



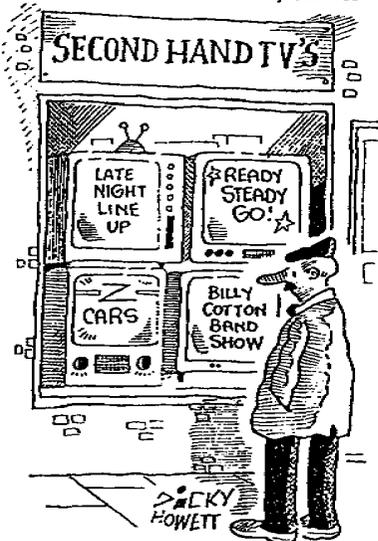
64 PAGES!

405 ALIVE

THE VINTAGE TELEVISION MAGAZINE

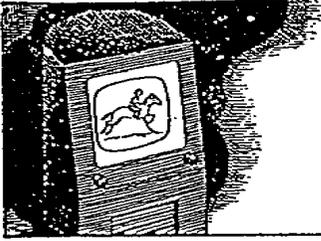
ISSUE 8. October 1990.

Editor Andrew Emmerson, G8PTH



IN THIS ISSUE:

Your Letters	3	Test Card C and All That .	34
Television Newsreel.....	9	Tales of Old TV	36
Book reviews	14	Converting the Standards .	37
The 4-0-5 Special	17	Collectors & Collections .	39
(Scottish) Musical Notes .	17	Lucy's Lost Treasure	42
Cannonball	18	British TV Series	44
Teletalk	20	Visit to A.P.	45
Converter News	24	Video recording notes	48
Pye-Eyed Again	25	Fine Adjustment	49
441 Alive	26	Market Place	54
Radio & TV Interference ..	27		
Reviving a Marconi 707 ...	31		



FROM THE EDITOR ooo

First of all my apologies: this issue is appearing later than I intended (I had hoped to put it out in September and beat the rise in postal rates!). The magazine is now produced in a more sophisticated way and getting to grips with this took rather longer than anticipated. A number of other factors also intervened. However, at least (at last?) you now have the magazine in your hands and as if to compensate, it's our biggest issue yet. I hope you find the overall appearance an improvement. The magazine is now made up on a laser printer using WordStar and Bitstream Fontware (I bet you wanted to know that!).

That's out of the way, so ... Hallo again! The end of volume two and we're still here. So it wasn't just a "here today, gone tomorrow fad" after all ... In fact issue 9 is almost complete already and although dated January 1991 could well be posted before the end of 1990 - if you have renewed your subscription, that is!

Well, as you cannot fail to have noticed even before I mentioned it above, this is our biggest issue yet - all of 64 pages. Yes, I know it's an odd number to choose but it represents the limit of the first step of postage and even 72 pages would have taken us to the next higher charge. So it's the good old British compromise. No doubt you'll appreciate the scope the extra pages give us for more articles, more room, and all issues will have 64 pages from now on.

That has two implications: we need more articles and letters from you and (gulp) a little more money. I think most will agree that the extra pages are worth having. You will not be surprised to hear that postage and paper charges have gone up and we are now having to employ a mailing service (the price of success!). All in all, I don't think the price rise is unreasonable but I'm biased. If you disagree, well, you need not renew your subscription! Rest assured, **405 Alive** is a not-for-profit enterprise and does not even cover its true costs. In fact that's one of the reasons the price is going up. But we need your support; without that, there's no point in producing **405 Alive**.

Another thing. As you must have realised, an enthusiasts' mag like this cannot afford paid publicity and we rely mainly on word-of-mouth to increase circulation (you can do your bit to help - thanks!). We also send out a few mailshots - some of these "come good", the rest must get ignored. It is the feedback on which we rely, and the first really negative comment came back recently - the guy thought **405 Alive** was obsessed with trivia. Well, of course it is ... it was never intended as great literature or something to uplift the spirit! At least it is the only specialist publication devoted to TV collecting and history in the world (unless you know better!). Anyway, the assumption is that people like it as it is, but if you don't please complain! You can even have your money back if you return the magazines undamaged within a week.

The only constraining factor is that we can only publish what we get by way of contributed articles - we'd like some more non-technical ones, and perhaps you can help.

Remember, you don't have to be a professional writer for 405 Alive; we take your copy as it comes (and we'll do any necessary tightening up on spelling, punctuation, etc.).

Since the last issue appeared we have had quite an influx of new subscribers - welcome to you all! Some of you newcomers saw the article about the 405 movement in *Hardware's UK Network*: their editor David Sparks kindly gave us some space in this widely read broadcast paper. Many of you new folk seem to have more interest in the programming side of TV than in technical matters and I am trying to keep a balance in the treatment of both. If we are still favouring the technical side, that's only because more of these articles have been contributed: let's have some more non-technical ones please ... we want to avoid any bias!

We also have a bumper batch of small ads this time. Oh, you already knew that because you start reading from the back of the magazine? Please support these advertisers, especially the Good Homes Wanted people. We have some worthy helpers or talent scouts who phone in details of a lot of these sets, and I don't want word to get back that nobody wants them!

Up to now I don't think I have given much mention to the newsletter of the Test Card Circle, so I am pleased to make amends now. Their issue no. 2 (Summer 1990) runs to fifty A4 pages, devoted to matters concerning the test card, test card music and trade test transmissions. While we have touched upon these subjects in *405 Alive*, the TTC people go into considerably more detail and it is a satisfying (and weighty!) read. More details in the Newsreel section of this issue.

In the same issue of the TTC newsletter Paul Sawtell invites suggestions for next year's test card convention, which will probably be held in Leominster again, during March. He mentions a possibility of inviting 405 Alivers to share the venue and if accepted by TCC folk, I'd certainly like to wave the flag there and show people what 405 line TV was actually like and how old test cards should really be seen!

I am also looking into other ways of organising a swapmeet/bring-and-buy event combined with a demonstration of old equipment. Any suggestions or offers of help will be most welcome! At the moment I am looking into a swapmeet held in late Spring in Harpenden (close to M25, M1, main line station). The venue is now well-established as a collectors' haunt as it is used by the British Vintage Wireless Society and the Telecom Heritage Group. Another possibility is a Sunday "405 Alive" day at one of our technical museums - details once this has been agreed.

Last point: you can now reach us by fax. The number is 0604-821647, so feel free to send your letters, advertisements and articles by this means.

Andy Emmerson

LETTERS, WE GET LETTERS ...

From Andrew Redding, Rotherham:

My latest acquisition is a 1950 Marconi combined TV/radio, type VRC74DA. It's a magnificent piece of equipment in

immaculate but modified (not by me, I hasten to add!) condition. as you can imagine I now need to make space and I have some radios to sell (see small ads). A lot of 405 Alivers I have spoken

to seem to be into early radio as well as TV, so it might be a good advert to run.

From Dave Probert, Wolverhampton:

Have you heard of the (possibly defunct) magazine Vulcan? It covered semi-vintage 60s and 70s TV. I was looking through a 1988 edition the other day and came across this announcement. *STARS (Savers of TV And Radio Shows) is a semi-club run by Denis Gifford and Eugene Cheese. The object is to compile a list and distribute among fellow collectors for private exchange of audio and video tapes of old radio and TV shows. You were asked to send £5. I never did follow this up but it may be of interest to you.*

Many people might be wary about sending £5 but it may be a very worthy operation. Does anyone know?

From James Thomson, Aberdeen:

I thought that the January issue was the best so far. My letter concerns a safety point. On many Rank sets of the 1960s, using the A640 and similar chassis, there is a plastic ensheathed wiring loom, running from the LOPT to the timebase board. It runs very close to the line output valve and efficiency diode, and I have seen several cases where the plastic sheathing became badly charred.

Does anyone know whether or not these looms are likely to catch fire?

Still on the subject of safety, it was interesting to read Malcolm Burrell's article. In the last issue, in which "drop-off" resistors, as used in Philips dual standard sets, were mentioned. Encountering an out of tolerance "drop-off" resistor, I would be tempted to reach for a 1W carbon film replacement. However, caution is needed. back in the Nov. 1965 issue of *Practical Television*, A.G. Priestley

warned that some resistors were not heavy enough overcome the surface tension of their securing solder, should they overheat and melt the solder under fault conditions.

From Mike Sage, Rayner's Lane:

My eye was caught, when glancing through the Sept. 90 issue of *Broadcast Hardware's UK Network*, by the picture of an early Ampex 1000 VTR in your article "We keep 405 Alive ...".

I cut my teeth on these machines over 30 years ago, and long regret the passing of those days, when engineers had to understand every discrete component, when valves told you whether they were alive or dead, and when transmissions were manually driven not computer-controlled as nowadays.

I am delighted to subscribe to your magazine *405 Alive*, especially as my loft contains, probably, many of the wants of others.

When BSB really get their 16 x 9 aspect ratio transmissions going we'll have to start a "4 x 3 Alive" club!!!

From Andrew Redding, Rotherham:

I'm surprised the Ekco TMB272 isn't more sought after as it has a mains transformer to isolate the chassis and the 9" tube doesn't take much to scan. It's also a sensitive set with AVC, is portable (but weighs a ton) and it can even run off a 12V car battery. It's certainly more flexible than the Bush TV22!

From Barrie Portas, Waltham:

Anybody watching the episode of *All Creatures Great and Small* on BBC-1 on Sunday 17th June would have had several glimpses of a Pye VT4 type television in action. Muffin the Mule,

BBC-1 test card and, complete with interference, a Joe Davis snooker match. All scenes were of only a few seconds duration.

From Paul Ruddock, 5 Kent View, Hastings Road, Telham, Battle, Sussex, TN33 0TR:

I have just heard of 405 Alive from the Vintage Wireless Museum. It seems quite good to me so I enclose a cheque. I have an Ekco TS105 which is not working at the moment but I intend to get it going as soon as possible. I was wondering if someone could tell me whether the tube for my Ekco is still available and if so, how much it would cost. It is a Mazda CRT type CRM92A.

"Quite good" - only quite good?!

From Jacques Poinignon (former Thomson engineer), 71 Rue Magenta, 92600 Asnieres, France:

I possess a Murphy Radio Ltd receiver type A56V, which was doubtless purchased by the Thomson company between 1937 and 1939. It is equipped with a 22cm (9") diameter tube. Could anyone supply me with data to help me get it working as it is badly despoiled?

Jacques has written about his magnificent collection of old TV history and we will include this in the next issue. We have also had an article-length letter from a collector in east Germany who possesses two pre-war British sets, and this too will appear next time. Amazing! Where will this all stop?!

From Tony Fell, Kingston-upon-Thames:

Has anyone any info on the following? A 180-line system was in use in Egypt. Also, an article appeared in *Wireless World* in 1971 about a sequential 3-field colour system using a 405-line CCTV camera. Did anyone see this working? Also the EVR system using a special film

and flying-spot scanner circa 1969 - were any actually sold? Does anyone own one of the original Sinclair Micro TV sets? It would be nice to see a picture of one.

Some food for thought there, let's see if anyone can offer some ideas. The EVR players (about the size and weight of a U-Matic) certainly did exist and a number were released onto the surplus market about ten years ago (I had two and never found a use for them!). As for Sinclair's Microvision, I think he announced this a couple of times before actually producing them. The first models were a "world standard" model, then came single standard European BG and I versions. Rarest variant was the 1 volt video monitor version. [AE]

From David Boynes, Winlaton:

A few months ago I would have thought there might be a need for a magazine called PAL Alive. However, I am aware that an improved PAL specification is now under development in the UK and Germany.

Back to vintage TV. David Butler has acquired a RGD TV-radiogram combo of 1937 vintage, the bad news is that the TV units have been replaced by an early 1950s Cossor receiver. The aim of our restoration is to build replicas of the original timebase, signal and TV power units; it is unlikely we'll find the pre-war units. This early RGD set employs an electrostatic CRT, therefore no special transformers will be required, each timebase will use Mazda AC/P4s in push-pull. The receiver section is a superhet, the first stage being an RF amplifier, the second a triode-hexode frequency changer followed by four IF amplifier stages. A single diode detector and a video amplifier drive the CRT and a twin diode sync separator stage. IF frequencies were 13MHz vision and 9.5MHz sound, the RF and IF pentode valves were possibly Mazda AC/SP3s.

Some of the circuitry is similar to the 1937 *Wireless World* construction project. I shall have to swat up my coil theory because coils and IF transformers will have to be made. We are aware that the 1937 WW circuit is similar. also the deflection circuit techniques in these two designs are different compared with magnetic deflection receivers, for example negative EHT supplies similar to many oscilloscopes.

This week I acquired a 17" Ekco console TV of 1954/55 vintage. Quite a nice set this one, full length doors, 12-channel turret tuner, balanced line flywheel discriminator and spot-wobble to hide the line structure. This set, along with many others of the era, featured two heater chains, one of 0.2 amp and the other 0.1 amp. The two join up to form a 0.3A chain consisting of the CRT and the tuner valves.

One feature that might be worth including in 405 Alive could be "Sets Worth Looking Out For". I know many collectors who would like a TV22 or a pre-war receiver in their collection, however, many other weird and wonderful sets have been made over the years.

One set I would like to find would be the English Electric model 1550 or 1650 of 1949/50 vintage. This 15" or 16" set not only featured a line flywheel sync system, it also had facilities for FM radio reception, four years before official FM broadcasts had started in the UK!

From Bill Allen, G4RUQ, Chesterfield:

Hello there, my name is Bill and I was very interested in the article in the Television mag. about the group that you are running about 405 TVs.

I started in the T.V. "Game" way back in 1957, so I was doing all the band 3 mods. I was converting radar units into TVs as far back as 1947 and

was receiving "Ally Pally" even up here in Derbyshire.

I had a H.M.V. in 1949, a 9" if I remember, so you see Andy I am very interested in your club and I would love to join if I may.

Do please send me all you can on the club and I am sending you a large S.A.E. for your reply.

I am still in the electronics game - I now work for British Coal in the electronics that are used in the coal field.

From Prof. Dr. Otto Kuenzel, German Society for the Friends of Radio History:

Thanks for your 405 Alive magazine, which I read with great interest. I will write a short article about it in our magazine *Funkgeschichte*. 405 Alive will be more interesting for German readers if you will consider also 441 Alive. Perhaps your journal would become the journal for all European TV-enthusiasts!

I don't know the exact number of German TV collectors. The most active are Juergen Valter (who is already a member of 405 Alive) and Gunthard Kraus. Interested in early video recorders is Stefan Richter. You will get to know more if 405 Alive is made well-known through *Funkgeschichte* next time.

I also don't know the exact number of existing pre-war TV sets. There might be about 10 (to 20), mostly in museums. I know only one person, who has a pre-war German TV set (not complete). It's impossible to buy one.

From Jac Janssen, Dongen, Netherlands:

In 405 Alive issue 7, page 5 you mention the Evoluon is still there and well worth

visiting. I am afraid this is no longer possible, since the Evoluon was closed to the public at the end of 1989.

I am not very fortunate (yet?) in finding very old TV sets. Maybe my advertisement will help (in the Market Place section). I would like to contact owners of the Philips 663A to exchange findings. It is a console model with 31cm tube and built-in radio, approx. 1950. Any information, sales brochures or advertisements will be welcome; the Philips archives in Eindhoven cannot help. Does anyone have such a TV or can estimate the number still alive? I will send you a photo as soon as the set is assembled again (at this moment it is completely dismantled).

From Gunthard Kraus,
Domaenenstrasse 47, W-7992
Tettngang 1, Germany:

I have a lot of radio receivers and TV sets in my collection, but now I prefer the things "made by Philips". That is why I have given away a lot of material (not enough room in my house ...). But last year I got something which will interest you: the wreck of a Philips projection TV set, made in England for England, circa 1955.

All tubes are missing and somebody has cut the upper half of the case with the glass screen (which is still missing) but I believe this is a rare object even in England. The type is TG600A/15. Can any owner of similar apparatus help with further details for a reconstruction or exchange? Now I say "Good Bye" and I am pleased to get your answer.

From John Wakely, 108 High Street,
Colliers Wood, London, SW19 2BT:

My HMV 900 dates from mid-1937 and may be one of the oldest around, but I feel sure that one of our little group will find an example from 1936. Mine is original apart from a rewound EHT

transformer and a few caps in the field (sorry, frame) linearity circuit.

About 20 years ago the *Daily Mirror* ran a feature to find the oldest working TV in Britain. It turned out to be a 15" Cossor 1210 series, still used by its original user (1937/38?). I wonder if he is still waiting for normal service to resume!

A quick point: the System A modulator in *Television* provides such a high output that if a couple of yards of cable is attached to the output socket, the unit will transmit a clean signal around a room to sets using simple indoor dipoles. (The signal does not get outside the building ...). I fooled a friend in the trade this way, he thought the 405 transmitter was still on the air!

If any reader requires to identify any period models or service advice, I may be able to help giving valve types and CRT, etc. (SAE would be appreciated). PS: I have had a Philips N1700 VCR "working" in my service room for a few months now. It's free to any member that would like to have it for spares, etc., but it must be collected. Ring 081-542 3861.

From Jeff Myers, 109 September way,
Stanmore, Middx., HA7 2SF:

Has anyone out there got a *Mandrell* jammer set or a Mk X radar set (or similar types) for sale? Or a German pre-war condenser microphone, any *Window* strips, *Rebecca*, etc.? Also, as all the German TV sets were requisitioned and sent to Paris and all French receivers were modified to the German 441 line system has anyone out there got a pre-1945 French TV?!? Or a German one would do nicely ...

Watch it! I'm ahead of you in the queue. I presume the only way is to take a train to Paris and hover round all the flea markets that city is famous for. I am told, though, that the French haven't even saved any 819 line sets, let alone

441 line ones. But I hope I am proved wrong! [AE]

From Alan Keeling, Oldbury:

Looking at the latest edition of *TV Times*, I noticed that Central are showing a vintage series called "Famous Mystery Theatre" in the wee small hours of Friday 24th August.

On researching this, I find the series was produced in 1959 and originally titled "Chevrolet Mystery Theatre", hosted by Walter Slezak.

It just shows what weird programmes turn up. I also watched this show - it was in (slightly odd-looking) colour - and was amazed by its simplicity and that fluffed lines were not edited out. The closing credits were butchered, presumably to remove the name Chevrolet or to prevent viewers from realising how old the programme was! [AE]

From Mike Still, Top Flat, 95 Queen's Drive, London, N4 2BE:

I am a commercial vehicle enthusiast, with a particular interest in TV and radio outside broadcast vehicles, and I take (and collect) photographs of same.

Does your group keep records of the vehicles used by TV companies, or have contacts with any organisations who might have historical (or current) information?

We have put Mike in touch with Brian Summers, who has an OB van. Would anyone else who can help please contact Mike direct. We'd like an article on this subject, and one specifically on Dinky Supertoy models of these impressive vehicles will appear in 405 Alive soon. [AE]

From Tony Fell, Kingston-upon-Thames:

The BBC Engineering Information Department has available a free Information Sheet 4306(6) which features an excellent colour photo of Test Card F and also G (this interpretation being the PM5544). The leaflet has not been updated since 1980 so it still describes Test Card F as a transparency!

