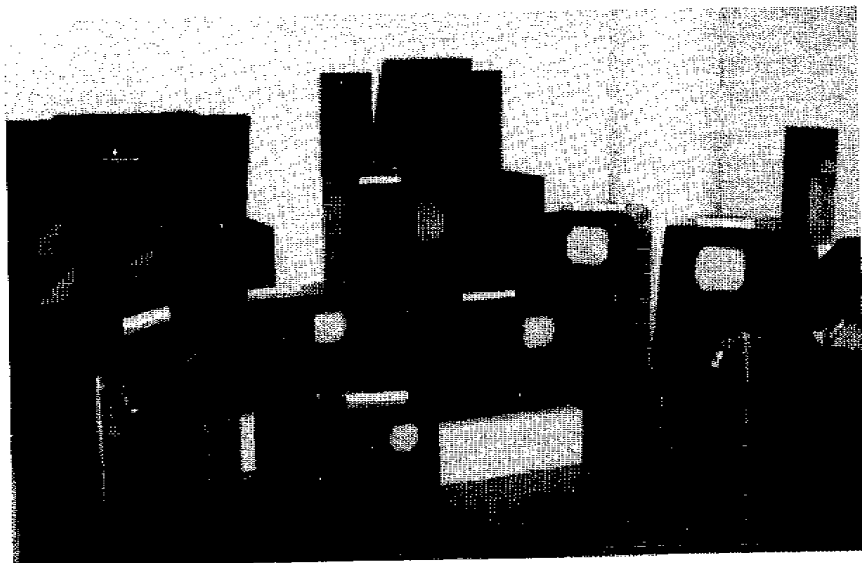
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- ❖ *Television Resources on the Internet (absolutely invaluable!)*
- ❖ *A Family at War: Till Death Us Do Part 1965-1975*

# **Get your copy now!**

# A FINE COLLECTION OF RARE PRE-WWII BRITISH TELEVISION SETS UNCOVERED



1996 marks BBC Television's 60th anniversary. To celebrate this event, a unique hoard of 15 different *pre-WW2 British television sets* made between 1936 and 1938 and belonging to a private collector, will be offered for sale at the forthcoming National Vintage Communications Fair, taking place at Wembley (Hall 3) in London from 10.30am to 4pm on Sunday 1st December 1996.

This collection is of world importance and includes top of the range television sets made by Baird and Marconi for the inauguration of the BBC's 405-line television service in November 1936 (the world's first high-definition television service). This is a never to be repeated opportunity to acquire some of the rarest, earliest and most historically important British television items ever made. A further 25-plus television sets from the 1940s and 1950s will also be included in the collection sale.

A sample selection of items from the collection will be featured at the show and no items will be sold prior to the show on 1st December 1996.

**For further details, contact**

Jonathan Hill, (Organiser, National Vintage Communications Fair), 2-4 Brook Street, Bampton, Devon, England.

Fax: (01398) 331310

Tel: (01398) 331532.

In view of the interest in this collection and the fact that it represents such a complete listing of classic British television receivers, the contents of the sale are set out here...

### Pre-war sets

1. **Baird Model T5 (1936)**. 15" tube. Floor-standing cabinet. Acquired from the BBC Alexandra Palace many years ago – part of the equipment from the old Baird studios there. Thought to have been the one seen in the film *Television Comes To London*. Missing power supply unit. Spare tube. Picture reflected by mirror in lid.
2. **Baird Model T15 (1938)** 12" tube. Table top cabinet. Complete with radio. Very good clean example. Direct view picture.
3. **Baird Model T23 (1938)** 15" tube. Floor-standing cabinet. Same tube and power supply unit as T5. Very good condition. Has worked. Picture reflected by mirror in lid.
4. **Cossor Model 137T (1935\*)** 13.5" tube. Floor-standing cabinet. Complete with radio. Superb example in a wonderful Art Deco cabinet. Only one known to exist in the UK. Electrostatic deflection. Direct view picture. Spare tube.  
\*This set pre-dates the inauguration of the BBC's 405-line television service by nearly twelve months for it appears illustrated on the front cover of the book *Television Up To Date* by Robert Hutchinson, published in December 1935.
5. **HMV Model 902 (1937)** 9" tube (with 14" magnifying screen). Floor-standing cabinet. Complete with radio and auto-gramophone. Excellent original condition, superb cabinet. Picture reflected by mirror. Built-in magnifier.
6. **HMV Model 903 (1937)** 9" tube. Floor-standing cabinet. Good condition, only one known to exist.
7. **HMV Model 995 (1938)** 7" tube. Table top cabinet. Complete with radio. Immaculate example, works very well, good tube. Direct view picture.
8. **Marconi Model 701 (1936)** 9" tube. Floor-standing cabinet. complete with radio. One of only two known to exist in the UK - the other one being in the Film & TV Museum at Bradford. It was acquired from a BBC employee twenty years ago and is believed to have stood in the foyer of Broadcasting House for the opening of the television service in 1936. Cabinet in superb condition with little electronic 'restoration'. Good working order with a surprisingly bright picture. Fitted with a standard switch for selecting either the EMI or BAIRD systems. Picture reflected by mirror. Built-in magnifier.
9. **Marconi Model 702 (1936)** 12" tube. Floor-standing cabinet. Good overall original condition - working order. Picture reflected by mirror in lid.
10. **Marconi Model 703 (1937)** 12" tube. Floor-standing cabinet. Complete with radio and auto-gramophone (set known as the '*Mastergram*'). Lovely condition, with beautiful veneers. Unrestored. Picture reflected by mirror in lid.
11. **Marconi Model 795 (1936)** 12" tube. Floor-standing cabinet, inc. radio. Original condition. Picture reflected by mirror in lid.
12. **Marconi Model 706 (1938)** 5" tube. Table top cabinet, inc. radio. Good example. Smaller version of the Marconi Model 707 (below). Direct view picture.
13. **Marconi Model 707 (1938)** 7" tube. Table top cabinet inc. radio. Good example, good tube, has worked. Direct view picture.
14. **Marconi Model 709 (1938)** 9" tube. Floor-standing cabinet. Complete with radio. Absolutely superb example, totally original, never been used when acquired by present owner. Tube as new, lovely original cabinet. Circuit would need some attention to get working. Direct view picture.
15. **Marconi Model ? (c.1936)** Unknown model. 9" tube. Floor-standing cabinet. Looks like a smaller version of the 12" Marconi Model 702 (above). Believed to be the only one ever made. Picture reflected by mirror in lid.

