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for UNIQUE PEOPLE

405 ALIVE

THE VINTAGE TELEVISION MAGAZINE THAT KEEPS 405 ALIVE

ISSUE 11, July 1991.

Editor Andrew Emmerson, G8PTH

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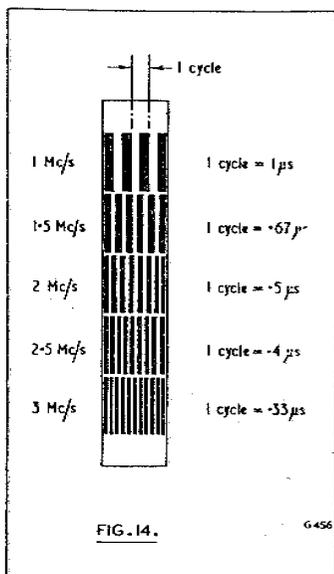
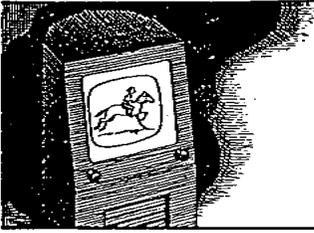


Fig. 14. The frequency gratings on the left-hand side of the 405 line Test Card C



FROM THE EDITOR ...

THE LAW OF SELECTIVE GRAVITY:

An object will fall in such a way that will do the most damage.

And apart from that, not a lot to say this time, so I'll save my brainpower for churning out the rest of this issue. I still haven't had time to write up the Wales Television Association article and to be honest, I don't think I have all the facts on this short-lived company. Half the facts I *do* have appear to conflict, anyway. We are also promised some other articles but they haven't materialised yet! For that reason we have relied fairly heavily on our regular authors this time, not that there is anything wrong in that, but we do like to see new writers.

I must say thanks, though, to those of you who supported the swapmeet at Wolverton on July 7th. The weather was absolutely ideal, the company congenial and the museum surroundings praised by all. It was very pleasant to see all of you who turned up ... but the telephone collectors seemed to out-number the TV enthusiasts. In view of the success of the event it will definitely be run again, probably twice a year, spring and early autumn, and I hope more people will wish to take stalls in future.

I am sure the next time round it will be bigger and better; in the meantime special thanks to Steve Harris of "On the Air" for waving the flag and to our longest distance visitors, Jac Janssen from Holland and Stephen Maitland from Kinghorn in Scotland - and to everyone else who came!

Andy Emmerson

LETTERS, WE GET LETTERS ...

From Graham Nutt, Basildon:

I spotted your ad. in the NBTVA mag. I had considered myself to be the odd isolated "lunatic" ... I have a deep interest in the old 405 line system although only seeing it briefly on my own modest collection of early TVs (Bush 9" TV22, Pye B16T 9" table model, Ekco TS46 9", Pye B18T 9" console, Bush TV62 14" and a few VCR97-type home-constructed sets (Simplex, etc.).

Because I only really became a fan quite late on in the service and also I was too young, it would be nice to get them all going as at the moment they all display a blank raster. I have dabbled with a 625-405 converter: results - nil! Still, I am looking forward to reading **405 Alive**.

From Jürgen Valter, Aachen:

Would it be possible for someone to offer interesting TV programmes on the 405 line format for sale? Also, it would be interesting to have a column in the magazine where people described problems they encountered repairing various TV sets. Perhaps other readers could submit solutions in the next issue.

Two very interesting points, Jürgen. It would indeed be nice if someone sold these recordings but there could be copyright problems. I believe some tapes are circulating among collectors, though. As for the idea of a forum for TV faults, yes this is an excellent idea and I'll be happy to print these.

From Timothy Davies, Swansea:

Are there any Scophony TV sets preserved anywhere?

Any answers?

From Tony Heightman, Great Bentley:

You might be interested to know that I was one of a three-member team that designed a "straight" 405 line TV receiver for manufacture by a small firm in Clacton-on-Sea in 1947, followed by a superhet the next year. I joined the then Marconi's Wireless Telegraph Company Research Department at Great Baddow, Chelmsford in 1950 and did advanced development, mainly on scanning circuits for wide-angle tubes, in support of English Electric TV set manufacture in Aintree, Liverpool.

Around 1952 I moved over to studio equipment development and amongst other things, worked on various bits of the design of the Marconi Mark III to Mark V cameras. I was promoted subsequently and was in charge of the Waterhouse Lane television labs where the Mark VI to Mark VIII cameras were designed.

Some research, still unpublished and perhaps of interest to 405 enthusiasts, was done in Marconi's in the late 50s, when television standards to replace 405 were being debated and 625 lines was one of the contenders. We looked at a number of alternatives, amongst which was *sequential* (i.e. not interlaced) 405. This might have seemed extravagant at that time in terms of the bandwidth (6MHz) and line scan frequency (20kHz) but in picture quality, especially on moving subjects, we judged it to be superior to interlaced 625 lines. Later I did some work on 405 line adapted NTSC colour TV, at a time when the BBC were radiating experimental test transmissions on that tentative standard.

After 59 years in radio (I built my first radio set when I was ten) I am still serving on various committees of the CCIR, mainly working on international standards for digital television.

From David Boynes, Winlaton:

[Your editor recently passed on to David a home-made set in a strange - and rather crude - cabinet made of 3/8" plywood and wondered if he could identify it ...]

I've identified the wooden cabinet TV - it's a Viewmaster of 1949-50 vintage. It does work, however, it's fixed-tuned to channel B4 and being a TRF it is no easy task retuning it to B1.

The circuit is really simple: as I mentioned before, it's a TRF employing EF50s except for the first RF valve, which is a Z77/EF91. The sound section tends to follow radio practice: a single EF50 TRF amp, a double diode triode DH63/6Q7 as detector and AF amp. The output valve could be a 6V6 or 6F6/KT63. The timebases are very simple, each employing 6K25 thyratrons, the frame output valve is a Mazda 6P25, the line output valve a Mazda 6P28. No efficiency diode appears to be employed. For the EHT the flyback pulse is stepped up by a winding on the line output transformer and rectified by a selenium stick rectifier.

The CRT is a GEC 9" 6904 triode. The power supply employs a mains transformer for the heaters and a half-wave metal rectifier for the HT. All in all quite a nice simple design for home construction.

*This letter is printed as (a) it is a useful description of the Viewmaster and (b) it gives me a reason to mention this set. After the last war there were many people who wanted television but could not afford a "shop" set. Several designs were published for home construction, either using war surplus RF units and radar tubes (green screens!) or new components. **Wireless World** and **Radio Constructor** were just two of the magazines which published series of articles, which were later reprinted as booklets, and these booklets turn up often at swapmeets and in second-hand bookshops. The Viewmaster design was a commercial enterprise and sold as a pack of circuits and full-size constructional blueprints, and you could then buy the parts separately or as a kit from various suppliers. Because the set was a TRF design, separate packs covered the*

London and Midlands versions.

Many hundreds, perhaps thousands, of these sets must have been built and if you find an odd set in a commercial but "not quite shop quality" cabinet, it may just be a kit-built set. AE.

From Brian Renforth, Sandyford, Newcastle upon Tyne:

I'm very interested in old programme material - especially from the '60s to mid '70s. Tyne Tees are currently re-running their "Flashback" series which is a regional-only locally-based version of "The Rock & Roll Years". Very good it is too (I missed it the first time round). Last Monday's (1960-65) featured a brilliant extract of a video recording made by TTT of The Animals in the studio in 1965, though this was cut short owing to difficulties at the start of the programme. Typical! I did tape it, however.

I feel everyone should get together and beg TTT to produce a few commercially-made videos of their early material - they do after all have a lot, if not every minute of their opening night in January 1959 on video tape!

I also have their original ident on tape- "Tyne Tees Television Channel 8"! It starts with an anchor which zooms in to 3 "T"s with "TYNE TEES" at the top and "TELEVISION" then "Channel 8" below. "CHANNEL 8" used to be lit-up in blue above their main entrance at their City Road studios (fifteen minute walk from here).

As regards renovation, my two sets using the Thorn 1400 chassis (dating from 1967 & 1968) have proven to as reliable as a modern set, proof that a bit of tender loving care when it comes renovation can make an old set as good as, if not better than, a new modern one (they're a damn sight better I'd say!). Great to switch on, let it warm up and watch without worry! I don't think any other set from that era can be as reliable - after all, the 1400s do use the jellypot LOPTX which more or less never fails - even after 24 years! One point I feel relevant for 405-line use is to change the 405 scan correction capacitor C108 to 1kV

working. The Ferguson 3655 gave superb results on 405 lines and good on 625. Of course being 625 only at the moment via the tag 43-44 mod, results are superb on 625, but a switch can be fitted to enable 405 or 625 via the tag 43-44 connection, giving perfect results all round.

From Ray Whitcombe, 91 Winchester Avenue, Kingsbury, London, NW9 9TA:

I made a visit to the recent to the recent telecomms/405 line swapmeet, and although my main interest was a day out with the family and the 405 line event, I was taken by the great support telecomms history has. I have also an interest, but did not think that the technology would have much following apart from the Bakelite collectors. I was a bit disappointed in the 405 content, but this was made up by the telephone equipment on display both in the swapmeet and the museum. In fact I made a few modest purchases. A thing that has been in my mind for a long time has been the construction of a simplified Strowger exchange demonstrator; just a two-motion selector and line selector plus a couple of telephones.

On the television side; although not 405 line! some years ago I rescued a colour TV from the bin; it is an 11 inch portable which uses VALVES (i.e. vacuum FETs or Vacuum Tubes), in fact there are only three transistors in the whole circuit!!!! (in the UHF tuner and one of the sound IFs, a BF194). The rest is tubes!!! It employs the simple PAL system; in fact it must be one of the few examples of this. I managed to correct the many faults that had been inflicted by people who call themselves service engineers; and now it operates reasonably well. However, I would appreciate some real info on the set; could anyone help? All I know is the name on the cabinet which is KUBA PORTA COLOR. KUBA was a German firm that I am told no longer exists (not SABA).



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TELEVISION NEWSREEL

TELCAN VIDEO TAPE RECORDER

Jeremy Jago advises a specimen of this machine exists in the industrial history museum at Wollaton Park, Nottingham.

In addition, I learn that a colleague has a Wesgrove and Snell VTR, together with contemporary recordings. So this means that both machines survive.

VINTAGE RADIO CIRCLE

The Vintage Radio Circle held its fifth swapmeet at Cricklade (near Swindon, Wilts.) on Sunday 12th May. This was the first time your editor has attended and the organiser, Geoff Williams is to be congratulated on running a relaxed and pleasant show. Bill Journeaux, Terry Burnett and Pat Hildred put on a display of old TVs and programme material, and a fine time was had by all. There are several of these events a year, normally with about 20 stalls, an auction and a bring-and-buy table. Admission is by pre-paid ticket only: for details send a SAE to VRC, 28 Barton Lane, Cirencester, Glos., GL7 2EB.

CABINET RESTORATION

Terry Burnett was explaining at Cricklade how he re-finished TV cabinets. Parts of the "trick" was to remove all traces of old furniture polish and wax before trying to touch up scratches, apply new finishes, etc. He says there are a number of polish removers you can find in the shops. Failing this, for small scratches, some aerosol "AF Spray" from the TV workshop is a good solvent. You spray some on, rub away the polish with a rag and then apply scratch filler polish (Topps or whatever).

His complete formula for restoring wooden cabinets is as follows, though he points out it doesn't work for all finishes. In particular he says you would best try out these methods on a part of the cabinet not normally seen: we don't want any disasters and certainly would not take any responsibility for the ideas set out here.

Anyway, here goes. (1) Remove thick muck with a brush or cloth, or else foaming cleanser spray (but don't leave this spray on for long). (2) Use AF spray to remove old polish. (3) Rub in stain or Topps scratch polish. (4) Build up finish with french polish. (5) Smooth this off with T-Cut or Brasso. (6) Buff up with duster.

KERACOLOUR TV

John Murrey says he has one of these sets (mentioned in LETTERS last time). Apparently they were sold through Harrods and only 100 were produced. The cabinet was made of glassfibre, sprayed an off-white colour, and inside was a 26" Decca colour chassis. Apparently the Beatles bought one and it may be glimpsed in one of their films, probably **Help** or **Hard Day's Night**.

John says the set is extremely large and heavy, too large in fact to go through most people's front doors. His set had to enter through the patio doors, and he reckons the size of these sets made them virtually unusable and/or unsaleable.

SOME TIMELY ADVICE

As the warmer weather approaches, this is a good time to remind our readers that playing a portable TV or transistor radio in the garden is bound to annoy your neighbours.

Another way of upsetting them is to bang your dustbin lid in the middle of the night.

RECORD SHOP

I know several readers collect 45 rpm singles of TV theme tunes. A good specialist second-hand record shop, which sorts these carefully and doesn't charge outlandish prices is SOUNDS ORIGINAL at 266 Northfields Avenue, Ealing, London, W5. They are opposite Northfields underground (Piccadilly Line) station and their phone number is 081-840 5621.

CAMBRIDGE MUSEUM

A leaflet for the Cambridge Museum of Technology says "... the electric pump room also contains a collection of early electrical equipment, including radios and TVs, many of which are associated with the local firm of Pye." The museum is open on the first Sunday of each month from 1400 to 1700 and on some bank holidays. It is located in Cheddars Lane (beside the River Cam, just off the A45 Newmarket Road. Telephone 0223-68650.

If anyone visits it, perhaps they could tell us if there's anything of especial interest.

BERLIN MUSEUM

I have recently been in touch with the Transport and Technology Museum in (West) Berlin. Among the exhibits they have a Baird Televisor, also a pre-war Marconiphone mirror-lid TV set. In addition they had a fine 1938 Philips console model, serial no. 1, but this went missing in 1978 and has never been seen since. They are located in Trebbinerstrasse 9. Over in what was East Berlin, the Postal Museum has a fine Fernseh mirror-lid set and the standardised EI receiver. Both museums are worth visiting if you are in Berlin.

MYSTERY BAIRD SET

The photos show an imposing Baird set with MW/SW radio and a pull-down roller shutter over the screen. The set bears a serial number 479 and was purchased by its owner in 1946. He asked if we could establish its year of manufacture.

A check in the various receiver surveys of 1938/9 models in the press showed no set like this, nor did it show up after the war, when Baird sets were somewhat utilitarian, to say the least. Ray Herbert, who is the last surviving member of Baird's pre-war technical staff, does not recognise the set either. However, he says that none of the pre-war sets were made on a production line basis, all being more or less hand-made. It was not uncommon to produce one-off "specials" for directors of the company, and this is what I think the set is. I would say it dates from 1938/9 therefore, unless someone else has a different idea.

REGISTER OF PRE-WAR SETS

It really would be useful to know how many sets were made before the war and how many survive. Andrew Denton has turned up an interesting article (supplement to **The Wireless & Electrical Trader**, August 26, 1939) which indicates the total manufactured was in excess of 20,000. In fact Mr C. O. Stanley, (Pye Ltd, also chairman of the television development sub-committee of the Radio Manufacturers Association) said that 20,000 vision sets had been sold in the past 12 months and the dealers' goal was another 40,000 in the next six months. The latter figure was of course never achieved because of the war, but it is reasonable to expect that the total number of sets sold between 1936 and 1939 was more than 20,000.