From Dicky Howett, Chelmsford:

Good issue again, (July). Now I did have a copy of *Fools on the Hill*, but this fool wiped it by mistake! The play was unsatisfactory as drama and history (although entertaining enough). The show also got an airing in the States at the time of transmission.

in First-Class Journey, with Peter Adam, Paul Bonik, Maurice Denham, Lord Haec.

NEW SIGN



THIS new identification signal comes on the air for the first time tonight. It will be used every evening at 6.55 to herald Associated-Rediffusion programmes.

Belsho, John Innes, Angus Wain, 1.40
—Gramp, 1—Schools, 3—Earl's life as
recorded in the songs of the Music-Hall
3.40—

TELEVISION NEWSREEL

BAIRD TV HISTORY LECTURE

Because of our publication schedule we were unable to give you advance notice of this talk but it seems to have been a success. Edwin Parsons writes "On 17th May I went to the meeting held at Anerley town hall, about Baird TV history at Crystal Palace. Ben Clapp, who is 95, gave a very interesting lecture, as did two of his colleagues."

TIME SCREEN et al.

There are a number of magazines devoted to old TV programmes *per se*, you can even find some (well, one) on the shelves of your local W.H. Smith's. Some of them are devoted entirely to Dr Who and are found only in specialist fantasy shops such as *Forbidden Planet*, whereas others are sold mainly by mail order. It's probably time we gave them a mention just in case you would be interested in this kind of thing. All three of the following take the format of illustrated in-depth articles on particular programmes or series, normally with synopses of each episode and details of the cast, locations used and so on.

Pre-eminent is *Time Screen*, "the magazine of British Telefantasy". This A4-size magazine boasts a colour cover with computer print inside, and is well researched. Topics covered include the original Quatermass series, H.G. Wells's "The Invisible Man", a guide to Avengerland locations, "The Prisoner" as well as more recent series. Most issues are around the £2 mark and are thoroughly recommended. Details from *Time Screen*, 88 Edlington Lane, Warnsworth, Doncaster, Yorks., DN4 9LS.

In similar vein, but covering comedy and thriller programmes, British and American, is *Vulcan*. "Batman and Robin", "Sgt. Bilko" and "Planet of the Apes" are three of the series which have been Vulcanised, definitely for the better. This colour-cover quarterly is nicely printed - no amateur production - and sells for £1.95. Details may be had from Chris Anglos, 35 Eburne Road, London, N7 6AU. (Slight snag: we're not sure if *Vulcan* is still being published but if not, back numbers are probably still available.)

Possibly the most ambitious of the TV fanzines is *Prime Time*, the organ of the Wider Television Access movement. They are (were?) partially funded by the British Film Institute but all contact with their organisation has failed, so I cannot tell you much about them, except that old issues of their mag sometimes turn up at *Forbidden Planet* in London. A couple of years ago they arranged screenings of old TV programmes in London, and it is frustrating that we cannot find out more information. (They are no longer at the address given in these magazines.)

The USA is represented by *Reruns, the Magazine of Television History* and *Filmfax, the Magazine of Unusual Film and Television*. Copies of these turn up irregularly at *Forbidden Planet* in London's New Oxford Street and probably elsewhere.

In all cases please send a SAE with enquiries, the publications do not have limitless budgets! If you can add any information please write in!

TEST CARD CIRCLE

A quick note to say that issue 2 of the Test Card Circle's newsletter has been published and my, how it's grown! Running to fifty pages it provides subscribers with an excellent read on matters relating to test card music and trade test transmissions in general. An illustrated article on Blackhill channel 10, complete with superb photos of the old tuning signals and test cards caught my eye in particular.

With this issue subscribers also received a car sticker and a souvenir supplement commemorating the convention held earlier this year at Leominster. All excellent stuff and if you are not already a member of this illustrious body now is the time to make amends. Send a cheque for £6 to The Test Card Circle, 2 Henderson Row, Edinburgh, EH3 5DS.

NBTV

If these initials mean nothing to you (why not!?) you should be aware they stand for narrow-band television, and there is an active group of enthusiasts who still make TV equipment to these simple standards. The equipment and results are often not simple of course. NBTV (in capitals) is the world's only periodical devoted to mechanical and low definition television and is published four times a year by the NBTV Association (address on back page of this magazine).

The latest issue of their newsletter is just out and includes interesting-looking circuits for phase correction and a continuously variable low-pass filter as well as other news. Well worth subscribing to if you like this kind of thing!

BFI NEWS

Steve Bryant, Television Acquisition Officer of the British Film Institute writes: "Your readers may be interested to know that a 405-line videotape dating from September 1958 has been found by Thames TV at their Euston studios, although it was made, of course, by Associated Rediffusion. It is part of a two hour drama compendium called *Women in Love*, introduced by George Sanders and transmitted on 24th September 1958. The tape, which was physically edited, contains three of the six mini-dramas (the other three were probably live) and all the links by Sanders. A transfer to 1" has been made and the quality is remarkably good. I think this must be the earliest British TV programme material on videotape in existence."

The BFI is gratified that following extensive lobbying by itself, the Government is to amend the Broadcasting Bill to make provision for the national archiving of television a statutory duty of the new Independent Television Commission (ITC). When the issue was raised in the House of Commons Committee, it received substantial all-party support. Broadcasting Minister David Mellor was sufficiently impressed by the arguments to indicate that he would give serious consideration to the case. After further intensive lobbying he agreed to include the BFI's archival amendment in the House of Lords.

The aim of the amendment will be to ensure that an archive of television programmes included in services licensed by the new ITC is maintained by a body designated by the 1988 Copyright Act, and to provide for its funding. The BFI's National Film Archive is such a designated body and its right to record television programmes for inclusion in a national collection was specified under the terms of a clause in the

1988 Copyright Act.

The main effect of the new legislation will be to safeguard the current voluntary arrangements by which most of the Institute's recording work is funded and provide a framework for future expansion. It will also boost the Institute's continuing campaign for the provision of a fully-funded National Television Archive, based on the television work of the National Film Archive.

** Many fondly-remembered programmes are missing from the archives, for instance:*

The Grove Family (BBC soap, 1950s), Dixon of Dock Green (only 30 out of 430 episodes of this BBC programme survive), more than 100 early Doctor Who episodes, science fiction dramas such as A for Andromeda and The Quatermass Experiment (last four episodes lost), What's My Line (only three original programmes survive), most Armchair Theatres and other early plays, most of Sunday Night at the London Palladium, The Newcomers (BBC soap, only two episodes saved), James Burke's and Patrick Moore's studio presentation of the first moon landing, early Z-Cars, Whirlygig and other 1950s children's programmes, most advertising magazines (admags) such as Send for Saunders and Jim's Inn, early programmes of Till Death us Do Part and At Last the 1948 Show, and music programmes such as Oh Boy, Six-Five Spectal and Thank Your Lucky Stars.

END OF AN ERA

One of the most interesting programmes concerning TV and Radio has been axed, yet only a few people will ever know it has gone! Never listed in paper or even TV Times listings, the IBA TV/Radio Information programme ended last July.

In fact the IBA's Engineering Information programme had its final transmission on Tuesday 31st July, after twenty years of telling viewers and dealers what was happening to the ITV network. Starting on the ITV network on Monday mornings at 0925 (immediately following "Monday's Newcomers" - where all the new TV commercials to be aired that week were shown), as this was the only time the ITV network switched to a single source outside peak times. Its purpose was to let dealers know when new transmitters were being installed; it also talked about the coming of satellite and ILR radio. Indeed, it was usually more interesting than any of the so-called "mainstream" programming.

When breakfast-TV programmes began to encroach on the morning airtime, the programme switched to Channel Four at 0910 on Tuesdays. With the coming of Channel Four's breakfast programmes, the only slot that could be found for the programme was 0545 before CH4 officially went "on air" and the IBA were forced into trusting everyone could cope with programming their VCR timers!

The first programme was transmitted live from the IBA's (then ITA's) headquarters in Brompton Road, London (known to many in the industry as "Brompton Towers"). The last programme was pre-taped from the IBA's first Floor TV studio at their facility at Crawley Court, Winchester (near Southampton) on Monday 30th July, and sent "up the line" to Channel 4 in Charlotte Street, London, to await its 0545 ploy-out on Tuesday morning. It featured many familiar old faces and pictures, as well as interviews with information officers Pat Hawker and John Lovell, and was a memorable production despite its brief 15 minutes length.

Engineering Information will still be available for a limited period on Oracle -

look for pages 297 (ITV) and 697 (CH4).

A short programme explaining the working of the new privatised transmitter company Transcom was shown the following Tuesday at the same time, the last weekly transmission to be made from Crawley Court.

And now would someone like to write us an article on "Monday's Newcomers"? [Raymond Orr and AE]

ITC SHOW RE-RUNS?

It is reported that Central and the other ITV regions have bought the rights to show at least ten old Incorporated Television Company series. These included the old faithfuls such as *Robin Hood*, *William Tell*, *Sir Lancelot*, *Forest Rangers* and many more. We'll have to see where and when they appear - let us know if you have details. [Alan Keeling].

ITC is currently running an advertisement in the trade press for *The Adventures of Robin Hood* (143 half hour programmes). The blurb runs: "Robin Hood is coming back in a big way this year. Get in on the action and excitement. ITC has the exclusive distribution rights to the series that defined a hero for a generation." We await developments ...

PPT

You may be interested to learn that the Projected Picture Trust is a body founded ten years ago to save for posterity examples of technical equipment used in the motion picture industry. Already many fine projectors, sound systems, arc lamps and ancillary gear have been saved for the crushers. They have a number of branches around the country as well as a permanent home in the Astra camp cinema which they have restored at Duxford airfield in Cambridgeshire. We have written to them to notify our related interests and received a most positive reply:

Thank you so much for your letter and enclosure and I am more than interested in the presence of an organisation such as 405 Alive.

We should certainly exchange Newsletters/Magazines and I have already put into motion for you to receive our next Newsletter and subsequent ones.

Meanwhile, we should be able to put a piece in about you in the November issue and have accordingly sent you piece off to our Editor, Stephen Herbert.

If you would like to learn more about the PPT you can do so by writing to their chairman Bill Stephenson, 55 High Street, Tring, Herts., HP23 5AG. Telephone 0442-890999, fax 0442-890258.

NEW(ISH) IRISH SOCIETY

We are pleased to give a plug for the Irish Vintage Radio and Sound Society, which now has 35 members and issues a newsletter four times a year. We have arranged a swap, so we'll all be kept in touch with what's going on

FAR-FLUNG READER

Welcome to Victor Barker of Gorokan, New South Wales down under there in Australia. Victor must be our most distant reader (so far!) and doubtless the only person fooling (to use the American meaning) with 405 line TV in the southern hemisphere! He emigrated there nearly twenty years ago, taking his TV with him; since then he has built a 405-line vidicon camera and sundry accessories to keep 405 alive. On a recent visit to the mother country he picked up some 405 line recordings, so he now has a few more programmes to watch - and transmit, for Victor is also a keen amateur television operator.

Good luck Victor, and keep us informed of activities!

MUSIC HATH CHARM - UPDATE

Tyne Tees Television has kindly informed us that their start-of-day music was a piece entitled "The Three Rivers". No further information is available.

NEW TEST CARD VIDEO

No, not that one; the production of our vintage British TV test cards and captions tape has been set back, as new (old) material is still coming in. But if exotic foreign material interests you, do see the advertisement in the Market Place section. One of the most professional and complete productions I have ever seen is now available.

COMPETITION WINNER

And finally, the winner of the free subscription for a year - or rather two winners! I'm feeling generous, no that's not true. Well, yes it is, but the real reason is that I couldn't pick out just one best article. So a prize goes to Alan Keeling whose several articles generated the most feedback. Well done Alan! The second free sub goes to Steve James because his articles made me laugh so much. Well done Steve as well.

It really is difficult choosing a winner when you have so many good articles but Alan's attention to detail and Steve's style stood out. I hope the task of choosing the best article is even harder next year!

BOOK REVIEWS

by *Andy Emmerson*

BRITISH TELEVISION ADVERTISING, THE FIRST THIRTY YEARS. Edited by Brian Henry. 528 pp. Published 1986 by Century Benham at £25.

This is a weighty book, published on behalf of the History of Advertising Trust. It is not aimed at the casual reader, as the price indicates, but it is well written, superbly illustrated and above all, authoritative.

The history, politics, technology and demographics of TV advertising are all here, along with stills from oh so many well-remembered commercials. Also included are maps of the ITV regions and logos and on-air dates of all the independent companies, even short-lived ones like Wales West and North.

Anyone seriously interested in the subject will find something of interest here and while you may not wish to buy a copy, it would still be worth borrowing through your public library.

1990 PRICE GUIDE TO VINTAGE TVs AND COLLECTABLE RADIOS by Harry Poster and John Sakas. Paperback, 28 pages. Published at \$10 by SIGHT SOUND STYLE, P.O. Box 2224, South Hackensack, NJ 07606, USA.

Sight Sound Style was a quarterly newsletter for collectors of old TVs and radios; it has ceased publication but their Price Guide lives on! Unfortunately the only illustrations are seven photographs on the cover. The rest is just text therefore but it makes a good read.

Just about every TV sold in the USA from 1935 to the 1960s is listed together with a target sales price. There are some valuable articles (four pages) on how to collect and restore sets and a potted history of TV receivers in the USA. This was clearly a labour of love to produce and as it was done as a commercial enterprise its price is justified. The information contained in it would be difficult to find elsewhere, so it is worth having if American TVs interest you. I just hope the next issue has many more illustrations as this first effort assumes you can recognise a Danish Modern Predicta or a Garod porthole with zoom when you see one! [AE]

ALSO NOTED: The book **BOX OF DELIGHTS**, reviewed in issue 5, has now appeared in paperback at £9.99, making it even more accessible. But no doubt you have already bought the hardback as it is so good!

DR WHO - 25 GLORIOUS YEARS by Peter Haining (Virgin Books, paperback, £8.99) is fundamentally for Dr Who enthusiasts. That leaves me out as I only like the saucy out-takes on the BBC christmas tapes. But the last chapter in this remarkably comprehensive work deserves a wider readership. Entitled **THE LOST STORIES OF DR WHO**, it is a detailed essay on the BBC's policy on preservation (and destruction) of all material and how some of the missing episodes were re-discovered all over the world - and in a Mormon chapel in Clapham. Gripping stuff.

THE 4-0-5 SPECIAL

by Steve James

The aim of this article is to follow the course of pop music on television, right from its beginnings in the mid-fifties, to the end of the 405-line era proper at the close of the sixties.

With fads and fashions changing so fast, it's really not surprising that pop shows have drifted in and out of vogue faster than Brylcreem and loon pants. Bearing this in mind, it's very easy to forget relatively short lived shows of the 50s and 60s, but read on, and you may be reminded of programmes that had you glued to the set in those days...

The story starts in 1956 with the BBC's bold introduction of "6.5 Special" as something to fill the void that filled the area after teatime and before going out to the local Palais, on a Friday evening. This really was rather an unusual move by the BBC, especially in view of the rather staid programme line up of the time. It really was the first recognition of the "Youth Market". You tend to get the feeling that it was something the BBC had to give-in to, rather than go out of their way to promote and get enthusiastic. Still, desperate measures had to be employed, as the new ITV network was creeping over the country, and, it wasn't quite as bad as people had feared. In fact, some of those adverts are quite catchy and... Well, whether you were wrestling with your Band III converter or just clunking the tuner round on your brand new 13 channel set, you would have seen "Cool for Cats" - ITV's answer to the "6.5 Special". Whilst on the BBC actual pop artists appeared in front of an audience, Cool for Cats featured young people dancing to the latest hit records.

In 1958, ITV lured Jack Good, the "6.5 Special" producer away from the BBC, to produce "Oh Boy" (don't these titles sound dreadful now!). This was another "rowdy" show with no-expense-spared stars such as Billy Fury, Eddie Cochran and Cliff Richard. Meanwhile, mothers worried about teenage daughters going out with teddy boys, and fathers worried about keeping up the payments on the Ford Zephyr.

Enter the sixties, and "Juke Box Jury". David Jacobs presided over a panel of four personalities who decided the fate of newly released records by judging them a Hit or a Miss. The John Barry Seven took the theme tune from the show into the charts, but whether or not it was put to the panel, we are unlikely to know as apparently very few of the shows still exist. ITV's alternative of the time was "Thank Your Lucky Stars", starting in 1961, with pop artists miming to their records.

In 1963, Rediffusion gave us "Ready Steady Go!". Keith Fordyce and Cathy McGowan fought their way through the surging studio audience to introduce and interview stars of the emerging "Merseybeat" sound. The Beatles and The Rolling Stones were regulars on the show, together with people like Lulu, Cilla Black and Dusty Springfield. It seemed obvious that the formula of having audiences dancing and generally milling around the studio worked. The shows had the right atmosphere. Just think how clinical it would all have looked with just the groups performing on a set, direct to the cameras. It just couldn't have worked as well as the combination of a live audience and the in-built excitement of a television studio. Being a cameraman on those shows can't have been easy though, what with people getting in the way and tripping over high voltage cables.

Well, by now it was about time the BBC hit back. And this they did on new year's day 1964 at 6.35pm with... "Top of the Pops". Programme number one was

introduced by Jimmy Savile (followed by Alan Freeman the next week). Artists featured on its debut were Dusty Springfield, The Rolling Stones, The Dave Clark Five, The Hollies and The Swinging Blue Jeans. The Beatles were number one that week with "I want to hold your hand". The whole programme was and is based solely around the weeks pop charts. Only if a record is going up will it be featured. Speaking of records, Denise Sampey was the girl spinning the discs, later to be replaced by Samantha Juste. The idea was that the host introduced the song at which point the record was seen starting and then a cut to the group in question. For the first few years the show came from a converted church in Dickinson Road, Manchester until they bid it a fond farewell in 1967, and moved to a larger studio in TV Centre

There were several other pop shows in the mid sixties that soon sank without trace. "Beat Room" is probably better known than others, although it was confined to BBC-2. But what about ITV's 1965 offering "On The Air", or the BBC's "Whole Scene Going" in 1966? Apart from these, pop acts were also appearing as guests on shows as diverse as "Crackerjack!" and "Morecambe & Wise".

1967 saw the rise of Simon Dee, with his show "Dee Time" which was very much music-influenced, although on a chat show format. Although the show only ran until 1969, the opening title sequence with Simon leaping into an E type Jaguar with a dolly bird, and zooming round at strange camera angles is still well remembered by those who saw it.

1967 was rather a good time for pop fans, because directly after "Dee Time" had finished, your Saturday evening entertainment from BBC-1 continued with "The Monkees".

At the end of the sixties, Tony Blackburn got his own show, "Time for Blackburn" and Alan Freeman on BBC-1 appeared behind a strange control desk for "All Systems Freeman". And there the sixties, and most decent music ended! From there on, all was colour and nastiness. Not a mop top or Cuban heel to be seen.