## Post-war sets

16. **Baird Everyman (1949)** 9" tube. Table top cabinet. Direct view picture. (2 versions available for sale).
17. **Bush Model TV1 (1946)** 9" tube. Floor-standing cabinet. Direct view picture.
18. **Bush Model TV12 (1949)** 9" tube. Table top cabinet in moulded Bakelite. Direct view picture.
19. **Bush Model TV22 (1950)** 9" tube. Table top cabinet in moulded Bakelite. Direct view picture.
20. **Bush Model TUG24 (1950)** 12" tube. Floor-standing cabinet, fitted with cabinet doors. Direct view picture.
21. **Decca Beau Decca (1948)** Magnificent unmarked Floor-standing cabinet. Complete with radio. Three loudspeakers. Push-Pull amplifier with PX4s. One of only two known to exist in the UK. Picture reflected by mirror.
22. **Decca Model 1000 (1952)** Floor-standing Projection Television. 3' x 4' picture.
23. **Ekco Model TSC4S (1948)** 12" tube. Floor-standing cabinet in good condition. Complete with radio. Picture reflected by mirror in lid.
24. **Ekco Model TMB27Z (1955)** 9" tube. Table top mains/battery portable. Complete with VHF radio. Direct view picture.
25. **Ferguson Model 988T (1951)** 12" tube. Table top cabinet. Direct view picture.
26. **GEC Model BT1091 (1949)** 9" tube. Table top cabinet in moulded Bakelite. Direct view picture.
27. **HMV Model 1806 (1949)** 15" tube. Floor-standing cabinet, fitted with cabinet doors. Direct view picture.
28. **HMV Model 1902 (1951)** 15" tube. Large Floor-standing cabinet, including radio/gramophone. This set was previously owned by the Dance Band Leader, Harry Davidson, having been presented to him in the early 1950s by EML. Direct view picture.
29. **KB. Model CV40 (1946)** 12" tube. Floor-standing cabinet. Direct view picture. The first post-war KB. television.
30. **Marconi Model VT50A (1947)** 10" tube. Table top cabinet. Direct view picture.
31. **Marconi Model VRC52A (1949)** 10" tube. Floor-standing cabinet. Complete with radio. Direct view picture.
32. **Marconi Model VRC54DA (1951)** 10" tube. Floor-standing cabinet. Complete with radio. Direct view picture. This particular set was discovered unsold and still in its carton in an old radio & television shop.
33. **Murphy Model V114 (1946)** 9" tube. Table top cabinet. Direct view picture.
34. **Perdio MK II Portorama (1962)** 8" tube. Table top mains/battery transistorised portable. Direct view picture.
35. **Perdio Mk III (1964)** 8" tube. Table top mains/battery transistorised 405/625-line portable. Direct view picture.
36. **Philips Model 633A (1946)** 9" tube. Floor-standing cabinet, with cabinet doors. Complete with radio. Direct view picture.
37. **Philips Model 2337AF (1950)** Floor-standing Projection Television.
38. **Pye Model D16T (1946)** 9" tube. Table top cabinet, with Bakelite surround and control cover. Direct view picture.
39. **Pye Model LV20 (1949)** 9" tube. Table top cabinet, with purple screen. Direct view picture.
40. **Pye Model LV30 (1950)** 9" tube. Table top cabinet, with purple screen. Direct view picture.

And others.

## The Radiophile



### AC/DC RECEIVER SPECIAL

June No. 6, Summer 1993. Edited by Chris E. Hillier.

\* Receiver Profile - The Microcathode 571 \* The Direct Approach \*  
\* 'Spectrum' Circuit Repeating Vintage Radio Receivers \* Apparatus We Have Tested \*  
\* Working on Elco 2036 - Ray Holman \* The Travels N.S.A. - Bidlow \*  
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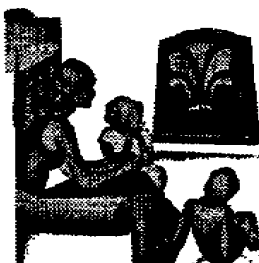
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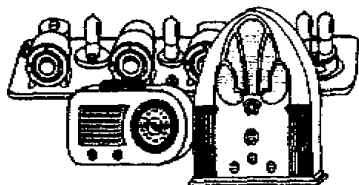
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# THE TEST CARD CIRCLE

This society was founded in 1989 with less than twenty members. Since then it has grown in membership to almost one hundred, and has certainly grown in stature. The various broadcasting authorities acknowledge the wealth of information and expertise possessed by the membership, and regularly refer inquiries direct to the society.