If we counted all the sets surviving in private hands in the UK, Germany and the USA, plus the examples in museums in Britain and Berlin, we might come up with 50 or so. Ken Brooks, a new reader but long-time collector, suggests we should compile a register, to be kept under conditions of confidentiality. I'll be happy to accept anonymous phone calls and unsigned letters, indeed any thoughts on this matter, and all letters will be passed on to Ken. His article on page 31 expands this line of thinking.

RADEX TV

A reader wrote in to point out that channel 6 was already in use by the ITA's Sandy Heath transmitter at the time Radex TV made their announcement. In fact it wasn't (quite) and no doubt Radex's advisers had not learned of the ITA's intentions. Prior to this time the frequency was reserved for radio-astronomy observations.

CHANNEL 14

Plenty of speculations have been received on this matter ... but no hard facts! When we get a definitive (or even authoritative) answer we'll publish it here.

LIME GROVE CLOSSES

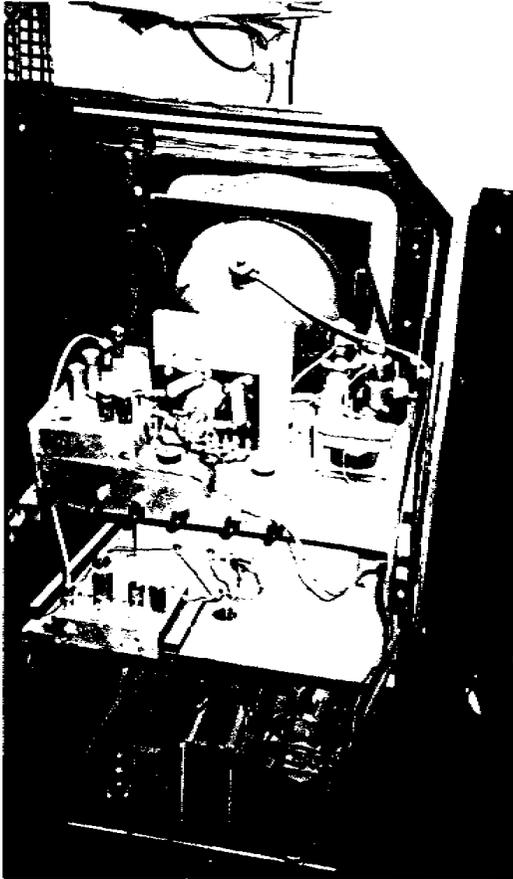
The BBC's Lime Grove studios in London are to close: the last live broadcast was on June 13. The Beeb is celebrating the closure (having a wake?) on Bank Holiday Monday August 26 when (I gather) a whole day's programming on BBC2 will be devoted to the output of Lime Grove (to be called *The Grove Family* - an in-joke to viewers with long memories). Nothing has been published yet but it is worth marking the day in your diary and checking **Radio Times** nearer the event.

NEW VIDEO RELEASES

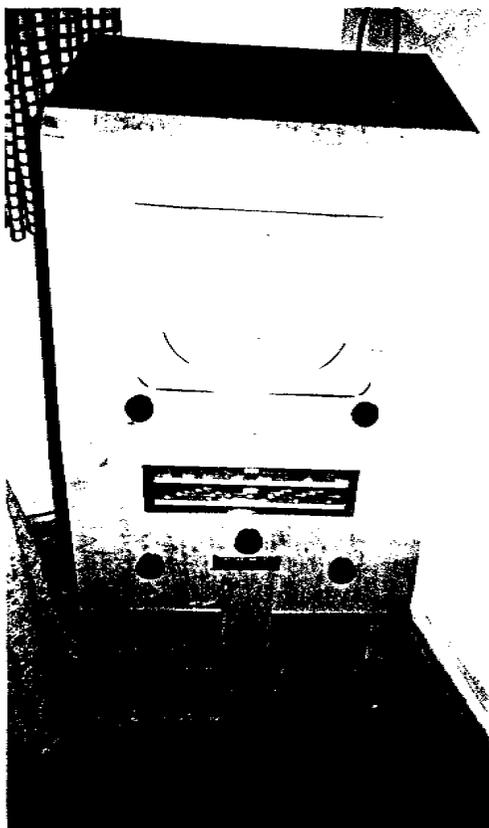
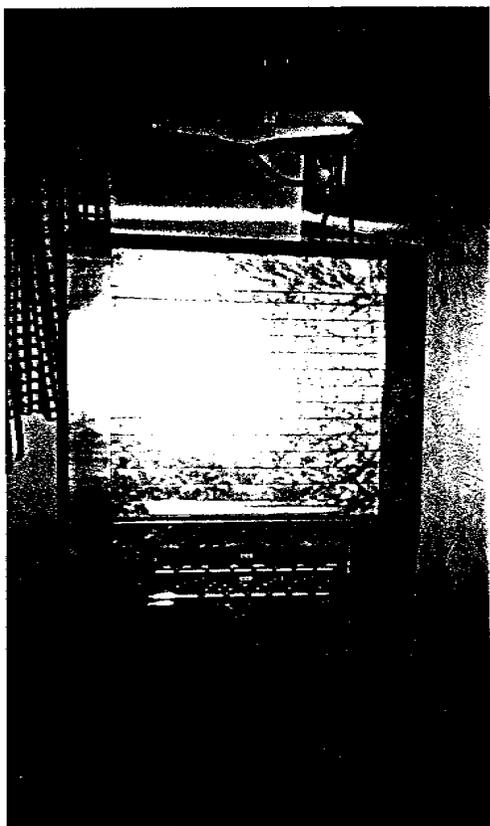
I don't want to steal Steve James's thunder but it looks as if the BBC are releasing a torrent of old programmes on sell-through video ... *Steptoe and Son*, *Doomwatch*, *Adam Adamant Lives* and a load more - even *Pogles' Wood*! The original LWT *On the Buses* appeared on June 17 too, on the The Video Collection label - not W.H. Smith's own one (though *Shoestring* is on Smith's). You can order *On the Buses* - three classic episodes by ringing 081-313 7321 and quoting your credit card number.

BBC RESCUES THUNDERBIRDS

Not my cup of tea but perhaps yours. The BBC is to show 32 sixty-minute episodes of **Thunderbirds** following a deal struck with ITC Enterprises in Los Angeles. The classic puppet series will show on BBC2 at 6pm on Fridays this autumn, reports the **Television Week** trade paper.



The rather unusual Baird TV (believed to be a special set made for a director of the company).



PICTURE PAGE

by Steve James

All the latest video reviews ...

NOTE: ALL TAPES ARE VHS AND COST AROUND £10 UNLESS OTHERWISE NOTED.

ADAM ADAMANT LIVES! - BBC VIDEO

Usually the mere mention of this title in the company of someone who was around at the time provokes a toe-curling rendition of the theme tune, originally sung of course by Kathy Kirby (who indeed has been known to have much the same effect on her listeners!). Thus we can deduce that this was a well received, or at least well remembered series.

The premise is that Adam Adamant (played by Gerald Harper in a style which is not dissimilar to Jeremy Brett's Sherlock Holmes) is living as a suave adventurer-type Gentleman in 1902. We first meet him at a rather posh society Do, where he receives word of a damsel in distress. Despite warnings, he goes to the address in question and of course falls straight into the hands of a waiting fiend who, deciding that death is too good for him, proposes to place him in suspended animation. The last thing Adam sees is the face of the girl who betrayed him. The next thing he (and we) know, it's 1966 and some demolition men have just unearthed a rather strange coffin ... Our hero is taken to hospital to thaw out ... and promptly escapes, stumbling outside into the modern world. Suddenly he is confronted by London at night - racing traffic, neon lights and mini-skirted girls. At least he didn't have to contend with decimalisation! He is rescued from what is something of a culture shock by young Georgina Jones, played by Juliet Farmer.

Some classic scenes follow - Adamant is a gentleman of the old school (quite literally) and takes some time to come to terms with the permissive society of the 1960s. You can imagine what he makes of the local swinging discotheque! Marvellous stuff.

Quality on this first episode is excellent, it being a 35mm telerecording. Episode 2 (where Adam has lost some of his inhibitions, and is driving a Mini, registration AA 1000!) is a 16mm recording, so quality is down a bit.

Later episodes of the series exist on 35mm, so we can deduce hopefully that the BBC plan to release more volumes in the correct order. Definitely something to look forward to!

DOOMWATCH - BBC VIDEO

Back to the heady days of early BBC1 colour. Back to the days of "frizzly" colour separation overlay. Back to the days of people wearing neck-scarves, offices with mustard coloured walls and brushed aluminium table lamps!

Beginning early in 1970, Doomwatch concerns the activities of a crack team set up to

protect the Earth from threat by technology or industry. Some genuinely imaginative storylines were used, and the programme was the beginning of a long career in television for Robert Powell.

Nice touches include the use of Michael Aspel and James Burke in mock tv coverage of a space launch!

Two volumes are available - grab them now. Certainly not something you would have expected to turn up in the shops.

ON THE BUSES - LWT (THE VIDEO COLLECTION)

This has only just appeared at the time of writing, so I have not yet had a chance to view the tape, but of course we all know what to expect!

Rather like *Up Pompeii*, this is one of those tapes that you would have thought should have appeared ages ago. So far all that has been released is the two spin-off films "Mutiny on the buses" and "Holiday on the buses", so it's going to be nice to see the genuine studio stuff at last.

The three programmes on the tape are from 1970. If they are complete, they should begin with the old mustard/olive green London Weekend logo - dare we hope!?

Should you need reminding, the cast consisted of Stan (Reg Varney), Mom (Doris Hare), Olive (Anna Karen), Arthur (Michael Robbins), Jack (Bob Grant) and of course, complete with Hitler moustache, Inspector Blake (Stephen Lewis).

DR WHO- THE HARTNELL YEARS, THE TROUGHTON YEARS - BBC VIDEO

These tapes should make for nice collectors editions. Each tape forms a profile of the Doctor, and to some extent, the actor in question.

The Hartnell tape (presented by Colin Baker) includes various rare clips and also some complete episodes which are all that's left to represent various stories. In Hartnell's case, we are treated to the real first programme ever of Dr Who. The first story, "An Unearthly Child" was repeated a week after it's initial showing (the death of President Kennedy having upset programmes schedules substantially). The second performance is the one usually shown and indeed was issued recently with the other episodes of the story on one cassette. The real version shown here however is far superior! The whole performance is tighter and the script much more aggressive (too aggressive?) and there are some very significant script changes, which are illustrated by showing scenes from both Episode Ones for comparison.

Both this and the Troughton tape (presented by Jon Pertwee) make very interesting viewing indeed. Most of the narrative will be a little tedious to the very serious collectors, but at least they will gain good prints of "missing" (BBC term for wiped, burned, lost etc etc) episodes.

BOOK REVIEW

POPULAR TELEVISION IN BRITAIN, edited by John Corner. BFI Publishing, 1991. ISBN 0-85170-270-8 paperback, £9.95. Hardback edition also available.

Unlike many TV nostalgia publications of late, this is not a picture book. In fact its compiler would not call it a nostalgia book, since it is sub-titled **Studies in Cultural History**, but I suspect most purchasers will not be reading it solely for educational reasons. There are one or two illustrations but not many and they are thoroughly outweighed by the 211 pages of solid text.

For this is an academic book, written mainly by academics: in fact it is a collection of essays edited by a Lecturer in the School of Politics and Communications Studies at the University of Liverpool. This is not to say **Popular Television in Britain** is a dull read, however. Yes, these are serious articles by serious people but there is plenty of fascinating facts and several deep insights into what made television a magical spectacle in the fifties (the period covered ends in 1965). There are even some lascivious parts, including the underlying meaning to Gilbert Harding's on-screen flirtations with Nancy Spain.

If Nancy Spain's name means nothing to you, read this book to find out who she was, and if you can remember when Gilbert Harding **was** television, then it will be a delight. Either way it may re-create a little television magic of the fifties - a not so innocent age as we may care to think, reading this book. [AE]

HISTORICAL JOURNAL OF FILM, RADIO AND TELEVISION

To my shame I was until recently unaware of this publication, even though it was established in 1981. It is published three times a year by Carfax Publishing Co., PO Box 25, Abingdon, Berks., OX14 3UE and costs around £45 if sent to private addresses, double that to businesses. Thus it is clear that this is an academic journal, supported mainly by corporate subscriptions.

Issues 2 and 3 of 1990 contain a series of articles on German television before 1945, concentrating on the programming (not the technical) side. If this topic interests you, it would be worth checking this out. It's a pity that we don't have such an academic study of early British programming ... or do we? Prove me wrong! [AE]

USA REPORT

by *Andy Emmerson*

Earlier this year I was fortunate to spend a fortnight in the USA and needless to say, I indulged the television hobby while I was there.

Question: Why are cult shows like **The Avengers** not so "cult" in the USA? Answer: Because they never stopped showing them! Seriously, with the multiplicity of channels in the USA and the need for programming to fill them, it is quite understandable that old shows are continually re-run (somewhere or other, possibly not in your area or "market" as American TV people say). While I was in Chicago there was plenty of old shows to watch - **Leave it to Beaver**, **I dream of Jeannie** and so on, and really they weren't much worse than some of the new stuff!

You can find some old TV shows on sell-through video in many video and record stores, shows like **Secret Agent (Danger Man to you and me)**, **Robin Hood**, **The Twilight Zone**, **The Outer Limits** and quite a few more. If you are prepared to go to a specialist nostalgia shop you will find many more. Also, by reading magazines like **Filmfax** (also sold in Britain) you can find mail order stockists who sell lots of 1950s and 60s shows.

More questions: Why can you find old British programmes such as **The Avengers** and **Robin Hood** on sell-through video tape in the USA and not in Britain? Why are **The Avengers** on such an obscure label? And why is **Robin Hood** to be found on so many different labels? The answer lies in the peculiar copyright situation in the USA: the following is what I was told, so I hope I have it right.

For a start, copyright is for shorter periods than is common in Europe and has to be renewed when it expires. For some old films and TV programmes the copyright has expired, either because nobody remembered to renew it or because it was never applied for in the first place. As a result, these old films fall into what is known as the "public domain".

This means that anyone can sell them on videotape and indeed that is exactly what happens. Some firms make a decent job of it and try to use original 16mm prints, while other "back street" operations just make copies of other people's copies and the nett result is somewhat variable. In all cases, though, the prices are low because there are no royalties to pay.

So we end up with the crazy situation where you can buy these old programmes in the USA, but the vendors cannot sell them by mail order into the UK market. So don't ask Shokus Video to send you **Robin Hood** to Britain because they'll feel honour bound to decline. The interesting thing (for trivia fans) is that their episodes of **Robin Hood** have an alternative, longer opening sequence in which the spinning text is the name of the programme's sponsor, not **The Adventures of Robin Hood**.

While I was over there I did try to find people who dealt in the actual 16mm film recordings (rather than so-so video copies) of old programmes, but was completely unsuccessful. I know there is a lot of the stuff about - many TV stations have basements full of it and it surfaces over here all the time - but I couldn't find out where. Even in a place as big as

Chicago, there wasn't a single shop catering for cine film collectors (according to Yellow Pages). It seems as if the cine hobby has died a death over there.

There are a number of people who collect old TVs and hence a few dealers. One of them took a place in the world's largest radio and electronics flea market, at Dayton, Ohio. This just has to be seen to be believed: seven acres of individuals and traders. It opens at six in the morning, too! Just to walk round takes the best part of a day. Of course, not all of it is vintage radio, most is amateur radio, but I managed to find several items to make my trip worth while (I found several old magazines and brochures on television from the 1940s).