BUT, all is not lost, as some of these programmes are either available on video, as in the case of "Ready Steady Go!" or they have been shown in recent years as part of various birthday/anniversary shows. For example we had an episode of "Juke Box Jury" in late 1986 as part of the TV50 Celebrations, and more recently, "Top of the Pops '67" which was shown on Channel 4.

If any of the historical details above are incorrect, or if any more details can be filled in, or even if you have any special memories of watching the shows, it would be nice to hear from you.

♪ Picture Page will be back in issue 9.

FORTY YEARS AGO

SUBSCRIPTION TV began a series of tests over station WOR-TV in New York recently. Called Subscription-Vision, the system is being tested by the Siatron Electronic and Television Corporation, and these first on-the-air trials will be observed by the FCC.

Television receivers will not be able to get a picture from the subscription broadcasts unless equipped with a special decoder. The decoder is equipped with a plastic card which is identical within 1/10,000 inch to one used at the transmitter. These cards control the scrambling and unscrambling of the TV signal, and no telephone lines are required. These tests will not interfere with WOR-TV's regular programmes. [From *Radio-Electronics* (USA), December 1950.]

SOME (SCOTTISH) MUSICAL NOTES

by Frank Mitchell

I liked the article *Music Hath Charm* by Alan Keeling in the last issue. A compilation of all the tunes would be welcome. Incidentally, STV still use *Scottandia* occasionally in programme announcements.

In the early 1960s the test card was only shown by the ITA when the gap between programmes was greater than 30 minutes. At other times the local ITV company put out its own records with an "Intermission" caption or similar. In the case of STV, intermission music was normally played between 4.44 and 4.59 as they did not take the AR-TV programme *Small Time*.

Finally a plea. Does anyone have a recording of the *National Airs* used with the BBC tuning signal from the late 1940s to mid-1960s?

If anyone can help please write to Frank care of the magazine. We'd also like to hear from anyone who can confirm that other ITV regions used intermission captions and locally-sourced music.



"CANNONBALL" OR "VINTAGE TRUCKIN" ON THE TELLY, 405-STYLE

A review of a classic ITC (Canadian) series

by Alan Keeling

*Bearin' down the highway,
Movin' right along,
Hear the tyres hummin',
Hummin' out a song -
The rumble of the diesel,
The shiftin' of the gears,
The rhythm when he's movin'
Is music to his ears.*

Cannonball, Cannonball!

*Any kind of weather,
Any time of day,
Now the rig is ready,
He'll be on his way.
He'll carry any cargo,
He'll go anywhere,
Name the destination,
and brother, he'll be there -*

Cannonball, Cannonball!

Then as the opening title faded, so began another episode in the day-to-day lives of the two owner-truckers, Mike "Cannonball" Malone and his co-driver and partner Jerry Austin, as they drove between the United States and Canada. Thirty-nine episodes were filmed in black and white between 1958 and 1959, under ITC's banner, and some of these were directed by veteran B-Western director Lesley Selander, whose other television work included *Fury* (1955-59), *Lassie* (1954-63), *Hopalong Cassidy* (1951) and *Laramie* (1959-63).

The series was shown in almost every ITV region, particularly in the Midlands area, where it was constantly repeated from 1962 to 1973 (something to do with Sir Lew Grade perhaps?). Most of the stories were rather mushy or "soapy", for instance in the episode entitled *Small Cargo* two small children flee from their villainous uncle, who has escaped from prison. The children stow away in Mike's C&A truck, little knowing that their uncle is in pursuit. Mike takes them home for the night, but the children escape, ending up in a railroad freight yard. In the "mushy" ending that follows the uncle is recaptured and the children adopted.

In *Big Ambulance* Mike develops acute appendicitis, in *Mr Dog* our two heroes rescue a little boy's Old English sheepdog, whilst a smallpox epidemic sweeps Toronto in the episode *The Little Old Man* (the latter being the carrier). Another tale concerns a trucker's protection racket, and in the final episode *Tunnel Eyes* Mike decides to retire and Jerry moves away to another town.

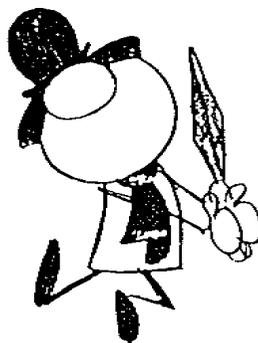
As this particular series could well be part of ITC's Heritage Years package, along with series like *Hawkeye* and the *Last of the Mohicans*, *Forest Rangers*, *William Tell*, etc. there is a fair chance it could be shown on Channel Four or on satellite television.

CAST

MIKE MALONE	-	Paul Birch
JERRY AUSTIN	-	William Campbell
MARY MALONE	-	Beth Lockerbie
GINNY MALONE	-	Beth Morris
BUTCH MALONE	-	Stephen Barringer
Producer	-	Rudy E. Abel
Creator	-	Robert Maxwell
Executive Producer	-	Robert Maxwell
Associate Producer	-	Peter Frank
Writers	-	Robert Joseph Marcel Klauber William Grady Jr

A Normandie Production for Television Programs of America and ITC.

[ITC = Incorporated Television Company, closely linked to the ATV network.]



FOO FOO

In 1960 Halas and Batchelor cartoon films in London produced a series for ABC-TV with the umbrella title "Habatales". Here are two stills featuring a character called "Foo Foo" (remember it?).

The series was first shown in early 1961 in the Midlands and North around 5. 5pm on Saturdays. - *Alan Keeling*.

[With acknowledgement to Halas and Batchelor Cartoon Films Ltd.]

TELETALK

by Malcolm Burrell

Some years ago a column entitled ICONOS existed in (then) *Practical Television* and examined most topics from programmes to technicalities. I subsequently started a similar item entitled TELETALK and decided it might be more appropriate in these pages since much of my early TV career encompassed the 405 lines era.

MATTER FOR THOUGHT?

Like many enthusiasts I spent much of my early life monitoring early test transmissions in the hope of seeing something "new". Whilst I was rewarded by witnessing early 405 lines NTSC colour tests, I also tended to become indoctrinated with a liking for test card music. Whilst this is harmless, I wonder about the psychological implications for present young viewers whose formative years are "programmed" with repeated animated matter conveying shallow plots and humour. This must be particularly doubtful when parents plant their offspring in front of a video to be repeatedly entertained by the same material!

CAN IT BE IMPROVED?

As a fifteen year old I can remember possessing a rather pleasant little 14" Vidor receiver (CN4230) which boasted an attractive push-through picture tube presentation, removable safety glass and quite robust chassis. Whilst its picture geometry was impeccable I was never satisfied with the rather low audio from its single ECL80 output stage whilst I constantly attempted to improve the resolution of the almost imperceptible 3 MHz gratings on Test Card "C". It was not until I'd ruined the set by grinding the IF coils to powder with my vain endeavours that I later realised it was operating well within its design limits!

Years later as an engineer I was constantly frustrated by viewers with "budget receivers" insisting upon impossible results from the test card. By then I realised that it existed purely as a stringent test of receiving and transmission systems!

SATURDAY NIGHT OUT

During the mid-fifties a film depicting the departure of a fleet of OB (Outside Broadcast) vehicles heralded a live series exploiting the pioneering spirit of the medium to take viewers on a Goodwin Sands lightship, on a cross-Channel Ferry (the Lord Warden), in an aircraft, in a helicopter and on the Snowdon Mountain Railway. At least one "outing" pioneered the introduction of "compact" vidicon cameras. The series was "telerecorded" and repeated.

TELERECORDING

Apart from specially produced PR and newsreel material, no record exists of pre-war 405 line pictures. Everything was "live" unless it was originated from film. During the postwar period the BBC developed a system of "filming" off-screen images which became known as "telerecording". The quality tended to conceal that of the "live" pictures of the day (confronted by a poor image, many people exclaimed: "It must be a

telerecording, then!") but served to recall the 1948 wedding of (then) Princess Elizabeth and recorded the early "intercontinental exchange" broadcasts which preceded Eurovision. The system was extensively utilised in perpetuating the Coronation ceremony in June 1953.

It was to be the late fifties when videotape finally arrived. There had been many attempts associated with names like Bing Crosby, Thomas Dolby (better known for his audio contribution) and finally Ampex with their 2" quadruplex machine.

Domestic videotape seemed imminent in the early sixties when Telecan demonstrated a high speed 1/4" tape similar in principle to the BBC VERA (Vision Electronic Recording Apparatus) system.

Telerecording remains in improved form to make permanent records of TV material and seems to be increasingly used to transcribe HDTV pictures to film for "pop" videos etc.

HIGH DEFINITION?

HDTV raises its controversial head again! For many years few TV historians could agree upon what actually constituted "high definition". Whilst the 30 line system was undoubtedly "low definition", the Baird 240 lines system was acknowledged as being a great improvement which contributed, incidentally, to the development of flying spot telecine. Once the "high definition" 405 line service was established all seemed well and little mention was made of the minor improvements caused by the change to 625 lines. But suddenly we're on the brink of another "high definition" era within the next decade or so!

405 lines had many advantages including its economical use of bandwidth. Whilst its AM sound was of high quality from the outset, one speculates whether the technology of 1990 combined with that of 1936 could have produced an improved system with the capability of more channels, enhanced "definition" by digital reprocessing to give over 800 lines, no appreciable sound-on-vision by using FM audio and better domestic video recording. Presumably, however, somebody would have discovered a method to smother the piercing 10.125 kHz whistle of line output transformers which caused engineers so much abuse from nervous housewives!

HEATER CHAINS

Great care is needed in the servicing of many sets utilising the "AC-DC" technique. As the circuit of the heater chain illustrates, one side of the mains supply is connected to the chassis. In AC supplies one side of the mains supply is "live" and a check with a neon screwdriver should be made to ascertain that a "glow" is obtained on the "live" switch connection and not on the "neutral" supply.

Some early receivers (usually "AC-only") used parallel heater supplies, others used one or even two heater "chains" depending upon the valve heater current requirements. The diagram shows a typical simple series heater chain with the general arrangement of the valve line-up designed to minimise the potential difference between the heater and cathode of each such that the efficiency (boost) diode was invariably the first in the chain with those likely to be most affected by "hum", such as the audio output and tuner unit valves, at the "earthy" end. The CRT heater was also usually placed here.

Usually a large wirewound resistor ("mains dropper") rated at 30 or 40 Watts ensured the correct potential applied to the entire chain. Tappings were usually provided to allow for lower mains operating voltages. In a few cases a separate tapping provided for "DC only" and invariably by-passed the rectifier valves, particularly where low voltage supplies were concerned since the drop across some rectifiers was substantial. Subsequent connection to an AC supply or incorrect connection to DC would then blow the mains fuse quite violently.

Where the rectifier(s) remained in circuit, the receiver could be operated from either AC or DC supplies but with the latter the receiver would only fully function with the mains connected with the correct polarity although the valve heaters would "glow" regardless. There were occasions when users with DC supplies were eventually supplied with AC. Often the sets operated satisfactorily but on some occasions the rectifier valve would become obstinate and give up the ghost!

The thermistor has a negative temperature coefficient to compensate for the initial switch-on surge when the resistance of "cold" valve heaters was lowest. This prevented premature failure. Its resistance decreased as it heated and was one reason why most instruction books advised against switching the set "ON" and "OFF" in rapid succession. Receivers of later manufacture omitted this device since valve manufacturers claimed valve heaters could then cope with the switch-on surge!

When servicing a "dead" set with apparently no heaters lit but current present on both sides of the mains fuse, its advisable to first check the mains dropper. If this is open circuit at a given point, the heaters cannot function. Similarly, many aging thermistors eventually disintegrated to give the same symptom.

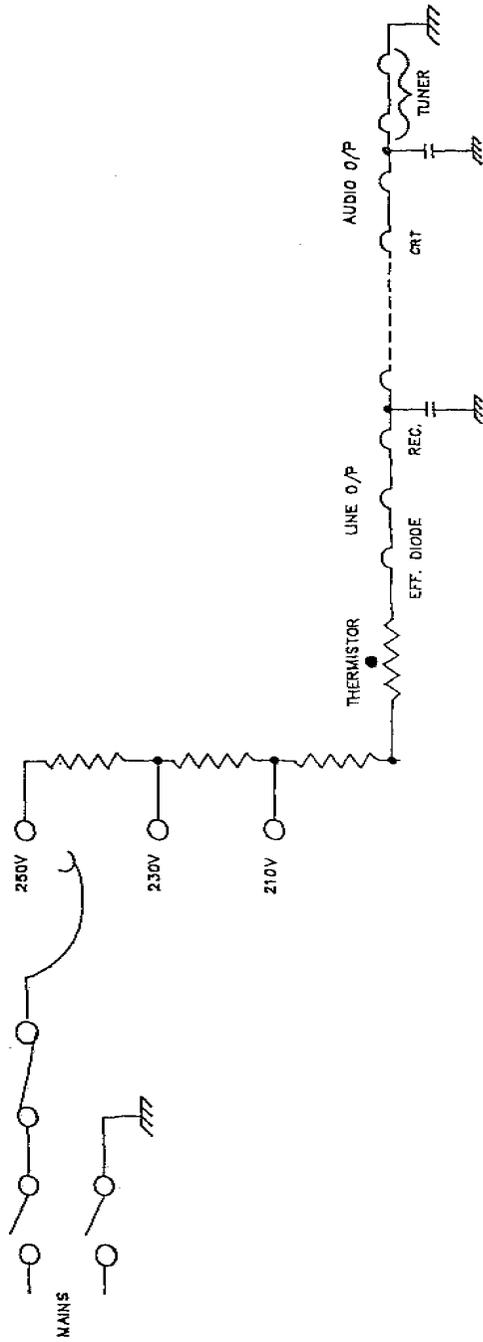
FAULTFINDING

Assuming current reaches the first valve in the chain, a check should be made throughout the receiver. It is sometimes easier to remove each valve and check the continuity across the heater pins which on miniature B7G types were usually pins 3 and 4 whilst B9A types were pins 4 and 5. Certainly on receivers of comparatively recent manufacture the boost diode was inevitably the culprit where O/C heaters were concerned.

Some caution is necessary since one cause of heaters failure was a heater/cathode short circuit in one valve resulting in part of the chain being deprived of its supply whilst the remainder were overrun until at least one valve (or the mains dropper) failed. Another cause was occasionally a short circuit decoupling capacitor.

BEWARE!

Servicemen tended to tackle O/C droppers rather casually and often "wound in" an odd high Wattage wirewound resistor of incorrect value. Some even simply short-circuited the offending section. The net result was frequently overrun heaters and a shortened valve/tube operating life. Another doubtful practice was to alter the voltage tapping to overrun the set if the tube was developing low emission. This improved performance but inevitably also damaged the valves resulting in a costly repair if the tube was subsequently replaced. On occasions a new tube would be fitted without remedial action to the voltage tapping! And there was more than one occasion when a customer paid for a new tube.....!



TYPICAL ARRANGEMENT OF HEATER CHAIN CIRCUIT

CONVERTER NEWS

by David Boynes

Readers who have been with us for a while will recall that David has built a couple of compact 625 to 405 line standards converters. Many enthusiasts could find a use for one of these devices and David promised to design a set of printed circuit boards which would allow anyone with reasonable soldering and electronics ability to build a copy of this very successful project. This is the latest report from the frozen north ...

October: I've really started tidying up the converter at last. The input and output processing board is to be completely revised and I hope to assemble the new circuitry on a standard 220 x 100mm PCB. Today a sync pulse remover has been added to the existing circuit, as it has been found that the sync pulse height and shape does vary from time to time and from station to station. This was spoiling the interpolation mixer stage. I'm not clever enough to go for digital interpolation.

The sync pulse remover does work. However, that old problem of black level shifting has appeared so this stage will require two clamping circuits, say one sync tip clamp and the driven back porch clamp. Also the chroma trap has been made more effective; it is important that the sub-carrier is removed. As most of the PCB artwork exists already it will not be long before a new PCB will appear.

November: The modifications to the "front end" of the converter were certainly worthwhile. The analogue interpolation stage appears to handle 625 line TV waveforms from a variety of sources, off-air and VHS, therefore revised PCB artwork is under development. There'll be no problems here, just a rearrangement of the existing artwork, however, there will be two separate boards, one to handle the 625 line input and interpolation, the other for the 405 side.

Two rather critical controls still remain: one is the interpolation DC balance and the other the black-level DC level to the analogue-to-digital converter. Actually, they are only a little more difficult to set up than a PAL decoder would be!



... AND NOW WE GO OVER TO THE
WEATHERMAN A BIT EARLIER
THAN EXPECTED....

PYE-EYED AGAIN

by Andrew Redding

In a previous issue of 405 Alive I described how I acquired a 1938 Pye 815 TV and how, after 52 years, it still produced a raster (albeit with frame foldover).

After the initial euphoria of viewing (and trying to count!) the 405 lines on the elderly pre-ion trap CRT, it was time to do something about watching moving pictures.

I was recently lucky enough to acquire a VHS video cassette of 405 line material and planned to feed this into the grid of the video output valve via the video output socket of my VHS video recorder. However, after studying the circuit diagram of the Pye 815 TV, I discovered that the CRT was modulated directly from a full wave detector (with no intermediate video amplifier) but undeterred I decided to feed signals into the set the same way the BBC used to, at 45 MHz, via a video modulator.

My first attempt used an EF50 valve, based on a 1957 *Practical Television* design. However, hum bars (produced through earth loops), wavy verticals (through sync. crushing) and negative pictures (through phase inversion) meant I was getting nowhere.

I then toyed with the idea of using David Looser's modulator but was put off by the thought of all those integrated circuits and transistors which did not seem to go with the EF6 valves in the TV. I then tried various transistorised *PT* designs from the early 60s (when it was all 405 lines) but I could not get the obsolete OC171 transistors, which seemed harder to come by than valves! However, after battling with an S Dec and burning out several transistors I finally succeeded in producing a simple compact video modulator.

The heart of the modulator is a Hartley oscillator with a centre tapped coil (the prototype coming from an ex-W.D. crystal calibrator) which produces oscillations in the 22-32 MHz range, the harmonics of which fall into bands I and III. The modulator can, therefore, be used on any set designed for Ally Pally, Holme Moss, Sutton Coldfield or any other station you may need on your 13 channel, 5 channel or even Ally Pally-only TV.

The modulator stage is a simple emitter follower with a pre-set to vary the modulation depth, to give a compromise between grey scale reproduction and sync. crushing. The unit is powered by a 9 volt battery and the video input is derived from the video output of a domestic video recorder.

The output of the modulator is via a "gimmick" capacitor (C4) which is an insulated wire twisted around the lead connected to the coil. Although it is not the ultimate in modulators, it works surprisingly well, and most of the components required will probably be found in most people's junk boxes. [Diagram is on page 63.]

Although the modulator was specifically designed for video it could be used for audio as well or even adapted for the medium wave to re-broadcast Radio 2 (from a VHF tuner) when Radio 2 disappears from the medium wave later this year.