All aspects of television trade test transmissions are included within the interests of The Circle: Test Cards and patterns, accompanying music, slides and still pictures, Service Information bulletins, Trade Test Colour Films, and, of course, the dear old BBC Demonstration Film.

A quarterly 48-page magazine is issued which contains lively and interesting articles on all of these topics. Each Spring, a convention is held in the little market town of Leominster, where members can meet for a delightful weekend of wonderful music and pictures, good companionship, and pure nostalgia. It is also a great deal of fun. There are usually guest presenters at the convention, and in 1994 these were Andrew Emmerson, of 405 Alive, and broadcaster Tony Currie, formerly of Scottish Television and Radio Clyde. We also had the honour of the opening announcement being specially recorded for us on video by Sylvia Peters, Sylvia, and BBC continuity announcer David Allen also recorded in-depth interviews for us on video.

Previous guests have included Steve Ostler, John Ross-Barnard and David Allan. John and David were the two men responsible for compiling all of the BBC trade tests tapes used between 1959 and 1977, and we were delighted when they accepted Honorary Life Membership of The Circle two years ago. We were also highly honoured when Roger Roger, the French musician and composer, whose music has been used during BBC trade tests since the mid fifties, agreed to become Patron of The Test Card Circle in 1992.

If you are interested in this fascinating subject, write to the Secretary, Doug Bond, 98 Great North Road, Gosforth, Newcastle upon Tyne, NE3 5JP, and if you send a 12.5' x 9' self addressed envelope with a 43 pence stamp, Doug will be pleased to send you a sample copy of the Circle's magazine.

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*NB. Sorry we can't fit a modulator inside our original converters (the connectors are in the wrong places). We can however modify them to power an external modulator.*

Please include postage & packing; £3-00 for modulators. Alternatively we can deliver to most vintage wireless swap meets, or the Vintage Wireless Museum (by prior arrangement) free of charge. Ask about our Test Card C generator too.

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## WHAT'S IN AND WHAT'S OUT

These advertisements are primarily for private sales but traders are also welcome. The Business Advertisements (Disclosure) Order of 1977 requires people who are commercial dealers to make this fact clear in their advertisements. The letter (T) at the end of an advertisement indicates that the advertisement is trade' and (NS) that the advertisement has been placed by a non-subscriber. Any job advertisements are bound by the Sex Discrimination Act, 1975 and the Age Discrimination Act, 1997.

Test card music and old TV programmes are is subject to the same rules of copyright as other recorded works and it is unlawful to sell amateur or professional recordings of same. Swapping same for no gain is probably not illegal but 405 Alive does not want to test the law on this subject so we will only accept advertisements from people who will indemnify us in this respect.

## PLUGS NEEDED

If you are selling any electrical appliance after 1st February 1995 without a plug on it, you are breaking the law. The Department of Trade and Industry has announced that domestic electrical appliances manufactured in or imported to the UK must be fitted with a correctly fused 13-amp plug.

## IMPORTANT DISCLAIMERS

1. Whilst care is taken to establish the *bona fides* of advertisers, readers are strongly recommended to take their own precaution before parting with money in response to an advertisement. We do not accept any responsibility for dealings resulting from these advertisements, which are published in good faith. That said, we will endeavour to deal sympathetically and effectively with any difficulties but at our discretion. Fortunately we have had no problems yet. In related collecting fields, replicas and reproductions can be difficult to identify, so beware of any items 'of doubtful origin' and assure yourself of the authenticity of anything you propose buying. And try to have fun: after all, it's only a hobby!

2. Much of the equipment offered for sale or exchange does not conform to present-day safety and electric standards. Some items may even be lethal in the hands of the inexperienced. This magazine takes no responsibility for these aspects and asks readers to take their own precautions.

**STANDARDS CONVERTERS.** Building your own is not a realistic proposition unless you already have advanced design and construction facilities. It's not a task for amateurs, not even for gifted ones. Many of the parts needed are available only from professional sources and not in one-off quantities, whilst some previous designs for converters can no longer be copied because the custom chips are no

longer made. We recommend the Dinosaur Designs/David Grant product, which was reviewed in issue 19. Pineapple Video have ceased production of their converter. Note also David Looser's advertisement in this section for a conversion service.

**MODULATORS.** Two designs for modulators have been published in *Television* magazine but we don't recommend either today. One uses hard-to-find components, whilst the other one is good but requires you to make your own printed circuit board and wind your own coils very accurately. The good news is that you can buy an excellent ready-built modulators from Dinosaur Designs (see ad in this section).