The only magazine for vintage TV collectors, **Sight Sound Style** ceased publication a while back but the hobby is by no means dead. I visited one collector in Portland, Oregon who has a fine collection of both TVs and radios. He had just sold a pre-war Baird T18 set (it was in his basement awaiting shipping) and also had a Bush TV22 (inevitable, I suppose!). He had several very early American sets, also a huge first-generation colour set by RCA. Perhaps the most stylish items in his large collection were a couple of Philco Predictas and the very first model of TV made by Sony, a little 8" portable of 1962. In fact he actually had two of the latter (but only has one now!).

CIRCUITRY FROM THE PAST

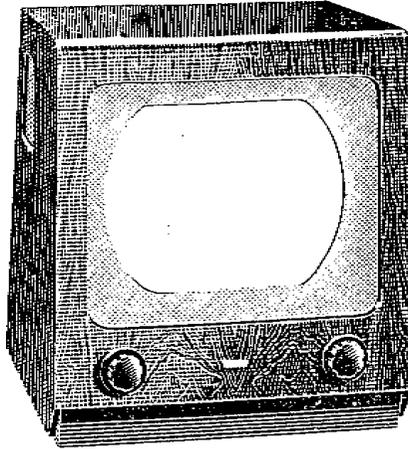
by David Boynes

Readers of **405 Alive** will have heard of the Pye "Continental" series, which appeared in 1956. Like the preceding models, the VT17 "Luxury 17" and the earlier VT4/7 series, I had hoped that the example in my possession would feature the advanced circuit elements such as line flywheel sync and gated AGC along with other refinements like a white spot inverter and three IF amplifier stages for both sound and vision.

However, my set had none of these, in fact a typical cheapskate 1950s circuit is employed: direct line synchronising and mean-level AGC, along with a single IF amplifier using a common sound/vision stage followed by single vision and sound IF stages. Nevertheless, the set gives a good bright picture: the CRT is a Mullard MW43/69. Although the definition is not as good as on the more advanced sets like the VT17 series, it is still quite acceptable to viewers. The objectionable thing I find is the lack of DC restoration, that is the back level varies with picture content.

The set does have good interlacing as it employs a field sync clipper stage.

All in all, the Pye Continentals are impressive-looking sets. Collectors could look out also for the 21" versions and there is a 14" model which actually employs the VT4 chassis. The cabinet is rather large, featuring a dark finish along with lacquered brass trim. the occasionally-used controls are concealed behind a door between the main control knobs below the picture display; the loudspeaker(s) are mounted on the side.



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QUATERMASS RE-EXPERIMENTED

by *Dicky Howett.*

I saw something today that I hadn't seen for 38 years. I attended a public screening, at the National Film Theatre, of Rudolph Cartier's allegedly memorable and oft-quoted BBC production, *The Quatermass Experiment*. But how "memorable" did this serial turn out to be? Was the programme's reputation well deserved, or was it, in retrospect, a severe disappointment? To judge, all that now remains of that famous production are 35mm telerecordings of the first two episodes. Little enough to go on, but as it turned out, more than enough to assess.

I first caught sight of this seminal science fiction shocker at the time of its original live transmission in 1953. As a spaceship-mad seven year old, I was allowed to stay up for the Saturday night broadcast. I sat fearfully in front of a little 9 inch Ekco TV set, but I must confess that in the event, I peeked mostly from **behind** a larger 12 inch cushion. The programme left me with a lasting impression of larger than life antics down Bernard Quatermass's way. Of what the programme actually **looked** like, I have no memory.

My recent series of articles in *What Video* magazine (issues dated August and September 1991) about the work of the BBC's Film and Videotape Library prompted me to seek out some old TV. The British Film Institute's vintage TV season at the NFT were running a telerecording of *The Quatermass Experiment*. My interest well and truly aroused, I secured a ticket for the *Quatermass* screening, not so much to re-live a vaguely remembered and rosy television experience, but more to contrast past television techniques and technicalities with the modern equivalent. I was also interested to gauge a modern audience's reaction to the show.

The 35mm film recordings of "The Quatermass Experiment" (in fact only the first two episodes were ever recorded) now stand as probably less than ideal copies of early 1950s television picture quality. Because of a dearth of recorded images from the period, these two examples, retained in the National Film Archive cannot be judged fairly as "the norm". Coupled to which, film recording from even a high quality monitor will degrade the best of images, producing a result akin to looking through a dirty window. In fact the *Quatermass* telerecording is technically poor, compounded by pitifully crude studio technology. The enormously enlarged telerecorded image projected on the NFT screen amplified brutally, all the faults associated with early 405-line technology.

The Quatermass Experiment was produced at Alexandra Palace and the pictures sourced from elderly Emitron cameras. Of pre-war design, these quaint-looking single-lens machines (6½ inch, maximum aperture f3) were capable of producing sharp and mellow images. (The film recording briefly showed this: I say "briefly" because the recording was so dark and contrasty, it was difficult to determine much detail. The line structure was not visible suggesting that the method of recording was the "suppressed field" system where only 202½ lines were retained, the gaps "spot wobbled").

Even by the late 1940s the Emitron camera was considered redundant, technologically but the BBC continued to use these intractable machines well into the 1950s. As a consequence, producers and performers had to adapt their techniques by building shows around the

hardware. The insensitive Emitron camera suffered from a serious lack of depth of field (if three people were framed close together at a slight angle, only one could be in focus at any given time). To ameliorate this, as evinced by the recording, actors were lined up in groups and photographed head on. Emitron cameras also produced "shading" problems, caused by spurious electrons within the pick-up tube, casting dark and light patches on the screen. This anomaly necessitated continual on-air adjustment. This was probably unobtrusive on a 9 inch screen, but on anything larger, the impression was of a slightly unstable and constantly flickering picture. The film recording exaggerated all these aberrations, including curious "blips" (sync disturbances) every time there was a shot change. However, due credit must go to those pioneer production cameramen who had perfect control of their wayward apparatus. The *Quatermass* camera handling was spot-on every time, with scenes correctly framed and focussed, (despite the Emitron camera viewfinders being mere optical boxes, presenting an image upside down!)

The Quatermass Experiment captured the nation for six weeks. This technically unsophisticated production for all its studio faults, was considered, at the time the ultimate in television tension and terror. But would Rudolf Cartier's production now work the same magic on a seasoned 1990s NFT audience? A tough test indeed.

With the lights dimmed, the packed auditorium sat in bemused anticipation as the Holst-aided title sequence flamed away in letters ten feet high. The majority present had probably never caught sight of the series in its television form, (although many were familiar with the cinema versions). The opening scenes were very dark and indistinct, giving rise to muttered dissatisfaction with the picture quality. A little later there was laughter over some unintentionally witty dialogue "The rocket has crash-landed safely, south of Croydon!" But gradually, the spell was cast and the story unfolded. A story about three astronauts who ride into space, but with only one of them returning, eventually to be transformed into the famous creeping-crawly cactus-handed horror. Silly stuff, but the recording transcended its imperfections and soon the NFT audience was hooked, rendering them silent and still. Disbelief had been suspended and for a brief hour we were all gripped. As precisely the programme had done, 38 years ago.

* *Dicky Howett writes for What Video, Complete CD and Camcorder User magazines.*

LATE ITEMS

If Doug Bond's article on page 20 looks familiar, this is right: we did use it last year. But as some new material has been added, it seemed appropriate to reprint the original words.

We note that Jasmine Bligh, one of the original BBC television announcers, died on July 21, aged 78.

A letter in the August issue of *Astronomy Now* suggests that at least in theory our earliest television transmissions are now being watched by some advanced civilisation fifty-plus light years away. I just hope that they are not so advanced that they have thrown away their 405 line sets, though presumably they could synthesise a suitable receiver under software.

And talking of software-programmable devices, National Semiconductor has released a sync pulse generator IC which (they say) can be programmed for any line and frame standard the user desires. This sounds interesting and we have sent full data to our technical guru, David Boynes for evaluation. Details to follow ...

TRADE TEST MEMORIES

by Malcolm Burrell

I enjoyed reading Frank Peplow's story and recollections of Test Transmissions. Perhaps I can embellish, slightly.

During a "resting" period in 1962 I watched ITA a lot and enjoyed the Schools production by Associated-Rediffusion ("London's Television!") of Romeo and Juliet (which featured the young Jane Asher!). But I also watched test transmissions ...

Every fifteen minutes, certainly from the Croydon transmitter, the ITA would alternate a "contrast" picture with Test Card "C". Now, this picture varied from day to day but was usually a view of Tower Bridge or the Sphinx - the latter being my favourite and an extremely good check of black level due to the tone of the "animal" itself.

Yes, I remember Herb Albert, but does Frank Peplow also recall certain "pop" records around 1957 with test transmissions on ITA? "The Little Lady from Luxembourg", and, of course, surely the tinkling piano of George Shearing around 1962.

Certainly from the sixties onwards, the ITA had a policy of replacing their set of LPs every six months - they needed it since they frequently got stuck in the groove after about four months! During the seventies, of course, they seemed to use the same boring tape but the sixties did swing, didn't they?

Where BBC test transmissions were concerned, a contrast picture was broadcast bearing the caption "BBC Trade Test Transmission". Most engineers hated the music with the little dog barking - it seemed to mock them when struggling to diagnose a nasty fault!

ANOMALIES

Around 1958-59, the BBC closed test transmissions between 1 and 2 o'clock. During one lunchtime period Test Card "C" was broadcast without its "BBC" identification but with the letter "A" printed in one square. A couple of apparently deliberate marks were also scrawled on it. The brief transmission was also asynchronous. Why? I don't know. There was, incidentally, no audio.

About 1965, the ITA tended to advocate the use of 405 lines for colour. ABC broadcast a special transmission from Croydon to the House of Commons. Now, the BBC were obviously committed to 625 lines colour (they already had BBC2 tests in colour) but one day test transmissions were briefly interrupted with some 405 lines colour bars on Channel 1. By the dot pattern, they were almost certainly PAL. Did they get their act together as well on 405?

NOTES

The BBC seemed to discontinue test card transmission - even on BBC2 - between 1 and 2

o'clock every day (a lot of field engineers kept working, though) and transmitted pulse and bar signals. This continued until the late sixties.

Early BBC2 colour transmissions used the monochrome Test Card "C" for the first hour then reverted to Test Card "F" from 10.00 am.

There were no ITA or BBC test transmissions on a Sunday. However, line sawtooth was often broadcast together with black level from early morning, certainly on ITV. One Sunday morning a switch must have been thrown because part of programme appeared in vision only.

ITA stations originated their own test cards and were helpful in superimposing transmitter information e.g. "Test Transmissions will be interrupted. 10.00 - 14.00". The station engineers were very good. During a strike around 1963 the test card was radiated throughout the evening until 10.00 pm. The ITA even had a caption "An Announcement Is Being Made in Sound Only" to superimpose on Test Card "C".

[Editor's note: this article was written quite some while ago but got stuck in a time warp (in the 405 filing cabinet). Sorry, Malcolm!]

And because that it may be some things be omitted which you now instantly call to mind, blush not to declare it here before you be deprived of that you have written [John Norden]

Editor's note: Apart from being dragged next door to watch the Coronation and the occasional "Watch with Mother", I did not start my viewing until 1956. Although this made a significant impact on me, my recollections are fading fast and I am not able, as Mr Norden of a previous century suggested, to set down anything useful. However, Doug Bond has a good memory and has written a first-class article, which originally appeared in the Test Card Circle's magazine. I have added some extracts from contemporary booklets in the hope that they may stir some memories. And now ...

BACK TO THE FIFTIES

by Doug Bond

1953 saw the coronation of H.M. Queen Elizabeth II, and in order that people who lived in North East England could watch the ceremony, the BBC brought forward its plans for the opening of the Pontop Pike transmitter, so that transmissions began toward the end of May. My parents decided that television was going to be "a good thing", and so a 14" model was installed in our house in West Benwell. (I was just approaching my 13th birthday at the end of June). I was immediately enraptured by the concept of television broadcasting, and from time to time, I used to switch on during non-scheduled transmission time just to see what was happening. At most times the answer was "nothing" apart from a snowstorm. One never-to-be-forgotten morning, however, there was what I remember describing to my mother as "a pretty pattern with a

horrible noise". This was later to be identified as Test Card "C" and tone. Obviously, for the first few months of transmission, Pontop Pike must have radiated this locally, for it was some months later before I discovered the delights of the original Demonstration Film.

This film was shown daily (except Sundays) between 1000 and 1200, and consisted of an introduction to the television service with Sylvia Peters (1000 - 1015), Test Card "C" and music (1015 - 1030), a guide to children's television, by Jennifer Gay ("one of the Children's Hour announcers")(1030 - 1043), Test Card "C" and music (1043 - 1058), an item about the first continental exchange of programmes between Britain and France in 1950 (1058 - 1113), Test Card "C" and music (1113 - 1128), the story of the spread of the television service across England, Wales and Scotland (1128 - 1140), Test Card "C" and music (1140 - 1155), and the motor car interference suppressor film (1155 - 1200). This sequence never varied*, nor did the Test Card "C" music and it was my understanding at the time that the music was, in fact, on the sound track of the film. I seem to recall that for the first few months, the transmitters closed down at 1200 and did not re-open until 1500, when there was Test Card "C" and tone until 1508, followed by blank screen and silence until 1510, tuning captions until 1515, then programmes until 1615. The only time this varied was during the week before Christmas, when the Test Card and tone were broadcast between 1400 and 1508. When programmes finished at 1615, there was blank screen and silence until 1618, and then Test Card "C" and, usually, music until 1653. The next seven minutes followed the same sequence as 1503 - 1515. Children's Television began at 1700, and following this, the transmitters closed down until 15 minutes before the start of evening programmes, when the 1500 - 1515 sequence was adopted.

Occasionally, during the 1613 - 1653 slot, the tone replaced music, and from time to time Test Card "C" was replaced by a broad black cross on a white ground. Although I used to listen to the music during this transmission, it must not have made much of an impression upon me, as I made no attempt to ascertain the details. I do remember, however that some of the tracks were called "Frenesi", "Spanish Serenade", and "Winter Sunshine", and I think that they were all instrumental.

Then in 1954 came the breakthrough with, as far as I was concerned, the first change of music. There was a two-hour sequence of discs - 60 minutes of classical music on BBC and other non-commercial labels; and 60 minutes of dance music on commercially-available records (Paxton, Oriole and Harmonic). These were used during the 1518 - 1653 slot, and also in the newly-introduced (I think) 1200 - 1300 broadcast. I would estimate that between June and November 1954 (when all of the Oriole discs were withdrawn) the dance music selection was used for 75 per cent of the time. Although the two sequences were never mixed, there was no standard playing order, the sequence being varied with each transmission, with one notable exception. When the dance music was used, "Buck Dance" by the David Carroll Orchestra was, on 99 per cent of occasions the last record to be played in each transmission. Those of you who remember it will know why. I think that the thing which attracted me to these so much was that they included vocals, and I suspect that this led to their early withdrawal. After that it was to be many years before vocals were to be heard again during Test Transmissions.

Having obtained a copy of the play list from the BBC, I began to gradually purchase all of the Oriole, Paxton and Harmonic records. I am pleased to say that after 35 years I still have all of them, with the exception of Harmonic CBL37 ("I'm so lonesome tonight"/"Square Four") which has somehow gone missing over the years.