In conclusion despite its relative simplicity it certainly brought all my museum pieces back to life. However, it is no substitute for the BBC!

441 ALIVE FOLLOW-UP

We have had quite a few letters on the German "Einheitsempfaenger" discussed last time. First of all, its case was of plywood, not of moulded bakelite.

Then David Boynes writes: "I think I can clarify the *Einheit* problem. According to my German-English dictionary, the word *Einheit* when applied to physics and military use translates to *unit*. When applied to trade (Handelwesen) the word *Einheits-* means *standard*, e.g. *Einheitspreis* translates as *standard price*. Therefore this means that the *Einheitsempfaenger* must be a *standard receiver*."

A whole host of references to articles in periodicals about this receiver have come to light. In English we have the *Journal of the Television Society*, 1940, pages 110 and 130-132, while the American 441 line standard is detailed on page 134 of the same journal. In German language there is a detailed article in the July 1939 issue of *TFT*, the journal of the German Post Office's research department. Thanks to Juergen Valter for assistance on this.



THE TEST CARD CIRCLE was officially born out of the first ever convention for test card enthusiasts held at Leominster, Herefordshire in March this year.

Then we were a group of around 30 members keen to preserve in the history books the art-form of the test card and its accompanying music, along with service information, trade test colour films, and the days of commercial discs used for Independent Television.

Thanks to the marvellous media coverage we have had this year the group is growing rapidly and now boasts over 60 members all over Britain.

There is a magazine published three times a year and a special supplement recording events at our annual convention.

The subscription for 1991 will be £ 8.00 giving you full membership, three 50 paged magazines (approx.), details of local roadshows and much much more.

In short, if you have ever been fascinated by television trade test transmissions then this is the group for you.

If you would like more information about THE TEST CARD CIRCLE please write to Stuart G. Montgomery, 2 Henderson Row, Edinburgh: EH3 5DS.

The following article, *Radio and TV Interference Work in the 1950s*, first appeared in the June/July 1990 issue of *Radio Bygones* and we are delighted to present it to a further audience here.

Radio Bygones has built up a well-deserved reputation as the premier British magazine for radio history and you can find out how to subscribe in the advertisement section at the back of this issue.

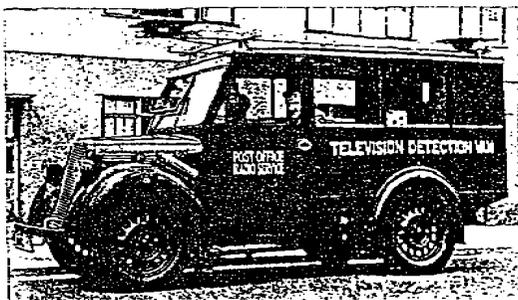
Radio and Television Interference Work in the 1950s

by David Rudram

I started work for the Post Office Telephones in 1949, and after two years training, followed by two years National Service as a Wireless Instructor in the Royal Corps of Signals, came back to telephone work in 1953. In 1956 I transferred to the Radio Interference side of the business, where I worked for four years. At that time, the Postmaster General, being the licensing authority, was responsible for seeing that the terms and conditions of the Broadcasting Receiving Licence were complied with, and also that reception was not spoiled by unauthorised radiation or interference.

At this time in 1956, sound radio was still the main source of entertainment for many people, although television, especially since the Coronation boom of 1953, was increasing in popularity. In the Worthing area where I worked, it was work of colleagues of mine which, prior to opening of local television transmitters, had 'cleaned up' the area, so that viewers could watch a reasonable picture from the London Channel 1 (45Mc/s) transmitter. The signal strength of this station was well down as the town was outside the recognised service area, and any interference from electric motors, thermostats, etc., showed up on the picture as bands of white lines. Part of the town was still served by DC mains, so electric motor interference was worse due to excessive sparking resulting from poor commutation and worn brushes. The efforts of one particular GPO engineer and a local dealer helped to convince the BBC that a low power local television transmitter would serve the area, prior to the opening of the high

power station on the Isle of Wight. This local transmitter opened in 1953 at Truleigh Hill at Shoreham, and served the coastal strip from Brighton to Worthing. It was originally on Channel 3 in Band I, but later changed to Channel 2 when the Rowridge LoW station opened on Channel 3 in 1955.



Post Office television receiver detection van (1952)

Reproduced from *British Telecommunications Journal*, February 1977, page 33

So when I started on this work in 1956, the area was served for BBC television in Band I, by Truleigh Hill on Channel 2, Rowridge on Channel 3, and for those who were willing to erect high elaborate aerials, ITV was just about viewable on Channel 9 in Band III from Croydon. For sound radio, the Home Service and Third Programme were on medium wave, and the Light Programme was on long wave. These were also on Band II FM, and could be received from Wrotham in Kent, or from the Isle of Wight. Independent Southern Television opened in 1958 from the IoW Chillerton Down transmitter on Channel 11 in Band III. All the television was of course 405-line.

Mutual Interference

Due to being in an area where some sets were using Channel 2, and some

Channel 3 for BBC reception, and because of the different intermediate frequencies used in different makes of superheterodyne-type receivers, the chances of neighbouring sets causing mutual interference were high. It was sometimes quite an involved exercise to work out oscillator harmonics, second-channel responses and so on. Straightforward IF breakthrough from commercial transmitters in the short wave bands also occurred. One trouble we had was that the locator set we used was also a superheterodyne receiver, and so it had its own spurious responses. At one time we used an Ekco portable television in the van, but this was a bit hazardous driving and looking at the screen to see the patterning.

An example will show the type of problem we had to deal with. A well-established TV set that had been used quite happily for some time on BBC Channel 2, was suddenly found to be the cause of patterning on a neighbouring set tuned to the new ITV Channel 11. The theory behind this was that the local oscillator in the Channel 2 set was running at $(51.75 + 16) = 67.75\text{Mc/s}$, the third harmonic of which was 203.25Mc/s - very close to the Channel 11 vision frequency of 204.75Mc/s . It was our job to try to convince the Channel 2 set owner that technically their set was at fault, and to suggest they contact their dealer to try to remedy the problem. This was rather tongue-in-cheek advice, as we knew that there was not much that could be done, as few dealers were prepared to re-align a set to change the intermediate frequency, and the set would probably never have been the same again if the

attempt was made. An alternative was to suggest that they changed to viewing BBC on Channel 3, but as this was coming from the opposite direction it meant turning the aerial round.

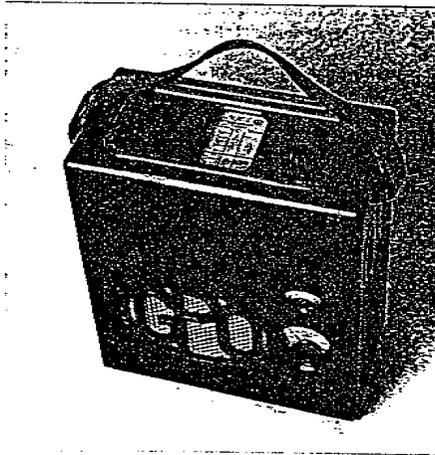
Although we had the backing of the non-interference regulation on the Television Licence on our side, in practice it would have been difficult to enforce it. Many neighbours who had been good friends for years fell out over situations like this, in spite of our diplomacy. It was surprising how important good television reception was to some people, indeed it seemed to be their main reason for living!

For some households, everything revolved around the television set, and I remember one family that had two sets in the same room, one tuned to BBC and one tuned to London ITV. Whenever the London signal was strong enough to give a reasonable picture, they turned up the sound and watched that, otherwise it was just BBC for that evening. They even made a point of watching the barometric pressure, as the strength of London varied with a change of weather conditions. The only cure in many cases of oscillator radiation was for the offending set owner to get another set with the more modern high intermediate frequency around 35Mc/s. This, together with better set design reducing local oscillator radiation, cured the problem and I knew of one case where the complainant actually bought the offending set owner a new set.

We Haven't Got One...

To track down sources of television interference, we used a portable locator receiver to pick up the offending signal, and try to pinpoint its source with a loop aerial. The set has a signal strength meter, and you could listen to the sound with a pair of headphones. The first reaction of a householder opening their front door to be confronted by a man wearing headphones, carrying a radio set with a loop aerial, and seeing a GPO van parked in the street was one of apprehension. Often, before we had a chance to say what we were about, the person made some reference to the fact that they 'Had a licence all right' or that 'We haven't

got a TV set', or that they had a television but didn't use it. The conclusion they had come to was that we were checking on unlicensed sets, which was certainly a duty of the Radio Group and Postal Authorities at that time, but not in our



GPO Receiver WT No. 11, used for tracing sound radio interference. Made by McMichael Radio Ltd

day-to-day work. In one case, I remember the door was closed in my face, only to open again a little while later with an invitation to enter and see for myself that they had no television. I found out later that the set had been put out in the garden!

Sound Interference

Sound radio interference on the medium and long waves was often mains-borne. We used a portable receiver to cover these wavebands, again it was fitted with a signal strength meter, and had a loudspeaker and provision for headphones. To find the source of interference usually meant tracking the street mains cables for maximum signal, but due to peculiarities of the cables, the apparent maximum point was often nowhere near the source. It was often quicker to have a walk around the streets and use one's eyes and ears to spot a likely cause. A very common problem with long wave reception of the Light Programme on 200kc/s was a whistle caused by radiated harmonics of the line timebase oscillator (10.125kc/s) of a 405-line television set. This could be mains-borne, or radiated interference if the sets

were close, for instance on either side of party wall. The cure was often very difficult. Although technically it was the fault of the television for radiating, the situation was aggravated on many occasions by the fact that the radio set had a built-in aerial, or a poor indoor one. Moving the sets further apart, or demonstrating the beneficial effect of an outdoor radio aerial was sometimes effective, although not many people were prepared to go back to the days of an outdoor long-wire aerial, even if they had garden in which to erect it.

We sometimes persuaded listeners to buy an FM VHF receiver, but because the signal strength in the area wasn't that good, again an outdoor aerial was necessary to give good reception. However, some FM sets themselves radiated harmonics of the 10.7Mc/s intermediate frequency they used. The fifth harmonic was 53.5Mc/s, right on the Band 1 Channel 3 TV sound frequency, so we had the situation where someone had bought a new radio to overcome interference from a television set, only to find that they were the cause of interference to a nearby TV set!

Many other sources of interference were traced, such as vacuum cleaners, hairdryers, thermostats, indeed anything with a sparking contact. The complainant was supposed to keep a log of the interference on a form obtained from the Post Office. From the log we could decide when it would be best to visit the address to witness the trouble. This often meant working evenings, and a colleague of mine would arrange his visits to coincide with a programme he wanted to watch. As he said, he probably wouldn't have time to watch it if he was at home, so he might as well combine work with pleasure!

Joining in the Fun!

When I was working with him, some nights we would visit a complainant and sit through a whole half-hour programme with the family. He would laugh and join in the fun, making me feel a little embarrassed by it all, although I must say the household didn't seem to mind. Of course, he hoped the interference

wouldn't come on, and frequently it did not, in spite of the complainant assuring us that it usually did on a Friday night, and would probably start when we had gone. So we would leave, confirming that we would be back next week to catch the interference, and of course the programme.

If we were successful in tracking down a source if interference due to motors, etc., we offered to carry out the suppression work at the cost of the components used, with a minimum of five shillings (25p). When you think that we used to collect the item where possible, fit the suppressors back at the workshop, and deliver and test for that price, it really was a good service. The work involved fitting chokes and sometimes capacitors to suppress the interference. All new appliances were supposed to be already suppressed by the manufacturer, so much of the work was dealing with old appliances. This was often a problem, because of worn armatures and brushes it was difficult to achieve good suppression, and it was difficult to justify an increased charge to the owner, particularly as it was probably going to benefit a neighbour. In more than one case I remember taking a hairdryer to bits, only to have the whole thing disintegrate before me. All the while it was screwed together it was alright, but it was actually completely broken inside. If we couldn't convince the owner it wasn't our fault, the Department had to pay up for new parts.

Radio amateurs were another source of problems. Harmonics of the popular amateur bands seemed bound to fall on a television channel somewhere! Most radio amateurs were very co-operative in either fitting filters to their gear or providing band-pass filters for fitting in the aerial lead of the complainant's set. Others confined their transmitting times to outside of television hours, which at that time was not all day as it is now.

Still Warm...

Unlicensed transmitters also had to be dealt with. There was a well-known local 'pirate', and on one occasion when illicit transmissions were in progress, a knock at the door was not immediately answered. A colleague who walked round to the back of the house saw a transmitter being lowered on a rope out of a window. The valves were still warm...

In order to be a bit less conspicuous, rather than use our well known green Radio Group van, a special incognito vehicle was borrowed from Headquarters for work in tracking down illicit transmitters. The trouble was that it was a metal bodied J-Type Morris van, so direction finding equipment would not operate inside. The regular van had a wooden body for that reason. This meant putting aerials outside on the roof, and a further give-away was that the van was all black with the registration number PGO1. It might just as well have been GPO1 and had done with it!

During 1957, sunspots were causing strange freak reception interference, and Sporadic E propagation in particular was spoiling television pictures. Television sets tuned to Channel 1 (45Mc/s) were picking up mobile radio services from America, and it was difficult to convince complainants that this was where the strange voices and patterns were coming from. There was also a Forward Scatter military transmission breaking through on sets using intermediate frequencies around 35Mc/s. Direction finding trips around Sussex to find the source of the interference proved inconclusive, and it was some time before we found out that it was coming from Greenland. A high-pass filter in the aerial lead usually cured this trouble, at the viewer's own expense, unfortunately.

Barkhausen Effect

Another source of television and VHF interference was caused by electric light bulbs radiating RF due to Barkhausen oscillations. A particular lamp prone to this was the old carbon filament type, with the filament strung up and down inside. They often had an external glass pip seal on the outside of the globe, and because of their long life and relatively low power, were often used to light passage ways, hallways and toilets. They were thus switched on for only short periods, which made them difficult to locate. I remember feeling pleased when I located an oscillating lamp in a flat, as usual in the toilet light. I tactfully suggested that the lady buy a new lamp, only to be shown a stock of about a dozen such lamps that her late husband had bought some years ago. As these would have lasted a lifetime, the person experiencing the interference paid for a replacement lamp. Thinking back to those times, I think we were lucky not

to have been arrested for loitering around houses in the dark, waiting for toilet lights to be turned on and off.

Electric bed blanket thermostats were another difficult area, as they didn't usually come on until late evening, and one had to be wary about knocking on the door and asking to inspect the bedroom equipment! A day-time call was usually necessary to make enquiries. On another occasion, a complainant was sure that the television interference was caused by the mercury vapour street lights, and produced a convincing log showing that the interference started each evening when the lights came on. Sure enough, the interfering signal seemed to peak near one particular lamp standard. In a moment of misguided enthusiasm, I removed the cover at the base of the standard and pulled the fuses. The light went out but the interference stayed on. It wasn't the next one either, or the next, and when I had managed to put four lights off, causing a dark section of the main road, I decided to do a bit more serious direction finding. The trouble proved to be another television set across the road, with a tracking EHT lead. For some reason, it didn't affect its own picture. Also for some reason, the street lights hadn't come back on when I replaced the fuses, but just flickered. I was somewhat relieved the next night to see that the lights had come on properly. I learnt not to trust the decisions of the public, but to make my own observations and conclusions. Many an innocent dabbler in electronics was blamed for every spot of interference, and had to put up with quite a lot of abuse from the neighbours. It was difficult to convince the complainant that it was nothing to do with a particular suspect, as the very knowledge that they had seen the lights on in his workshop when the interference was on, was proof enough!

Oscillating Pre-amps

When ITV started, it was usual for viewers to have an additional Band III aerial put up, as the original Band I aerial was still serviceable. This meant using a diplexer or changing aerial leads when going from BBC to ITV and vice-versa. Viewers trying to receive the London Channel 9 ITV often had an aerial pre-amplifier fitted to boost the Band III signal. This was peaked up for maximum gain. The trouble was that when viewing

BBC on Band I it left the pre-amplifier output unloaded, so that it became unstable and went into oscillation. This constituted a very effective transmitter connected to an efficient Yagi aerial, and caused severe patterning on other sets tuned to ITV. We used to be able to have a guess as to the location of one of these oscillating pre-amplifiers, because most of the complainants were in line with the forward direction of the offending aerial.

With the opening of BBC2 on the 625-line system, and the advent of colour, many of the old problems have gone away. The higher frequencies used in

Bands IV and V meant less trouble from electric motor interference, and better designed sets had reduced the mutual patterning cases. The 405-line system is now no more, and the stability of picture quality of modern sets is quite remarkable. The old valve sets were very prone to drift in the pre-set adjustments, and required frequent re-setting to correct frame hold, line hold and contrast defects. Many of our cases of 'interference' proved to be set defects, and indeed books were published to try to educate the viewer in telling the difference.

Foreign station interference is still

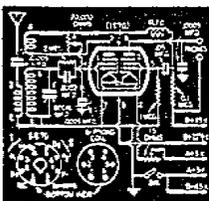
troublesome under certain weather conditions, and Citizens Band radio has been another source of trouble.

However, the control of interference now comes under the jurisdiction of the Department of Trade and Industry. It is no longer a free service, and no doubt there are a whole lot of new situations they have to deal with.

I look back at my time on this work with happy nostalgic memories, and although it was only 30 years ago, it might have been another age as far as technology is concerned, and the old Post Office Radio Service just about qualifies as a Radio Bygone. **RB**

ADVERTISEMENT

Camden BOOKS 



**GREAT
SHORTWAVE
RADIO
BOOK
REPRINTS!**

Here at 'Camden' we pride ourselves on not only offering great value books, but also being able to comment knowledgeably on their contents. Truth to tell, this doesn't happen with our Shortwave Radio books, because we cannot find the time to read them and learn up about the subject. But we do know that they are GREAT!

We make this statement with absolute certainty because they are all reprinted by a lunatic called Tom Lindsay who is (a) a genius at selecting the right book to reprint and (b) a committed Shortwave Radio man.

All his reprints date from the golden, valued years of Radio - mainly from the 1930s, but one from 1911 and some from the 40s. They vary in format, but all are high quality, very reasonably priced paperback and as a reader of Radio Bygones we KNOW you will find them unique and very, very interesting.

For full details of Lindsay's range of radio and other books, plus loads of other titles, mainly on engineering and transportation subjects, send a large SAE (28p stamp for UK or 4 International Reply Coupons for overseas airmail) for a copy of our NEW 40-page Booklist - you won't be disappointed!

MAIL ORDER (No stamp required in the UK) to:
FREEPOST, 13 High Street, Rode, Bath BA3 6UB
Tel: 0373 830151

(CALLERS WELCOME BY PRIOR APPOINTMENT)

Please mention
**RADIO
BYGONES**
when responding
to advertisements

**RADIO
BYGONES**

Make certain of getting your favourite vintage radio magazine by taking out a subscription.

