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405 ALIVE

The Newsletter of
the 405 Line Group.

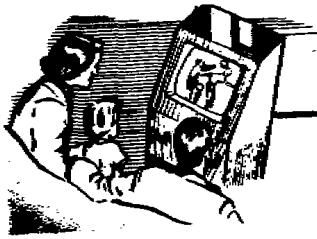
ISSUE 6, April 1990.

Editor Andrew Emmerson, G8PTH

IN THIS ISSUE:

Your Letters 3
Snippets 8
ITA Test Transmissions ... 9
My Career in TV 11
Reviving a Pre-War TV 12
Video and Book Reviews.... 14
Camera Registry News 18
Taylor-Hobson's Choice ... 20
25 Years of the
Post Office Tower 22
Cable TV in the Valve Era ... 25
Swash and Buckle 29
Running an ITA Station 31
The ITV Network 33
1968 - Year of Change 34
Back to the Fifties 35
For Adults Only! 37
Return to the Radio Show 38
Feedback, Strange but True .. 39
Market Place 41

"We support the BVWS and the BATC"

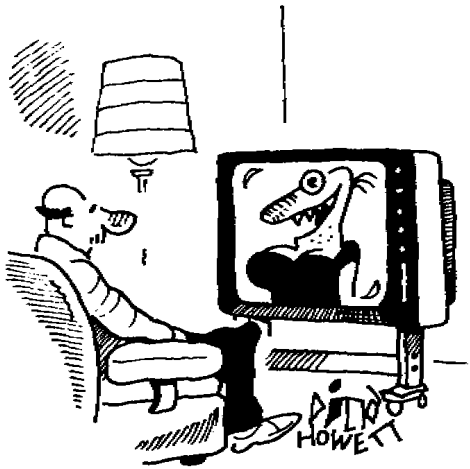


EDITORIAL

Once again our contributors have done us proud, with a fine selection of articles for you to enjoy. I am particularly pleased to see Alan Keeling's one of test card music of the ITA; I was getting worried that nobody liked 'the other lot'. There are lots of other goodies on this issue too, so I won't detain you too long from reading them!

All I need do is remind you that if you feel you would like to send in an article, please do! Don't worry if you have never written one before. If you are hesitant and feel your writing could do with a bit of polishing up (not many do), well that can be arranged, no problem. Editors are used to editing! Non-technical articles are particularly welcome, in fact anything is so long as it has some relevance to old TV. We even allow a bit of early 625 line material in!!!

Andy Emmerson.



WE MUST APOLOGIZE FOR THE
UNUSUAL RECEPTION CONDITIONS
THIS EVENING.....

LETTERS, WE GET LETTERS ...

* From Rudi Sillen, Belgium:

(We invited Rudi to describe his collection ...)

I possess at the moment a Fultograph, a Telehor Nipkow disc receiver for England and Germany (different discs), an Ekco mirror-lid receiver of 1948, a Bush TV22 (also 1948). In addition a GEC bakelite set of 1948, an Admiral (USA) set of 1948 and some TV sets from Holland and Belgium from 1953 (the start of TV broadcasting here) to 1958. The only set I am missing is a vision-only receiver from the late thirties, when sound could be captured by the wireless set. I know one collector possessing such a Pye set but he won't sell it at the moment.

I will write a few lines about DX reception of 405 line transmissions in Belgium and about the start of TV over here with the four-standard receivers we had to use. I hope to have this ready for May or June. I run the wireless association over here so too much work!

* From Jeff Horstman, Kingston (new member):

Other than the Pye console (see *Good Homes Wanted*), I have two old Tvs which I am keeping - a Pye LV30 and a Viewmaster, both in working order. It would be nice to obtain a standards converter to use them! *Hopefully this will be available soon - we'll let you all know when the design is finished.*

* From David Boynes, Winlaton:

At last I have started work preparing the artwork for the PCBs for the 625 to 405 line standards converter project. The first PCB card will be the 625 line clock generator; by dividing down the 10MHz output from the VCO all the necessary control pulses can be generated for the line store control stages. Another task for the PCB is to produce 100 us control pulses for the 405 line clock pulse and sync pulse generator.

The 405 line sync gen. is possibly the most complex part of this converter, and this will be the second PCB to be developed. Like the 625 clock pulse and PG board, all the control pulses at 405 lines are generated on this board, along with sync and blanking pulses. The field pulse trigger is derived from the input 625 line waveform, so a divide by 9x9x5=405 divider chain will be an extra if the board is to be employed as an independent sync pulse generator. I'll keep you informed how the PCBs are going through their development.

And we'll relay the news here, just as soon as we get it!

Indeed, just as we went to press David said that the first 'new-generation' PCB had been made, assembled and tested, with 100 per cent success.

* From Charles Brown, 1065 Leek Road, Hanley, Stoke-on-Trent, Staffs., ST1 6AP:

I would like some information on a Decca projection set, model no. 131. Also on a Beamec tube tester/reactivater. Would it be possible to ask your readers if they could help in any way?

No. Sorry, only joking. Yes! And if you out there in 405-land can help, please write direct to Charles at the above address. Thanks.

* From Keith Rann, Loughton:

I welcome the magazine appearing in booklet form and consider it good value for money. I see the test card generator has aroused interest and it seems I am not alone when I say I am interested but would not be able to build one. Will the test card tapes you mention on page 4 be similar to the one you did for me recently? I look forward to future issues and hope the number of subscribers increases again in time.

Keith also mentioned that his address label contained an error - please point out any mistakes like this promptly. That way I can rectify these shortcomings.

Glad you like the new-look mag. I'm fairly pleased with it too, though two people had problems with missing pages.

We'll have to see what comes of the solid-state Test Card C generator. Malcolm Burrell's design in issue 5 would be easier to make, especially if he produces printed circuit boards when he returns to the country. Perhaps someone will offer a construction service. Trouble is that when you're doing it for someone else, you'll expect to be paid well for your troubles! I know someone who builds up channel 1 modulators and charges £60. Sounds expensive, but when you're doing this instead of mending TVs or VCRs it makes sense, as it's a slow old process. Mind you, there is definitely money to be made in contract electronics work - if any reader wants to advertise his services in 405 Alive, it's free!

Anyway, I shall be recording VHS test card tapes again later this year, and they will be better quality. Same slides though. I have acquired some virtually broadcast standard b/w cameras and when I have got them going properly I'll advertise the service. At the moment I find writing 405 Alive, the Telecom Heritage Group magazine plus my articles for 'Practical Wireless', 'What Satellite', etc etc. are taking up all my spare time (and I'm away from home up to 14 hours a day).

* From Steve Ostler, Sedgeberrow:

Thanks for another first rate magazine. I've sent your information sheet off to BBC Wood Norton; hopefully they'll post it on their notice board there. Later in the year - time permitting - I am determined to build the 'Argus' (from Practical Television of 1952) so perhaps there'll be another article in it.

Well done and thanks ... we can do with all the (good) publicity we can get. We all look forward to hear how you get on with your 'new' project!

* From Mike King, Crowfield:

I see from your small ads you are looking for some issues of 'Practical Television'. Three of those were never printed, because of strikes. So there's no need to look out for November 1950, nor March and April 1956.

... and Jeffrey Borin adds that August and September 1959, also December 1970 were not printed either.

* From Paul Anderson, South Croydon:

I went to the SECAM exhibition mentioned by Mr Whitcombe and saw myself in colour - rather smeary! It was definitely organised by Radio & Allied and took place about 1962. My impression is that it was on 625 lines.

The letter from Stephen James solves my problem - if I can get some very large sets I might have room to get at some that have been in my cellar for thirty years! I am therefore offering some early colour sets (*see Market Place.*).

Congratulations on the layout of issue 5 - unfortunately mine arrived with pages 3 and 46 blank. Perhaps you will send me a copy of those pages.

Sorry about that, a couple slipped through the net. Glad you liked it all the same - AE.

* From Alan Keeling, 28 Walters Road, Oldbury, Warley, W. Midlands, B68 0QA:

Does anyone have a photo print or slide of the original monochrome 'ITV for Schools' tuning signal, used from 1962 to 1970?

* From Walter Wert, 102-1448 Fir Street, White Rock,Br. Columbia, Canada V4B 4B4.

I have just read with great interest a letter by David Lazell in our Spring issue of This England magazine regarding the 405 Line Group.

I have been interested in the history of television since the thirties and was a technician at the R.C.A.-Victor laboratory in Montreal just after the war and soon became involved in TV receiver production. In 1948 I was a final-test technician and put

into service the very first Television Set to be made in Canada. These were made for Canadian viewers who were able to receive the first U.S. stations before our C.B.C. TV Service came into existence in 1952/3.

Our 525 line pictures were not nearly as good as your 405 line with which I became subsequently familiar. I have much material on TV History back to the 30s and I am most interested in your activities.

I corresponded with a Mr P.F.Carmichael who built 30-line mechanical equipment for Plessey in 1929/30. He rebuilt it for an exhibition at Helensburgh Library in 1978 when I saw it. I am retired now after a very happy life with the technical aspect of TV., having met many North American TV engineers and seen many demonstrations including HDTV. My best wishes for your restorations, newsletter, etc..