From December 1954 until May 1955, the transmissions continued on the previous pattern using the classical music and Paxton/Harmonic discs only.

My second change of music came in May 1955, when a shorter list of records, again a mixture of classical and dance music was introduced, but this time all BBC discs. These included a Mozart Cassation in B, Arthur Benjamin's "Red River Jig", "Envy", "The Moon Was Yellow", "In

All The Country Round", "Under Paris Skies" and many more. At one time I had detailed lists of all of these, and indeed, of later transmissions also, and I now curse my lack of perspicacity in not filing these lists permanently. In those days, the BBC was more than willing to supply these play lists, but around 1964 they began to adopt a less than helpful attitude to inquiries concerning test transmission music. I regret to say that this unhelpful attitude persists some 35 years later.

It must have been when the ITA broadcasts began that the pattern of BBC test transmissions changed substantially. Out went the revamped Demonstration Film, and in came Test Card and music (twenty minutes of music followed by two minutes of tone) between 1000 and 1300. There was also a short period when vision consisted of 15 minutes of Test Card alternating with 15 minutes of a still photograph endorsed "BBC Trade Test Transmission". The ITA also adopted a similar format, although in the Tyne Tees TV area, there was no identification on the still picture.

These then are my earliest recollections of trade test transmissions. If my memory has proved faulty, I am sure that some of you out there will be able to put me right.

* While Doug is correct that the sequence never varied, it should be pointed out that over the years the contents of the various inserts of the demonstration film were edited as and when they became outdated. And now, to complement Doug's article, here is an extract from the **Television Viewer's Handbook** published in 1954.

Sequence of Preliminary Displays.

There will be seen, in approximately the order given, for it is occasionally varied, the following sequence in the programme prelude:

A broad black cross of the tuning signal known as the Art Bars with a rather penetrating note from the loud-speaker.

This will be faded out and replaced by Test Card "C", also accompanied by a tuning note.

After a blank and silent period of several minutes, the signature tune of a medley of National Airs will be heard and the "clock" card will come to the screen.

An animated symbolic device against a black background follows, representing the spreading wings of the television service and a revolving eye surveying the world between two forked lightning flashes, standing for electric power.

An alternative to the animated Symbol, but now appearing rarely, is a reproduction of the BBC Coat of Arms, with the motto. "Nation shall speak peace unto Nation."

Finally, in these preliminary displays, there is a picture of the Houses of Parliament, with vehicles crossing Westminster Bridge, reflected in the Thames - a daylight, twilight or illuminated night scene according to the time of the year.

The Programme Begins

As "Big Ben" chimes the hour one experiences a feeling of expectancy. The last stroke dies away. The signature tune of "Girls in Grey" heralds the News and Newsreel, which is followed by the weather forecast. These two features are deservedly popular and are rightly placed at the beginning of the evening session, so that one can cut out the rest of the programme if the items do not appeal. The weather charts and the breezy comments of one of the four "Met" men, who have had war-time

experience in briefing air crews, are not to be missed. A smiling announcer outlines the principal items, mentions any changes in the programme and interval times if there is a play.

Supposing everything is not all right? Do not panic; resist the temptation to switch off hurriedly should there be firework displays on the screen, a shifting or distorted picture, even a complete black-out or a silent loudspeaker. Turn up the lights, smoke if inclined and wait for it. "We are so sorry for this breakdown," laments the announcer; "we are doing our best to correct the fault. In the meantime we will play some records." A card is shown - it will be shown often - "Normal service will be resumed as soon as possible." A little later comes: "I am glad to say that we are now able to go ahead with our programme."

When a breakdown occurs in a dramatic production, it is usual to repeat the part immediately preceding, but in some areas apologies for loss of transmission are delayed until the end of the session. Considering the technical hazards involved it is remarkable that breakdowns do not happen more frequently.

And to close, let's go back to April 1950, with an extract from **Television in Your Home** (W.E. Miller, Iliffe & Sons).

Let us now examine the present programme hours in more detail. Each day, except Sunday, there is a demonstration film or composite newsreel from 11 a.m. to 12 noon. This transmission is mainly intended for television dealers, to enable them to demonstrate, install or repair receivers out of normal programme hours, and does not really form part of the television entertainment programmes.

The afternoon programme on weekdays starts at 3 p.m. and lasts until 4 or 4.15 p.m. On Sundays it is a children's programme, and is transmitted from 5 p.m. to 6 p.m. On Saturdays the afternoon programme often includes one or more sporting outside broadcasts, and is then timed to coincide with the events taking place. The evening programme normally commences at 8.30 p.m., but often it starts at 8 p.m., and sometimes even earlier. It usually lasts until 10.15 p.m., though occasionally it runs on until 10.45 or 11 p.m. There is a possibility that in the near future the evening programme timing may be advanced, so that television will regularly commence at 7.30 p.m., but this change has not been effected at the time of writing. There are also likely to be more programmes for the children, at appropriate times.

In the summer, when tennis and cricket are in full swing, television from Lords, the Oval, Wimbledon and other sports centres often runs for the best part of the day, with only short breaks for lunch, tea, etc. Also, of course, there are special outside broadcasts, additional to the normal programmes, such as royal processions, the Trooping the Colour, the Lord Mayor's Show, the Cenotaph ceremony and others too numerous to mention.

For those who have never seen a complete television programme, let us examine the sequence of events on a typical evening, assuming a starting time of 8.30 p.m.

At 8.25 p.m. the transmitter sends out a test pattern (which includes a clock showing the actual time). This remains on the screen until 8.29 p.m., and is intended for the use of viewers in adjusting their sets. For one minute, until 8.30 p.m., the coat-of-arms of the B.B.C. appears on the screen. At 8.30 p.m. there is an introductory film sequence, with music.

The television announcer then appears, gives details of the coming programme, with the approximate timing, and introduces the first item. This may be the newsreel, specially prepared for television. (There are two editions of the newsreel each week, and they are shown on Monday and Wednesday, and Friday and Saturday).

Following the newsreel, which usually lasts about 15 minutes, comes the main item - a play,

variety show, "magazine" or feature programme. At the end of this, there is sometimes a short feature, and this is followed by the announcer giving the weather forecast, illustrated by specially-drawn charts. A clock-face, giving the correct time, is then shown, and simultaneously a recording of the radio 9-o'clock or 10-o'clock news is given on the television sound, the clock being faded off during the news, and the vision transmitter being switched off. At the end of the news the whole station closes down.

This procedure is, of course, varied from time to time according to the actual programme being televised, but in the main the transmission follows a similar sequence.

My own recollection from 1956 was that the evening programmes started with the BBC crest (possibly with a rousing musical background), followed by the Television Symbol referred to in the 1954 description (and discussed in issue 10). The news was then read, not in vision as I recall but possibly over a caption or over the television symbol. If anyone can add to these notes (or supply a copy of the *National Airs* music), please write in!

TELE70

Thu 1 Aug 6.15 NFT2

Sci-Fi: Doomwatch: Sex and Violence and Survivors: New World

Tue 6 Aug 7.30 MOMI

ITV Sitcoms: Thick as Thieves, The Top Secret Life of Edgar Briggs, The Losers: A Star is Born and Agony: Too Much Agony, Too Little Ecstasy

Thu 8 Aug 6.15 NFT2

Cult Classics: Randall and Hopkirk (Deceased): Somebody Just Walked Over My Grave and The Professionals: Old Dog, New Tricks

Thu 13 Aug 7.30 MOMI

Mike Leigh on TV: Hard Labour, Afternoon, Probation, A Light Snack, Birth of the 2001 Cup Final Goalie and Old Chums

Thu 15 Aug 8.30 NFT2

TV Comedy: The Goodies: Frankenfido and Not the Nine O'Clock News

Tue 20 Aug 7.30 MOMI

Camp Classics: Ann Margaret Olsson and Within These Walls

Tue 27 Aug 7.30 MOMI

TV 'Tecs: Hazell: Hazell and the Baker Street Sleuth and Shoestring: Find the Lady

Thu 29 Aug 6.15 NFT2

Music Television - Sound of the Seventies compilation of rock and pop from 70's TV shows

TELE70

AUGUST at the Museum of the Moving Image
and the National Film Theatre

We are delighted to announce **TELE70**, a season of programmes looking at television in the 1970s. Style watchers will have a field day with the fine examples of flared trousers, wide ties, platform shoes and some truly appalling haircuts!

Following on from the golden age of the sixties, the seventies proved to be a slightly less consistent but equally interesting decade. Although fewer one-off dramas were made, the ones that did air were often of superior quality, like Mike Leigh's **Hard Labour**. The sitcom genre still had life in it and **Not the Nine O'Clock News** proved there was a future for sketch programmes post-Python. Sixties hangover **Randall and Hopkirk (Deceased)** had the fantasy elements so beloved in that decade but the later adventure series had a harder edged Seventies' realism (**The Professionals**, **Shoestring**). Ecological threats were highlighted in **Doomwatch** and **The Survivors**, whereas, far above such worldly considerations, Tom Baker, as a certain timelord, had his own problems. (The Doctor is also currently materializing in '**Behind the Sofa**' the **DOCTOR WHO** Exhibition at MOMI.)

Particular highlights in this month's programme include an episode of **Doomwatch (Sex and Violence)** which was deemed too strong at the time and has never been transmitted; John Thaw and Bob Hoskins in the forgotten sitcom **Thick as Thieves**, and some vintage lunacy from Spike Milligan. The pop compilation reflects 70's trends from glam rock to punk and includes one unforgettable moment: Marc Bolan dueting with Cilla Black on the **Cilla Black Show**.

For further information contact Veronica Taylor, BFI Television and Projects Unit. Tel: 071 255 1444.



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PAGES FROM THE PAST

TV TIMES (SOUTHERN ITV EDITION) - Thursday 13th February 1964

by *Malcolm O'Neill*

As nostalgia is always good fun, I thought it would be an idea to go back in time to those far-off 405 days when there were plenty of opportunities for watching the test card and music. Therefore, I have included a page from the **TV Times** (Southern ITV edition) for Thursday 13th February 1964 to see what was happening on the "other side".

This would have been a typical day on most of the ITV regions in those days, but the most obvious feature is the limited amount of afternoon programming - no Australian soaps or third-rate daytime game shows all those years ago! In fact the three programmes listed are for schools, although out of term there would have been the occasional outside broadcast such as horse racing.

However, it is the **Testing** notice at the foot of the page that provides the real interest. Trade tests on ITV would commence at 10.00 (this was changed to 09.30 as from March 1966). At this time Test Card "C" would appear, and as this was the Southern ITV area would have either the ITA Chillerton Down or Dover ident in block black letters above the "C". This was then accompanied by five minutes of tone at 400Hz and followed by one minute of silence. At 10.06 the first of the day's commercially available LPs was played for the next twenty four minutes until 10.30 when this music was replaced by five minutes of tone again, although by now the test card was replaced by once of the regionally distributed slides for fifteen minutes until 10.45.

The sequence of fifteen minutes of Test Card "C"/pictorial slide alternating with each other was repeated throughout the day until the end of trade tests at 16.30, and this pattern was applied to the rest of the ITA network. The slides, which were black and white stills of local landmarks, were supplied by Marconi and distributed around the regional ITA transmitters. The still views I remember being used in this area were of a village (possibly somewhere in Hampshire or Sussex) and another of a boat. These two stills would have been used on alternating days.

Musically on the day in question the following LPs would have been played:

- 10.06 Slightly Latin - Paul Smith Quartet
- 10.36 Ole! Bossa Nova - Laurindo Aleida & the Bossa Nova All Stars
- 11.00 Country Style - Roger Williamson
- 11.36 Bouquet of Love - Percy Faith & His Orchestra
- 12.06 Bossa Nova U.S.A. - The Dave Brubeck Quartet
- 12.36 Bursting Out With The All Star Big Band - The Oscar Peterson Trio
- 13.06 Love is a Game of Poker - Nelson Riddle & Orchestra
- 13.36 Big Band Bossa Nova - Stan Getz
- 14.06 Italian Guitars - Al Caiola
- 14.36 Scottish Dance Time - Stan Hamilton & The Clansmen
- 15.06 Sittin' on a Rainbow - Andre Previn & Orchestra
- 15.36 Waltzing in the Dark - Carmen Cavallaro

16.06 "Italian Symphony No. 4 in A Major Op. 90" (Mendelssohn - Otto Klemperer & The Philharmonia Orchestra

A varied selection of music to suit most tastes - fans of the Bossa Nova were certainly well catered for!

It has often been said that ITA tests were rather predictable and regimented compared to those of the BBC at the time, but at least you knew when the tone was due and if you wanted to hear a certain LP in its entirety, there was nothing to stop you from going out and buying it at your local record store. The use of commercially available LPs on commercial television was in my opinion very appropriate.

The period between the end of trade tests and the commencement of scheduled programmes would take up to fifteen minutes. After about five minutes of line sawtooth pattern (black to white transition across the screen) and plain black screen, the regional "Picasso" style ITA tuning signal would appear for about another five minutes accompanied by the opening music of the local ITV company and this in turn would eventually be replaced by the symbol of that company.

This procedure prior to the start of programmes was quite dramatic compared to the BBC at the time, and on Southern ITV the opening music used was entitled *Southern Rhapsody* which was specially composed by Richard Addinsell and was used every day right up until 1981 when the company lost the franchise for the region. For many years too a short piece of film was used in the opening sequences featuring well-known places in the South & South East.

The first programme of the evening was *Small Time* at 16.45, although there were some ITV companies that would not take this and instead would play their own music (library music) until 16.59. Older readers will remember the presenter of this children's show - Muriel Young - with Pussy Cat Willum, although Wally Whyton had also been a presenter too, and of course Robert Holness the quiz master of *Criss Cross Quiz* is better known nowadays as Bob Holness presenter of a 1990s equivalent to that show - *Blockbusters* for Central TV. Some people never change!

After the Gerry Anderson-style *Space Patrol* puppet series at 17.25, the early evening news came from ITN at 17.55 and was a ten minute bulletin - didn't anything happen in those days!?! Then at 18.05 we were treated to a round-up of regional news and views in *Day By Day* and that evening's edition was presented by Ian Ross, who later joined the BBC and can still be seen sometimes today on Channel 4 News.

Such a neat and tidy schedule with quality programmes and plenty of time allocated to trade test transmissions - what a perfect mixture! If only we could find a time machine which could transport us back to one of the best periods in British television.

Editor's note: Some years back I looked through Marconi's picture library at Chelmsford but none of these pictures survived: the negatives had been "thinned out" pretty efficiently! Perhaps it was too much to expect these views to survive 40 years; alternatively, and much more likely, Marconis may have bought in the slides from an external library. There was no sign of a photographic laboratory at Chelmsford and it is highly probable that Marconis contracted out the production of the slides to a trade company.

Similar slides were used by RTE in Ireland and may have been supplied by Marconi as well.

The page reproduced from Malcolm's photocopy is done by kind permission of Independent Television Publications Ltd.

RESTORATION CORNER

PRE-WAR HMV 900 SET

by Ken Brooks

EDITOR'S NOTE: This article is in itself a vintage item, having been written in 1983 for the BVWS Bulletin. Since then, interest in vintage television has grown and I am pleased that Ken has allowed us to republish it.

The technical development of television offers interest to the collector and social historian, both in terms of technical interest, and in terms of the changes to our outlook that television has brought about. This article reviews briefly the history of the television service and describes a receiver that the author obtained and restored to working order.