**COMPONENTS.** Here is a brief list of suppliers; you can have a much extended two-page list by asking for FAQ SHEET 3 and sending one first-class stamp and a SA£ to the editorial address. Most valves and other components are not hard to find: we can mention **Billington Export** (01403-784961, £50 minimum order), **Colomor Ltd** (0181-743 0899), **Kenzen** (0121-446 4346), **Wilson Valves** (01484-654650, 420774), **Sound Systems of Suffolk** (01473-721493) and **PM Components** (01474-560521). A good non-commercial supplier of hard-to-find types is Phil Taylor, 3 Silver Lane, Billingshurst, Sussex, RH14 0RP. For 'hard-to-find transistors we have heard of' – but phone numbers may have changed – **AQL Technology** (01252-341711), **The Semiconductor Archives** (0181-691 7908), **Vectis Components Ltd.** (01494- 791289) and **Universal Semiconductor Devices Ltd.** (01494- 791289). NB: Several of these firms have minimum order levels of between £10 and £20. For American books on old radio and TV, also all manner of spares, try **Antique Radio Supply**, (phone 00 1-602-820 5411, fax 00 1-602 820 4643). Their mail order service is first-class and they have a beautiful free colour catalogue (or is it color catalog?). Would you like to recommend other firms? If you think a firm gives good service please tell us all!

**SERVICE DATA.** The following firms are noted, and don't forget the annual volumes 'TV & Radio Servicing' at the public library.

**Mr Bentley**, 27 De Vere Gardens, Ilford, Essex, IG1 3EB (0181-554 6631). Thousands of technical manuals and service sheets.

**Alton Bowman**, 4172 East Avenue, Canadaville, NY 14424-9564, USA. Schematics for all USA radio, TV, organ, etc. equipment 1920-1970.

**Mauritron Technical Services**, 47a High Street, Chinnor, Oxon., OX9 4DJ (01844-351694, fax 01844-352554). Photocopies of old service sheets, other technical data.

**Savoy Hill Publications**, Seven Ash Cottage, Seven Ash, Combe Martin, Devon, EX34 0PA (01271-882665). Large library of service data for photocopying. Fixed price means you may get a lot – or not a lot – for your money.

**Technical Information Services**, 76 Church Street, Larkhall, Lanarks., ML9 1HF (01698-883344/888343, fax 01698-884825), 'World's largest selection of manuals, 1930s to current date, British and foreign'.

In addition, 405 Aliver **Bernard Mothersill** has offered to photocopy (at cost) items from his own extensive collection of service sheets for 1950s and 60s TV sets. There are dozens and dozens, mainly Alba, Ekco, Bush, Ferguson/Thorn, GEC, Murphy, Perdio, Pilot, also a few Decca, Defiant, HMV, KB, McMichael, Peto Scott,

Philco, Regentone and Ultra. Write with international reply coupon plus unstamped self-addressed envelope to him at 3 Cherrywood Close, Clonsilla, Dublin 15, Eire.

### HOW TO WRITE CLASSIFIED ADVERTISEMENTS THAT WORK

1. Start by mentioning the product or service you are selling or want. By doing so, you make it easier for the reader.
2. Always include the price. Research has shown that 52 per cent of people who read classified ads will not respond to ads that fail to mention a price.
3. Keep abbreviations to a minimum. Will the reader know what a NB207 is? If it's a 1956 12' table model TV, say so!
4. Put yourself in the position of the reader. Is all the information included?

**NOTE:** Thanks to referrals and mentions in the press we are now receiving a fair proportion of advertisements of sets for sale from members of the public. We print their descriptions in good faith but their descriptions may not be as accurate or as well-informed as those made by, say, a keen and knowledgeable enthusiast.

**A PLEA!** When sending in your advertisement please do put a date on it. We don't normally type in your advertisement on the day received and instead all small ads go into a file ready for typing later. But what happens then if I come across three undated ads all from the same person and one of them says 'This is my new ad, please cancel previous ones'? It does happen, so please be kind enough to date your ad.

### IS IT VALUE FOR MONEY?

It's unwise to pay too much but it's also unwise to pay too little.

When you pay too much, you lose a little money, that is all. When you pay too little, you sometimes lose everything because the thing you bought was incapable of doing the thing you bought it to do.

The common law of business balance prohibits paying a little and getting a lot. It can't be done. If you deal with the lowest bidder, it's well to set aside something for the risk you run. And if you do that, you will have enough to pay for something better. [*Attributed to John Ruskin, 1819-1900.*]

**STANDARDS CONVERSION:** Available soon, the latest version of our professionally designed unit for 405 enthusiasts. A high-quality **MODULATOR** is available now, also a **TEST CARD GENERATOR** for 405 or 625-line use. For more information send SAE and mention which products you are interested in. Dave Grant, Dinosaur Desigas, 4 Kemble Drive, BROMLEY, Kent, BR2 8PZ.

**STANDARDS CONVERSION SERVICE:** I will convert your 625-line tapes to broadcast-standard 405 lines on my digital line-store standards converter. Free of charge to subscribers of **405 ALIVE**. Please send blank tape (VHS only) for output and return postage. Input tapes can be accepted on Philips 1700, ELAJ, Video2000, Beta or VHS. David Looser, Maristow, Holbrook Road, Harkstead, IPSWICH, Suffolk, IP9 1BP. Phone 01473-328649. [*Publisher's note: David's offer is a most generous one and users may care to send him a free-will donation towards his not insubstantial construction costs*]

*as well. There may be a delay in handling conversions if many people take up his offer.)*

**REPAIRS: vintage TVs, radios and testgear repaired and restored.** Personal attention to every job and moderate prices. Estimates without obligation – deal with an enthusiast! (BVWS and BATC member) Please include SAE with all enquiries – thanks. Dave Higginson, 28 High Street, Misterton, Doncaster, Yorks., DN10 4BU. (T). Tel: 01427-890768.