Send your name and address (including your post-code), with a cheque or postal order for the appropriate amount to:

Radio Bygones, 8A Corfe View Road,
Corfe Mullen, Wimborne,
Dorset BH21 3LZ, England

All cheques or postal orders must be in Sterling
Payment by Access/Mastercard/Eurocard or Visa
is also welcome.

Please note the following changed subscription rates for orders received after 31 July 1990

Annual subscription rates (post paid) for six issues are:

United Kingdom	£13.50
Rest of the world (inc. Eire)	
VIA SURFACE MAIL	£14.50
VIA AIRMAIL:	
Middle East & North Africa	£17.50
South-east Asia, Central & Southern Africa, Central & South America, USA & Canada	£19.50
Australia, New Zealand, Far East & Pacific Regions	£20.50

BACK NUMBERS

We have stocks of all past issues of *Radio Bygones* from No.1 onwards available, price £2.50 each to UK addresses or £2.80 by surface mail overseas, including postage. Deduct 10% if you order 3 or more issues.

Radio Bygones is also on sale at selected museums and specialist outlets, but is not available in newsagents



REVIVING A MARCONI 707

by David Boynes

In this article (which was written in stages) David gives us a blow-by-blow account of getting a pre-war set working again. His practical approach is equally applicable to restoring other old sets.

The Marconiphone 706 and 707 together with the HMV equivalent models 904 and 905 were first released late in 1938 as small-screen sets priced at 29 guineas for the 5-inch sets (706 and 904) and 39 guineas for the 7-inch (707 and 905). These sets have quite a few advanced circuit features that might interest readers of *405 Alive*, these being common broadcast radio and television RF and frequency changers and the sync separator stage.

At last I have made a start restoring my Marconiphone 7-inch TV model 707. The first job was to get the power supply to work, after re-forming the electrolytic capacitors. The power supply consists of a U52 (5U49) valve as a full-wave HT rectifier, two 16uF 500V and two 32uF 500V electrolytics and three smoothing chokes. On test the HT voltage rose to the correct voltage for radio operation; however, after a few minutes the voltage fell to a rather low level and I soon discovered that one of the 32uF electrolytics had become rather hot. I disconnected the offending capacitor and have wired a new wire-ended capacitor under the chassis. The HT has returned to the correct voltage again for radio operation. The set was switched to TV operation and soon the line whistle could be heard.

For my next task I monitored the operation of both timebases with an oscilloscope. Only a few components required replacement, the coupling capacitors between the oscillators and each output stage, and the electrolytic cathode-bypass capacitors.

Having satisfied myself the timebases were OK I turned my attention to the signal processing part of the receiver. Channel 1 405 line signals were applied to the aerial socket of the receiver chassis and the signals were monitored at the anode of the video output valve. In fact a waveform was instantly available along with a buzz in the test loudspeaker.

The Marconiphone 707 along with its HMV equivalents are superhets so the local oscillator trimmer required adjustment to tune in the sound. This was found to be a very critical adjustment, however the set does not appear to drift much.

My attention was next drawn to the sync separator, which consists of a D42 diode and a KTZ63 RF tetrode. Frame sync pulses are taken from the anode output of the KTZ63 and line pulses from the screen grid. A considerable amount of picture information was found among the sync pulses, therefore the first suspect was the grid coupling capacitor of the KTZ63. It was found to be leaky. An electrolytic capacitor associated with the diode D42 was found to be short circuit and was replaced. Sync separator operation is now satisfactory...

Before installing the chassis into the cabinet the EHT rectifier valve type U17 was inserted, the EHT voltage was checked and found to be 2800V. I had replaced the EHT smoothing capacitors earlier. The set let off a few bangs but soon settled down. This evening I installed the chassis into the cabinet.

So far I have a blank raster with the usual ion burn. At this stage no signals have been applied to the set ...

The Marconiphone 707 is now fully operational both as a TV and as a first-class radio receiver. The CRT in use is rather low in emission, therefore the picture is somewhat dim and has a bad ion burn. I have another Emiscope 3/2 picture tube which I hope Display Electronics

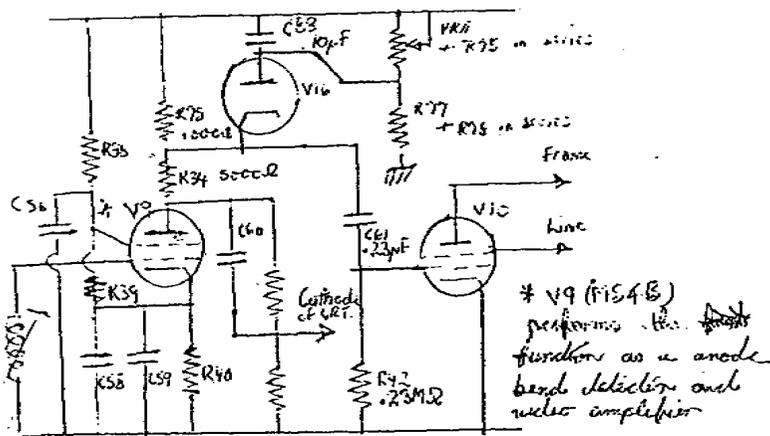
will repair. So far they appear willing.

The synchronisation of both timebases is excellent, requiring no adjustment over several hours use. However, the focus control does drift: this problem is well known in sets employing electro-magnetic focussing. I can supply circuit extracts and block diagrams concerning some of the interesting circuit features of this 1938 television set.

The next restoration project is going to be my toughest yet. It is another EMI set, this time a mirror-lid set of 1936-7. The cabinet is in an appalling state with veneers peeling off everywhere, it really is falling apart at the seams!

The following is the circuit of the video amp and sync separator stages of the Marconi 707. As can be seen, the circuit is certainly well developed for a pre-war design but one must remember that this set was designed and made by the firm that developed the 405 line system.

DATE 2.10.79

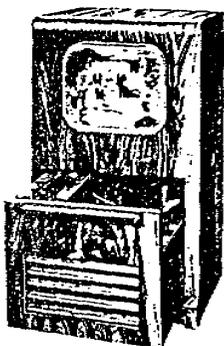


Description: Negative-going video at the anode of V9 (MS4B) is connected to the CRT cathode via the potential divider and C60 (2 uF). Positive-going syncs are fed to the sync separator valve V10 (KT263) via C61.

During the active video period V16 is conducting, therefore bypassing R75. The positive-going sync pulses cut V16 (D42) off, so that a large amplitude sync pulse appears across R75. The conduction point of V16 is set by VR11. Apart from the diode V16 the circuit is similar to that found in sets made twenty years later.

* V9 (MS4B) performs the function of anode bend detector and video amplifier.

Coronation issue of the
Daily Mail, 3.6.53



DECCA

"BIG SCREENS"

for the big occasions



So now you feel you *must* have a television of your own! You *must* see those other occasions of royal pageantry... the royal drive down the course at Ascot, the review of the Fleet at Spithead. Then there is that breathtaking moment at Lord's in Old Trafford, those all-important final at Wimbledon and, in the 1953-54 sporting calendar, the big football matches, the inter-varsity events and all the other things you've always wanted to see. Well, whatever the event, *Decca* will dominate the day, for every Decca television is big screen television and is designed to give the utmost satisfaction on all points of performance.

THE DECCA MODEL 1000 PROJECTION TV

Have the fun in the theatre, cinema and clubs etc. where a "big screen" is needed. The screen has to be accommodated.

Screen 4 feet X 3 feet £165 including screen

CLASS DECCA MODEL 111 TELE RADIO GRAM

Complete in a sensory remote. Television, independent wireless radio and Gram. Screen 22.5, 25, 28 in. 2000 series record changer. All in a handsome wooden cabinet.

15 inch tube £144.4.4

CLASS DECCA D17 TABLE MODEL

A night in with a cabinet, making small demands on space but with a big flat picture. Also Decca D17C Gram and record changer. All in a handsome wooden cabinet.

17 inch tube 41.83 Gm. D17C Gram 93 Gm.

DECCA

POST TODAY TO
DECCA RADIO & TELEVISION, BRANCH OF THE DECCA RECORD CO. LTD
7-11 BRISTOL ROAD, LONDON, S.W.8

Please send me details of MODEL 1000 MODEL 111
MODEL D17 MODEL D17C Please tick your preference

Name _____

Address _____

D.P.1

TEST CARD "C" AND ALL THAT !!!

by Ray Whitcombe

I have just read the latest issue of *405 Alive*, and as usual it held me cover to cover! The part on Foreign TV systems, to which I contributed, solved one question I had which was why the French sometimes quoted 455 lines. An idea crossed my mind that some of the improved CRTs the Germans appeared to have during the late 30s may have been a spin off from their secret developments of radar. I have just read a book which was an "eye opener" on this fact, *THE RADAR WAR* by D. Pritchard, publisher Patrick Stephens Ltd. I recommend it to anyone interested in the technology of this era.

However, enough of this, may I add some other input? A constant theme of *405 Alive* is the coverage of trade test music and films, well before I "enrolled". I never had the remotest idea that such a subject could be such a basis for learned research and comment, but then I am a complete Philistine in such matters! I did have a great interest in the trade tests from the beginnings of my delving into the mysteries of television while still at school in the late 50s, but although I remember "religiously" switching on when I returned home in the expectation of Test Card C, my motive was purely as a means to an end. Well I was "poor" and could not afford a sig. gen., so the next best thing was the test card! Many a frustrating late afternoon was spent in "tiddling" the RF strip in my ancient Marconi VT53A to try to optimise the response of the frequency bars, and then the transient response using the pulse and bar sections of the card. This quest for perfection was not helped by the use of an indoor "V" aerial, or indeed being in a central London house dwarfed on all sides by massive blocks of flats, all with a good sturdy frame of iron!!!

Later on in life I learned this method of alignment was a necessary adjunct to good picture fidelity, but using proper pulse equipment (actually sine \wedge Z pulse to allow for the bandpass characteristic). However, at that time the test card method became an obsession which was only broken when I lashed out and bought a Nombrex sig. gen.. NB: I still have this little instrument, it is useful in being battery powered and small, and although seldom used now it has only had 3 batteries in its lifetime! The last one being purchased at least 15 years ago, type PP4, where is that Guinness Book??

Well, back to the main point, trade tests. The image of Test Card C having been "burned" on my retina, I cannot recall the music, well I admit to being a Philistine! What I do recall were the NTSC films and slides; I expected the VT53A to show up the subcarrier crawl, and this led to further tweaks to the RF strip. On the music front the one thing that does ring a bell was the ITA intro. march and announcement at the beginning of the evening schedule, this gave me a sense of great achievement, picking up ITA CHA 9 via a surplus add on unit (GEC if I remember correctly) sat under the VT53A plus using a "lousy" indoor aerial!

During the early years of my career in electronics I kept up with my hobby constructing various wonderful devices, this culminated in the construction of a colour television using the Mullard application reports as a guide (some help from Plessey as well). When in the final stages of this project I had purchased the final item, the CRT (an A63-11X), the problem of convergence reared its ugly head! Well it was back to the good old trade test card. Imagine my shock and horror at arriving home after work, switching on the set armed with the convergence instructions, and finding that the trade tests had been replaced by a THING called "WIMBLEDON", well I ask you?

However, resourceful as ever, I noticed that this WIMBLEDON affair had a green background crossed by various white lines and a net! What better for static and dynamic convergence! I suppose I have branded myself as the complete Philistine now, what with tennis and the sacred trade tests, well all in the aid of technology!

I must have seen a lot of trade tests, looking back, but there it must remain. When, in the late 60s I joined Rank Bush Murphy as a design engineer at their Chiswick labs, I was again surrounded by the early Colour Trade Test films, well to much of a good thing does nothing for the appreciation and much of it is but a blur in memory. Some do "click" however. There was the AERE safety awareness film, all about S.I.D.E (Switch off, Isolate, Dump, Earth). I suppose this was intended to act as a warning to technicians faced with 25kV CRT supplies. The film was about a group of researchers at Harwell (I think on the ZETA project). They were engaged on charging a room full of evil-looking capacitors, and then discharging them via a contactor bound to make Dr Frankenstein jealous, into a glass toroid. What a daft way to earn a living! I mean even discharging a few hundred uF via a grub driver is traumatic enough for most of us! To boot they looked at the results with a TEK 'scope. The film climaxed with the SIDE procedure not being adhered to, and a very shaken engineer on the floor.

The other test film that remains in my mind was the cause of one of those once-in-a-lifetime anecdotes, that occurred in the lab. I do not remember the name of the film in question, but its content was very memorable. It was a story of a young couple touring somewhere in Canada in a Renault 4. There was little or no speech, most of the actions being in mime, however, at one point the girl let out a LONG S C R E A M ... do you remember it? I mentioned an anecdote, well here it is..... We were developing the RRI Phase 2 110 degree colour set, the chassis being designated Z179, remember it? The lab consisted of several groups, each responsible for a particular part of the set, RF, Tuner, Decoder, Line TB, etc. most of this development was done on a lash-up basis, using a suitable "donor" chassis. At the end of the first developments an "A" model was built up to look as near to the final product as possible, some of these models would be used for home tests. Well the set was built up, all the panels previously tested aligned and working, the great moment arrived!!!! The engineering director and all the project leaders arranged themselves around the set - with a look of the proverbial Cheshire Cat, the director switched on. Silence ... then the hiss of the EHT coming up - and then a l o n g s c r e a m very loud. You've guessed it, that trade test was playing and the one bit of sound had occurred at switch on. We all fell about laughing, I think some of us took it as an omen. Come on, the Z179 wasn't all that bad, my sister-in-law has my late Mother's. I bought it, ex-lab, for 16 quid, can't be bad?

Anyhow that just about sums up my exposure to trade tests, for after that the lab started to use the Philips pattern, and off-air signals were only used to do final objective tests. Having worked in the TV industry, at least in the past, the type of material I appreciate most are the reminiscences, one that comes to mind was of an engineer at Beethoven, can you stimulate some more of this type of copy? I am sure there are many members of the RTS who may like to join such a group (405 line) perhaps a note to them may bring some response?

I noticed that one of your readers wrote about restoring a Rush TUG34. I still have a few spares for this chassis and would be pleased to give them away. (A spare LOPT may be useful!) Please could you ask on my behalf? *(You can ring Ray on 081-204 3804, but not all at once please!)*

Finally, does the BBC still have the telerecording of the original Quatermass

Experiment? I seem to remember it having been shown in the last 15 years. Was this the cinema film version? It is the first thing I remember as a kid. It scared me for years! In my opinion these simple horrors were far more effective than the present vogue for hi-tech special effects, vive Boris!

TALES OF OLD TV

Relayed by Dicky Howett

This is a tale of really old TV, back in the 30 line days! All those spinning wheels and flashing lights. Now, it is said that John Logie Baird would try anything to get his box of tricks to work properly.

According to author Richard W. Hubbell in his book hyperbolically entitled *4000 years of Television*, Mr Baird performed, in 1928, " ... a most bizarre experiment." To quote from the book, "... an operation on a boy in London had necessitated the removal of one of the child's eyes. Baird got the surgeon to give him the eye as soon as it was taken out. he hurried to his studio, and, according to reports, placed the eye in his apparatus in place of the camera."

Baird recounted, "Then I turned on the current and the waves carrying television were broadcast from the aerial. The essential image for television passed through the eye within half an hour after the operation. On the following day the sensitiveness of the eye's visual nerve was gone. The optic was dead. Nothing was gained from the experiment. It was a gruesome waste of time."

It was also probably the first recorded case of going "square-eyed" because of television.



If you switch on your television set five minutes before the programme is due to commence, this is what you should see if the set is correctly adjusted. The idea of this "tuning signal" is to ensure that the pictures that follow will not be distorted. The circle round the clock should be truly circular, the wavy bands each side of it should graduate from white at the top to black at the bottom, and the border of dashes round the outside should be just within the boundary of the mask in front of the tube.

CONVERTING THE STANDARDS

by *Phil Parker*

Transmission of pictures between countries was one of the first advantages seen for television, indeed one of Baird's earliest successes, in 1929, was the reception of pictures from Berlin.

Like the invention of television itself, it is a moot point who was the first to develop a working [standards converter] device. I seem to remember that cameras were pointed at screens at EMI back in the fifties, and there were the optical experiments at Bosch and others. But it cannot be denied that the impetus and much of the development of signal processing to make converters feasible came from the broadcasting companies, and continues to do so.

The early work of the BBC in the fifties and both them and the IBA in the seventies and the current input from NHK have all been notable contributions to the art.

The BBC's *Calais en Fete* broadcast in 1950, in which pictures were beamed 95 miles across the Channel by microwave was a tremendous success, so much so that it underlined the fact that it was received only on Britain's 405 line system and not on the 819 then in use in France. A repeat of the exercise in 1952 used a line converter developed by the BBC, for the first time in a public broadcast service, to provide pictures to both countries for a whole week.

These developments were further spurred by the coronation of Queen Elizabeth the following year; the first large-scale international broadcasts, when 405 was upconverted to 819 in Paris and to 625 at Breda by Philips.

These early converters used camera pick-up tubes as storage devices and long-persistence cathode ray tubes for the display. Refined versions of the technique were used in the EMI standards converter marketed commercially at the end of the decade which was based on the CPS Emitron, a linear transfer orthicon pick-up tube. I used one of these in Ireland at the start of the Republic's television service in 1961, for though this service was 625 lines, a 405 service was maintained in the north and east where viewers had been receiving UK transmissions.

This was subsequently replaced by Peter Pearce's version, with improvements to the signal processing, including, advanced for the day, aperture correction and was based on the EMI 201 camera. Our original EMI was sold to ITN who were beginning to need standards conversion on a regular basis. Peter's device was used again in the start-up of Yorkshire Television in 1968, again because YTV was 625 whereas the rest of the ITV network remained 405 until the start of the UHF colour service in 1969.

These were all essentially line converters and gave pretty poor results when frame conversion was required, mainly due to the smear which results from the use of long-persistence tubes to provide the temporal filtering.

Though attempts had been made, the development of a frame store was not a task to be lightly undertaken without the ready availability of memory chips. All credit is due to the BBC engineers for the next real breakthrough, in 1963, with a solid-state linestore converter which used analogue processing (something like a large CCD in fact!) and was specifically developed for the coming changeover to UHF and 625 lines.

With the use of these converters the network could operate on 625, and the 405 transmitters given standards-converted feeds. Ultrasonic delay lines were used in the frame-rate BBC converters developed for and used on the Mexico Olympic Games in 1968.

The IBA network faced similar problems when their network switched to colour and UHF working, and an important landmark in the history of standards conversion was their development of DICE, the first all-digital standards converter, to which John Baldwin (if my memory serves my right) made a significant contribution with the frame stores. Two fields were used to provide the interpolation data.

Apart from it being in the early seventies, I am not too sure of the exact date of DICE but the BBC's ACE went into service in 1979. This was another significant step forward as it addressed the movement problems with its use of multi-dimensional filters and a four-line, four-field aperture and was equally effective in interchange between any of the existing standards.

At that time large RAMs were still few and far between, and converters were consequently large, permanent installations, the mountains to which Mahommeds had to go. It was some years before compact and portable equipments like Quantel's Satin became available, using multi-dimensional filtering again but still, like DICE, two-field converters. Probably the first compact commercial four-field converter and one which made an instant impact was the AVS ADAC.