Pre-war television

The first experimental public television broadcast took place on 30 September 1929, using the Baird 30 line mechanical system. It was a crude system, based upon low bandwidth medium wave transmissions, but nevertheless it demonstrated publicly that television broadcasting was feasible.

In January 1935, the Selsdon Television Committee recommended that a general television service should be established, and moreover, that a start should be made immediately. The intervening years had seen considerable technical development, both in mechanical and electronic systems, and the 30 line system, considered outmoded, was closed down on 11 September 1935.

Both Baird and EMI showed television at Radiolympia in 1936, the Baird system now having 240 lines, generated mechanically, and the EMI system being wholly electronic and boasting 405 lines.

On 2nd November 1936, the worlds' first regular high definition service came into being, alternately using the Baird and EMI systems. Early receivers were dual standard, having a switch to select either system. By 6 February 1937, after only three months, the Baird system was abandoned in favour of the EMI 405 line all-electronic system.

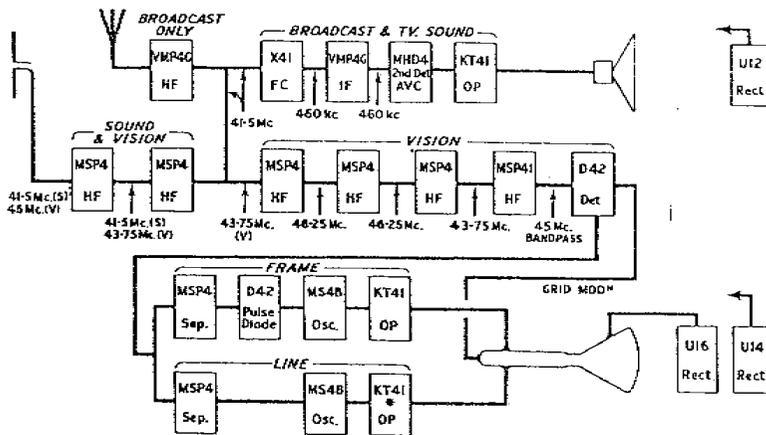
Receivers at that time were very expensive, typically half the cost of a small car, and no doubt the changing standards, rapid developments and short programmes offered little encouragement for investment in a receiver.

The service was continued up to the outbreak of the war, and was only available in the London area. When the service closed, there were approximately 20,000 receivers in use which were not to receive another programme until 1946, when the service was reopened.

The HMV Model 900 Television Receiver

During 1980, the author was fortunate to obtain an HMV 900 television receiver, dating from 1937. The 900 was one of a range of several HMV/Marconiphone receivers of the period, which included basic sound/vision receivers through to televisions combined with multi-waveband receivers and autochangers.

Three thousand model 900 receivers were built in all, from 1936 until 1937, although the model was available until 1939. Physically, the 900 comprises a very large and handsome veneered cabinet, containing four chassis units. A block diagram of the system is shown below.



CRT Unit

A 12 inch CRT is used, which is mounted vertically and viewed through a mirror mounted in the lid of the cabinet. This type of viewing arrangement was commonplace in the early days, because CRTs had small deflection angles and consequently were very long. The entire tube and scanning coil assembly is cradle-mounted within a mu-metal shield to prevent distortion of the image due to stray magnetic fields.

Power pack

A twin transformer power unit generates the necessary supplies for the television section. One transformer provides HT and heater supplies, whilst the other has an EHT winding which generates 5kV via a half-wave rectifier. Such supplies could easily be lethal, and the manufacturers thoughtfully provided a shorting switch, actuated by the removal of the rear cover. The service

instructions advise "the use of rubber gloves" when making internal adjustments.

Sound receiver

The sound receiver is a typical six valve, four waveband superhet of the period, having an additional waveband for television sound.

Television chassis

The TV chassis is really two interconnected chassis and comprises a TRF receiver and timebase unit. The entire assembly is about two feet in length, and is mounted vertically within the cabinet. Six stages of RF amplification are employed, with each stage individually screened. The necessary bandwidth is obtained by "stagger tuning" their stages. The receiver is tuned to Channel 1, the Alexandra Palace transmitter frequency. The timebase unit (formerly known as the synchronising unit) comprises hard valve oscillators driving scan coils via a simple output stage.

Renovation

Most of the exterior woodwork had suffered damage with the passage of time, and this was very carefully cleaned, stained and repolished. The power units were next examined, and an absence of EHT traced to an open circuit transformer, which when stripped of its pitch potting, came back to life and has functioned perfectly ever since.

Each remaining section was then connected and tested, which eventually resulted in the raster, albeit rather dim, appearing on the tube face. A small brown spot in the tube centre indicated that ion burn had occurred, as ion traps were not in use at that time.

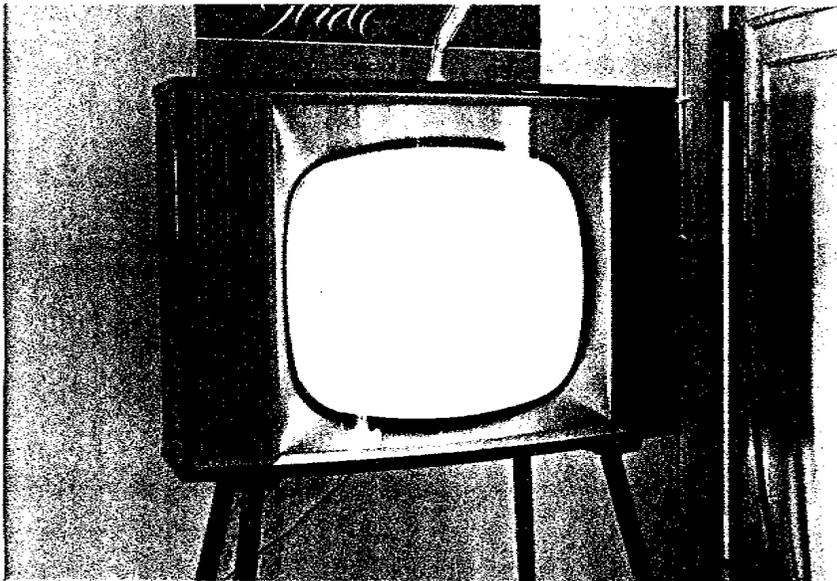
At present it is only possible to use the receiver with a pattern generator because the local transmitter operates on channel five, although hopefully an external converter can be built before the 405 line service is closed down permanently [written in 1983]. Early televisions are now quite scarce because of the low quantities produced, their bulky proportions, and because technical development rapidly made earlier models obsolescent. My model 900 is, as far as I am aware, the only working model in existence. I should be interested to hear from other society members who own early TV receivers in order to establish what we possess as a distributed museum. In conclusion, it is hoped that this article will stimulate interest in an important branch of technological and social history.

Acknowledgements

The author wishes to thank BWWS members Gerry Horrox for the "contact" resulting in the acquisition of the model 900, Gerald Wells for many invaluable hints and spare parts, and EMI Service General Manager Mr. E. Folkson who provided technical manuals and historical data.

*Thanks Ken for a fascinating article. Since it was written the 405 line transmissions and EMI Ltd have gone, and a number of other "mirror lid" sets have been restored. Ken's idea of a register of old sets is a good one and he says he is still prepared to take care of this. Letters, which can be anonymous if you prefer, will be forwarded to him in confidence. All Ken needs are model numbers and serial numbers, condition and (ideally) owner's name. This will enable valuable statistical information to be published (and not lists of pick-up points for burglars!). Please tip Ken off about sets in museums, too: send all letters care of **405 Alive**.*





ILLUSTRATIONS on pages 32/33

The Vintage Radio Circle's swapmeet held on the 12th May at Cricklade was a congenial affair. Prices were moderate and the place was not too crowded.

In the back room a number of 405 line sets were on display, including Pat Hildred's rather choice Ferguson Golden Glide (only 63 gns new!), complete with original showroom price card. The "angel's wings" BBC clock is rather fetching too.

Across the other side of the Atlantic, old radios and TVs could be seen at the annual Hamvention at Dayton, Ohio. In the seven-acre open-air fleamarket this stand was doing good business.

That's right, get a closer look at those reproduction knobs for old radios. But why are you ignoring those tasty Philco Predicta sets on either side? (Note that the set with darker wood on the ground in the upper photo had been sold by the time the second picture was taken!).

RESTORATION CORNER

PRE-WAR HMV AND MARCONI 5" SETS

by David Boynes

To date I have serviced two of these receivers and experienced a few problems. Apart from the usual things like leaky capacitors I've had problems with the local oscillator on TV: a special ceramic-based frequency changer valved was produced for this set, type X41C, and a Mazda ACTHI sometimes works here.

The EHT smoothing capacitors do go leaky - 0.1uF + 0.1uF, 3000 volts working - close to the tuning gang under the CRT. The original smoothing capacitors were of the wet electrolyte type. I have successfully re-formed some of these capacitors ... the method I employ is to connect the capacitor via a diode (BY100 or BY127, etc.) along with a high-value resistor (start with 330K) and connect the whole lot to the mains. When a maximum has been reached reduce the value of the series resistor until peak volts has been achieved. This task can take hours!

After replacing capacitors and valves in the timebases I've found the sets to be very stable, few problems here. However, watch out for open circuit line output transformer primary, it's quite common. Beware, the EHT transformer fails also with dramatic results.

It is almost certain that the CRT will have ion burn. I have a 7" example which I hope Display Electronics will rebuild for me.

As a radio receiver these sets offer excellent results, especially on short waves.

The official service information together with a descriptive article from **Wireless World** are available for the Vintage Wireless Company in Bristol (tel: 0272-565472).



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TELETALK

by **Malcolm Burrell**

My present place of employment receives regular copies of certain expensive professional Broadcast-related magazines which I quickly seize with enthusiasm from the shelf in order to photocopy interesting articles. The February 1991 issue of **Broadcast Engineering** was a gem since it detailed the various current professional videotape formats which to date have hitherto remained contemporary "jargon". A curious article entitled "Servicing Your Klystrons" also reawakened some curiosity in the generation of gas within evacuated vessels (e.g. CRTs).

Following ten years use the CRT in my old Bush TV22 was continuing to provide more than adequate images. The receiver was then consigned to storage for several years after which I decided to embark upon restoration. When testing it, however, apart from the usual predictable deterioration of electrolytics the picture lacked contrast and appeared distinctly blurred. Had my more recent acquaintance with contemporary receivers revealed a defect which had remained previously concealed by familiar usage? I think not.

With a little use the image tended to improve but was never up to the standard I'd previously recollected. I decided to contact a tube rebuilder to enquire as to the possibility of the ailing device being reconditioned. At that time (mid-1960s) there were numerous companies offering re-gunned tubes usually in exchange for the old glass bulb. The MW22-16 was already obsolete and it seemed they had received no other enquiries for this type to be supplied. However they told me they had a brand new, boxed version in its original Mullard packaging which they would sell me without guarantee for eight pounds! The tube was purchased, operated extremely well and remains in the set which has had little more than a few hours of use although there are now other problems.

GAS GENERATION

What is the connection between klystrons and my old 9" tube? We know that within certain constraints a perfect vacuum is essential to the operation of most thermionic devices, including cathode ray tubes. It was a well known fact that they often became "soft" with the vacuum becoming impaired due to the release of gas molecules from the electrodes but I'd usually expected this to occur with usage! The "klystron" article, however, designated that the vacuum integrity of spare klystrons should be checked approximately every 90 days. Where the "gas current" is found excessive the device should be placed in service for several days to be "reconditioned".

Unless we're involved in the operation of high-powered transmitters its unlikely we'll encounter klystrons but picture tubes, like most valves, are equipped with a "getter" system which apart from burning residual gases at the time of manufacture also contribute to the absorption of gases during the lifetime of the device. It does seem, however, that a cathode ray tube CAN deteriorate whilst in its dormant state!

ADDITIONAL INFORMATION

I have previously read that gas can be generated within picture tubes if the heater is operated

BELOW its rated value. Certainly operating at excessive potentials can prematurely drain the cathode of emission.

It might be interesting to note that a number of tube rebuilders also advertised a choice between the supply of fully re-gunned OR re-vacuumed devices, the latter at approximately half the cost (and with half the guarantee!). I can remember once, as a young amateur, fitting a re-vacuumed tube to a set. In spite of numerous checks the heater mysteriously developed an open circuit within a few weeks of use!

CONCLUSION

It would seem that any temptation to conserve devices, even by depriving them of use, is eventually doomed to failure since in the end **NOTHING** lasts forever although I once read of an elderly Pye console which had functioned for several years with a severely reduced HT potential caused by a failing rectifier. The engineer was astonished that the vintage CRT produced a superb image when the rectifier had been replaced (hopefully by a **CORRECT** type!). He concluded, therefore, that the resulting reduction in EHT had preserved the CRT emission!

RBM PUSH-BUTTON VHF TUNERS

On the fairly rare occasions I encountered RBM dual standard tv receivers, one of the most common defects was a problem with the VHF press-button tuner. This manifested as either weak, noisy signals or an inability to tune any channel. This was invariably due to fracture of the plastic permeability tuning wand.

It was necessary to first have a replacement wand to hand and secondly a good Phillips-type screwdriver!

The tuning wand is held by a spring at the front of the tuner such that the press-buttons against the spring action should provide reliable and precise tuning. In all probability part of the fractured wand may be withdrawn from the tuning aperture at the rear of the tuner. In some cases it may have been propelled out of the tuner and lie somewhere within the receiver. The remainder must be removed from the front after initially removing the press-button assembly. This is tricky and requires the removal of all the self-tapping Phillips head screws which are invariably extremely tightly secure.

To avoid complications, try to ensure that the press-button shafts and their springs remain as a complete assembly.

Fit the replacement tuning wand. If it suffers any slight distortion resulting in a poor tuning action, it should revert to its original shape within a few hours, particularly if the receiver is kept warm.

ALTERNATIVES?

Of course, replacement tuning wands may be difficult to obtain although they were once common in many stocks of spares. Do you know of a dealer who may have some lurking in a drawer? Assuming that both parts of the fractured wand are to hand and the fault is simply one of noisy pictures, push the broken portion further into its shaft with the aid of a narrow, insulated tool. This should result in the signal strength being restored until the press buttons are again operated.

A frequent "bodge" was to insert a spring at the rear of the tuning aperture such that the broken section of the tuning wand although fractured from the remainder of the shaft - continued to retain its correct tuning position when the buttons were operated. This procedure is worth trying. Alternatively a good modern "super" glue could be tried in an endeavour to repair the fracture.

PLASTIC PUSH BUTTONS

Another cause of problems were the splines on the plastic push-buttons becoming worn such that (1) withdrawing and rotating a depressed button would not provide a tuning action or (2) depressing the button failed to actuate the mechanism due to the aperture in the button having worn too large to actuate the splines on the shaft. Replacement buttons are again desirable although the tuner can be set to appropriate channels when removed from the receiver. By fitting fibre washers (of adequate dimensions to slide tightly over the metal splines on the shafts) at least the tuner will operate when a button is pressed. Such washers were commonly found as part of the back-cover securing on some Pye receivers!

INTERMITTENCY

Intermittent operation when switching between a Band I and a Band III channel was usually due to the sliding band switch within the tuner. Whilst switch-cleaners provide a temporary cure, lightly scraping the slider contacts with a sharp point (e.g. a dart) and finishing with a smear of silicon grease should result in a more permanent cure. Don't be tempted to try to re-tension the "spoon" shaped contacts on the non-movable part of the switch!