* From Peter Delaney, Wargrave:

I have found an article referring to SECAM and 405; I've sent Ray Whitcombe a copy. It appears to be an early comment on this, although (as Dr Townsend) the author later left GEC and took a senior appointment with the ITA. The paper comes from the proceedings of an IEE conference in 1962 on television - they seemed to hold this every ten years.

Further to James Burton-Stewart's letter, I used to live in Poole in the days I remember the Southern station opening sequence. I *believe* that it was discontinued when the Hannington (UHF) transmitter opened, for the reason that it featured the coastal part of the Southern service area. Much of the Hannington area (625 UHF) was Rediffusion or ATV in those days (from Beulah Hill, Membury and ?Oxford?). No doubt the definitive story will emerge in due course, but if I have sparked off the telling of it I hope no-one minds!

As to page 41, recording formats, a friend of mine near here has a videotape I guess *no-one* can transcribe. It is from the old VERA machine. If I am wrong, I'd be delighted to hear!

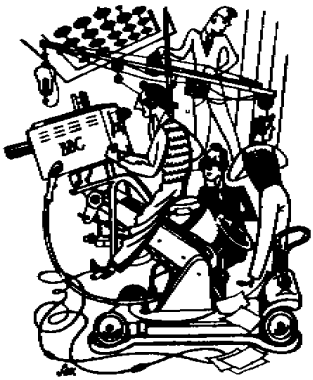
Seeing as you may take items on early 625 ... the first time I saw a colour camera 'in the flesh' as it were was in 1965 or so. I took a party of schoolboys to an exhibition put on by the BBC in Southampton Civic Centre. Marconi had a large camera with an open chassis - odd transformers bolted on and all sorts. Enquiring the price I was told "It's not for sale, but Philips have one priced at 28,000 guineas". The BBC2 mascots were there - Hullabaloo and Custard - two kangaroos (not real!), and a number of receiver makers. However, it is that Marconi camera that sticks in the mind.

Lastly, many of the films made by the oil companies, etc

can still be hired from the libraries - Guild Sound & Vision, Oundle, near Peterborough is a good starting point.

* From Peter Matthews, Colchester:

First I must say how excellent I found the last issue of *405 Alive*. Now I have obtained a VHF modulator I have been able to run all my old 405 line sets. I just plugged them all in and it was a miracle that all except one worked. Some sets needed 12dB or 6dB attenuators on the modulator as the signal output was very high. It was lovely to see such wonderful pieces of electrical equipment spring back into life. I must recommend the Vintage Wireless Company in Bristol. They have prompt service and if they overcharge you receive a credit note with your valves, etc. [*What, with every order? Sorry, stupid joke.*] PS: I was recently offered a B18T television for £150 - too high for me. Is this a record?



French Television

I HEAR that television transmission characteristics which will not be changed before July 1st, 1941, have been announced by the French radio minister, M. Julien. They include :

Vision wavelength ..	6.52 m. (46 mc/s).
Sound wavelength ..	7.14 m. (42 mc/s).
Polarity of transmission	Positive.
Number of pictures.	50 interlaced per sec.
Number of lines ..	Between 440 and 445.
Picture proportion.	5/4 (width/height).
Duration of line synch. signals ..	18 per cent.
Duration of frame synch. signals ..	15 lines per interlaced section (about 7 per cent.).

TELEVISION IN THE U.S.A.

ACCORDING to the latest reports from the United States it seems quite certain that the television picture standard which will be adopted for the initial service in that country will be a line definition of 441 lines, 60 frames per second interlaced to give 30 complete pictures per second. The radio set manufacturers have not yet gone into production until certain improvements in the experimental transmissions have been carried out, but the engineers concerned are now busily engaged on this task. The new series of tests being undertaken by the National Broadcasting Co. at New York are expected to produce satisfactory reception within a 40- to 60-mile radius, but there seems little hope of going beyond this because of the very nature of the New York buildings themselves, and the configuration of the surrounding country. In addition to the work of the N.B.C. the Columbia system has announced its plans to install an ultra-short wave radio transmitter in the Chrysler Building tower of New York, with studios in another part of the city. If this materialises, the inhabitants of New York will have the choice of an alternative television programme, and this should make a material difference in the market for home sets.

SNIPPETS

>>>> BBC ENGINEERING MONOGRAPHS

Most of these valuable booklets are still available. They can be had for £2 each, inclusive of postage, from BBC Engineering Publicity, Room 702, Henry Wood House, BBC, London, W1A 1AA. Telephone 01-927 5426 for enquiries.

>>>> COPYRIGHT

This is a vexed subject with a few grey areas. However, we do not want *405 Alive* aiding or abetting any breach of copyright law, for instance by promoting, even accidentally, the unlicensed sale of copyright material. Our two authors on test card music, Keith Hamer and Paul Sawtell, have both pointed out that they wish to disassociate themselves from the sale of this, and this newsletter will not accept advertisements from anybody selling such music.

The law does allow the making of video recordings for the purpose of viewing them at a later date ('time-shifting') and I don't think anyone will complain if you convert them to 405 lines before then. We believe also that if you have bought a pre-recorded video tape, then making a 405 line copy from the 625 original would not harm anybody's livelihood, so long as the 405 line copy is for your private use and not being sold.

Swapping recordings, with no money changing hands, is one of those grey areas I mentioned above. Several video magazines accept advertisements for this activity, with no howls of complaint from aggrieved parties, so I guess that it's morally not a crime. But it would be prudent to avoid any money changing hands, so you cannot be accused of profiting by your actions. [AE]

>>>> WHO DONE IT?

... is the title of a 1956 Ealing Comedy film on Channel Four which you either recorded or missed on February 10th. Apart from being Benny Hill's screen debut and rather slow-moving despite some hilarious pieces of farce, it contains an extended sequence at the Earls Court Radio Show. To my mind it captures the atmosphere very well, although in fact it was a staged Radio Show, not the real thing.

Practical Television described at the time the lengths to which they went to achieve an authentic atmosphere. Because Benny Hill's face had to appear on TV screens, the film camera speed had to be synchronised with the TV field rate, and apparently this was the first time that such a thing was achieved.

>>>> OLD RADIO TIMES

Need an old issue of the *Radio Times* and don't want to pay fortune? Then you'll be interested to know that a company has large stocks going back to the 1920s. Prices start at around £5. If you send them a list of your requirements plus an SAE, they'll do a search and after a few days let you know if they can help. One or two very popular issues are sold out, not unnaturally.

Write to Skymag, 8/9 Henley Business Park, Trident Close, Medway City Estate, Strood, Kent, ME2 4ER.

>>>> RETURN TO ALLY PALLY

BBC1's 'Daytime Live' programme paid a visit to the old Alexandra Palace studios on March 22nd and was by all accounts a most interesting programme (I haven't got round to viewing my time-shift recording yet!). The show was due to include coverage of the 405 Alive revival phenomenon and an interview with your editor but unfortunately a last-minute change of dates put paid to this. However, the producer hopes to make a follow-up programme at Sutton Coldfield, so we may get another bite of the publicity apple then.

>>>> TEST CARD MUSIC CONVENTION A HIT

The weekend get-together in Leominster organised by Paul Sawtell was well attended and judged to be a great success, so much so that a follow-up is planned for next year. Paul has promised a full report for the next issue, so I won't steal his thunder here, except to say that the venue and assembled company combined to make a very pleasant occasion. Television coverage (not entirely accurate but generally favourable) was gained on BBC1's Breakfast Time and the regional 'Midlands Today' programmes.

You may care to note that a separate circle has now been formed for test card music devotees. Their first newsletter has been published and makes an interesting and generally light-hearted read (36 pages). 1990 subscription cost £6; details in return for SAE to Stuart Montgomery/TTCC, 2 Henderson Way, Edinburgh, EH3 5DS (tel: 031-556 2092).

A POTTED HISTORY OF ITA TRADE TEST TRANSMISSIONS A.G.Keeling

My first sighting of ITA Test Card C was in 1957, at the tender age of four. We lived in Cwmbran, Monmouthshire, and our old 14" KB Tv set received TWW and rather grainy Midland ATV reception. It was one rainy afternoon when my father and a neighbour adjusted our roof aerial. On the screen appeared a hazy Test Card C, bearing the black ident letters ITA LICHFIELD.

Until the summer of 1961 I was fairly well 'hooked' on BBC trade tests and would occasionally switch to ITA when the BBC broadcast its tone. It was also around this period in time that a neighbour employed by Radio Rentals informed me that the music accompanying ITA trade tests were commercially available long-playing, and occasionally E.P., records, so my enthusiasm for ITA music began to increase.

On occasional 'switching over', on Saturday mornings, I would sometimes catch 'Elite Syncopations' (Chris Barber's Jazz Band) or the 'Karelia Suite' by Sibelius (an E.P.), and my lunchtime favourite, 'Second to None' (Marches by the Band of the Royal Scots Greys).

By the autumn of '61 I had permanently switched over to ITA. At 10 AM, Test Card C would appear with tone, followed by a minute of silence, then at 10.06 'Dixieland Jazz' by the Beale Street Buskers, which would fade out at 10.30, to be replaced by the tone, at which point the test card would be replaced for 15 minutes by a scenic view of a seven-arched bridge. Then after a couple of hours consisting of Offenbach's 'Gaietie Parisienne', a 'Satin Affair' with George Shearing, Mozart's 'Eine Kleine Nachtmusik', Bill McGuffie's piano with 'Show Tunes', another favourite L.P. would be placed on the transmitter's turntable at 12.36 PM, none other than 'Carefree' with Percy Faith and his orchestra (for some odd reason, only the first four tracks were played).