**REPAIRS: vintage TV and radio repair service** in the South East by engineer with 23 years in the trade. Contact Camber TV & Video Centre, Lydd Road, Camber, Sussex or telephone Peter on 01797-225457. SAE with enquiries please. I also wish to buy early BBC-only TVs. (T).

**SALE:** Kenzen is having a sale of valves. Most TV types available at £1 each. Send wants list and SAE for a quotation. Kenzen, Unit 9, 16-20 George Street, Balsall Heath, BIRMINGHAM B12 9RG (0121-446 4346). For our latest free lists please send A4 SAE with 36p stamp. We also supply video monitors, computers, test gear, oscilloscopes, etc. at bargain prices for callers. Please telephone first if you wish to pay us a visit. (T)

**FOR SALE:** Solartron Solarscope dual-beam oscilloscope with leads, adapters and manual, colour 18-inch CRT 470DLB22 for Sony Trinitron KV-1810, mono 20-inch CRT 120WR, Ultra Junior 16-inch 405-line TV, Ferguson 19-inch dual-standard TV based on 950 chassis, Philips set made in 1960, **Television** magazine May 1981-November 1991, lots of TV valves. Offers? D.J. Price (NS), 65 Chedworth Road, Horfield, Bristol, BS7 9RX (0117-969 0880).

**FOR SALE: three head assemblies** for Ampex Mk 10 VTR machines, as new. Plus large quantity of brand-new **U-Matic tapes** by Ampex, Sony and Kodak. 10,20,30 and 60 minutes. £2.50 each, quantity discount. Andrew Alden, 01484-605935 (NS).

**FOR SALE: a real pre-war rarity!** Official service sheet and circuit diagram for HMV 900, 902/Marconiphone 701, 703, 705 models plus updates and original factory blueprints for scan coils and mountings (labelled The Gramophone Company Ltd), £20 plus £1 recorded delivery postage. Also available **official service sheets** for Thorn 850 series dual-standard sets (1963/4), HMV models 1824A-1829A (1955 sets), models 1828-1831A (also 1955), models 1814/1816 (1952/3), preliminary sheet for models 1840-1846 (1955 again), spec. sheet for models Marconiphone VT56DA/VC56DA, full book for Marconiphone VT59DA/VC59DA. VC60DA/VC61DA/VT62DA, user instructional for HMV 2609 19-inch dual-standard set. All these are £1.50 each *post-paid*. Also available: another copy of the book **Presenting Britain** by Douglas Bolton – the book with the ITA 'still pictures', £5 *post-paid*. Please ring first to confirm availability before sending money. Andy Emmerson, 01604-844130.

**FOR SALE: Lots of books...**

**THE HISTORY OF TELEVISION.** Rick Marschall. 1986. Large format. Lots of television pictures and US cameras. British section. £10. (Similar in format to Rick Marschall's other book, 'The Golden Age of TV'.)

**TV BOOK 'The Ultimate Television Book'.** Edited by Judy Fireman. 1977. Workman Publishing Co. USA. Entertaining compendium of American TV facts and fictions. Well illustrated with a photo history of American TV. £5.

**STOP TALKING AND GIVE THE SCORE.** Max Robertson. 1987. The Kingswood Press. Illustrated accounts by Max Robertson of his life in outside broadcasting. £3.

**THE MEMOIRS OF A BRITISH BROADCASTER.** Alasdair Milne. 1988. illustrated pb. £1.

**SIR HUGE.** 'The Life of Huw Weldon'. Paul Ferris. 1990. Illustrated h/b. £5.

**A VARIETY OF LIVES.** 'A Biography of Sir Hugh Green'. Michael Tracey. 1983 Illustrated h/b. £5.

All books clean and intact. Postage £1.50 per book. Some are heavy!

Contact Dicky Howett 01245-441811.

**FOR SALE: Tandberg colour TV,** type CTV 2-2-105, screen 48 x 37cm, beautiful wooden cabinet (believed teak), good working order. One of the best colour TVs ever made. Very modest price. Call Joanna (NS) in central London, 0171-580 1299 or fax 0171-580 1244 (sorry, we gave the wrong numbers last time this advertisement appeared).

**FOR SALE: GEC BT324 17-inch console TV with VHF/FM radio from the 1960s.** Not a scratch on it, the radio works and the TV probably would, comes with documentation. TV is of very attractive design with bow front and 'disappearing' doors (stands on four legs). Donation of around £20 expected. Mr Stanfield, Birmingham 0121-357 9295 (NS).

**FOR SALE: Two genuinely scarce books on early television.** Richard Hubbell: **TELEVISION PROGRAMMING AND PRODUCTION, 1945.** American book, 208 pages, illustrated. Author's marked up copy, with name in front. Front fly-leaf and half-title missing. This book is notable for its 20-page chapter, *The BBC In Retrospect*, a detailed question-and-answer-type interview with all the key figures involved in BBC television before the war. £20, recorded delivery postage £2.