Oxidised valve pins, particularly on the frequency changer, can cause similar problems. A careful scrape or buffing with emery cloth should be helpful.

PHILIPS "STYLE 70 SERIES", ITT-KB "FEATHERLIGHT" etc.

Whilst on the subject of tuning "wands", its worth mentioning that certain Philips/Mullard VHF turret tuners used a minute plastic core located at the front of the tuner. The inability to "fine tune" or obtain anything other than an approximation of the desired channel should direct attention to this component which is normally actuated by depressing and rotating the fine tuner knob.

The remaining segment of the fractured plastic core will often be difficult to remove unless, **WITH EXTREME CAUTION**, a heated probe is used (e.g. some thin copper wire attached to a soldering iron). Obviously an exact replacement item is essential for an effective repair. I know of no "bodges" but some experimentation may prove useful. Note, however, the "coil biscuits" in these tuners are of the printed circuit variety.

Clean oxidised contacts by lightly rubbing with a good cleaner then applying a smear of silicon grease. This should cure most tendencies to intermittency. Its undesirable to attempt re-tensioning of the contact bank in the tuner.

[Editor's note: Malcolm's point on "soft" tubes is well taken. I know someone who paid a lot of money for a boxed and sealed NOS (new old stock) transmitting triode. It was about 12 years old and turned out to be extremely low gain, probably poisoned in the way Malcolm describes. Needless to say, it had never been used (it had been in a sealed pack).]

MODULATORS

To convert baseband video and audio signals from (say) your video recorder to a radio frequency such as VHF channel 1 (45MHz vision, 41.5MHz sound) you need a **modulator**. Modulators are found in most VCRs but generally have a UHF output in the region of channel 36. What we need is a System A modulator for VHF channels.

Sony used to make one, the RFM-405, and it turns up occasionally at amateur radio rallies and swapmeets. (Incidentally, the two examples I have seen are on channel 3, but they may have made other channels. Anyway, the chances of finding one of these are pretty slim!)

You have the choice then of constructing one yourself or of buying one. There are two "well known" designs for building modulators, by David Looser and by Jeffrey Borin. There isn't room for all the constructional details here but I can supply the diagrams and descriptions for £1 - this covers cost of photocopying and postage (note 1). Both designs are quite similar: with David Looser's one you can buy a printed circuit board from David Boynes (note 2) for £10 but after that you are on your own, procuring your own components from Maplin or wherever and winding your own coils, which will be tricky for the inexperienced.

Jeffrey Borin's design is easier to make because you are merely modifying existing modules originally made for Rediffusion cable TV converter boxes. These units turn up at radio rallies for about £2 to £5 and remember you will need two boxes, so as to use one modulator for the vision and one for the sound. The rest of the converter (power supply, UHF tuner, etc.) can go in the spares box). Again, if you cannot locate these Rediffusion units, this will not be of much help to you but they are still common on the surplus market.

For both of these designs you will need to order crystals - I have found McKnight Crystal company good value for money (note 3).

Finally, a source of ready-made modulators. One of our German readers, Wilfried Meier (note 4) is selling modulators, both ready-made and as kits. Prices are as follows:

- kit of all parts except case and power supply . 135 DM.
- modulator built and tested, without case and power supply 175 DM.
- modulator built and tested, with power supply and plastic case, with connectors for video/audio input and RF output 245 DM.

Components:

- special IC S0244 25 DM.
- PCB 15 DM.
- set of coils 16 DM.
- crystal 30 DM.

Delivery is approximately 14 days. Specify channel required, e.g.

British 405 line system, vision carrier: 45.0MHz
sound carrier: 41.5MHz

French 441 line system, vision carrier: 46.0MHz
 sound carrier: 42.0MHz
 German 441 line system, vision carrier: 46.0MHz
 sound carrier: 43.2MHz.

A sample of these German modulators has been tested, and it works very well. The case is a grey plastic box and the RF components inside are screened inside a metal enclosure. Connectors for audio, video and RF out are RCA-type phono sockets. If you do not have the time or the ability to construct a modulator yourself these units are a straightforward way of getting the desired results, and to simplify ordering you can photocopy the pro-forma order printed here. The cheapest way of sending money is to get a Eurocheque from your bank, which you can then make out in deutschmarks. The exchange rate, incidentally, usually hovers just below 3 marks to the pound. Please note that although we have found the sample to be excellent and are printing an order form for your convenience, **405 Alive** is not prepared to become involved in dealings between readers.

Incidentally, there is nobody building these modulators in Britain at the moment; people often ask why. The answer is simple: to assemble one professionally and align it, then drill a case and make it look presentable is a very time-consuming business. The materials may cost only £25 or so, but the time involved is not so cheap, nor does the skill come easily! If anyone wants to get into this business, good luck and let us know! Send us a sample too ...

NOTES

1. Send cheques to Andrew Emmerson, 71 Falcutt Way, Northampton, NN2 8PH.
2. David Boynes, 12 The Garth, Winton, Blaydon, NE21 6DD.
3. McKnight Crystal Company, Hardley Industrial Estate, Hythe, Southampton, SO4 6ZY. Send SAE for details of their amateur service - price £5.50, two weeks' delivery.
4. Wilfried Meier, Schepdonksweg 11, W-4178 Kevelaer-Wetten, Germany.

Components for the circuit diagram on the next page

| | | | |
|-----|-------------------------|-----|------------|
| IC1 | S0244 | P1 | 470R |
| L1 | coil 40-80MHz | C1 | 10nF/30V |
| L2 | coil 2-6MHz | C2 | 10-50pF |
| L3 | symmetrical transformer | C3 | 10nf/30V |
| Tr1 | BF245 | C4 | 12pF |
| Q | crystal | C5 | 10-25pF |
| R1 | 100k | C6 | 0.33uF/63V |
| R2 | 1k | C7 | 1nF/30V |
| R3 | 470R | C8 | 0.33uF/63V |
| R4 | 270R | C9 | 100uF/25V |
| R5 | 75R | C10 | 100uF/10V |
| IC2 | 7805 | | |

ALIGNMENT

- (a) Check operating voltage = 5V at pins 7, 10 and 12 of IC. Ground pin 9 for positive modulation, leave floating for negative modulation.
- (b) Adjust coil of L1 for maximum RF output. Adjust coil of L2 for maximum audio volume. Set trimpot P1 for optimum audio level.

Modulator

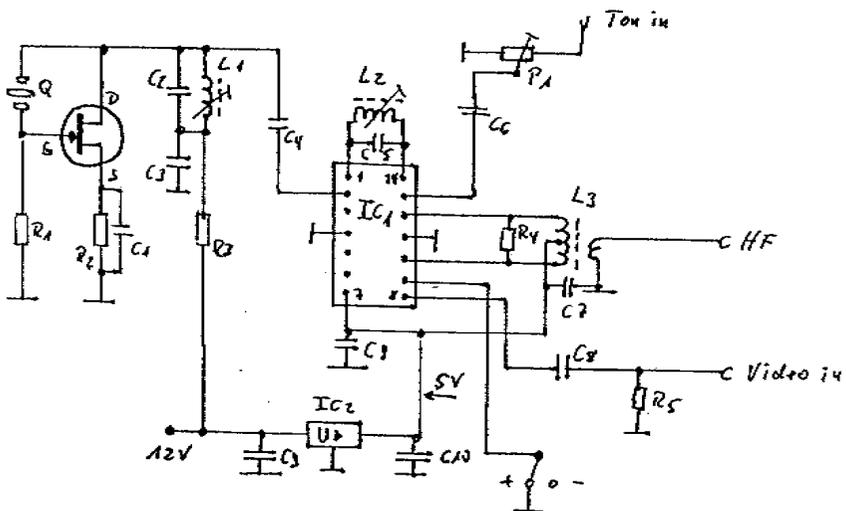
Funktionsbeschreibung

Das IC enthält eine komplette Bild + Tonmodulationskaltung.
Das Videosignal wird im Eingang (Punkt 8) auf Synchronpegel geklemmt und Klipping auf Spitzenweiß. Die Bildmodulation kann negativ oder positiv erfolgen. Anschluß 9 IC offen: negative Modulation, an Masse: positive Modulation.

Die Tonmodulation erfolgt an Punkt 13 (Amplitude mit P1 einstellbar) Die Spule L2 bestimmt die Tonträgerfrequenz.

Ein Quarzoszillator mit dem Transistor BF245 erzeugt die Bildträgerfrequenz und wird an Punkt 2 des IC gelegt.

Die Spule L3 ist ein Symmetrieverübertrager. Am Ausgang stellt das modulierte Signal mit ca. 1mV an 75Ω.



405-LINE TELEVISION

NOMINAL SPECIFICATION OF TRANSMITTED SIGNAL

| | | |
|--|---|-----------|
| Channel width | | 5 MHz |
| Spacing between sound and vision carriers | | 3.5 MHz |
| Vision modulation (AM positive) | | |
| Upper sideband | | 0.75 MHz |
| Lower sideband | | 3 MHz |
| Synchronizing level |] As percentage of maximum vision carrier amplitude [| 0% |
| Blanking level | | 30% |
| White level | | 100% |
| Sound modulation | | AM |
| Ratio of vision power for white level to unmodulated sound power | | 4 : 1 |
| Lines per picture | | 405 |
| Interlace | | 2 : 1 |
| Field frequency | | 50 Hz |
| Line frequency | | 10,125 Hz |
| Approximate gamma of picture signal | | 0.5 |
| Video bandwidth | | 3 MHz |
| Aspect Ratio | | 4 : 3 |

The idealized carrier-amplitude waveform as a function of time is shown in Figs. A and B

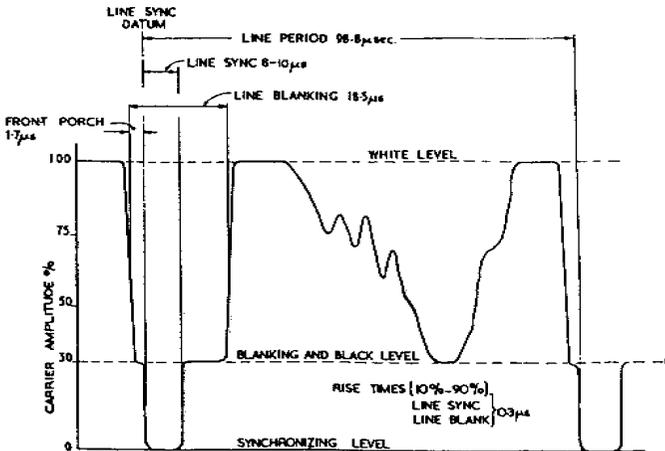


Fig. A Vision Waveform Showing Line Synchronizing Signals

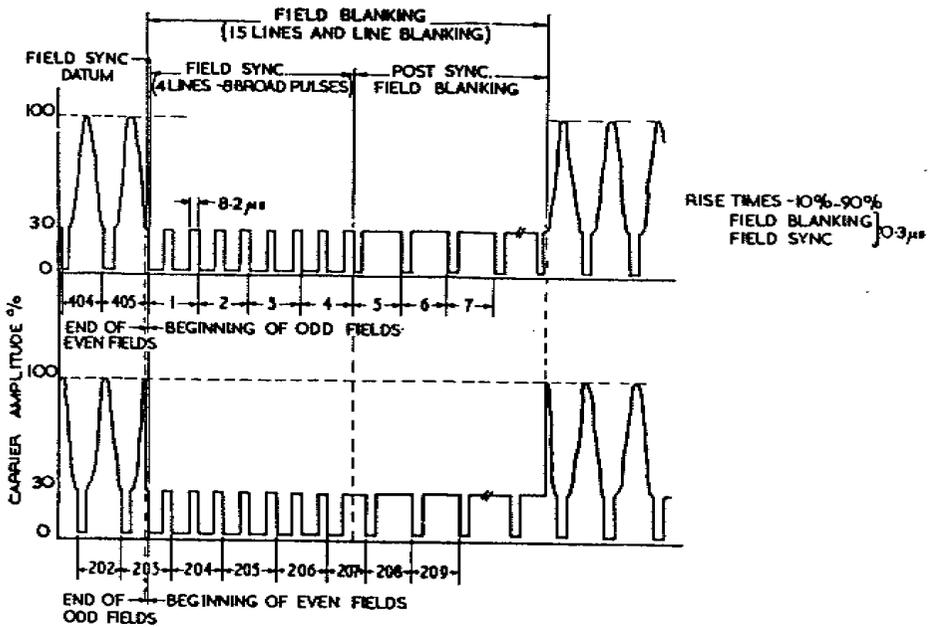


Fig. B Vision Waveform showing Field Synchronizing Signals

The vision carrier-amplitude waveform indicated in Figs. A and B represents the amplitude of a double-sideband a.m. signal from which the transmitted vestigial-sideband signal is derived. Sideband frequencies more than 0.75 MHz above the vision carrier are attenuated.

TEST-LINE SIGNAL

A test-line signal is transmitted on lines 13 and 215. It consists of a 20- μ s white bar containing an inverted sine-squared pulse (half-amplitude duration 0.33 μ s) and followed by an erect sine-squared pulse (half-amplitude duration 0.33 μ s) and a five-step staircase. The duration of each of the first four steps is 8 μ s and that of the last step is approximately 6 μ s. The steps are of nominally equal height and the top step is at peak white. The whole of the test line signal is on a pedestal of 50 mV, in a video signal of 1V p-p.

SWAPPING AND SELLING

SOME HINTS

by *Laurie Mangelson*

Most of us have at some time been involved in a transaction that has gone wrong or been concluded in a manner that leaves one party dissatisfied. This can happen through a misunderstanding or as a result of deliberate sharp dealing practices. If a few basic guide-lines are followed, the frequencies of these occurrences can be minimised.

These guide-lines are:

1. If you have agreed to supply something for a swap or amount of money, you are morally bound to conclude the transaction as agreed. It doesn't matter that you may subsequently receive a more tempting offer, the initially agreed deal is binding. If you don't stick to this basic principle, you will very quickly get a reputation for being unreliable and people will stop dealing with you.
2. Describe the items you are offering accurately. Grade them fairly. If in doubt, offer the opportunity for an inspection prior to the deal being sealed. If one party is dissatisfied, attempt to make amends or terminate the deal by returning the item traded or the money paid. Remember, no deal is complete until both parties are completely satisfied.
3. Don't try to come out on top of every deal. If you do, you will quickly earn a reputation as being difficult to deal with and most collectors will contact you as a last resort.
4. Be prompt, don't take for ever to finalise swaps. If there is a reason for delay keep the other party informed.

In short, treat your fellow collectors as you would expect to be treated yourself. If you do this you can look forward to many satisfying deals which will help to make your collection grow.

[This article was gleaned from the ATCS Newsletter. I like its moral tone and hope no deals arranged through 405 Alive ever result in disagreement. - AE]

A POTTED HISTORY OF THE TEST CARD

by Peter Bowgett

Although I spent a couple of years at a Teacher Training College, I never thought for one moment that I would end up writing about the ABC, or come to think of it, the DEF. As BBC 2 currently has a DEF II slot, this article will be known as DEF III.

Before we begin, however, there are one or two points to clear up from last time to avoid having the large number of letters of complaint. When Test Card C was changed in 1958 it did not originally have the arrow heads in the castellated borders, so these were added later. I have not yet been able to ascertain when. Also, the alignment signals used before transmissions of Test Card C were not just the electronic "art bars"; further details have been given in an earlier issue of either The Test Card Circle newsletter or **405 Alive**.