From six minutes past one until four-thirty, artistes like Stanley Black, Dave Brubeck, Pepe Jaramillo, Carmen Cavallero, as well as Strauss waltzes, ending after 4 PM with Beethoven's 'Emperor' piano concerto (Vienna Philharmonic) .

Two paragraphs back I mentioned a scenic view; in fact this view was one of a number of slides supplied to ITA transmitters up and down the country. These slides consisted of local regional landmarks or monuments (e.g. London: Tower Bridge or Waterloo Bridge, with the Sphinx statue in the foreground) and were radiated intermittently with the test card, to allow dealers to demonstrate picture quality to potential customers. Unfortunately, and oddly, these slides were discontinued, two weeks prior to transmission commencement of Test Card D.

During 1962 and 1963 classical music dominated ITA trade test airwaves, such as Grofe's 'Grand Canyon Suite' (101 Strings), Holst's 'The Planets' (BBC Symphony Orchestra conducted by Sir Malcolm Sargent) and Herold's 'La Fille Mal Gardee' ballet music. The more well-known artistes featured during these years included Acker Bilk, George Shearing, Jackie Gleason and even a western film soundtrack score ('The Big Country').

On the second March 1964 at 12.06 I tuned into the kind of music I thought would never occur on ITA trade tests, none other than 'The Shadows' Greatest Hits' featuring such well known numbers like 'Apache' and 'The FBI'. On a wet Saturday afternoon in April 1964, the music of the Oscar Peterson Trio was interrupted by an announcement that Test Card C was to be replaced by D on the forthcoming Monday morning.

It was around the mid-Sixties that my interest in ITA trade tests began

to wane, but I do remember that from 1968 nothing but classical records were played, even down to a solitary record in the early seventies which was Tchaikovsky's Piano Concerto No. 1 in B flat minor, which accompanied the then radiated IBA Test Card F and colour bars.

In conclusion I now own a fairly large collection of L.P.s, many of which are classical, and I believe that ITA/IBA trade tests gave me sufficient enthusiasm to appreciate such music.

With acknowledgements to Bob Jones of Croydon and to Andy Emmerson for their help in preparing this article.

MY CAREER IN TV

Ray Whitcombe

I got interested in radio in the early 50s when an elderly lady gave an old unworking set to my parents 'for their little boy'. Well it was repaired very reluctantly for the huge price (then) of one pound ten shillings, with the added insult that we were lucky as the radio was over 25 years old.

However the old TRF gave me much pleasure, and it set me on the course of a career in electronics. Firstly I wanted to find out how it worked so if it went wrong again it would be no problem, well the local library was full of F.C. Camm books, soon I wanted a short wave band, and that set the course in those pre-'Yuppie' days a school boy could still buy 'Junk' at the local market. My parents were given at about the same time an 'insurance write off' TV: it was a Bush TV24 which had been in a house fire, but apart from a blistered cabinet and blackened screen worked !!! I do not remember being 'glued' to the TV as my children are now. I was more interested in exploring the RF bands and making short wave sets.

However, a few years later I was offered an old unworking TV by a school chum, for one pound, but you collect it! Well I did, and it nearly broke my arms!!!, I still remember carrying it home from the Tube station, a real Marathon. The set was ... wait for it you old time service engineers ... a Marconiphone VT-53!!!!! I got it working, swearing never to get a job at Hayes, but looking back it gave me years of service and I learned a lot. I got surplus band III converters for the TV24 and my VT-53, and so on. Later on when I had left school and college I discovered the 'TV Graveyard', a small disposal shop in Highgate (London), and old sets were no longer a problem to obtain. The TV24 had by now been replaced by a TV64, and I set about changing the TV24 into a dual standard! This turned into a complete redesign. The RF tray was scrapped and I got a similar blank chassis made on which to build a new RF section. The design I got from 'Mullard Technical Publications'. The main chassis was much modified with a slide switch 405/625 interfacing all the necessary 'bodging' components; a push pull audio stage was also added. The standard-changing switches were operated by an ingenious arrangement of levers, drive cord and pulleys. This set then

gave me good service until the introduction of the full 625 line service made dual standard unnecessary. I also converted the TV54. and later a TV80 to 625/405, but this time using surplus panels, etc. The Bush TVs are relatively easy to run at 625 owing to their line stage design.

The last complete home TV construction project was to build a colour set. This I started in the late 60s, basing my design on the circuits published by Mullard's. As I was in the radio business then, I had no problem in obtaining the components, sometimes only just out of the pre-production stage. The only problem was the cost!! So I left the tube and timebases until last!!! The signal/decoder circuitry was all proved using a test bed made out of an old Pye FV4 chassis: when it appeared to work I took the plunge and bought the A83-120X. The set was large, being a separate all chassis, and a frame of 'Speedframe' clad with ply. However being big the heat rise was minimal , and the set gave years of very reliable service, first for me, and then in a friend's home. When they moved house the set was offered back, but unfortunately I no longer had any room, and no one in the BVWS, etc. was interested, so I assume it was scrapped.

Now, with family responsibilities etc, I cannot do much construction work, but concentrate on the so-called Vintage Radio/TV, my main concern being to demonstrate the technical performance as nearly as the original designer(s) had intended - hark back to that comment by my friend about my family photos. May I recommend anyone to include a 'quality' 405 line set (such as the excellent Pye VT4) in their collection, so that an approach to the original performance of the 405 system can be achieved. To that end also some quality video tapes off a professional standards converter would be welcome (properly set up etc.)

PS: in answer to your correspondent, regarding the Premier Radio kit I feel that the best solution would be to obtain an off air U.H.F receiver (e the Rediffusion unit) and use its audio and video output to feed a suitable modulator, with A.M. sound and positive video mod.. Alternatively why not use the audio and video from a V.H.S machine? The only mod to the old receiver would be to up the line freq. which may be fairly easy as I believe the tube concerned is an electrostatic type (may even swing on the original control). The video bandwidth may have to be cut at the input to the modulator to prevent sound buzz.

PPS: Your comments about the price of junk/antiques is very valid. During a recent holiday to Lisbon, Portugal I found even greater prices for old telephones etc in their equivalent market to our Camden Lock !!! So it appears to be an international effect.

BRINGING A PRE-WAR TV RECEIVER BACK TO LIFE Part Two

by Steve Ostler (Radiocraft Ltd)

In the previous article I recounted how my ambition to own a pre-war television set was realised by acquiring a 1937 Marconiphone 702, and I set out

the principal problems encountered daring the restoration. However, living in the Midlands, there was no suitable television signal available, since all early sets were pre-tuned for use in the London area on what later became known as Channel 1. This signal was still being radiated (after 48 years!) and I thought the correct first step was at least to try to receive it. I had a three element aerial specially made and mounted on my chimney but the results were disappointing. The signal was only resolvable on a sensitive post-war receiver and was noisy and subject to severe fading. Following unsuccessful attempts to further amplify the signal this approach was abandoned.

The T.R.F. vision strip of the Marconiphone only had a narrow range of adjustment so direct reception of Sutton Coldfield on (Band I, Channel 4) was not possible. At this point, still not knowing of the B.V.W.S., I decided to write to David Looser, who had had an article on his pre-war H.M.V. 901 published in 'Television' magazine some years before. David proved an enormous help. He lent me a Ch.4-Ch.1 converter of his own construction that enabled me to receive the Sutton Coldfield signal. He also supplied his design for a crystal controlled modulator unit which I subsequently built and which produced a high quality Channel 1 signal. This was fed from my home video recorder. No problems were experienced with recording the vintage 405-line signal on the V.H.S. machine since the critical field frequency is the same as for the modern 625-line standard. Since my aim was that the old set should be fed with programmes of suitable period, I applied for permission to record certain film archive material and was granted copyright clearance so long as it was to be used for receiver test purposes only. working in broadcasting, I had access to a 35mm telecine machine and the material was run through this and recorded onto U-matic tape. The tapes were later taken to one of the transmitting stations where they were converted and re-recorded on 405-lines using an analogue standards converter.

I was now at last in a position to actually use the set! The picture quality turned out to be surprisingly good, with only a slight blurring of detail and a more noticeable lack of brilliance setting it apart from a modern black-and-white picture. Maybe some of the many panel controls would need slight readjustment during the course of an evening's viewing but given subdued room lights and reasonably close seating, very comfortable viewing was to be had. The sound quality was excellent, with a deep 'plummy' tone that nevertheless lacked nothing in the highs and which had terrific 'presence'. This was the wide band a.m. sound quality thought so highly of in the late thirties when it was often suggested that the B.B.C. should use the ultra-short waveband channel for high fidelity broadcasting outside the television hours.

Since the restoration the set has been very reliable and has given much pleasure. With the pre-war programme material, it has been possible to complete the re-creation and hold the occasional 'Television Party', where, as in the illustrations of the period, formal dress is mandatory !

PICTURE PAGES

Video reviews by Steve James ...