J.C. Wilson: **TELEVISION ENGINEERING,** Pitman, 1937. With 492 pages, this is the most detailed text book on television published in Britain before the war. Covers mechanical as well as electronic systems. Well-read copy, ex-library; price reflects its scarcity. £27, recorded delivery postage £5. Can send by post at cost or hand over at swapmeet. Ring first to confirm availability. Andrew Emmerson, Northampton 01604-884130.

**FOR SALE: Service manuals for the following...**

**Colour TVs:** Philips G6 single-standard, Philips G8, Thorn 3500, Thorn 8000/8500, Pye hybrid dual-standard, Pye hybrid single-standard (697), Pye 725/731/741.

**VCRs:** Philips N1500, N1502; Panasonic NV2000, NV2010, NV7200, NV8400, NV8600, NV8610; Sanyo VTC 5300, VTC 6500, VTC 9300. All manuals £5 each plus postage. Thirty-five Rank Bush Murphy *Service Skills* bulletins dated between Dec. 1971 and October 1980. Beamec CRT tester/rejuvenator. £10 plus postage. Phil Marrison, 43 Park Road, Alrewas, Burton-on-Trent, Staffs., DE13 7AG.

**FOR SALE: Pye table set** (no model number but looks like a B16T), cabinet slightly rough, one knob missing, no back, turret tuner added but otherwise complete. Must go to good home but won't refuse small donation. Would be happy to accept a dual-standard colour set in exchange. Richard Gregory (NS), 52 Geave Road, Selly Oak, Birmingham, B29 6JR.

**WANTED:** I'm desperately looking for Douglas Adams' *Hitchhiker...* (radio broadcast or television). I know it's a bit younger than the normal wants but maybe someone collects them too... Michael Niermann, Hörder Str 21, 58455 Witten, Germany (phone 00 49 2302-26441).

**DATA WANTED: Circuit diagram for a Philips TX-1421A/90.** If you can supply a photocopy, please fax the cost of copy and postage. Thanks, Noriyoshi Tezuka, fax 00 81 3-3440 8396.

**WANTED: Large lenses.** I mean really, really enormous! Great big long chaps like the Taylor Hobson 12-inch or 17-inch. However would settle for the modest Watson 8-inch f/4.5. TURRET lenses only please (i.e. fixed focus). Please search in your cupboards for any optics to offer, even broken items. Contact Dicky Howett 01245-441811.

**WANTED: Pye 8.5-inch video monitor** (valve-type, model 2823/C4Z) or the line output transformer for same. Monitor has a 'perforated' metal case. Top price or good swaps offered. Also a decent **reward** (tip-off fee) paid to anyone who can find me a Pye image orthicon camera that's for sale. Andy Emmerson, 01604-844130.

**WANTED: dual-standard colour sets.** Richard Gregory, 52 Geave Road, Selly Oak, Birmingham. B29 6JR. (NS).

**This Christmas, the N.V.C.F. comes to London!**

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announcing a  
NEW Christmas Venue for the  
**NATIONAL VINTAGE  
COMMUNICATIONS FAIR**  
**WEMBLEY • LONDON**  
Sunday December 1st 1996  
11am - 4pm • Stalls @ £35



(NB: The Spring N.V.C.F. will continue to be held  
as usual at the N.E.C. in B'ham every May)

N.V.C.F. • 2-4 Brook Street, Bampton, Devon EX16 9LY. Tel: (01398) 331532

# HOW TO CONTACT 405 ALIVE

*The chief glory of every people arises from its authors.*

## WE WANT TO HEAR FROM YOU!

**Letters** are always welcome and nearly all of them (unless marked *Not For Publication*) get published. Lengthy screeds may be edited for clarity. Electronic mail is also welcome. Address this to [midshires@cix.compulink.co.uk](mailto:midshires@cix.compulink.co.uk)

**Advertising rates.** Classified: free. Display ads, using your artwork: £5 per half page, £10 full page. Charges must be pre-paid.

**Notes & Queries** (for publication in the magazine). Keep them coming... and your answers to them.

**Enquiries requiring an individual reply.** These are answered when time permits. You **must** include a stamped addressed envelope **and** preferably also your telephone number (in case it is quicker to telephone a reply). Please be patient - thanks.

**Articles** are also most welcome. We get so many good ones that publication can take up to two years or so, but don't let that deter you. They can sometimes be held back when we group two or three together when they support a common 'theme'.

**Payment.** We're a not-for-profit magazine so sadly we cannot pay for material. On the other hand, full-length feature articles do earn the author a year's free subscription once published so that's an incentive. You retain copyright of your article so you are free to offer it - probably in a revised version - to other, mainstream periodicals to earn some money. At least one of our contributors does this very successfully.

**But I can't write like the big names do!** Don't worry. We can sort out your grammar and spelling. It's the facts and your ideas that count.

**How to submit material.** If at all possible, please **TYPE** your contributions using a dark, black ribbon. This enables them to be read straight into the word-processor by a document scanner. **Magic!** Contributions on computer disk are particularly welcome and your disk will be returned. We can handle most variations of IBM PC and CP/M disks in 3.5" and 5.25" size but please process your words in some popular word-processing format, ideally as an ASCII or WordStar file. Through the good offices of Radio Bygones, we can handle Amstrad PCW and Macintosh disks, but not BBC format. If in doubt please ring first on 01604-844130. Thanks. You can now also fax your letters, ads and articles on 01604-821647.