On April 20th 1964, BBC 2 commenced and the 405 line BBC Television Service was renamed BBC 1. Two new Test Cards were introduced on this day, for two reasons. Firstly, a test card suitable for use on the new high definition BBC 2 Service was required; and secondly, the boffins had been increasingly unhappy about the reproduction quality of test card C. Considerable thought was given to the new cards, to the extent that the first draft was scrapped when the manufacturers pointed out that the card showed up deficiencies in receiver production techniques.

Test cards D and E were based on Test Card C because the trade had been used to it for 16 years. Refinements were built in, reducing the size of the background squares and filling all the available space, and reducing the size of all the main features, which were retained. The pulse and bar tests were separated from the circle to remove the optical illusion that the circle was not a true circle. The frequency gratings were considerably altered and the step wedge and background grey were given exact values.

The major change then from C to D/E was in the frequency bars and these were:

Two sets of five bars were replaced by one set of six bars.
Sine wave bars were used instead of square waves.

The use of square waves had severe limitations and the technical advances which led to sine waves being a viable alternative were considerable, however what looked excellent on paper left much to be desired in practice.

Complaints were received by the BBC about these cards because the use of sine waves, and the necessity to keep modulation levels to about 65 per cent resulted in the frequency bars having a very dull, lack-lustre appearance. Service engineers used the gratings as a test for focus, although they were not designed for that purpose. Test Card E was withdrawn rapidly after about three or four hours use. Test Card D was retained as the problem was not so severe. Test Card E was consigned to the waste bin and Test Card D was eventually adjusted to make its appearance more acceptable. This was in December 1967 when the two dots either side of the D were added.

In December 1967 Test Card F was introduced into full time service, and this card retained many of the features of D. This was because it was essential that colour TVs were correctly set up for black and white before colour adjustments were made.

The colour picture in the centre circle meant that the step wedge and frequency bars were displaced, and the pulse and bar tests were removed altogether. Some of the grid lines were black and white to assist in convergence tests, and the corner bars were pushed back in line with the background grid. The border castellations were altered to include colour tests. This then is the basic Test Card F, but it should be noted that certain adjustments were made. The colour of the doll in the centre was electronically altered during production, so you will never see an illustration in which the doll looks like it does on the telies Also, Television Centre added colour bars at the top of the card at transmission. This is why it was possible sometimes to see F without the bars, as local opt-outs did have this facility.

Two versions of Test Card F were used. Initially the values of the frequency bars were printed on the card. This was fine as long as the card was used on 625 lines only. When used on 405 lines these numbers were deleted. The second version was used continuously from November 1969 to mid-1984 when the digital version was introduced. The only differences to be incorporated into the digital version were to slightly adjust the space for the legend, and to replace the top castellations with colour bars. The arrow head was retained. In 1991 the legend was altered to match the new logos used by both channels.

Stay tuned to this channel for the next exciting episode of the Potted History of the Test Card.

NOTES AND QUERIES

GERMAN 441 LINE SYSTEM

In the last issue I asked why the 441 line system restricted the picture resolution to 2.5MHz when it was capable of so much more. A moment's thought would have answered my own question, but as it was, enlightenment came a month later! The answer is of course that it was to fit inside the channel bandwidth: they were using double sideband transmission in those days. Only when TV progressed to vestigial sideband operation could the higher vision frequencies be transmitted.

BAND THREE CONVERTERS

Tony Clayden rang up to say it's funny how odd little things stick in your mind. When, many years ago, Band III converters were sold widely to upgrade BBC-only TVs, the advertisements nearly always said "works with all makes of set except Philips". Why? What was special about Philips? And exactly was the "Magic Wand" that Spencer-West sold and how did it work? It seemed to be some filter that plugged between your Band III converter and the TV, and somehow eliminated the patterning normally seen.

CHILDREN'S TELEVISION

Back in the mid-1950s the BBC clock was screened for the five minutes before the start of children's programmes at 5 o'clock. During this time some rather too clever-clever music was played consisting of orchestral variations of nursery rhymes. At 17.00 the picture changed to several seconds of the BBC crest, followed by a film animation of children dancing around a "maypole" that turned out to be a TV transmitter mast.

Does anyone have a good recollection of this sequence: for instance, was there a voice-over during the BBC crest? Reminiscences of other BBC TV continuity around this period would be welcome: for instance, when programmes resumed at 19.00 I seem to recall the crest was shown again, followed by the BBC TV symbol, but was it static or animated with the "eyes" rolling over each other inside the angels' wings?!? And how was the News introduced following all this? [AE]

YOUNG HEARTTHROBS

Whatever happened to Jennifer Gay and Carol Lorimer, the youthful presenters of Children's Television? [name omitted to avoid embarrassment!]

BBC TELEVISION DEMONSTRATION FILM

Work is afoot to try and re-create this programme from surviving fragments of film, but there are a number of gaps in our knowledge. It is known that the precise composition of this film varied over the years, with some segments being replaced by others. It would be most helpful if anyone who has firm knowledge of the various film inserts could assist: it also essential to find out which pieces of music were played during the Test Card "C" sequences. Please get in touch with the editor if you can help: you will not go unrewarded! [AE]

MULLARD MW PICTURE TUBES

Does anyone know what the MW stands for? Obviously not M for Mullard, because these were really Philips tubes and were sold on the Continent under the Philips, Valvo and other names. [AE]

RECORDING NOTES

VIDEO

We have some resourceful folk among us, so if you need - or can offer - help with old video tape standards, please drop your editor a line (71 Falcutt Way, Northampton, NN2 8PH) or ring 0604-844130.

New reader Ron Vansittart in Margate has a formidable array of formats at his disposal. Among the less common ones are Panasonic cartridge (Omnivision), one-inch C format, Philips VCR 1500 and 2000 and Panasonic 1/2" EIAJ. He also has telecine facilities and while he earns his living from selling time on these facilities, he is prepared to transfer genuine archive material at a nominal charge. You can ring him on 0843-292802.

AUDIO TRANSCRIPTION

On the subject of audio recordings, Paul Sawteill is extremely well equipped to convert reel-to-reel recordings to compact cassette and has offered to help out readers. He can handle full, half or quarter track material at any speed from 1 7/8 to 15 inches per second. Charges by negotiation: write to him (with SAE) at 20 Seymour Road, Wollescote, Stourbridge, West Midlands, DY9 8TB.



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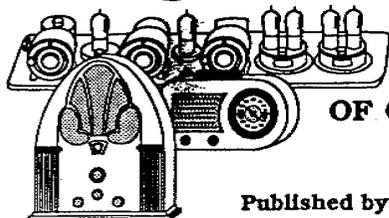
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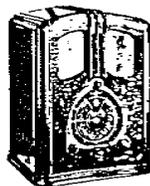
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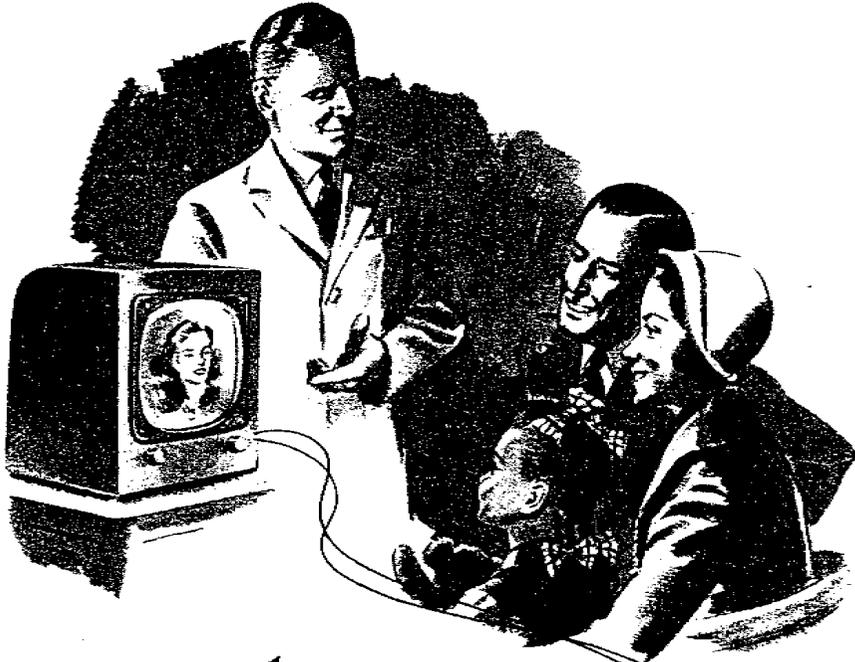
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Advertisements are normally inserted for two issues: please indicate if you wish your ad to run longer. There's no extra charge but we try to avoid repeating "stale" material.

Traders are also welcome here but we do require people who are commercial dealers to state this in their advertisements. The letter (T) at the end of an advertisement indicates that the advertisement is "trade".

Test card music is subject to the same rules of copyright as other recorded works and it is unlawful to sell amateur or professional recordings of same. *405 Alive* will not accept any advertisements from persons engaged in this activity.

Also please note that we do not accept any responsibility for dealings resulting from these advertisements, which are published in good faith. Replicas and reproductions may 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!

We have had a number of ads requesting 405 line recordings and circuit diagrams for standards converters and Band I modulators - why haven't we printed them? Well, the ads for videotape recordings were getting out of hand and there was no response to our idea of a clearing house. Building a standards converter is a major undertaking (parts are likely to cost £300 minimum) but one our members who has built one is now working on a set of printed circuit boards and parts lists. Watch this space! And two designs for modulators have been published in *Television* magazine - see issue 1 of *405 Alive*, pages 10/11. We can supply photocopies at 10p a page.

Please note that we are not in a position to supply circuit diagrams, service sheets or other information on equipment. For this you need to read the small advertisements below and those published each month in *Television* magazine. But we will also print requests for help in this section of the newsletter. Most valves and other components are not hard to find: we recommend **Billington Valves** (0403-210729), **Kenzen** (021-446 4346), **Wilson Valves** (04575-6114) and **PM Components** (0474-560521). For hard-to-find transistors we have heard of **AQL Technology** (0252-341711) **The Semiconductor Archives** (081-691 7908) and **Vectis Components Ltd.** (0705-669885). Would you like to recommend other firms? If you think a firm gives good service please tell us all!

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Higginson, 28 High Street, Misterton, Doncaster, Yorks., DN10 4BU. (T). Tel: 0427 - 890768.

FOR SALE: Valves for your 405 line TV (and other equipment) can be obtained from

Kenzen, Unit 9, 16-20 George Street, Balsall Heath, BIRMINGHAM B12 9RG. Send SAE for quotation by return or telephone 021-446 4346 or fax (new number - please note) 021-446 4245. Many thousands of new, boxed valves at unbeatable prices. We can also supply components, e.g. "spot-tip-body" colour coded resistors, wirewound resistors, droppers, EHT capacitors, etc. etc. Send for our latest 26 page catalogue of goodies - only £1 plus A4 size SAE with 32p stamp please. Interesting items available now include: ex-IBA UHF television transmitter (parts of), about 1/2 tonne of ex-BBC video and audio equipment (mostly 19" rack mounting) and lots of 19" video monitors. Callers welcome but please telephone the warehouse first.(T)

FOR SALE: Printed circuit board for David Looser's design of Band I modulator. Size 160 x 100 mm, undrilled. £10 including post and packing. Dave Boynes, 12 The Garth, Winlaton, Blaydon, NE21 6DD. Tel: 091-414 4751.

FOR SALE: Illuminated diascope for I.O. camera, new condition, with power supply for lamp. Slides onto lens, takes two 2" x 2" slides (latter not supplied but may be available at cost). £50 or swap. Andy Emmerson G8PTH, 71 Falcutt Way, Northampton, NN2 8PH.

BOOKS FOR SALE:

All in good condition. The Superheterodyne Receiver by Witts (Pitman, 1936); Classified Radio Receiver Diagrams by Squire (Pitman, 1943); Radio Receiver Servicing & Maintenance by Lewis (Pitman, 1944); Practical Wireless Encyclopaedia by Camm (Newnes, 1941); Naval Electrical Manual Vol. 1 (HMSO, 1928); Wireless Coils, Chokes & Transformers by Camm (Newnes, 1941). Mr A. Wood, 59 Boothroyd Green, West Town, Dewsbury, Yorks., WF13 2RQ.

FOR SALE: Pye video receivers (take 600 ohm balanced or 75 ohm input and provide adjustable LF, MF and HF gain). £15 each. Michael Bond, 0733-53998.

FOR SALE: *The Wireless Constructor's Encyclopaedia* (F.J. Camm), 4th edition, 1935. Very good condition, 392pp. Price £12 post paid (postage alone is £1.85). R.W.J. Cottey, 9 Bowling Green, Cannington, Bridgwater, Som., TA5 2HD.

FOR SALE: Thirty 1950s/60s TV valves, some unused. Radio & TV servicing book 1975/76 models, 1959 Dynatron Buckingham TV38 operating instructions. £15 the lot, postage at cost. Sony TV9-90UB dual-standard 9" portable in black, good working order. £20, postage at cost. Barrie Portas, 4 Summerfield Avenue, Waltham, Grimsby, DN37 0NH. Tel: 0472-824839.

FOR SALE: Bush TV22, immaculate. Genuine Bush Band III converter fitted. Tatty service manual supplied. Sorry but market forces mean that it has to be expensive. Offers over £200 please. Marconi immediate post-war 9" console set, electrically complete, cabinet looks OK but set back is missing the dome over the tube neck. Offers from £50 down. Cossor black Band I pattern generator, cheap. 20 EHT probes for AVO-type meters, cheap. Box of Radio & TV Servicing books, £1 each. Tony Howard, Milton Keynes 0908-373114.

FOR SALE: Book: *Hints for Wireless Designs for Amateurs*, 1913, signed by the author and including other paperwork. B. Codling, 0494-676880.

FOR SALE: The following TV sets, all in very good condition. Pye B18T 9" small table model £100; Pye D18T 9" small console £100; Pye BV30 9" small table model, amethyst screen £100; Pye BV30C 9" small console £100; Invicta T102 9" table set similar to Pye B16T £125; Marconi VT73 10" small table model £100; Bush TV11 9" wooden forerunner of the TV22 £150; Bush TV12 9" bakelite forerunner of TV22 £250; Ekco TMB272 9" Gypsy portable, leatherette case £40. Also a Webmore circular VHF set-top aerial £10. Tubes: Mullard MW31-14C (12") £10, Mazda CRM124 (12") £10, Ferranti T9/5 (9") boxed new old stock £25. Copies of pre-war **Practical Television** magazine, including issue no. 1. Seven issues in all from Sept. 1934 to April 1935 (missing February) -

what offers? Phone 0889-578416 (Staffs.).

FOR SALE: Parts to make your own modulator. Rediffusion modulator cans, unmodified - you need a pair for sound and vision. £10 a pair, data supplied (only three pairs available). Crystals for channel B1, pair of sound & vision £12 (only two pairs available). Black plastic case (two available) £3. All prices include inland postage. Because quantities are limited please order soon and either ring first to check availability or send SAE for return of your cheque if sold out. Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH. Tele: 0604-844130.