The problem with conversion is that it involves the generation of lines and frames that do not exist in the original picture. This is not purely a spatial and temporal problem but involves interpolation of movement: determination of the correct position of a moving point in the reconstituted field.

A longer version of this article appeared originally in Broadcast Hardware International and is reproduced by kind permission of that magazine's editor, David Sparks.

STRANGE BUT TRUE

AERIAL IS A PIECE OF CAKE!

We were told our television would not work without both BBC and ITA aerials. Now we've connected it to a wire cakestand indoors and it works perfectly. - K. Young, West Markham, Newark, Notts.

[This is a reader's letter from a popular newspaper during the 1950s - the exact date has been lost. It makes a good companion for the recent letter in Television from reader in South Wales who found he could receive satellite television simply by tuning VHF highband on his normal set!]

TV PIONEER WAS DOG-HATER!

A.A. Campbell-Swinton was the visionary who foresaw the prospect of electronic television at

the turn of this century. He was also a stalwart supporter of amateur radio and an early member of what was to become the Radio Society of Great Britain. More intriguingly, it is recorded that he was troubled by dogs urinating on his front door-step. His solution was on warm, dry days to sprinkle calcium phosphide on the step - when sprayed with water it bursts into flame! [Stolen from *Break-In* (August 1990) and in turn from *Electronics & Wireless World* (May 1990).]

COLLECTORS AND THEIR COLLECTIONS

We all like finding out about other people and their collections, it's fun being nosy! So this new section will feature short descriptions sent in by readers. Why not write in and tell us about yourself? This time it's Dave and Jill Probert.

I will see if I can give you an idea of some films in our collection (and collecting history!).

I started collecting standard-8 movies in the 1960s while still at school, then progressed onto sound films (travel, cartoons, etc.) on standard-8. Then much later, after slowing down somewhat and getting married, moved onto super-8 sound collecting. Mainly cartoons, Disney, etc., also clips and excerpts from old features and so on.

I always had an ambition to eventually get round to 16mm, so when one day seeing in a local junk shop a Bell & Howell 16mm TQ3 (not working properly) I pounced on it. After having it restored (with much dented wallet and many frowns from wife) we eventually got it running. Now this seemed to be the classic case of gems gathering dust on the shelf in the shop, for I noticed a pile of cans and boxes of 16mm film. I thought "That sounds a nice travel film - Warwick Castle" and was very surprised when running the film to find that it was a TV programme! Hence TV prog. no. 1 in my collection, quite by accident!

I then started looking much closer at the shelves just in case any other "TV" items might be there. And to my surprise there were about six to eight old TV shows and I bought up two items: A to Zoo, Granada b/w film with Desmond Morris, about 1966. Plus Terry and the Pirates, American b/w film of 1952 by Douglas Fairbanks Productions.

By now I was getting the TV programme "bug". So after a while and saving up some money, back I went to the junk shop and "Sorry, someone has bought the TV programmes". Aaaaah but there were still a lot of non-TV gems - travel, etc., an old Stirling Moss rally-type film, a ten minute Hopalong Cassidy, etc..

Now, when visiting film dealers Derrann's open day, I noticed an old colour Muppet Show (ITC/ATV) with Crystal Gayle. And on we went, my wife and I, collecting TV programmes here and there from various collector/dealers and of course at the usual film collectors' open days. I tried to move into the area of collecting old TV advertisements and now the problems start. This is without doubt the most difficult area and can be the most expensive (yuk!) 16mm division. After asking around and advertising in Film for Collectors magazine with very few replies I soon realised this is the "gold" area of 16mm collecting! It seems stupid but once I got three 30 minute TV programmes for what one person wanted for half a minute of ads!

Anyway, eventually I managed to get some "cheap" ads, a batch of four "She

flies like a bird" (Nimble bread, 30 seconds), a Kelloggs 1 minute ad, Myers beds (30 second cartoon) and a butter commercial featuring Disney's Goofy! Much later I also got a batch of nine Kenwood ads.

So via various sources TV programmes can be bought on film for prices from about £5 and right up off the scale for the real rare vintage stuff! But with a very limited amount to spend on my hobby and a very thoughtful wife to keep me under control, we very carefully try to build up a varied collection of TV material on 16mm optical sound. And that's a basic history of how I started to collect TV programmes.

Now, as you may be aware, even with video some prices are stupidly high and others really low. Over the years I remember one open day: we had just arrived and started to look at the bring and buy table. One regular took out a rather battered box and put it on the table. I looked to see the title: Nature's Half Acre: Walt Disney True-Life Adventure. I asked, what condition is it in? "Oh, not quite sure", was his reply: "I've never shown it!" He said he had bought a longer Disney compilation film. So I bought it, an original Technicolor print, somewhat damaged but after two or three hours work on it repairing and cleaning, it's a gem! It's amazing what turns up!

I hope this gives an insight into collecting old TV programmes (transmission films and telerecordings).

... and a contribution by Steve James

Having never been able to say 'No' to anything wooden with a black plug on the end, I have lost count of the numbers of sets that have passed through my hands since I got my first old set ten years ago, at the age of ten.

It's amazing the number of ways in which sets tend to come your way. Needless to say, everything is much easier now, with the aid of the back pages of this publication. Gone are the days of wrestling them out of skips on wet Sunday mornings at the local tip. Anyway, below is listed the current line up:-

- * HMV 2807 of 1950. 9" table model in v.g.c. Tube heater burned out. Curses!
- * BUSH TUG34 of 1952. 14" Console with door. Dying tube, but lovely sound. Does cocktail cabinet impressions.
- * FERGUSON 306T of 1956. 17" Table model in classic cube shape with side controls.
- * EKCO T283 of 1956. 14" Table model with speaker grille and two concentric knobs below screen. Good condition and complete with instructions, bills and details of all work ever done!
- * INVICTA 541 of 1962. 19" on legs. Very groovy and art deco looking. 405/625 but with VHF tuner only, excellent condition.
- * FERGUSON 978T of c. 1952. 12" Table model with purple screen guard. Great tube, although has frame collapse and awaits attention. Flaking varnish.
- * FERGUSON 636T of 1960. 17" 110 degree tube. Includes VHF radio. Horrible "Golden

Glide" tuning. Nice looking set with gold effect screen surround and grille.

* FERGUSON 516T of 1960. 17" 110 deg. Same 300 series Thorn chassis as above. Similar in appearance, but fitted with twin speakers and side-illuminated dials.

* HMV/FERGUSON 506T of, you guessed it, 1960. 17" 110 deg. You know, I rather like the 300 chassis. No radio on this one and looks totally different.

* GEC Unknown 19" dual standard b/w of 1969. Rotary tuners, and cabinet made of something slightly stronger than plywood. Sits on obligatory silver ended legs.

* EKCO T377 of c. 1961. 19" 405 only. Beautifully made, compact but weighty. Has dreadful, inaccessible Pye chassis. Tuner has no channel 1 wafer. Damn.

* FERGUSON 3629 of 1965. 900(?) Chassis with 12" tube. Unusual looking - has wooden cabinet of standard width, but only half the height of normal set. VHF tuner and dummy UHF dial. Slight niggling faults, but otherwise healthy.

* PHILIPS 9173 of 1966. 19" Dual standard "Style 70" series with electric clock/timer. Lots of brushed aluminium. Supposedly styled for the 70s. On the whole, a set either to give to someone you don't like, or someone who never intends to switch it on. Currently not working. For the hundredth time.

Finally, I am on the verge of taking delivery of a 1968 GEC 19" hybrid dual standard colour set with a healthy tube. Space will be restricted, to put it mildly, on its arrival, so various of the above listed sets may be available. Enquiries to me at 354 Loughborough Road, West Bridgford, Nottingham, NG2 7FD. Tel: 0602-233179.

NOTES AND QUERIES

Answers to **405** Alive please.

Q. Does anyone know the origins of the BBC-2 Kangaroo? [Steve James]

A. In response to Steve James' query about the BBC2 kangaroo I assume he's referring to that creaky old promotion that heralded the arrival of the new BBC channel? In fact there were two kangaroos of course. The idea behind it was that the large kangaroo (Hullabaloo) was supposed to represent BBC1 (all gloss and noise) and the small kangaroo (Custard) was the new baby (all yellow and stodgy). The reason for the name "Custard" was born out of desperation, because you see, "custard goes with anything". As it turned out, all the viewers went with ITV which left the BBC2 planners with something yellow on their faces [Dicky Howett].

See also Keith Hamer's article on page 51.

Q. Why did each ITV station have (in theory at least) a complete set of slides of the logos of other ITV companies? [Anon.]

A. This was in case it was impossible to join a networked programme on time, for instance if advertisements over-ran. In this way the station could "introduce" the

networked programme properly, even though it had missed the real opening ident and titles. [thanks to Tony Currie for this].

Q. Is there a simple conversion of feet to running time for film?

A. Yes. Assuming 16mm sound film running at 24 FPS, 400 feet ("one reel") will last 10 to 12 minutes.

Q. When did the BBC go over to 625 line production in-house? Obviously some 625 tapes from the 60s still exist, often in superb quality. How were these standards-converted for the 405 network before 1969? [Tony Fell].

Q. The ITV contractor for North Wales (Teleddu Cymru) lasted only a short while before giving up its franchise in favour of TWW. Did they have their own studios and if so where? [AE].

Q. I have heard it said that the last working 405 line TV system in Britain (the World?) was the closed-circuit system in the Palace of Westminster, for informing MPs and others of time of the next debates. I saw it myself and it certainly *looked* like 405, though the technicians who maintained it insisted it was 625. Apparently it ceased last year (1989). Can anyone say for certain which standard was used? [AE].

Q. Can we sort out a list of all the black-and-white still picture slides supplied by Marconi for use at ITA transmitters? I suggest the following but I'm not sure whether they were used in some other ITV regions ["Enthusiast"].

London: Waterloo Bridge *plus* Windsor Castle

Borders: a Bridge with a car

East of England: A windmill

Midlands: A valley *plus* A seven-arched bridge

Scottish: Kelvingrove art gallery; a loch; a stone arched gateway

Southern: A village and a boat

Yorkshire: Village scene *plus* a row of cottages

LUCY'S LOST TREASURE SURFACES

by Barry Fox

Lucille Ball and her husband Desi Arnaz changed the course of TV history with their *Love Lucy* series. For it was Ball and Arnaz who pioneered the three camera technique.

To recap briefly, in the early 50s, there was no video tape. Ampex did not demonstrate its first 2in. Quad machine until 1956. Most TV shows were broadcast live. There were several TV cameras, with the producer continually switching from one to

another. But any mistake was transmitted.

The only way to hedge bets, was to shoot the show on 35mm movie film. For *I love Lucy* the studio tried using film cameras like TV cameras. They set up three cameras and let them all running, all the time.

Although this meant that two-thirds of the film was wasted, it gave the producer flexibility in editing. At any one time, there were two or three views of the same scene to choose from.

The sound was recorded on disc. This meant that each sequence had to be shot from beginning to end without any breaks. If anyone made a mistake, the whole sequence had to be performed again, because you cannot edit sound on disc.

The lighting for the scene had to be right for all three cameras at the same time. This meant that the scene had to be evenly lit with bright light, without any shading or special effects.

This is just the opposite to the situation you get in a Hollywood film studio, where one camera only is used for each shot and the lighting is carefully adjusted to suit the camera angle.

Until recently, movie historians had been hunting for a copy of the original pilot programme that Ball and Amaz made in March 1951 with \$5,000 of their own money, while trying to sell the idea of a series to CBS.

Lucille Ball was five months pregnant and CBS rejected the pilot. But CBS did agree to sell airtime to Lucille and Desi if they could find an advertising sponsor. Cigarette manufacturer Philip Morris backed the idea and the rest is history.

What isn't history, is the way the only remaining film copy of the 34-minute pilot programme was discovered last Christmas. It turned up when the widow of Spanish clown Pepito, who had a part in the pilot, had a chance meeting with one of today's top brass at CBS.

By a quirk of law, CBS owned the rights to the pilot, but Pepito's widow had the film. They did a deal and it was shown on American TV for the first time - and almost 40 years late - at the end of April.

The programme is obviously a low budget venture. At one point you can actually see a paper wall disintegrate and at another point, Desi laughs (not in the script) when Lucy mocks his English.

BRITISH TV SERIES TO LOOK OUT FOR

by *Dave Watkins*

Below I am listing some of the old B & W film series it might be worth looking out for. I think any episodes from any of these series would be worth having simply because they were all made in Britain, plus having been made on film originally, the odds are that they all still exist on film somewhere still today, whether it be in someone's vaults or in second-hand shops or wherever.

Anyway, here is the list. If anybody comes across this type of film please let me know, via the editor.

1. Gideon's Way (ITC)
2. Zero One (old BBC-1 1960s series)
3. Dick and the Duchess (Sheldon Reynolds Production)
4. Sentimental Agent (ITC)
5. Man of the World (ITC)
6. Dial 999 (a Towers of London Production for ABC-TV)
7. International Detective (a Delfry production for ABC-TV)
8. Flying Doctor (an A.B. Pictures Corporation production)
9. The Pursuers (a Crestview Production for ABC-TV)
10. Glencannon (a Gross-Krasne Films production)
11. The Cheaters (a Danzigers Production)
12. Sir Francis Drake (an ABC-TV/ATV production)
13. African Patrol (a Michael Sadler production for ABC-TV)
14. The Man From Interpol (a Danzigers production)
15. Mark Saber/Saber of London (a Danzigers production)
16. Ghost Squad (ITC)
17. Special Branch (Euston Films)
18. William Tell (ITC)
19. Shirley's World (ITC)
20. From a Bird's Eye View (ITC, Millicent Martin)
21. The Four Just Men (ITC)
22. Interpol Calling (ITC)
23. Sword of Freedom (ITC)
24. Zoo Gang (ITC, colour)
25. Stryker of The Yard (Clifford Evans series, 50s)
26. Sailor of Fortune
(Lorne Greene series - a Michael Sadler production at Elstree, 1956)
27. Martin Lane, Private Investigator
(a Towers of London production for ABC-TV)
28. The Gay Cavalier (a George King production for Associated-Rediffusion)
29. The Buccaneers (ITC)
30. The Count of Monte Cristo (ITC)
31. Colonel March of Scotland Yard (Sapphire Films)
32. Ivanhoe (a Sydney Box Television Presentation)
33. Richard the Lionheart (The Danzigers)

Note: ITC (the Incorporated Television Company) was a subsidiary of ATV.

Peter Matthews has managed to arrange a look around the BBC's original television station. Here are his impressions of a

VISIT TO A.P.

I recently gained permission to view the BBC section of Ally Pally. I also wished to see the theatre but it was too unsafe. I have written an account of what the studios etc. are like.

I arrived at 2.15 and went to find the P.A. to the Manager. She showed me the replica TV they were given in 1986 which was the type with a mirror in the lid. Then it was off to the studios. We went up the old flight of stairs to come out near the studios and five floors of "modern offices"; the offices were being gutted but not the studios.

On entering the main dividing corridor the first thing to greet you was a BBC plaque of staff vacancies. Then into the pitch black Studio "A". On went the lights, what a shock. The ceiling was collapsing, the floor rotten and the tiles peeling away. The once asbestos-covered walls were bare, but the "pioneering" atmosphere was still there.

After a good look and clambering over furniture I got to the room dividing studios "A" and "B". Here there was a ladder up to the control room so up I went. There was the large window which gave a good view of the lighting gantry and Studio "A". The poor old rotten floor was decaying, so I came down. Next it was up another ladder to see what equipment was left; again another shock - two Victorian radiators, one ampere metre/control and a rotten seat and a good view of Studio "B". So into Studio "B" ... All that was left was a bit of paint on the wall and the doors with portholes in, but still the same atmosphere knowing that Adele Dixon, Helen McKay, Gracie Fields, George Robey et al. had all been there. Then out I went to the balcony: what a view!

I found out it would cost £3 million at least to restore the studios and much more to restore the theatre. However, the original mast still beams out 625 line signals as a booster. Anyway, back into Studio "A" and then into the corridor, past Makeup and near to the old canteen. It had a sadness about it but a marvellous addiction. The last stage of the journey from these empty studios was down "The Lift"; after 54 years it has never been altered, and what a smooth ride, to know how many lovely people had been in there is excellent.

I have also been in touch with Tony Bridgewater, Mrs Leslie Mitchell, Jasmine Bligh and Elizabeth Cowell, it's marvellous to be able to grasp this piece of history while it is still available. Unfortunately they are stopping people from going to the studios as they are so dangerous but it's marvellous to see the rebuilt Palm Court and the organ. It sure makes a good day out.

Wireless & Electrical **TRADER**

Established 1923

Published every Saturday

VOL. 123 NO. 1597

15 JULY 1961

Grampian TV Start Conversion Campaign

Full Support For Retailers

THE campaign planned by Grampian Television Ltd., 41 Piccadilly, London, W.1, in preparation for the opening of the new service on September 30 is now well under way. Of some 271,000 homes in the area, 78,000 have no television receivers and 20,000 have Band I sets only. There is, therefore, a market for nearly 100,000 receivers.

From now until the opening Grampian are carrying out an extensive conversion campaign using morning, evening and weekly newspapers in the area and enlisting the co-operation of local retailers.

Set manufacturers have been approached to join in with suitable publicity in collaboration with their dealers. For the retailers themselves Grampian offer posters, newspaper advertisements, free blocks, counter cards, leaflet dispensers, window stickers and a dealer sign. All are illustrated in a campaign folder which has been produced. The theme throughout is: See your dealer now.

New Lichfield Mast Now Complete

Programme Transmissions From Next Week

THE new 1,000ft mast and directional aerial at the Authority's Lichfield station is now complete. The aerial and feeder system is being tested and it will go into service as soon as these tests are complete. Provided that no unexpected difficulties are found during testing, programme transmissions from the new mast will begin early next week, the target date being July 18.

On August 15 work will start on the dismantling of the original 450ft tower, which has stood since the Lichfield station, the second of the Authority's network, first went on the air on February 17, 1956. This tower, after cleaning and checking will be taken to Jersey and re-erected there to carry the aerials of the Channel Islands' station, due to go on the air towards the end of 1962.

B.B.C. Satellite Stations

Mr. P. Browne asked the Postmaster-General if he has now received the stage 3 proposals for satellite stations from the B.B.C.; and what plans are envisaged for North and West Devon to improve reception.

Mr. Bevins: The B.B.C. has not yet put its proposals for stage 3 to me. I understand it is carrying out a series of engineering tests before its proposals are finalized. Until I have received and considered its proposals I cannot say what it may be possible to do in this stage for North and West Devon.

CHANNEL 7 FOR IRISH TV

Radio Eireann have now issued technical information on the first transmitter for the Irish Television Service. As already known the location of the station is Kippure Mountain, Co. Wicklow. Line standard is 405 lines, Band III, Channel 7. E.R.P. is 100kW (directional) with horizontal polarization. Mean aerial height is 2,823ft. It is expected that Irish television will be on the air in the Dublin area before next November.