A recent expedition sent out into the wilds of Nottingham City Centre has returned some interesting results on the video release front: Reports have come back that the BBC, after a relatively long period of dormancy have put out quite a few tapes of favourite TV shows of years gone by. Unfortunately, good as Blakes 7, Ripping Yarns, Open All Hours are, they do fall rather too short of the 405-line era. But wait- all is not lost- for lo, what have we here? Can it be several tapes of vintage Dr Who? Well yes it is, fresh from the archives as you will see if you read on. So, once again I give you this months look at programmes which to be viewed at best should be seen with a plate glass implosion guard between you and the screen. In the words of the original Picture Page - 'You're through- you're looking at...'

Dr WHO - AN UNEARTHLY CHILD - BBC VIDEO £9.99

Imagine the scene twenty seven years ago- It's a cold crisp late autumn evening, and all is dark save for the halos around the sparse mercury vapour street lamps. The mist dances in the beams of the headlights as you reverse your Hillman Minx into the driveway. You step inside the house, switch on the lounge light, and turn on your new 19" Ekco (or insert your favourite make here) TV... Within minutes a new science fiction series has begun...one which will still be running in 27 years time. It's November 23rd 1963 and you're watching episode 1 of Dr Who! (Quite a build up eh?) Well now you can re-live that first night (repeated the next week due to the coverage of the Kennedy assasination) and the ensuing 3 episodes that go to make up 'An Unearthly Child'. In a sudden change of style for video presentation, the BBC have included all the original end and beginning titles- someone somewhere is smiling on us. The programmes are nothing short of superb- a sort of cross between the eerieness of Quatermass and the dockside swirling mist / dark night suspense of Dixon of Dock Green. The first few minutes of episode one are stunningly atmospheric. All the time you are aware that you're watching through the 'eye' of one of those old Marconi (Mk IV?) cameras- you can almost follow the cameraman's script, as the camera creeps into the scrap yard in Totters Lane and first lights on the TARDIS which looms up out of nowehere. William Hartnell is of course masterful as the Doctor Mk I, after which the character seems to have been constantly diluted to his present form.
Previous Dr Who stories have been sequenced together, usually to form one 1½ hour tape, which is too long for one session, and leaves you no natural breaks at which to stop the tape and save the rest for another night. The problem is solved with this tape, as I say, and is much better for it- the case bears the words 'original unedited' which is good news. A Patrick Troughton tape was released at about the same time as the one under review - whether this is still in individual espisodes or not I don't yet know.
This is one of those tapes that MUST be seen on 405 lines, and those with standards converters of the optical variety will find it well worth pointing their Pye Lynxes (or whatever) at the monitor! Picture quality off-tape is rather grainy due to the method of recording, but this tends to vanish when optically converted to 405-lines.
All in all a wonderful tape, and very reassuring to know that the material to make it survives! 11 out of 10.

PLAYSCHOOL REPLAY - BBC VIDEO £7.99

A little light relief is in order I think. Time for a tape full of people pretending to be jellies, sleeping pigs, and doing wibbly-wobbly walks. Yes, it's that fab programme that got in the way of the trade test transmissions on BBC-2 in days of yore. Strictly speaking I suppose this tape has no right to be in our publication, as of course BBC-2 has been on 625-lines all along, but none-the-less there is plenty of good vintage viewing here.
Brian Cant, one of the first presenters, and now looking rather mal-nourished and fatigued, guides us good humouredly through a good supply of programme clips old and new. There is the start of the very first programme which should be of interest as it was the first item to go out on the new station, albeit by accident.
All the features you'll remember are there: storytime, the pets, the dressing up box, the Toys, and Brian Cant's full head of hair. The playschool clock is also there in it's various guises, and if you look underneath, the doll's house models jerking round on the turntable will give you a clue as to what the story of the day will be about. The programme also takes us into very early Briitsh colour TV (the oldest currently available on video I suspect), with clips from 1968 with Lionel Morton and Julie Stevens on Dressing-Up day. Picture quality is very good throughout the tape, and you do get all the opening titles of days gone by at the very start of the tape. The wry comments and observations of Brian Cant, although welcome, do intrude on the original soundtrack in places. I think we'll allow this as he certainly suffered in the course of his work, the man did fish impressions for goodness sake!
Overall then a glimpse back to the days when perhaps children were a little happier with their 'lot', and retained their innocence a while longer... why do I get the feeling that everyone's laughing at me?!
Good entertainment and Good Value, and...only £7.99. (Running time; 81 mins)

THE MAGIC OF CORONATION STREET - VESTRON VIDEO £9.99

Back to good old solid 405-line material here. This is not in fact a very new tape, being sourced from a 1982 programme put out by Granada, looking back at a few 'classic episodes'. Those in question on this tape are from 11/7/62, 12/12/62 and 23/12/64 (another tape contains episodes including 'The Viaduct Train Crash' which had everyone on the edge of their inflatable purple polythene pop-art armchairs in 1967). In this cassette the background to each story is set by characters like Elsie Tanner and Len Fairclough who reminisce in The Rovers Return (the toilet door of which, so legend has it, leads directly into Albert Tatlock's kitchen). The episodes all have the correct opening titles, but the original Granada logo is missing, a fact already bemoaned I think by our esteemed Editor. End titles are missing too, as are, somewhat predictably,the commercial break lead-in/lead-out stills. Nevermind though, because the programmes themselves find all those great characters in excellent form: the bulldog-faced Ena Sharples, Annie Walker, and the afore mentioned Albert Tatlock whose'lavatorial connection' with the Rovers must have been a great comfort in his age.
A shame then, that those authentic bits and pieces are missing from the programm but it still looks great when shown on a vintage set.

A final item of news: Fans of early colour should palpitate with anticipation when I mention that The Beatles 'Magical Mystery Tour' film, first shown on BBC-2 Boxing Day 1967, is now available for £9.99 from The Video Collection, having been 'tied up' for years in legal red tape. Everyone was totally baffled by the film when first shown, and it's easy to see why if you watch it...interesting all the same though.

That's it again. I feel quite drained after all that; anyone fancy an ale??

DR WHO: THE DALEKS - BBC Video 4242, £19.99

This comprises two cassettes sold together as a pair, hence the price. However I feel it represents very good value for a quality product as far as 405 Alivers are concerned.

There are 7 concurrent episodes of completely original Dr Who which have not been shown on BBC TV since 1963 (I believe). Starring William Hartnell, this collection represents the first encounter with the Daleks. Each cassette has been given its own title: The Dead Planet and The Expedition. There are 4 episodes on the first, and three on the second.

Full marks must go to BBC Video for leaving each episode complete and original with full leading and trailing credits, and the overlaid episode titles are original too. The quality of both sound and vision is fully representative of their age and ideal for LoFi enthusiasts such as ourselves. I suspect that the video may have been originally filmed from a 405 line monitor, and for the tape some kind of processing has been applied to hide the lines. The quality is not consistent with original film material.

Since the BBC has apparently lost the very early episodes of Dr Who, I suspect this is the earliest we will ever see on tape. Such a shame that the very first ones are unavailable.

I am not a Dr Who enthusiast any more (each Doctor is played by a more moronic actor than the previous one), but I was very keen to see the series during the reigns of the first two Doctors. This tape brings back all the memories, of rushing home from the shops on a Saturday evening to watch the next totally frightening episode (on a Pye VT4), and I am sure most will agree there was far more credibility in the story content in those days, and should be rated with real science fiction material.

Highly recommended for vintage viewing, even if you are not a Dr Who fan.

THE 1950s (MUSIC, MEMORIES, MILESTONES) - Visnews Video 068, £9.99

There is a set of video tapes currently available, each featuring a decade of news stories. The coverage is presently for four decades from 1930s to 1960s inclusive.

The material is mostly period British Gaumont News film, as originally shown at the cinema. The tape reviewed here is the 1950s, a period very relevant to vintage TV.

At first I thought that this was going to be 54 minutes of news film

played to music, as it certainly starts off that way. The sleeve declares that the tape contains original hits of the 60s but after the first three 'hits', including the inevitable Rock Around The Clock, the programme moves into proper newsreel features on various topics, covered in year order. Many of these are whole with original titles, but there are further sections of musical interludes. Particularly interesting are the clips of the Ideal Home Exhibition, and of the Coronation spectacular. All this film is of course in monochrome only.

If this tape is representative of the other 3 then they will make a good set. I bought the 1940s tape which seems like the next relevant one for vintage TV/Radio enthusiasts, but I have not had time to review it yet.

... and Andy Emmerson

CANALS - CFL, £34.95

This tape is sub-titled *Commercial carrying this Century* and was intended for sale at the Waterways Museum. It is sold by CFL Vision (the new name for the Government's Central Film Library) on behalf of the British Waterways Board. lasting 105 minutes, the presentation has three films looking at the last days of commercial carrying by barge. Two of the films date from the 1950s but one is from the early thirties, which is the reason for mentioning it here.

The (silent) film in question follows the journey by canal from London to Birmingham. As we glide past Hayes we pass the EMI factory - and there on the roof is a replica of the familiar Ally Pally aerial, as EMI had their own test and development studio and transmitter here at Hayes. Nice if you find this kind of thing interesting. All forms of transport interest me, so I thought it worth having. CFL Vision has a big catalogue of hundreds of mainly public information films for sale on video: you can buy this for £5. Their address is CFL Vision, P.O. Box 35, Wetherby, Yorks., LS23 7EX.