FOR SALE: RCA Victor color television, circa 1960. 21" round tube, metal case with wood finish, big, heavy, collectible - offers? Important that it goes to good home. Lots of BBC "white units", 405 monitors, other ex-broadcast gear. Brian Summers, 081-998 4739.

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INTERESTED in telephones and telegraphs? The Telecom Heritage Group is for you then, with four magazines and a swapmeet a year. Send SAE to THG, P.O. Box 499, Bishopbriggs, Glasgow, G64 3JR.

WANTED: I am looking for examples of early colour TVs, especially dual-standard Bush, Murphy, Thorn, Pye or Decca models. Anything unusual would be of particular interest. I am also seeking examples of two

early post-war GEC models, BT7092 and BT2147, and of course anything pre-war (isn't everyone!?). My telephone number is Coddendam 0449 79-366. Mike King, Crowfield Cottage, Stone Street, Crowfield, Ipswich, Suffolk, IP6 9TA.

WANTED: Instruction books for Pye V210/A television, Ferguson 382U radio, Bush TR82c radio and Pye P45 radio. Des Griffey, Luton 0582-582144.

WANTED: buy/borrow/swap old TV programmes on 16mm film. I'm gradually building up an interesting archive! Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH. 0604-844130.

WANTED: Television Annuals for years after 1961. *Basic Television* part 2 (Technical Press). Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH (tel: 0604 - 844130).

WANTED: Still hoping to find a pre-war TV set, but also wanting any TV with a round image tube, maximum 9". I pay a good price and can collect the sets. Rudi Sillen, Limberg 31, B-2230 HERSELT, Belgium. Tel: 010 32 14-546889.

WANTED: Pre-war TV, any make, any condition. Pye B16T. CRTs 3/3, 3/16 and 3/1. I can collect. Pre-war books on TV. Data on Ekco TX275. Please help me with standards conversion (625->405 and/or 625->819). If you have a Philips 663A or know of it, please exchange findings with me. Offered: help with documentation. Some crystals 41.5MHz at cost (£6 each plus postage, or I can bring them to a swapmeet). Jac Janssen, Hoge Ham 117d, 5104JD DONGEN, The Netherlands. Tel. (evenings) from UK: 010 31 1623-18158. Thanks!

WANTED: Standalone teletext adapter, especially the Ayr model. D.J. Smith, 50 Hollycroft, Hinckley, Leics., LE10 0HG. Tel: 0455-635387.

WANTED: Pye V4 or VT4 TV, Pye broadcast equipment, the mauve and light blue valve type. What have you? Information on the Pye Broadcast Station camera, type

2130 D6Y. Need manual, lenses, any info.
Michael Bond, 0733-53998.

WANTED: Peto Scott 1416T or 1716T TV (circa 1955). Mr J. D. Catt, 51 Meller Close, Beddington, Croydon, Surrey, CR0 4UB. Tel: 081-686 2389.

WANTED: Cheap dual-standard set within sensible collecting distance of Leighton Buzzard. Richard Dent, tel: 0525-385374.

WANTED: old **ATV Television Show Books**, number 2 and up. Also wanted 16mm opt. sound ATV logo, starts. Mr D.W. Probert, 16 Woden Road East, Wednesbury, West Midlands, WS10 0RG.

WANTED: ITV year books from first edition (?1962) to the last. Also prints/slides of test cards/tuning signals used by the BBC/ITA. Malcolm O'Neill, 80 Welbeck Road, Carshalton, Surrey, SM5 1TA.

WANTED: *The Authority's Transmitters* (an early ITV publication) and BBC television publicity handouts of the 1950s and 60s. Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH.

WANTED: OLD CAMERA TUBES and similar imaging devices of various types and age (and related data, etc.) sought for historic (!) collection. Particularly welcome would be an Orthicon, EMI 9831 vidicons, an Ebitron, an Image Isocon or a 1.5" vidicon. Tubes that are not operable are suitable, so if you replace tubes in cameras please don't throw the old ones away but contact Peter Delaney, 6 East View Close, Wargrave, Berks., RG10 8BJ (tel: Wargrave 0734-403121).

SWAP: I have user handbooks for the Cossor models 930T and 934, also Bush TV24 (the last is a bit dog-eared). I'll be pleased to swap all three for the Bush TV22 instructions (I don't want to sell them). Andy Emmerson, 0604-844130.

TELECINE (standard 8, super 8, 9.5 and 16mm) and 525/625 PAL/SECAM/NTSC standards conversion work. Personal service using professional equipment, by a 405 enthusiast at competitive prices. Send

large SAE for full details or describe your specific requirements. We regret we cannot handle 405/625 conversions! Lionel Fynn, Plato Video, 70 Richmond Hill, Bournemouth, BH2 6JA. Tel: 0202-24382.

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AND IF YOU'RE AFTER THE VERY LATEST INFO ON SATELLITE TELEVISION ... you should be reading **Transponder**, the definitive subscription newsletter. For details ring 0270-580099 or send SAE to Transponder, P.O. Box 112, Crewe, Cheshire, CW2 7DS.

RECOMMENDED SHOP: J. & N. Bull Electrical, 250 Portland Road, Hove, Sussex has old TV servicing equipment from time to time, also obsolete and spare parts at reasonable prices - Albert Pritchard.

MOMI - THE WORLD'S MOST EXCITING CINEMA AND TELEVISION MUSEUM. South Bank, London SE1. Tel 071-928 3535 (switchboard) or 071-401 2636 (recorded information line).

NOTHING to do with vintage TV but if you are interested in the "alternative" video and independent TV production scene, you may care to read *Independent Media*, a thick monthly magazine costing £1.25. Full details from Independent Media, 7 Campbell Court, Bramley, Basingstoke, Hants., RG26 5EG. Telephone 0256 - 882032.

ON THE AIR Vintage Sound and Vision is a new venue for vintage broadcasting enthusiasts. Situated in Chester's major antiques centre, ON THE AIR has a constantly changing stock of vintage wireless, television and related items. Please write (enclosing SAE) or phone for further details and to ensure personal attention before calling. Open Monday to Saturday 10.00 - 5.30. ON THE AIR, Melody's Antique Galleries, 32 City Road, Chester. Tel: 0244 - 328968 or 661062.

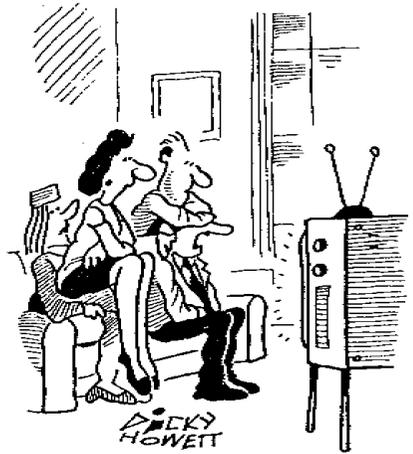
TEST CARD VIDEOS FOR SALE: 55 minute video presentation made for the BATC "The Development of the TV Test Card". Andrew Emmerson interviews George Hersee, designer of Test Card F. Lots of old test cards included.

Also ... "Exotic TV Idents" but that is an understatement. For this tape covers East Germany, USSR, Poland, Czechoslovakia, Estonia and Romania plus other exotic locations such as Mongolia, Libya, Algeria, New York, "BBC London" and many west European countries and satellite channels. In all there are over 80 test cards, station idents, news programmes and start-of-day recordings, lasting 49 minutes in all. Explanatory captions describe each segment and the recordings were made on broadcast equipment in a TV studio "somewhere in Eastern Europe".

Both titles cost £9.99, VHS PAL only. Please allow 14 days for delivery. Andy Emmerson, below.

TELECINE: At last - an affordable telecine service! If you want 16mm films (not other gauges, sorry) transferred to VHS but cannot afford the usual charges, how about giving me a call? You can collect/deliver and supply your own tape to save money if you prefer. Quantity prices are available, too. Equipment has 430 lines resolution (better than S-VHS!) and handles optical and magnetic sound. Ring or send SAE for details. Andy Emmerson G8PTH, 71 Falcutt Way, Northampton, NN2 8PH. Tel: 0604-844130.

BOOKS! Large new catalogue of second-hand radio and TV books. Send four first class stamps for one issue or £2.25 cheque or postal order for next four issues. Chevet Books, 157 Dickson Road, Blackpool, Lancs., FY1 2EU. Tel: 0253-751858.

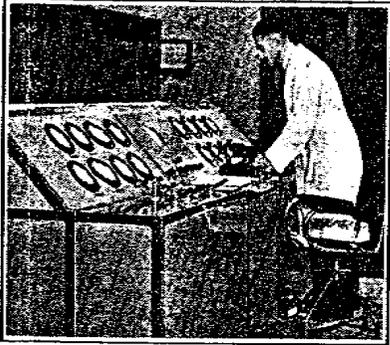


*I SAID, I HOPE WE'RE NOT DISTURBING
YOUR EVENING.....*

PAGES FROM THE PAST

1. from **Wireless Retailer & Broadcaster**, August 14, 1937.

2. from **Wireless & Electrical Trader**, October 1, 1949.



TELEVISION TOPICS

WE shall switch on Monday's programmes, when the Alexandra Palace resumes duty after its overhaul, with critical expectancy. Will any improvement in the signal be discernible? (With their usual modesty B.B.C. engineers will not say that any improvements have been made during the last three weeks. They will only confess that there has been an overhaul.)

Rumours have been going round that a new transmitter is being built, and people have been wondering whether it is for Birmingham or just an Alexandra Palace stand-by. B.B.C. denies that any apparatus is being made except some for the improved synchronising signal decided upon as a result of Scophony's representations. This gear is not ready yet, and so some weeks at least must elapse until the B.B.C. signal is suitable for systems with inertia.

This week's picture shows a control panel at the Palace.

* * *

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THE WIRELESS AND

COSSOR INTRODUCE EXTENSION VIEWING

Units Can Be Used With Any
TV Receiving Set

EVE of Show announcement by A. C. Cossor, Ltd., is of a range of extension viewing units enabling television to be extended from any ordinary TV receiver to any other room in a house, and, within reason, to any distance.

The units have been developed by J. C. G. Gilbert, M.Brit.I.R.E. with the assistance of R. S. Roberts and utilize part of a standard Cossor television chassis. They include a P.M. loudspeaker, with volume control, power supplies, the scanning generators, sync-separation circuits, video amplifier and phase reversal valves; in fact, the complete receiver, less the R.F. strip. This means a saving of about 8 valves, and the units will obviously work on sets in the London or Birmingham (or other) areas.

They may also be employed in conjunction with American television sets, without modification other than suitable adjustment of the control provided. This point was stressed by Lord Burghley, chairman of Cossor's, at a luncheon to the Press to introduce the units in London on September 21.

One Connection Only

The only connection necessary to the ordinary vision receiver is one lead clipped to the modulator grid of the C.I. tube. This is isolated from the "slave" unit by a capacitor, and close to this is a small cathode coupling unit which contains one valve (fed from wires in the cable link to the "slave"). By adjusting two trimmers, frequency compensation and phase shift can be adjusted. Once set, these do not need re-adjusting.

The unit also has a special interference reducing feature, whereby even if ignition and similar interference is visible on the "master" set, it is reduced or eliminated on the "slave" tube.

One or two of these "slaves" connected to any domestic receiver have no effect on the "master" set; the slave normally works at the end of a 30ft special cable, but this may be extended to 70-80ft or more. At the demonstration, one "slave" was working at the end of a 150ft cable.

10 and 15in Models

The slave unit can be attached and adjusted in less than 10 minutes, and it cannot harm the master set. Two models will be available, one with a table cabinet and 10-inch tube and the other a 15-inch console. The latter provides a means for the 9-inch or 10-inch set owner to have a 15-inch tube picture for much less than the cost of a 15-inch complete receiver.

The performance, as demonstrated, was entirely satisfactory, with no noticeable difference in the quality of the master and slave pictures. Prices are not fixed, but the 10-in model is likely to be under £40 including tax.

GOOD HOMES WANTED!

The following items have been offered free of charge or almost free by their generous owners, though they will doubtless accept small donations if you are pleased with what you get! This latter kind of gesture goes down well since in many instances the advertisers are not members of our group and are pensioners, widows, etc.. Where no phone number is given please enclose SAE with your letter, it's only fair.

In each case the advertiser has agreed to hold the items for one month from publication - after then it's probably the corporation rubbish dump or an antique shop. You have been warned!

* Philips Dual-Line (convertible, but never equipped for 625 lines). R. Hague, Nottingham 0602-270402.

* Cossor model 948 complete with service sheet. George Tolley, 24 Ashlyns Road, Berkhamstead, Herts., HP4 3BN. Tel: 0442-877471.

* Half dozen old TV sets, free to enthusiasts. Some are 405 line and were working when transmission stopped, rest dual-standard non-working. Adrian Hanwell, Norton Villas, 59 Western Road, Brentwood, Essex, CM14 4SU. Tel: 0268-402344 (work), 0277-227708 (home).

* Three chassis and two tubes from mid-1950s Cossor 938A or 939A, free if collected. Malcolm George, Manuden (near Bishops Stortford). Tel: 0279-813727.

HOW TO CONTACT 405 ALIVE

We want to hear from YOU! This is **your** magazine, so please send in your letters, notes and articles; don't be bashful, other people **will** be interested in what you're doing! As we do this for fun, not profit, we regret that we cannot pay for contributions but authors are encouraged to retain their copyright and are free to publish their articles in other publications as well. Send us your advertisements too.

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. I can handle most variations of IBM PC and CP/M disks in 3.5" and 5.25" size but please process your words as an ASCII or WordStar file. I cannot handle Amstrad PCW, BBC or Macintosh disks, and if in doubt please ring first on 0604-844130. Thanks. You can now also fax your letters, ads and articles on 0604-821647.

THE BACK PAGE

405 Alive is an independent, not-for-profit magazine devoted to the study and preservation of old television technology and programming. It is sold by subscription only and thus has no cover price: it is not subsidised by any other organisation. Publication is at approximately three month intervals, normally in January, April, July and October.

Correspondence is welcomed: write to the editor, Andrew Emmerson, 71 Falcutt Way, Northampton, NN2 8PH. If your letter is not intended for publication please indicate this clearly. All letters are gratefully received and will be acknowledged in the next issue if not sooner. If you are expecting a reply you **must** include a stamped addressed envelope **and** preferably also your telephone number (in case it is quicker to telephone a reply) - thanks.

Editorial policy. We print readers' addresses only in small advertisements or when asked to. We will always be happy to forward letters to contributors if postage is sent.

Advertising rates. Classified: free to subscribers, £1 per advertisement for others. Display ads, using your artwork: £5 per half page.

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

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

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

NARROW BANDWIDTH TV ASSOCIATION: Mr N Reynolds, 6a Collingbourne Road, London, W12 0JQ.

TEST CARD CIRCLE: 2 Henderson Row, Edinburgh, EH3 5DS.

IRISH VINTAGE RADIO & SOUND SOCIETY: Vincent Farrell, 39A Lower Drumcondra Road, Dublin 9.

We also read and recommend these other specialist publications of interest:

RADIO BYGONES, 8a Corfe View Road, Corfe Mullen, Wimborne Dorset, BH21 3LZ.

TELERADIO NEWS, 7 Epping Close, Derby, DE3 4HR.

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. This is what you do ...

Send a cheque for £10 (inland), £12 (abroad) made out to Midshires Mediatech, which will pay for a year's subscription (four issues). The address is 71 Falcutt Way, Northampton, NN2 8PH.