## BACK NUMBERS

Virtually all stocks of back issues have been sold now, including combined edition reprint. Copies of issues 25, 26, 27 and 28 are available at £2 each post-paid from the Staffordshire address (cheques payable to The Radiophile). In a few cases the editor can lend originals for photocopying.

## FAQ FILES

FAQs are frequently asked questions, so we are keeping two files of FAQs and their answers ready for printing out on request for readers. These files

will be updated as new information comes in. These two files are already quite lengthy and contain material already published, so it would not be fair on established subscribers to reprint them in the magazine. FAQ file 1 runs to 24 pages and covers general points about old TV and how to get old television sets working again. FAQ file 2 is a reprint on all the articles on test card music and ITV station ident themes; it covers 11 pages. FAQ file 1 costs £3.00 and file 2 costs £2.00 (both post paid). These prices cover just the cost of copying and postage plus the horrendous cost of banking your cheque (68 pence!). FAQfile 3 covers suppliers of hard-to-find components and service data; for this one send one first class stamp and a SAE. (Available from 71 Falcutt Way, Northampton, NN2 8PH; cheques payable to Andrew Emmerson.)

### **WOULD YOU LIKE YOUR OWN COPY OF 405 ALIVE?**

Perhaps you are reading a friend's copy – now you can't wait to receive your own copy four times a year. Send a cheque for £16 (inland and BFPO) or a Eurocheque or sterling banker's draft for £20 (all other territories) **made out to *The Radiophile***, which will pay for a year's subscription (four issues). We regret credit card transactions can no longer be handled. Send money to 'Larkhill', Newport Road, Woodseaves, Stafford, ST20 0NP, not to Northampton.

### **TELEPHONE ENQUIRIES REGARDING SUBSCRIPTIONS**

You can call the Staffordshire office on 01785-284696 between 09.00-13.00 or 14.00-17.00 Mondays to Fridays. At other times you will reach an answering machine. Please *do not* ring the Northampton (01604) number as all business details are now handled from Staffordshire.

## **EXCHANGE PUBLICATIONS**

You may wish to contact the following allied interest groups and publications (please send SAE with all enquiries).

**BRITISH VINTAGE WIRELESS SOCIETY:** Gerald Wells, Vintage Wireless Museum, 23 Rosendale Road, London, SE21 8DS.

**VINTAGE RADIO CIRCLE:** Geoff Williams, 4 Sunnyside Park, St Ives, Ringwood, Hants., BH24 2NW.

**BRITISH AMATEUR TELEVISION CLUB:** Dave Lawton G0ANO, Grenehurst, Pinewood Road, High Wycombe, Bucks., HP12 4DD.

**NARROW BANDWIDTH TV ASSOCIATION:** Doug Pitt, 1 Burnwood Drive, Wollaton, Nottingham, NG8 2DJ.

**TEST CARD CIRCLE** (TV trade test transmissions and test card music): Stuart Montgomery, 2 Henderson Row, Edinburgh, EH3 5DS.

**BBC TEST CARD CLUB,** Keith Hamer, 7 Epping Close, Derby, DE3 4HR.

**SAVERS OF TELEVISION AND RADIO SHOWS (S.T.A.R.S.),** 96 Meadvale Road, Ealing, London, W5 1NR.

**IRISH VINTAGE RADIO & SOUND SOCIETY:** Henry Moore, 9 Auburn Close, Killiney, Co. Dublin.

**RADIO BYGONES** (vintage radio technology): Geoff Arnold, 9 Wetherby Close, Broadstone, Dorset, BH18 8JB.

**THE RADIOPHILE** (vintage radio): Chas. E. Miller, 'Larkhill', Newport Road, Woodseaves, Stafford, ST20 0NP.

**TELERADIO NEWS** (current radio and TV transmitter news, long-distance reception): Keith Hamer, 7 Epping Close, Derby, DE3 4HR.

**TUNE INTO YESTERDAY** (Old-Time Radio Show Collectors Association): Membership secretary: John Wolstenholme, 56 Melbourne Avenue, Dronfield Woodhouse, Sheffield, S18 5YW.

**VINTAGE LIGHT MUSIC SOCIETY:** Stuart Upton, 4 Harvest Bank Road, West Wickham, Kent, BR4 9DJ.

**ROBERT FARNON SOCIETY** (also light music): David Ades, Stone Gables, Upton Lane, Seavington St. Michael, Ilminster, Somerset, TA19 0PZ.

**MEMORY LANE** (78rpm-era popular music): Ray Pallett, 226 Station Road, Leigh-on-Sea, Essex, SS9 3BS.

**IN TUNE INTERNATIONAL** (music of the years 1935-1960): Colin Morgan, 12 Caer Gofaint, Groes, Denbigh, Clwyd, LL15 5YT.