BOOK REVIEW Andy Emmerson

THE TELEVISION HERITAGE by Steve Bryant. Published 1989 by the British Film Institute at £4.95. Paperback, 40 pages, illustrated. ISBN 0-85170-254-6.

This slim volume is part four of a series entitled The Broadcasting Debate, written by experts at a time when broadcasting is going through a period of

significant change. In the words of Sir Richard Attenborough, 'technology provides the means, but political will is determining the end'.

In his contribution to the debate the author surveys the past, present and future of television archiving and puts a powerful case for a single national archive to ensure the continued survival of our television heritage. The present arrangements, he says, are less than ideal. The policies for preserving programming are inconsistent, while some material, although preserved, is not being made available to serious researchers.

The technical quality of early video tape material means that although the actual tapes survive, they may not now be playable because of deterioration. Even good tapes may present a problem, where they are of line standards or on tape formats no longer used: ageing playback equipment – and spares – must be preserved, often on minimal budgets. In many ways, film has turned out to be the best way of archiving TV programming, even though it is not 'real' TV, and for the earliest programmes film is the only record we have.

Although not cheap, this book is a valuable reference. The points it makes are even more significant. I wonder if they will be heeded.

ELECTRICAL AND RADIO TRADING
JULY 28 - 1956
An Odhams Press Publication

Complaints snowball on Crystal Palace TV

REPORTS of growing dissatisfaction with the reception of BBC television in two quite separate areas, since the change-over from Alexandra Palace to Crystal Palace took place.

In the Dover area dealers are receiving many complaints from customers and one retailer, B. A. Smye-Rumsby is writing to the BBC on behalf of viewers.

A progressive worsening in television reception during the past few weeks has been reported from the Bedford area.

There are also complaints of interference, thought to be from a foreign station.

S. West ITV from near Wenvoe

ITA for the South-West will come from near Wenvoe, South Wales, and will, if all goes well, be working by the end of 1957.

The station is planned to cover areas east and south of the Bristol Channel and South Wales and will cover a population of about 3,000,000 people.

Sites south of the Bristol Channel have been considered, says the ITA, but have been rejected on technical grounds.

The authority will be advertising shortly for applications for the contract to supply programmes to be broadcast in the area.

TV PRICES DOWN

LATEST firm to lower TV prices is the GEC with small reductions to two models. The BT 1748 14-in. table model goes down from 69 to 67 gns. and the big BT 9343 21-in. console model drops 5 gns. to 135 gns.

After my enquiries regarding EMI 204s, three complete camera channels and one incomplete one have come to light. These are in good homes and will survive for the future.

The next camera to track down is the Marconi MK 4. This was a 4.5" Image Orthicon camera almost entirely thermionic (valves!) and very nice too with many advanced features. The Marconi Company produced a total of 916 MK 4s: almost certainly a U.K. record and possibly a world record for an Image Orthicon camera! Where have they all gone? I don't know of any in amateur hands, and have only ever seen two myself and that was some time ago.

The table below lists the post war Marconi Broadcast Camera family:

Generation	Tube	No. Manufactured U.K.	Exp.	Totals	Approx. Date	Data	
MK1 & 2	3" Image Orthicon	28	94	122	1948	VT	F1
MK3	3" or 4.5"I.O.	181	122	303	1953	VT	F1
MK4	4.5" I.O.	114	802	916	1961	VT	F2
MK5	4.5" I.O.	49	369	418	1965	SZ	F3
MK6	Plumbicon/Vidicon	29	49	78	1968	SZ	F3
MK7	4 * Plumbicon 30mm.	107	223	330{1}	1966	SZ	F3
MK7 TK	4 * Plumbicon 30mm.	18	30	48	1968	S	F3
MK8	3 * Plumbicon 30mm.	43	426	469	1971	SZA	F4
MK8 Port.	3 * Plumbicon 30mm.	1	28	29	1974	SZAB	F4
MK8 TK	3 * Plumbicon 30mm.	2	81	83	1973	SA	F4
MK9	3 * Plumbicon				1979	SA	

Key:- V valve, T turret, S solid-state, Z zoom, A automatic, B backpack, 1 not including those made under licence in USA. F1 to 4 family resemblance, see text.

The Marconi MK1 was a copy of an RCA camera and is very rare now and the MK2 was an improved version of the MK1. The MK3 was much used by the BBC and, later, the ITV companies. It is often seen in period photos with its substantial square appearance. The MK5, 6 & 7s were all of the same style of construction. Each of the "families" of cameras had matching ancillary equipment, monitors, video mixers, pulse generators all in the similar construction style although there was quite a bit of overlap as new items were introduced.

If anyone has a Marconi MK 3 I know of some spares which are available and I have been asked if I can find an I.O. camera so if you have one for disposal please give me a ring. Also there is a demand for 405 line SPGs.

I hope to write about the PYE cameras in the next issue so give me a ring if you have anything interesting. Ring 01 998 4739 or write to me, Brian Summers G8GQS, 29 Perivale Grange, Perivale Lane, Greenford, Middx., UB6 8TN.

TAYLOR-HOBSON'S CHOICE

Dicky Howett

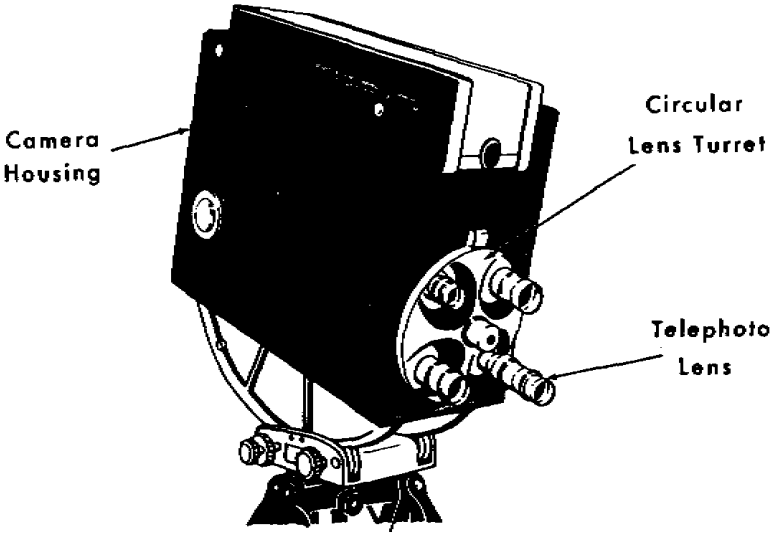
The photograph of the BBC TV camera reproduced here had me puzzled for many years. I took the shot in the Mall during the wedding procession of Princess Alexandra and the Hon Angus Ogilvy in 1963. The camera itself is obviously a prototype undergoing field trials but to what purpose I had no idea. All became clear recently when the snap was reproduced in the BBC's house journal 'Ariel' and the photo prompted several responses from BBC staff past and present.

In detail, the camera was indeed a prototype and it was referred to as a 'Folded Zoom Camera'. It was developed by Taylor-Hobson and the BBC in an effort to reduce the massive length and weight of the add-on zoom lenses used at the time. The prototype achieved a reduction in length although it was still a fearful weight. hitting the scales at 220 lbs.(a rigger was off sick for three days after lifting it!) Basically, the camera was a Marconi Mk 3 chassis with a Taylor-Hobson Mk 3 Varotal zoom lens attached to a Mk 2 combined zoom and focus control connected by Bowden cables. The iris control was manual and operated from the rear of the camera. In addition there was a comprehensive filter wheel arrangement. The lens was offset to the right of the camera (zoom control) and set into the camera housing. The camera pick-up tube faced backwards and was mounted along side the lens with the optical path from lens back-element to tube-face folded by mirrors. Also, this design meant that better matching of lens to camera-tube was achieved. Experience with this camera was useful (it was used by OB's who didn't want it at first, but then didn't want to give it back!) and the camera also saw service at the BBC Television Theatre providing close-ups on quiz shows etc. Later, design details were incorporated in the first generation of all-zoom colour cameras (Marconi Mk 8 and the EMI 2001 series.). Nowadays, of course everything is solid-state, but in the good old black and white days it was all done with mirrors! As if we didn't know.

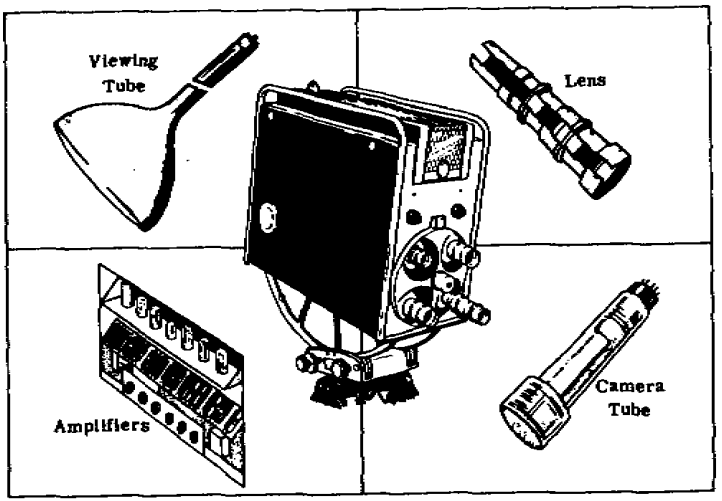
My thanks to H.C.Nickles and R.G.Matthews, BBC Planning and Installation Department,(retired). Keith Blair (retired cameraman) and Chris Symons. Engineering Manager, Tel OB's, Cardiff for supplying me with the facts.