VIDEO RECORDING NOTES

HITACHI VT-5000

Terry Burnett notes that one of the best machines for recording 405 line material (or even black and white 625 line!) is the Hitachi VT5000E. This piano key-control, top loader machine is ten years old now and sells for as little as £15 in some places, but is well worth seeking out (assuming no-one has "got at it").

The beauty of this machine, Terry says, is that its motors have excellent stability and the video low-pass filters (in monochrome) are set at an amazing 4.5MHz. This means the VT-5000 is capable of extremely sharp and faithful recordings in black and white, better than the 405 line system was capable of producing. It out-performs a U-Matic in this respect, and later Hitachi models were not nearly as good. It was as if Hitachi put all their best design work into this particular model and could never again repeat the performance!

OBSOLETE FORMATS

Our readers are a resourceful lot: among them are folk who possess video tape machines covering the recording formats listed below. If anyone comes upon a recording in a "strange" format, we may be able to have it converted within the Group to a format they can use. We also have occasional access to broadcast-quality telecine facilities, so if you have any telerecordings or old commercials (but not holiday movies!) on 16mm or 35mm film we can have them transferred to video tape for you. There is generally no charge but you must pay recorded delivery postage costs.

Video tape formats we know we can handle on reel-to-reel include Akai 1/4" colour, Ampex 7003, Philips LDL1000, Philips N1500, N1700 and V2000; Shibaden SV700; Sony CV-2000, CV-2100, 3420/3470; Sanyo/National/Hitachi (these last are probably EIAJ). Also the following cassette formats: Betamax; VHS and S-VHS; and also U-Matic.

If you can offer - or need - help please drop your editor a line (71 Falcutt Way, Northampton, NN2 8PH) or ring 0604-844130. Thanks to ML and EP!

AUDIO TRANSCRIPTION

On the subject of audio recordings, Paul Sawtell 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.

HELP WANTED

Do you have an Ampex 7003 or know where there is one? If so, Mr Julius Vincze would like to hear from you. He has six hours of 20 years-old material on 1" tape to be converted to Betacam SP or high-band U-Matic. Apparently this tape gives a sort of picture when played on a C format machine. He can even bring his Betacam equipment to you if you have a 7003. He works at Brockwood Park Video, Bramdean,

FINE ADJUSTMENT

by Dicky Howett

1250 line TV pictures. Lovely old 405 line TV pictures. What's the difference? More lines to improve the definition? Well why not, but who really notices the resolution of TV pictures? The fine detail? Oh, you do!

When I first bought a video recorder ten years ago, almost instantly I wished the thing had better sound. The old lowband video image looked just dandy to me; the eyeballs being easily fooled into accepting something that is, strictly speaking, less than half there. Earholes are more difficult to cheat. But having now the benefit of NICAM stereo pumped through my NAD outfit, I'm still more than happy with my video-horizontal-resolution-270-lines. In fact good sound makes the picture seem better! But I suspect that the reason most people are happy with a technically degraded picture is because the image is sharp.

Back in the old days TV pictures were small. But size, as is well known is no guarantee of quality. I sat glued to 'The Quatermass Experiment' in 1953, peering fearfully at a 9 inch Ekco (with doubtless no black-level clamp). At this remove I can't recall anything about the actual picture quality, generated by Emitrons with all their shading and handling problems. The image, hopefully was at least sharp.

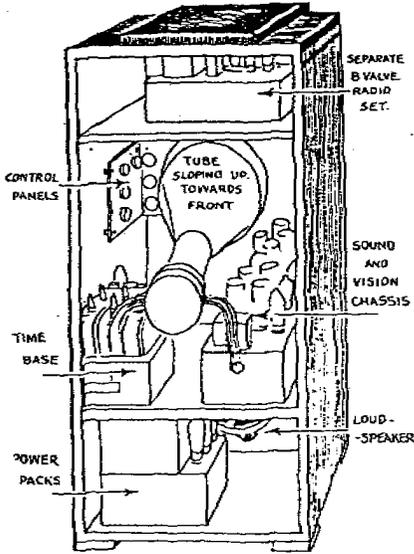
Later, I became a little more critical, groaning at the pathetic quality of American tele-recordings (remember the Perry Como Shows?) Notwithstanding the BBC's doctoring of the prints to chop out any reference to 'Kraft', (the shows' sponsors), for years I thought that the Americans had the worst TV definition in the world. This was a calumny. When working for the BBC I had occasion to view some sparkling CBS/NBC/ABC 16mm kinescopes. Of course it did help that some of the pickups were Marconi Mk 3's and 4's.

US news footage still looks awful over here, reinforcing the view that US TV is bleary. Not so. It may be a little more sun-tanned, but the pictures are sharp and clear and still only 525 lines.

So why 1250 lines? Are the programmes going to be better for more lines per field? Does the eye really see more detail on those Cinemascope-shaped and terribly expensive receivers? (Okay, so we'll see the edges of those third-rate 'blockbuster' movies. Conversely, does that mean we'll get black bars down the side of all those wonderful classic b/w movies in the Academy Ratio, or instead will we get the tops and bottoms chopped off?) It all sounds like a bum deal to me.

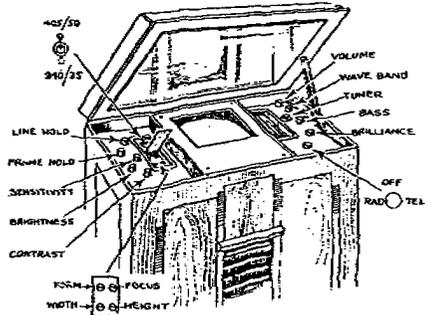
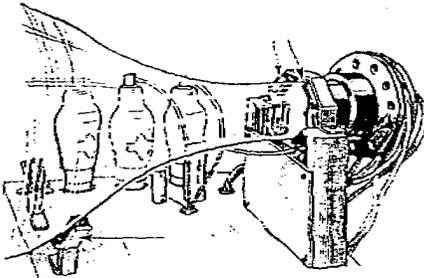
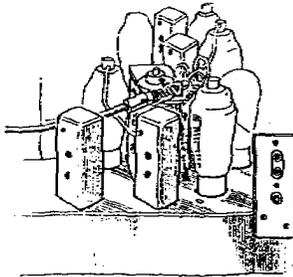
I suppose in the end, it'll be the customer who decides. To be honest I'm not really bothered about the prospect of better line standards and resolution and all that jiggery pokery with digitals. If the show's good and the image is sharp then that's the one for me. I couldn't be clearer than that.

FEATURES OF COMMERCIAL TELEVISION RECEIVERS

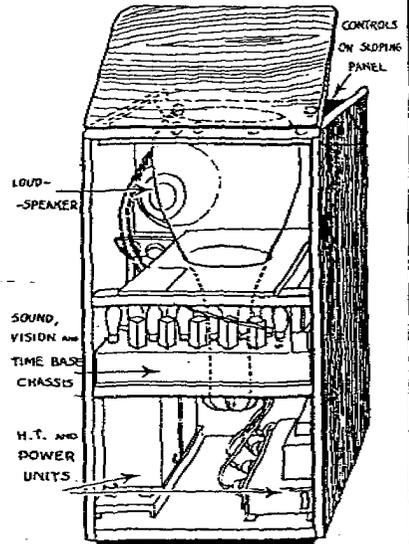


Above: The arrangement of the G.E.C. receiver which includes an all-wave set. The tube is placed comparatively low down in a sloping position, the time bases and sound and vision receivers being at either side.

Right: The tuning control of the Baird receiver is by means of a flexible cable which operates a worm wheel attached to the condenser spindle.



The controls of the Marconi-E.M.I. receiver are at either side of the end of the tube. Most of these are semi-permanent and do not require adjustment under ordinary conditions.



Above: The arrangements of the units of the Baird receiver seen from the back. One chassis is used for the sound and vision receivers and the time bases whilst the power packs are in a compartment below.

Left: The method of mounting the cathode-ray tube in the Corossor receiver. Sorbo rubber is used in a wooden framework.

THOSE BBC KANGAROOS!

Keith Hamer

In the July issue of *405 Alive* (page 37), Steve James asked a very simple question: "Does anyone know the origins of the BBC-2 Kangaroo?". The answer could be fairly lengthy and so I will try and keep it as short as possible.

Basically, the mother kangaroo represented BBC Television from which the baby was about to leap out of the pouch in the form of BBC-2. As early as 1963 the BBC kangaroos became quite famous and names had to be conjured up for them. One name sprang to mind at the BBC-2 Information Service (formed in August 1963) without too much head-scratching - 'Hullabaloo' because there was certainly going to be a lot of that about as the expected opening date for BBC-2 approached (April 20th 1964). However, there was apparently a great debate concerning the other name which had to complement 'Hullabaloo'. What would you come up with faced with this momentous decision? Hullabaloo and....what? All sorts of suggestions were put forward but none really seemed quite right. In the end, after a lot of heated discussion, some bright spark made an 'off-the-cuff' remark: "Why don't we call the '63! thing 'Custard' because custard goes with anything!". So Custard it was. The next task was to find an artist to draw the two kangaroos. The commission went to Desmond Mariwood.

Hullabaloo and Custard were soon incorporated into advertising by many of the larger manufacturers of television receivers. All the TV retailers (around 5000) within range of the Crystal Palace transmitter were issued with posters, leaflets and newspapers bearing the two lovable animals. They were even produced as vinyl toys by two leading toy manufacturers and a children's book publisher (probably a collectors' item now). One firm was so impressed by the success of the two kangaroos at the British Toy Fair that they were exhibited at the Nürnberg Fair in West Germany where BBC-2 could hardly have been heard of.



Hullabaloo and Custard getting ready for BBC-2 in January 1964.

The two kangaroos were also the mascots used for Trade Test Transmissions on BBC-2 long before the actual opening in April 1964. In fact, the special transmissions began in January of that year and it was common for there to be no less than seventy demonstration films shown each week! The films included "Diavolezza", "Hook, Line, and Sinker" and "Skyhook" -these particular films were also shown during colour Trade Test Transmissions which began in 1967. One film which wasn't used for colour was grandly entitled "Cubism and After: Figures in Space". No doubt that one made people rush out to buy a BBC-2 set! Feature films were also shown from January 1964 including "Bringing Up Baby" and "Suspicion". Trade Test Transmissions on BBC-2 began at 0900 with the test card (accompanied either by some wonderful music or the tone) and continued until approximately 8.00pm., then BBC-2 closed down. Those were the days!

So what happened to the two cuddly antipodean marsupials? To be honest, I'm not quite sure. They were certainly to be seen going up in smoke on the postponed opening night of BBC-2 (April 21st 1964) during a grand firework display. Perhaps they both hopped it after that!

If you have any reminiscences about the early days of BBC-2, why not contact me? I would be delighted to hear from you. My address is:- 7, Epping Close, Derby DE3 4HR (Tel:- 0332 51 33 99).

IF YOUR INTEREST IN COMMUNICATIONS EXTENDS TO
WIRELESS OF DAYS GONE BY, YOU SHOULD BE READING

RADIO BYGONES

■ Whether that interest is in domestic radio and TV or in amateur radio, in military, aviation or marine communications, in broadcasting, or in commercial radio systems fixed or mobile, RADIO BYGONES is the magazine for you.

■ Articles on restoration and repair, history, circuit techniques, personalities, reminiscences and just plain nostalgia – you'll find them all. Plus features on museums and private collections, with colour photographs of some of their most interesting exhibits.

■ Covering developments from the days of Hertz, Maxwell and Marconi to the recent past, RADIO BYGONES is edited by Geoff Arnold G3GSR, Editor of *Morsum Magnificat* and previously Editor of *Practical Wireless*.

■ RADIO BYGONES, which was launched in August 1989, is published six times a year. A subscription costs £13.50 for one year by post to UK addresses, or £14.50 to overseas addresses by surface mail. Airmail rates can be quoted on request.

■ If you would like to see a sample copy, send £2.40 (£2.60 overseas) to the publishers at the address below. RADIO BYGONES is not available at newsagents.

■ Please send payment by cheque or postal order to the Publishers at the address below. (Overseas remittances must be in Sterling, payable in the UK. Cheques must be drawn on a London clearing bank). Payment from the UK or overseas by Access/Eurocard/Mastercard or Visa is also welcome; please quote your card number and expiry date, and your full name.

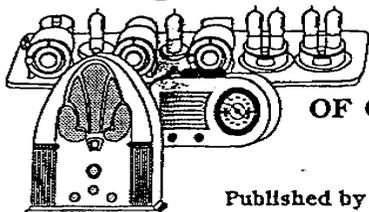
G C Arnold Partners, 8A Corfe View Road, Corfe Mullen,

Wimborne, Dorset BH21 3LZ, England

Telephone: 0202 658474



ANTIQUE RADIO CLASSIFIED



THE NATIONAL PUBLICATION
FOR BUYERS AND SELLERS
OF OLD RADIOS AND RELATED ITEMS
PUBLISHED MONTHLY

Published by John V. Terrey, P.O. Box 2, Carlisle, MA 01741

Antique radio's largest-circulation monthly magazine
5000+ subscribers!

SUBSCRIBE TODAY

Only \$11 for a 6-month Trial

A typical 76-page monthly issue includes:

- 500-plus Classified Ads
- Advertising for Services & Hard-to-Find Parts
- Informative Articles such as Company Histories, Value Guides, Auction Reports, How-To, Photo Reviews, Hints & Tips, Coming Events

A Sampling of the collecting areas covered:

- 20's Battery Sets
- 50's Plastic Radios
- Horns & Speakers
- Crystal Sets
- Television
- Telegraph Gear
- Wireless Gear
- Spark Xmtrs
- Advertising
- Cathedrals
- Early Tube Xmtrs
- Novelties
- Tombstones
- Comm. Receivers
- Books, Magazines, etc.
- Classic Radios
- Tubes
- Etc., etc., etc.

Yes, I want to subscribe to Antique Radio Classified!

Name _____ Call _____ J1

Address _____

City _____ State _____ Zip _____

Telephone _____

New Renewal: SUB#: _____ EXP: _____ Early: _____

___ \$11.00 6-months, by 2nd class mail

___ \$20.00 12-months, by 2nd class mail; ___ \$40.00 25-months

___ \$30.00 12-months, by 1st class mail; ___ \$60.00 25-months

___ Other: _____

Foreign rates:

Canada: \$32/yr. (air)

Surface: \$27/yr.; \$14/6mo.

Mexico: \$30/yr. (air)

Other Foreign: \$60/yr. (air)

Surface: \$30/yr.

Make checks payable to A.R.C. Mail to A.R.C., P.O. Box 2, Carlisle, MA 01741

VISA _____ MC _____ Card No. _____ Exp: _____

Paid: \$ _____ By (check) (cash) (Charge) 1st issue: _____ For ARC: _____

MARKET PLACE

This is the area for buying and selling all kinds of things to do with television, new or old.

Want to join in? Then send us your advertisement: there is no charge, although if space is short we may have to "prune" out the least relevant adverts or hold them over until next time.

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 **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!

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

0427 - 890768.

TEST CARD VIDEOS FOR SALE: 55 minute video presentation made for the BATC "The Development of the TV Test Card". Your editor interviews George Hersee, designer of Test Card F. Lots of old test cards included. 625 lines, VHS only. Recorded on E-180, so you can put

other material on the tape. £5 including postage. And now ... "TV Test Cards of Eastern Europe" but that is an understatement. For this tape covers not only the East bloc (East Germany, USSR, Poland, Czechoslovakia, Estonia and Romania) but other exotic locations such as Mongolia, Libya, Algeria, New York, "BBC London" and many west European countries, as well as 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". Wages there are a tenth of what we earn and the recordist desperately wants a dual-standard colour TV, so all profits on this remarkable tape will go to him. Recorded in PAL on a quality E-180 VHS tape, the price is £10. If DX-TV is your hobby here are the rare test cards in living colour, like you've never seen them before!

Please allow 14 days for delivery. Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH.

FOR SALE: Thorn 3000 19" colour TV, new CRT plus manual and spare panels. Thorn 3500 26" colour set, excellent, like new. £15 the pair, must be collected. Dave 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 1 modulator. Size 160 x 100 mm, undrilled. £5 including post and packing. Dave Boynes, 12 The Garth, Winlaton, Blaydon, NE21 6DD. Tel: 091-414 4751.

FOR SALE: Ekco AD65 and AD76 reproduction dial bars: brown £18.75 incl. P & P, chrome £25.75 incl. P & P. R.E. Tucker, Foxhall Cottage, Caston, Attleborough, Norfolk, NR17 1BL.

FOR SALE: Pam TV, 16" screen, cabinet is 34" tall. No other info, but condition is not bad. Price £60 or near offer. Ring Jenny on 071-603 8153 evenings.

FOR SALE: I have for disposal - cheap - the following boat-anchors ...

Video Circuits Ltd 625 line sync pulse generator and pattern generator. Valve, quite big, beautifully made, about the size of a grocery box. Circa mid 60s, with orig. handbook. Produces Line Drive, Field Drive, Mixed Blanking, Mixed Syncs, plus the usual crosshatch, greyscale etc.

BBC "white" units 405/525/625 lines. One does sawtooth and lift, the other does crosshatch. Needs external drives, see above! Solid state, compact.

All above not tested but probably working - you sort them out. All items very cheap if collected!

Andy Emmerson, Northampton: ring first on 0604-844130.

FOR SALE: Many issues of *Practical Television* for the 1950s and 1960s. 25p each including postage - send me your

wants list with SAE. Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH.

FOR SALE: Marconiphone 4621, Ferguson 3661 (dual standard), Bush TV53. Offers or exchange for old radios. David Jones, Denbigh (0745 71-) 3402.

FOR SALE: Quality TV camera lenses: set of three Dallmeyer Vidiac Super Sixes, boxed as new, complete with lens caps, plus one spare. Mount is 1.5" (not C) type. 1", 2" and 3", all f1.9, to go to good home. Ideally swap for C-mounts (or sell). 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. Dallmeyer motorised 2" lens, not C-mount but screws direct onto front of Pye Lynx. £5. Andy Emmerson G8PTH, 71 Falcutt Way, Northampton, NN2 8PH.

FOR SALE: a copy of *TELEVISION EXPLAINED* (Miller & Spreadbury). Offers to Alan Keeling, 28 Walters Road, Oldbury, Warley, West Midlands, B68 0QA.

FOR SALE: Pye TV model LV30 9" screen, circa 1950. Also for spares only Bush TV24. Wanted: JVC Sputnik TV circa 1975. Barrie Portas, 4 Summerfield Avenue, Waltham, Grimsby, S. Humberside, DN37 0NH.

FOR SALE: episodes of 1960s BBC-tv comedy series *HMS Paradise* on 16mm film. 800ft = 30 minutes each. £20 each plus £2 postage. Ritz Films, Cadvan House, Tywyn, Gwynedd, LL36 9BE.