**PROJECTED PICTURE TRUST** (cinema history): Harold Brown, 2 Eleanor Gardens, Aylesbury, Bucks., HP21 7LT.

**VINTAGE FILM CIRCLE:** Alex Woolliams, 11 Norton Road, Knowle, Bristol, BS4 2EZ.

**Founder member of the**



**Publications Guild**

## FORTHCOMING RADIOPHILE EVENTS

The next Radiophile Teaching Workshop will take place on Sunday, 17th. November, 1996. Places are limited for this event so please book early. You may use the form printed below, or, if you do not wish to mutilate your magazine, either photo-copy it or apply on plain paper. Send with cheque for £25 made out to The Radiophile to "Larkhill", Newport Road, Woodseaves, Stafford, ST20 0NP. Please note: due to demand, applications are restricted to Radiophile and 405 Alive subscribers. Can I bring a 405-line television set? Yes, provided that you let us know in advance, and we will arrange to have a suitable pattern generator available. But, please, do not expect us to be able to replace items such as mains transformers, line transformers and cathode ray tubes!

The next Radiophile Auction will take place in January, 1997 - see panel below for more details.

### FORTHCOMING SPECIAL AUCTION.

Radiophile's next Special Auction, to take place in January, 1997, at Sambrook, will offer for sale upwards of 300 lots, including the contents of a large collection of transistor radios spanning the late 1950s to the mid 1970s. This collection was built up by an enthusiast who started at a very early age and who bought as wide a selection of sets as his pocket would allow. No one who is interested in transistor receivers should miss this sale. There will, in addition, be a good selection of good old valve vintage receivers and equipment. The exact date of the sale and other details will be announced in *The Radiophile* Christmas issue. Catalogues, price £2 including postage, are in course of preparation and will be available approximately 10 days before the sale.

#### 405 LINE T.V. ENTHUSIASTS PLEASE NOTE:

A number of interesting vintage TV receivers will be sold by private treaty. If you would like details please write to Dept. T2 at *The Radiophile*.



No need to worry about what polish to use on your prized bakelite radio or television set - gentle, effective **BAKE-O-BRYTE** is the answer.

Available in handy tubes, **BAKE-O-BRYTE** costs only £2 (£2.50 by post) Refuse harsh substitutes, use only the best!

SEND YOUR CHEQUE TO THE USUAL RADIOPHILE ADDRESS

### RADIOPHILE WORKSHOP.

Sunday, 17th. November at Sambrook Village Hall.

I wish to book a place at this workshop:

Name.....

Address:.....

.....Post Code.....

Telephone No. ....

I enclose a cheque for £25 made out to The Radiophile.

You are invited to bring along two of your own receivers to be repaired under supervision. Tea of coffee and biscuits will be served on participants' arrival at the hall at 9.30. There will be another break for refreshments at approximately 11a.m., lunch will be served at 1.00p.m. and there will be a mid afternoon tea/coffee break. Nominally the workshop will finish at 5.00p.m. but it has been known to go on until after 7p.m. if there are sets of great interest being repaired!

**\* Don't forget to make out cheques to The Radiophile**

### A WORD OR TWO ABOUT THE DISPOSAL OF COLLECTIONS.

It may happen that you, or someone you know, is anxious to dispose of a collection of radio sets, etc. What do you do? You could, of course, advertise them on the open market, but all too often this leads to a time-consuming and perhaps distressing number of visits to your house by people who may or may not genuinely be interested in buying, and who at best are likely only to take the "cream" and to leave you still saddled with the rest. Fortunately, there is an alternative:

**RADIOPHILE VINTAGE RADIO AUCTIONS** at which you may dispose of vintage radio receivers in large or small quantities at one clean sweep and with complete confidentiality. Please write or telephone for a friendly discussion of your needs. Transport to the sale venue can be arranged if required at reasonable rates.

# THE BACK PAGE

**405 Alive** (ISSN 0969-8884) is an independent, not-for-profit magazine devoted to the study and preservation of old television technology and programming. It has no connection with, and is not subsidised by, any other organisation. Publication is four times a 12-month subscription period but not at set times.

**Editorial policy.** This magazine acts not only as a forum for research, the republication of archive material and as a monitor of current developments but also as a means for all interested in this field to keep in touch. Readers are encouraged to submit articles, photographs, notes and letters.

We print readers' addresses only in small advertisements or when otherwise asked to. We are always happy to forward letters to contributors if postage is sent. All work in connection with *405 Alive* is carried out on a voluntary unpaid basis – sorry, it's only a hobby! – but writers retain copyright and are encouraged to republish their articles in commercial publications.

**Legal niceties.** E&OE. Whilst every care is taken in the production of this newsletter, the editor accepts no legal responsibility for the advice, data and opinions expressed. *405 Alive* neither endorses nor is it responsible for the content of advertisements or the activities of those advertisers. No guarantee of accuracy is implied or given for the material herein. Authors are alone responsible for the content of their articles, including factual and legal accuracy. From time to time uncredited illustrations appear in this publication; every effort is made to avoid infringing copyright and the editor trusts that any unintended breach will be notified to him so that due acknowledgement can be made. The contents of the newsletter are covered by copyright and must not be reproduced without permission, although an exception is made for other not-for-profit publications (only) wishing to reprint short extracts or single articles and then only if acknowledgement is given to *405 Alive*.

**Copyright (c) 1996** by Andrew Emmerson and contributors.

Produced in  
  
MIDDLE ENGLAND

✉ IMPORTANT POSTAL INFORMATION ✉

If undelivered please return to *The Radiophile*, Larkhill, Newport  
Road, Woodseaves, STAFFORD, ST20 ONP, England.