As a footnote, it was fascinating chatting to the two retired BBC gentlemen (they kindly rang me). They had a fund of interesting details and one of them recalled the time a Taylor-Hobson add-on zoom lens fell off the camera at Ascot Races. The camera was high on a gantry and the zoom lens crashed to the ground in an expensive heap, narrowly missing a Royal Person. This caused a bit of a flutter, but then everybody is used to having a bit of a flutter at Ascot. The BBC, of course, shovelled up the broken zoom lens and used bits of it elsewhere.

THE TELEVISION CAMERA



Essential Elements of the Television Camera



Yes, it really is that old; if you were one of the fortunate ones who paid it a visit when it was open to the public or perhaps even had a meal in the 'revolting restaurant', well done! But some readers may be correcting me that it is now the Telecom Tower, what has this to do with old TV and why not mention the Post Office Towers in other cities?

No doubt there will be several retrospective articles on the Tower(s) this year, so I thought I would concentrate, informally, on a few topics that nobody else will bother with. A sort of extended 'Strange but True' ...

So what is the connection between the towers and television? Although the towers and the national microwave radio network in general are used for trunk telephone and data traffic, the growth of television was the main reason for the microwave network. There was no way of transporting all the new 625-line programmes over co-axial cables. The London tower was (and is) also the site of the National Switching Centre (NSC): it is their staff who link each of the ITV regions to ITN every evening for the News at Ten, for instance. This switching work is seldom if ever noticed (or appreciated) by the public at large.

The NSC staff also monitor the programmes passing through the Tower on a huge panorama of TV screens in the switching gallery. Nowadays a significant proportion of material is 525-line, passing from ABC's and the CBC's London studios via Goonhilly and satellites to the USA and Canada. In the early days there were two banks of screens, on either side of the gallery: one for 405 lines and the other for 625 lines. The monitors were made by Murphy (GPO Monitor no. 6A) and were triple-standard 14" monochrome affairs, with automatic switching between 405, 525 and 625 lines. The funny thing was that there were many monitors fewer than spaces, so the latter were filled with actual-size photographs mounted on hardboard! If you look at old official photographs of the gallery these fake monitors are easily distinguished. Much of the original video apparatus survived into the 1980s - for instance the video amplifiers and oscilloscopes were all of valve technology.

Only the London tower was ever open to the public; equally interesting towers in Birmingham, Liverpool and elsewhere were not considered tourist attractions. Indeed, they were not designed with viewing galleries or visitor lifts, and access to the external aerial galleries at these other towers is via vertical iron ladders and not very easy!

For many years the London Telecom Tower has been closed to the public and this rule is strictly observed for security reasons. After the Angry Brigade (not the IRA as some people suppose) tried to blow up the tower (with far more damage done than usually believed), the risk to the nation was considered to outweigh the income from tourists' admission fees. What a shame! Even now, visitors turn up at the entrance to the tower, and there are signs in several languages explaining that it is no longer open to the public. An enterprising

business called the Tower Gift Shop used to stand opposite this entrance, and it remained open for many years after the tower had closed to the public!

If you did visit the tower when it was open you may remember the queuing and waiting to get in the lift. While you waited you could buy a translucent green plastic model of the tower (!), have your questions on the telephone system answered on paper tickets by a Directomat machine or enjoy the lurid amethyst mosaic on the wall. The actual ascent in the lift was at unbelievable speed as you watched the illuminated floor numbers light up. Then it said 33 and yes, you really were up on top of the world!

In the mid-eighties there were several feasibility studies into re-opening the tower to the public. One involved separate exterior wall-climbing lifts, although the projecting top section seemed to preclude a ride all the way to the top. No problem, said the experts, we'll hang rope ladders down for the last bit!

Early artists' impressions of the London tower (and the one at Stokenchurch) show something rather different from what we now know. The broader top sections were to be straight-sided and fully enclosed with perspex. There would be no exposed aerials and the effect was much more like a lighthouse. The aerials, incidentally, were initially of the horn variety; the dishes came later. Early photos of the London and Birmingham locations also show the much lower lattice masts which carried the original 900 MHz radio link for television, and this latter may form the subject of another article some time.

why a tower, anyway?

Essentially to provide more long distance telephone circuits and more television channels. In the past few years there has been a tremendous demand for telecommunication services. This has been particularly true of the Trunk service, where the number of calls made each year has increased by as much as 14 per cent. The popularity of television has also presented problems for the Post Office. More channels were required to extend the BBC 2, 625-line service, to cater for future additional circuits, and to allow for the introduction of colour television.

To provide these new requirements by traditional means would have meant extremely costly and difficult cable-laying operations throughout many parts of London, with inevitable congestion and chaos in the streets. Instead, the Post Office Tower has provided the additional capacity required by the use of:

microwave radio channels

These carry telephone calls and television programmes between London and all parts of the country.

Nowadays, because of radio, most people are aware of the terms 'wavelength' and 'frequency' as applied to a radio station to which they tune to hear a particular programme. For example, one of the Light Programme channels of the BBC operates on a 1,500 metre wavelength at a frequency of 200,000 cycles per second. Microwaves, on the contrary, have extremely short wavelengths and their frequencies are of the order of several thousand million cycles per second.

Microwave radio signals behave in much the same way as visible light, i.e. they travel in substantially straight lines and, importantly, they can be concentrated into narrow beams by specially shaped reflectors or other devices. They can travel for 25 to 30 miles before being picked up by the aerial system at the next relay point.

There is still one essential requirement to mention. The path of the radio beam must be clear of all obstacles such as hills, trees and buildings if good quality transmission is to be achieved. In the country it is usually sufficient to mount the reflecting aerials on steel towers on hill-tops but in London and other cities the problem is different. London itself lies in a saucer-shaped depression so the Tower had to be high enough to allow not only for the surrounding high ground but also to rise above the many-storied buildings erected in recent years or projected for building in the future.

The Tower aerials and the associated radio equipment will eventually provide for as many as 150,000 simultaneous telephone conversations and up to 40 television channels.

MODEL 702—TELEVISION SOUND AND VISION RECEIVER

(Size of Picture, 10 ins. by 8 ins.)

THIS model will appeal particularly to listeners who are content with their existing radio sets. It employs the same equipment as Model 705 for the vision and sound reception of Television programmes, but it is without the 8-valve all-wave superhet radio receiver. Despite the extreme compactness of the design, the screen is so arranged as to be visible over a very wide angle, and in the excellence of the results it gives, this characteristically Marconiphone ... (For A.C. mains) **60 Gns.**

The above price does not include the cost of the necessary aerial and installation. For details of these incidental charges consult your local Marconi Man.

★

MODEL 702

FOR RECEIVING:

a) **Pictures** *transmitted by the 405 line, 50 frames per second interlaced MARCONI-E.M.I. system on 45 megacycles.*

b) **Sound** *on 41.5 megacycles accompanying the pictures transmitted on 45 megacycles.*

EQUIPMENT.—*As in the case of Model 701, the equipment consists of five units. These are:*

(1) **The Emiscope Tube Unit** *and its associated apparatus.*

(2) **The Picture Receiver Unit.** *This unit is similar in design to the vision receiver employed in Marconiphone Model 701.*

(3) **The Synchronising Unit** *employing similar valve arrangements to those used in Model 701. The mechanical arrangement is however, slightly different to facilitate its accommodation in the smaller cabinet.*

(4) **The Power Pack Unit.**

(5) **The Sound Receiver** *consisting of a three-valve superhet chassis.*

The Emiscope Cathode Ray Tube *has a 12-inch diameter face and is mounted vertically in the cabinet. A mirror suspended in the cabinet lid (which is held open at 45 degrees) reflects the picture and renders the image upright.*

The Picture Size *is 10 ins. by 8 ins.*

The Controls *comprise:* **(Left-hand Panel)** *The Brightness Control, the Frame Hold Control, and the Line Hold Control. Mounted on a sub-control panel on this side of the instrument are four controls which are set on installation.*

(Right-hand Panel) *The Sound Volume Control, the Sound Tuning Control, the Sensitivity Control, the Contrast Control, and the Mains Switch.*

The Cabinet. — *The cabinet is tastefully finished in straight-grained and figured walnut, with the viewing mirror fitted into the under side of the lid. The dimensions are: Height 37½ ins., Width 24½ ins., Depth 18½ ins.*

Voltage Range. *200-250 volts A.C., 50 cycles.*

Mains Consumption. *230 watts.*

PRICE 60 GUINEAS

Total H.P. Price.	Minimum Deposit.	No. of Monthly Payments.	Instalments.
£68 14 0	£8 6 0	12	£5 4 0
£70 8 0	£8 6 0	16	£4 0 0
£74 8 0	£8 6 0	24	£2 16 8

Steve Ostler's pre-war TV – see page 12

TRANSMITTERS IN PRESERVATION

We are always pleased to hear of TV equipment which has survived. From Douglas Byrne G3KPO we have news that parts of the BBC Rowridge and ITV Chillerton Down transmitters have been preserved, not on the Isle of Wight but not far away in Portsmouth. They are in store at Widley Barracks and may be seen by appointment with Douglas; you can ring him on 0983-67663. Douglas is the curator of the Wireless Museum at Arreton Manor on the Isle of Wight, so if you are on holiday in the Garden Isle you might combine two visits.