FOR SALE: Almost complete set of *Practical Television* (155 magazines) from 1950 to 1964. Offers to Jon Fenwick on 071-625 8347. 78 Loweridge Road, London, NW6 2DT.

FOR SALE: I have the following duplicate copies of (mainly old TV) books; all are in average condition unless otherwise noted. At £2 each: *PAL COLOUR TV - The PAL system and*

Mullard circuits described, A4 paperback circa 1969, about 100pp. *THE BOOK OF PRACTICAL TELEVISION* (Dowding), 1935, 320pp. *TV RECEIVER SERVICING, pt 1 Time base Circuits* (Spreadbury), 1961, 364pp. *Ditto*, another copy of pt 1, 1956. *Ditto, pt 2 Receiver and Power Supply Circuits*. 308pp, 1955. *MODERN PRACTICAL RADIO & TV vol 2* (Quarrington), early post-war, covers TV theory, 196pp. *TV FAULT FINDING*, paperback, 1958 printing, 104pp, many off-screen pix. *TV RECEIVER THEORY, vol 1* (Hutson), 1966, 232pp, lots of 405.

At £1.25 each: *RADIO HANDBOOK SUPPLEMENT*, RSGB, 160pp paperback, 2nd world war, a bit rough. *CLOSED CIRCUIT TV SINGLE-HANDED* (Gibson), 1972. *TELEVISION BEHIND THE SCENES* (Fairley), ITV, 1976, paperback 160pp. *RADIO LABORATORY HANDBOOK* (Scroggie), wartime, 400pp. *MANUAL OF SHORT WAVE TECHNIQUE & INTERNATIONAL BROADCAST RECEPTION* (Rigby), paperback, 64pp, 1944. *TELEVISION SERVICING MANUAL* (Bradley), paperback, 126pp, 1950 (scruffy). *HOW TELEVISION WORKS*, (Holm), Philips, 318pp, ex-library copy. *TELEVISION EXPLAINED* (Miller & Spreadbury), 192pp, 1960.

Add £2 postage and packing for each book - sorry but it costs a fortune these days. Any large overpayment will be refunded. Only one copy of each, so ring first to check availability and don't hesitate! Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH.

FOR SALE: Old radios. Offers invited (buyer collects!). 1937 Ekco AW88 (bakelite); Wartime Utility set (AC); 1937 Marconiphone 557 (B7 version); 1935 Alba 550 (searchlight tuning); 1940 Pilot Twin Miracle; two late 1920s AC metal-cased TRF sets, both German; various sundry "baseboard" wireless items. Please phone Andrew on Rotherham 0709-557531 after 6pm.

FREE - YOUR AD COULD BE HERE

There's no charge at all if you're a subscriber ...

WANTED: Old ATV television Show Books no. 2 and up. Also optical sound 16mm film idents, starts of ATV. D. W. Probert, 16 Woden Road East, Wednesbury, West Midlands, WS10 0RG.

WANTED: Any 405 line TV equipment and other vintage equipment. Also pre-1980 telephones. Call Peter Matthews on 0206-766543.

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.

FOR SALE: I have been established in business at this address for 33 years and am now approaching retirement. Over the years I have established quite a library of service data, which I now wish to dispose of.

Service manuals from *Wireless & Electrical Trader* (later *Electrical & Electronic Trader*) from no. 1108 (5.9.53) to 2451 (15.4.81) filed and indexed. There may be a few missing from this series, say about six. There are also about 30 earlier and later ones in this series, not filed and indexed.

Service manuals from *Electrical and Radio Trading* from no. 1026 (May 1956) to 1875 (Jan. 1973), filed and indexed, and another 20 or so loose.

Radio and Television Servicing 1966/7 (Pergamon Press) through to the 1982/3 volume (then published by Macdonald).

Television Engineer's Service Manual (published by Newnes, 1952). This volume is devoted to TVs only, of the period, and is similar to the *Radio and Television Servicing* series.

Newnes Colour TV Servicing Manual, volumes 1 and 2 (1972 and 1975). Various other manuals, earlier and later, from various sources. Additionally I have a number of old valves, a very mixed bunch, to be sold as a batch, assorted old components, including some VHF tuners. Offers to H.J. Tuwie, 18 Cullingworth Road, London, NW10. Tel: 081-452 9631.

FOR SALE: HMV 1843 console TV with doors, circa 1956. very nice. Yours for a couple of quid, needs to go to a good home. Mr Newman, 0926-613991 (Warwicks.).

WANTED: Photo print, card or quality slide of test cards "C", "D", "F", "G" (various BBC/ITA/IBA versions); first type of "ITV for Schools" tuning signal (1962-70) and second type used from 1970 onwards; BBC/ITA/IBA tuning captions. Also required are the following: ITV regional opening music and idents (VCRs if possible from later years) and copies of the trade test colour films "Journey into the Weald of Kent" and "Home Made Car". Please contact Malcolm O'Neill, 80 Welbeck Road, Carshalton, Surrey, SM5 1TA. Tel: 081-644 2810. [Editor's note to Malcolm and others interested: a very comprehensive selection of the slides mentioned will be released on videotape sometime in the next six months. Please be patient, it will be announced in this magazine but we are still tracking down even more old slides to include in this presentation.]

FOR DISPOSAL: *Practical Television* magazines, October 1958, August 1965, May and June 1967, January to December 1968, January to March 1969. Sell for 25p each plus postage or preferably exchange for those listed below. **WANTED:** *Television* magazines, July and August 1974, August 1978, October to December 1981, January to April 1982, June to September 1982, January 1988 and others around 1979 to 1983. Also wanted: Sony 13" 90-degree Trinitron colour tube 330AB22. Will buy or exchange for several 405 tellies, old converters, mono CRTs. E.T. Robins,

Corner House, 1 Old Kingston Road,
Worcester park, Surrey, KT4 7QH.

FOR SALE: Bush TV105, working, complete, good cabinet and CRT. With legs! £5. Also an Ultra set. Phone Bruce Adams on 021-550 0019 evenings. Sets are at Halesowen, West Midlands.

FOR SALE: Sony AV3400CE portable video recorder, in good clean working order, with original carrying case. £30. Carriage extra at cost, best collected. Peter Delaney G8KZG, 6 East View Close, Wargrave, Berks., RG10 8BJ. Tel: 0734-403121.

WANTED (I'm perpetually hopeful!): Odhams Television Annuals for the 1960s. *Basic Television* part 2 (Technical Press). Most kinds of closed circuit and industrial TV cameras and sales literature. Sony 405 line modulator, camera switcher and other accessories. Diode-matrix callsign generator. Old C-mount lenses for TV camera, also 2" x 2" slides of test cards and captions to borrow and copy or buy. Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH (tel: 0604 - 8441 30).

WANTED: Does anyone have recordings of the music used by the IBA in the run-up to the launch of Capital Radio, LBC and Piccadilly Radio amongst others (1973-4)? Peter Bowgett, 45 Scorton Avenue, Layton, Blackpool, Lancs., FY3 7HD.

WANTED: Marconi VC53/73 TV for spares or complete, Marconi 296 radio chassis, Pye D18T TV and pre-war TV. Also GEC circuit diagram BT3839. CRTs TA10 and CRM92 also wanted. Robin Howells, 6 Dunlin Drive, Spennells, Kidderminster, Worcs., DY10 4TA.

WANTED: any old television magazines and books, wartime or pre-war *Radio Times* for the archives. Douglas Byrne G3KPO, Hon. Curator, The Wireless Museum, Arretton Manor, Newport, Isle of Wight. Tele. 0983-67665.

WANTED: pre-war TV, any make, any

condition. Pye B16T. Also pre-war books on TV. Screen for (Philips, etc.) projection TV. Data on Ekco TMB272 and TX275. Urgently requested: service data and all other documentation of Philips TV 663A/15, or just of 663A. Will reimburse. Please contact me if you have a Philips 663A (circa 1950) to exchange findings. Jac Janssen, Hoge Ham 117d, NL-5104 JD DONGEN, The Netherlands. Tel. (evenings): from UK dial 010 31 1623 18158.

WANTED: any recordings of Test Card C music (1950s until mid-1964). Also BBC Music Reporting Sheets giving titles and orchestras. Keith Hamer, 7 Epping Close, Derby, DE3 4HR.

WANTED: MH41 valve, also a source of the resistive mains cable used on AC/DC sets (for a DeWald 414 radio). 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).

WANTED: *Practical Television:* Mar 57, Mar 59, Jul 61, Aug 61, Nov 61, Feb 62, Dec 63, Apr, Jul, Aug, Oct 66, Mar, Apr 67, Mar, Apr, Jun-Oct 68, Feb, Mar, Jun-Dec 69, Jan, Mar-Sep 70, Oct, Nov 83. (Many other copies of P TV for swaps or disposal). *Indexes for Practical Television:* Nos. 1, 4, 27, 28. *Television and Short Wave Radio:* Mar, Sep 36, Oct 37, Mar, Aug 38, Jan, Nov 39. (Several copies for swaps). John Gillies, 55 Hemmen Lane, Hayes, Middx., UB3 2JQ.

WANTED: 1. Manual or circuit for Pye Lynx TVC/1A camera. 2. Ditto for Pye Lynx TVC/1AF. 3. Manual for Philips TVette. 4. Manual or circuit for International Video Corporation IVC 601

colour video recorder. This is an American product of circa 1970 using 1" tape. Photocopies will do, all costs paid. Tony Fell, Flat 5, 57 Fassett Road, Kingston-upon-Thames, Surrey, KT1 2TE. Tel: 081-541 3002.

WANTED: I'm looking for a Murphy VI20C console TV of 1950/51. David Boyes, 12 The Garth, Winlaton, Tyne & Wear, NE21 6DD. Tel: 091-414 4751.

WANTED: CRTs cheap for making new old TVs! Types VCR97 and VCR517A. Steve Ostler, tel: 0386-881988.

WANTED: A pre-war vision-only receiver - good price paid. Rudi Sillten, Limberg 31, B-2230 HERSELT, Belgium.

WANTED: Recordings of "Fireball XL-5" TV series, various episodes (repeats were shown on Central/Thames in July/August 1985). BBC/ITA Test Card C music (from 1955-1965). Malcolm O'Neill, 80 Welbeck Road, Carshalton, Surrey, SM5 1TA.

WANTED to complete my collection: Akai quarter-inch VTR and/or service manual for same, any model considered. Plus service manuals for VTRs Sony 3620, Sanyo 1360, Hitachi SV610DK, National NV3085, Sony U-Matic VP2030, Shibaden SV700. Martin Loach, Oxford 735821. [Editor's note: Martin is doing a sterling job keeping these obsolete tape formats alive and has already helped out at least one organisation which had no means of viewing its archive material. If you can assist him, please do! Thanks.]

WANTED: Attention all hoarders of pre-war TV components! Wanted urgently, the innards for RGD pre-war TV, either complete chassis or parts, i.e. transformers (all functions), IFs for vision chassis, etc., etc.. Also circuits and literature for same. Please phone David H. Butler on Hitchin 0462-432813 any time. Thank you very much.

WANTED: ITV schools interval music from early 1969 to 1979, including the

harpichord tape used circa 1978/9. N. Morgan, 19 Cowslip Road, Widmer End, High Wycombe, Bucks., HP15 6BJ.

CALLING ALL DXers! Keep up to date with *Teleradio News*, the only magazine for dedicated enthusiasts. Six issues a year cost you just £7.50 post paid, so send your name and address with a cheque made out to HS PUBLICATIONS, 7 Epping Close, Derby, DE3 4HR.

HELP OFFERED: I know of places where very old televisions do turn up in various conditions. If other members are seeking a set give me a ring. Paul Thorpe, 0922-645683.

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 01-928 3535.

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.

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!

* I am thinking of gutting for its superb speaker a Philips TV set made around 1951 - don't know model number but it has serried ranks of EF50s. It worked perfectly until EHT capacitor went circa 1960. Anyone interested in pre-empting this act of vandalism phone Dan Wilson on 0732-863840 (Hever, west Kent).

* McMichael Radio Ltd 405-line receiver, model 512 on Queen Ann legs! Please collect. David Jones, tel: Denbigh 0745-813402.

* I have a 405 line Philips cabinet television in very good external condition, complete with service manual. The cabinet is polished wood, probably veneered, with two doors. This was the first television that my late father bought as opposed to renting; he was very proud of it, and although eventually purchased a 625 line replacement, still retained the original set. In view of this, I should like it to go to a good home. Peter G. Smallwood, "Milborne Port", 55 Hankinson Road, Winton, BOURNEMOUTH, Dorset.

* I have had a Philips N1700 VCR "working" in my service room for a few months now. It's free to any member that would like to have it for spares, etc., but it must be collected. Ring 081-542 3861. John Wakely, 108 High Street, Colliers Wood, London, SW19 2BT.

* Telequipment 405 line pattern generator WG4 or WG44, probably the latter. Very useful piece of kit, well looked after. Cossor Telecheck

wobbulator/marker generator Bands I and III. Has seen a fair bit of use but in reasonable condition. Both items have relevant documentation. Items are on Guernsey: purchaser(s) must either collect from Guernsey or Southampton Airport, else pay postage. All proceeds to Guernsey amateur radio repeater group, so a reasonable donation would be appreciated, perhaps £10. Telephone Keith LeBoutillier GUG6FB on 0481-38693, between 1730 and 2130 please.

* Being an old-timer and viewing with some affection all the old receivers we often used to curse, I have kept a few in the shop. However, the Unified Business Rate means my rates will be twice the annual profit, so soon I must demolish the shop and the poor old sets will be homeless.

Apart from several beloved old radios which I may find room for at home, I have an HMV model 1851 radio/TV which is a console with doors over the screen and a good push-button radio in the top. There is also a Stella ST1481A. She is a very big girl with a double-breasted jacket. Or to put it another way, a projection console with double doors across the screen. She has plug-in coils for channel change, and I think I can find a set for another channel than channel 1. I believe they were either Truleigh Hill or Rowridge.

There is also a Marconiphone 4701 - a 2000 chassis set with hefty wooden stand. When I last used it the

picture on the Mazda tube was considerably better than a new FST today. Most unlikely to be still working, but I have a new EHT tripler available. I would also like a home for the first TV I ever bought brand new for myself - a Marconiphone model VC 151 console with doors. I have a new tube rebuilt by EMI for this set, still in its box. There is, too, a new Mullard A63/120X in its box and unused. All must soon go - to the tip if not to a good home. Since all are pretty weighty and bulky, they must be collected.

Incidentally, I have a table model Marconiphone TV/radio dating from 1936, which belonged to a neighbour until many years ago. The aerial was an "H" constructed of copper tubing and mounted on the chimney with a long mast made up of steel strips made into a 2" hexagon. The lead was rubber-covered, but too perished to save. Since a dealer in antiques offered £1000 for the set, I decided to keep it. Heavy as it is, no snatch thief is going to run off with it. In case I seem obsessed with EMI, it is because I learned TV at EMI in Perivale, and worked in their repair section - I still have many of the original manuals of the sets on which we worked, including the dreadful 1807 chassis.

Contact Mr C.R. Stephens, Radio & TV Sales and Service, High Street, Nutley, Uckfield, Sussex, TN22 3NF. Tel: 0825 71-2831.

* Two old Ultra sets for sale very cheap, say £10? W1760 console set, about 3 ft 6 in. tall x 18 in x 18 in, screen about 18 inches visible. WR2162 TV plus three-band radio with magic eye tuning, all in a mahogany cabinet. 2 ft x 2 ft. Mr Medcalf, Knowle (Warks.) 0564-772106.

* Decca D-2000 projection TV housed in a polished wood cabinet, believed to be in working order, certainly very heavy! Free to a good home, preferably a museum. Roger Jones, 23 North Road, Hertford. Tel: 0992-552407.

* Ferguson 5205 console set, 38" high x 16" x 19". Uses MW31-18 tube. No other info except that the bottom part of the set's back panel is misplaced but that's no real hindrance. Free, please take it away! Regret you must write, not on phone. Mrs Nicholson, 6 Aistath Road, Meriden, Coventry, Warks., CV7 7LU.

* Murphy V300C (?) television, 21", circa 1958, free to good home. Complete with period indoor aerial. New owner collects or pays for transport. Contact Dr Timothy Davies on Swansea 0792-295584 (day) or 299742 (evening).

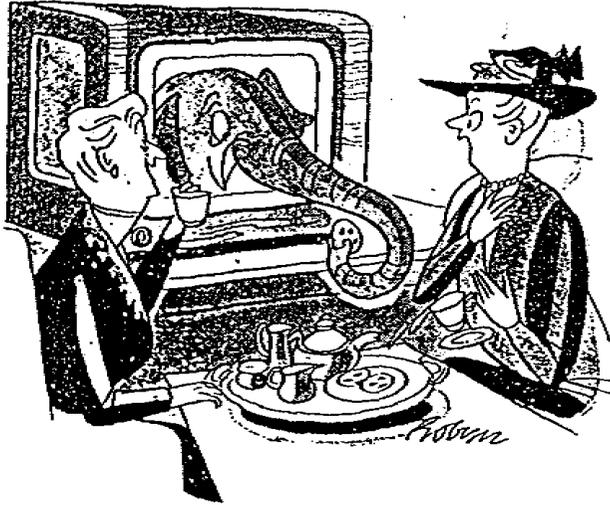
* Murphy 23" monochrome dual-standard receiver, model V2314. In very good condition, teak cabinet virtually as new, working last time it was switched on (1973!). Pity to have to take such a good example to the tip! Free for collection: Peter Sparks, 13 Wheat Knoll, Kenley, Surrey, CR8 5JT.

* Decca 1000 Projection Set, complete with screen. Also a spare MW-6 tube brand new and a focus unit. The receiver is a London version, and both power pack and receiver are fully valved. Free if collected. Write first with SAE to Mr P. Bradbury, 2a Coleswood Road, Harpenden, Herts., AL5 1EL.

LATE SMALL ADS

WANTED: Bush TV22, Ekco radio AD65 (brown) and Philips 1930 local station model. Pat Lowry, 0905-831873.

FOR SALE: Original service manual for Pye VT4 television. £2 including postage. Ring first to check availability: Andy Emmerson on 0604-844130.



*That's what I like about FERGUSON television
... it's more like the real thing.*

One of these days you are going to say, 'I think it's time we had a television.' When that day comes, see all the sets you can before you buy. Compare them working side by side, including a Ferguson, and plump for the set which gives the steadiest, clearest picture. Don't be surprised if you find you've chosen a Ferguson. We shan't . . . because we've gone to no end of trouble to make sure that Ferguson viewers get the best pictures.



Fine sets these FERGUSON'S

The Choice of the Critical Viewer

H2B

Advertisement of Thorn Electrical Industries Limited

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 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 Newsletter 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.

Copyright (c) 1990 by Andrew Emmerson and contributors. E&OE. Whilst every care is taken in the production of this newsletter, the editor and the Group accept no legal responsibility for the advice, data and opinions expressed. No guarantee of accuracy is implied or given for the material herein. The contents of the newsletter are covered by copyright. Partial reproduction is allowed so long as the source is quoted.

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.

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.