Brian Hayward, who is Keeper-Science at the Birmingham Museum of Science and Technology, says he is waiting for an opportunity to have their Sutton Coldfield transmitter on display. In the meantime he hopes to put some old TV receivers on show some time soon: they have already built a modulator so that pictures can be displayed.

If you know of any other old TV equipment, please let us know, so we can share the information!

CABLE TV DURING THE VALVE ERA

Martin Loach

Although much has been written about using normal TVs to receive broadcasts from transmitters via domestic aerials, little seems to be documented about vintage cable broadcasting. Indeed, some may not realise that cable TV (and for that matter cable radio), existed well over 30 years ago.

Wireless distribution by cable was first used in the 1930s, and the need for TV distribution arose during the later half of the fifties. At this time television was more in demand, and coverage by transmitters left many significant areas of population without good reception.

Abingdon (Oxon) was one such area, situated half way between London and Birmingham, with no other local transmitter. Reception from London was adequate but not good. Band III was particularly affected by interference and fading. One way of tackling the problem was to install a good set of aerials in a high position and distribute the signals by cable, charging a small subscription. A group of local businessmen in the TV trade decided to set up such a system for Abingdon, an old market town rapidly growing by the addition of many estates of council and private housing.

In 1962 Mastervision was formed and work began with the erection of a

165 foot aerial tower near the centre of town. If you can imagine a hill top radio relay station situated near you local town centre you will have an idea of what the mast looked like. A small building fitted inside the footprint of the mast, and contained various amplifiers and converters to launch a good signal into the distribution cable. In principle signals were merely amplified and combined onto the outgoing cable, but in order to avoid cross modulation effects translation of VHF signals from one channel to another was often required.

There were Band III aerials for reception from Croydon, Lichfield and Southern (IoW) transmitters of the ITA, and also UHF aerials for Crystal Palace. Band I aerials were present for Crystal Palace and Sutton Coldfield. The system could carry UHF transmissions shifted to VHF (later EMI systems could cope with Band I to Band V inclusive!). Sets with an up-converter would then have to be used, unless they were dual standard, and capable of independent switching. Radio Luxembourg was also carried, along with the normal VHF radio channels.

The cable used for the trunk route was 3/4 inch thick, double-screened 75 ohm coax, and buried in open trenches (no duct). In order to maintain a good signal level, trunk amplifiers containing 12 EF95 valves were installed at intervals of about 200 yds. Smaller UR57 type cable may be connected off these, to feed rows of houses where signals were further amplified by smaller distribution amplifiers at 100 yd intervals. These contained 10 valves in each. Both types of amplifier used 'Distributed' types of circuitry, where a number of valves are effectively working in parallel. This gave a degree of security in the event of valve failure: complete failure of one valve merely reduced gain. The signal level on the trunk cable was controlled by the use of AGC repeaters every 800 yds, which were controlled by sampling a 'Pilot tone' inserted onto the cable at the head end. At each house a junction box known as an Emitap allowed connection to the domestic TV (official and otherwise!). The Emitap was a directional coupler, which introduced a higher impedance to any interference signals penetrating back into the cable.

The system used EMI wideband equipment throughout. EMI called bits of the network by names such as Emitap, Emivider, Emisplits etc. The trunk and distribution amplifiers were usually mounted in wall boxes on houses. The trunk boxes were a good 18 inches square. However, Abingdon being spread out in some parts, amplifiers were sometimes mounted in roadside kiosks. These were similar to BT telephone junction cabinets.

The whole thing was a nightmare for transmission engineers in terms of all the different signal losses and matching problems which are inevitable. The attenuation of Band I was of course much less than Band III, so selective filters had to be fitted at repeaters to equalise the signal levels at the amplifier input.

The local planning problems were considerable. The mast planning application involved no less than 20 Civil Service Departments. Wayleaves had to be arranged for each individual property which the cable passed, bearing in mind that most house to house wiring was along walls and across catenary wires. For this reason council-owned estates were favoured

for installation, but could be more of a problem when collecting subscriptions!

Subscription rates, after £5 connection fee, were around 2/6d per week. Towards the end of the life of Mastervision, there were 1300 homes supplied via 800 glowing valves in 60 repeater amplifiers.

The demise of the system was brought about only 10 years later in 1972 when the firm went into liquidation. The installation of the Beckley transmitter at Oxford (in 1962!) was a contributory factor, combined with the high cost of installation. Vast numbers of people were required to subscribe in order to break even. People voted with their chimneys and erected their own aerials.

Much of the equipment was left abandoned in situ, and in 1982 I was able to collect many samples of the amplifiers and so on from around the town. I found some of the amplifiers still live with glowing valves, ten years after closure! There must be a fortune in copper under the roads out of reach. Nothing survived in the building at the head end, but all the aerials were still there, of which I have some examples. I did manage to obtain samples of some head-end equipment from other projects such as Cheltenham, but if any readers have anything interesting I would be interested to know.

In 1982 I wrote a comprehensive booklet (unpublished) about the technical and historic aspects of Mastervision: if the editor is ever short of some articles I could serialise it!

Finally, a paragraph from the original booklet where I tried to indicate just what sort of impact the ironmongery had on the public. Take the case of the lady who approached me while I was examining an old amplifier kiosk somewhere in Abingdon recently. "Why have you put that there?", she asked. "Sorry?", I said, not sure what she meant. "That", she said, looking at the very rusty green cabinet in the verge opposite her house. "That's been there for at least 15 years" I said to her. "Good heavens", came the reply, "I have never noticed that before, and I have lived here for 20 years". When I left her she was still puzzled as to why it had to be there, and was threatening war on the council to try to have it moved.

SWASH AND BUCKLE

Alan Keeling

In the late fifties and early sixties, my one and only pet hate was school. On the other hand, my two main interests were playing football and watching television.

In those days, as you all know, programme hours were sparse on ITA

(starting around 5 pm and ending around 11.30 pm). I watched anything and everything because it never occurred to me to turn off the set. Shows like 'Whirlybirds', 'Hopalong Cassidy', 'Interpol Calling', 'Fury', 'The New Adventures of Charlie Chan' and 'Sea Hunt' were fine but the kind of film series that mesmerised me were those 'swashbuckling' shows. (The interest, perhaps, started when I was treated to a replica plastic William Tell crossbow that fired rubber-sucker arrows as a seventh birthday present.)

Most of these fairly action-packed and mainly British series had one or two repeat runs until around 1972 when, unfortunately, they were never shown again.

The most successful and popular show was Sapphire Films' production of 'The Adventures of Robin Hood' (1955-59), starring former Hollywood leading man Richard Greene in the title role. Alexander Gauge played jovial Friar Tuck, Bernadette O'Farrell (and later Patricia Driscoll) was Maid Marian, and Alan Wheatley portrayed the scheming, shifty Sheriff of Nottingham. This series also boasted many up-and-coming young guest stars including Paul (Yes Minister) Eddington, Harry H. Corbett, Ian Bannen, Leo McKern, Donald Pleasance and Alfie Bass.

One of Patrick McGoohan's early TV breaks was in episode four of 'The Adventures of Sir Lancelot' (1956), entitled 'The Outcast'. Another Sapphire production, it starred a twenty-four year old William Russell in the title role as King Arthur's bravest Knight of the Round Table, and this series was the first British TV production that was filmed in colour.

Another early colour production came from Australia and was entitled 'The Adventures of Long John Silver' (1955), starring Robert Newton, and Kit Taylor as young Jim Hawkins. As a note of interest, thirteen of the twenty-six episodes were repeated by LWT in 1976 on Sunday mornings at 11.30 am.

Although mainly shown late at night, 'Douglas Fairbanks presents ...' (1953-57) included the occasional swashbuckling tale such as Sir Walter Scott's 'Lochinvar', with Fairbanks junior in the title role and 'Scherezade', with Dermot (Lionheart) Walsh.

One show which was rarely, if ever, shown in Britain was an American/Italian production of 'The Three Musketeers'. Produced by Thetis Films, it starred Jeffrey Stone as D'Artagnan, Sebastian Cabot as Porthos, Domenico Modugno as Athos and Paul Campbell as Aromas. Twenty-six episodes were filmed in Italy on a low budget.

Television's first and foremost swashbuckler was 'The Adventures of the Scarlet Pimpernel' (1954). Marius Goring played Sir Percy Blakeney, who adopted a great number of disguises whilst rescuing the innocents from the clutches of the evil Chauvelin, played by Stanley van Beers. This show was last seen in the Midlands region around 1963.

'The Count of Monte Cristo' (1955-56) was another little-remembered series, which starred George Dolenz (father of 'Monkee' Mickey) and was filmed in England and Hollywood under ITC's Vision Productions banner.

Most of the 'Errol Flynn Theatre' (1954) half-hours were swashbucklers, and included guest artistes such as Christopher Lee, Hubert Gregory, Glynis Johns, Herbert Lom, Jean Kent and Andrew Keir.

A little-known actor named Roger Moore played 'Ivanhoe' (1957) for thirty-nine episodes. Robert Brown played Gurth, his aide, and some twenty-six years later teamed up again in a James Bond movie, Brown playing 'M', Bond's boss. This series was filmed in England by an American company, Screen Gems (Columbia Pictures).

A successor to the Robin Hood series was 'William Tell' (1957), starring Conrad Phillips. A large part of the series was filmed amongst the snow and ice of the Welsh mountains to portray the Swiss authenticity as much as possible.

The final Danzigers' TV production was 'Richard the Lionheart' (1961), with Dermot Walsh in the lead role. On completion of the series their studio closed down.

'Sir Francis Drake' (1961-62) could only be described as an ocean-going 'Lancelot', starring a bearded Terence Morgan with Jean Kent as Queen Elizabeth in the joint ABC/ATV co-production.

Films like 'The Dambusters' and 'The Man in the White Suit' featured a young bit-part actor named Robert Shaw, who then rose to fame in Sapphire Films' 'The Buccaneers' (1957-57) as Captain Dan Tempest of the good ship *Sultana*, whilst 16th century Florence (Italy) was the background for 'Sword of Freedom' (1957), starring Edward Purdom as Marco del Monte, swordsman, painter and lover defending the free republic against the iron fist rule of the Medicis, with co-star Adrienne Corri as his leading lady Angelica.

To sum up, once gain, if only Channel Four would revive some, if not all, of these action-packed, nostalgic shows, or even 'volumed' releases on pre-recorded video tapes would prove to be 'best-sellers'.

Peter Gunn
Mr. Lucky
Yancy Derringer
Wire Service
Africa Now
Almanac Newsreel
Greatest Headlines of the Century
Sportfolio
Playboy's Penthouse
The Invisible Man
My Little Margie
The Adventures of Robin Hood
Spunky and Tadpole
Cowtown Rodeo
Star Performance
The Star and Story
Trouble with Father
Decoy
The Big Story
The Buccaneers
The Adventures of Sir Lancelot
Sword of Freedom
Rocky Jones, Space Ranger
Dateline Europe
Cross Current
Overseas Adventure
International Detective
The Hunter
Willy
My Hero
Colonel March of Scotland Yard
The Adventures of Scarlet Pimpernel
What Are the Odds?
Police Station
Cartoon Library

1962

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Running an ITA Station

The day at one of the Authority's transmitting stations normally begins at 8 a.m. and ends soon after midnight, but when necessary work continues throughout the 24 hours.

From the arrival at the transmitter of the morning shift of two or three engineers there is about two hours before the station goes on the air at 10 a.m. The most important task is to prove that the two sound and two vision transmitters are fully operational. The power output, frequency response, linearity, noise content and so on must be checked, involving the use of complex and specialized test equipment.

The masts and towers, which vary in height from 450 ft. to 1,000 ft., must be ascended regularly by riggers and climbing electricians to check the structure, aerials, feeder systems, aircraft obstruction lights, the aerial de-icing heaters or plastic covers which prevent ice formation on aerials, and other fittings. Certain of this work can only be done when the transmitters are closed down and, in consequence, it is performed between dawn and 10 a.m.

Trade Transmissions

On weekdays from 10 a.m. a regular schedule of transmissions is provided, primarily for the benefit of the retail trade. The pattern is as follows:

	Vision	*Sound*
10.00	Test Card 'C'	400 c.p.s. tone
10.05	..	Silence
10.06	..	Music
10.30	Still Scene	400 c.p.s. tone
10.35	..	Silence
10.36	..	Music
10.45	Test Card 'C'	..
11.00	Still Scene	400 c.p.s. tone

and so on until 15 minutes before the start of programmes.

A similar schedule is observed by the BBC, but when the ITA stations are showing a test card the BBC displays a scene. Programme commitments permitting, this ensures that during test periods the trade are able to see a test card on one or other channel at any time. The test card and the sound are used by the trade for the alignment of aerials, and for setting-up and checking receivers. The still scenes are used for receiver demonstration purposes. The short intervals of silence in sound are for checking the receiver noise level.

During trade transmissions much work is undertaken at the stations. If only one transmitter unit is in operation certain routine maintenance work is possible on the other, and this work – which according to a schedule may be of minor or major magnitude – is always to be done. In this way equipment is held at a high operational standard so that

The majority of stations are served by the various Electricity Supply undertakings by two differently routed feeders, one standby for the other. Where this is not possible, a diesel-driven alternator generally supplements a single feeder.

Each vision and sound transmitter generates a carrier wave upon which is implanted the signal from the camera or the microphone. It is this carrier which conveys the signals from the transmitting aerial, through the ether, to the viewers' aerials and receivers. Because ether space is limited the Authority's Band III transmitters share channels and in consequence the carrier wave frequency must be very constant, to an accuracy of $\pm 2{\cdot}5$ parts in a million. It is, of course, necessary regularly to measure the carrier wave frequencies and, in the Authority, this is done at two of the transmitting stations, Lichfield and Black Hill. At these two stations, before 10 a.m. or at midday, the transmitters are switched off and the transmitting aerials at the top of the 1,000 ft. masts are used as receiving aerials for the other transmitters which are located around them – some up to 200 miles away – and the received carriers are measured by special equipment.

On certain days of the week comprehensive checking of the national vision and sound links, and local sections, is undertaken. Test signals are principally originated either in London or Manchester and pass over the network to all centres where they are measured and recorded. Each test occupies one to two hours from 10.30 a.m.

Daily Programmes

The time of commencement of the daily programmes depends upon the day of the week and the location of the transmitter, but the pattern is similar. The first programme may be for schools, a racing outside broadcast, or a lunch-hour feature, and it may be followed by other items interspersed with trade transmissions before the commencement of the continuous evening schedule. Prior to any programme the links between studio and transmitter must be proved by the passing of test signals in vision and sound, and transmitters must be adjusted to the correct modulation condition. Studios, GPO switching centres and transmitters must work to a common time standard to the nearest second, and this is achieved by all concerned setting clocks to TIM. The final precaution before moving into programme is to check standby equipment in sound and vision – disc turntables, tape recorder, telecine (where provided), and caption scanner.

Once programmes have begun, the transmitter control room is the focal point for operations. Picture and sound must be continuously monitored for technical quality, and any point of interest noted in a log. In

It is important for the control room engineer to ensure that the signals suffer no degradation in passing through his station equipment, and this means that at least two picture monitors must be observed, which display the received signal and the transmitted signal; if a satellite transmitter is tied to the staffed station this also must be monitored.

Outside the control room, there is regular checking of all equipment, of the working temperature of bearings of rotating machinery, of the cooling air pressures, of the water flow, of the degree of reflection of radio frequency power from the mast-head aerials – particularly to be observed in snow-storms or during ice-formation conditions – and of the red mast obstruction lights.

Failure Conditions

Quite a number of factors may interrupt the smooth flow of programmes. The most likely is the failure of signals to arrive at a transmitter due to a fault on a link or at a studio. Immediately this happens a breakdown procedure is put into operation which provides that after 30 seconds failure of sound or vision, viewers are notified, usually by the transmitter, of the condition.

Because of the need to use very high sites for the location of masts and towers, many of the transmitters are in mountainous and inaccessible places. This means access roads, connecting sites to the nearest public road, running over steep moorland with gradients of up to 1 in 5. Inevitably each winter transmitter staff are snow-bound overnight and to cater for this eventuality all stations are equipped with beds and bedding and stocks of food for a number of days.

Because of their location certain stations are used by the Air Ministry for meteorological observations and this service is an additional duty for the staff.

Visits to Transmitting Stations

Once a year, on a Saturday during the summer, the Authority's transmitting stations are declared open for the public to see at first hand the work of their local station.

Partners in the everyday life of the transmitters are the studios and the GPO switching centres: both of these lend support on Open Days with displays and demonstrations. Local television announcements are made when there is going to be an Open Day, and intending visitors are told how to apply for tickets.

Propagation and Investigation Work

The ITA's engineering group responsible for the point-to-point-link network have a sub-group which carries out experimental studies of wave propagation at VHF (very-high-frequency) and UHF (ultra-high-frequency). Special equipment has been designed for carrying out long-term measurements of radio propagation over chosen transmission paths. By storing the data on magnetic tape the equipment enables the rapid analysis of signal strength records over several months.

Tied Operation of Transmitters

Given a live production in a studio, a concert hall, a church, or from an outside broadcast, a viewer may enjoy a sense of participation because he sees and hears as though he was there. Yet before reaching the viewer the vision and sound signals in a television system pass through many equipments which amplify and process them, and for the viewer at the other end of the country – or in another continent – the number of equipments may be very considerable. But once a signal is gathered by a camera or microphone it almost instantaneously pours out from all the transmitters to which it is sent, like water through a sieve.

In the ITA chain of transmitters, the group of stations in the West and North of Wales provides an interesting example of 'tied operation'. The starting point for signals for the group is Cardiff, where outputs from local studio centres or the ITA national network are available. After selection, they are beamed 65 miles by a GPO microwave link to the Presely transmitter near Cardigan. From the 750 ft. mast of the Presely station the signals are radiated to viewers in South-West Wales and are also picked up by two special aerial arrays on the 1,000 ft. mast of the Arfon station, 70 miles to the north near Caernarvon.

The two separate receiving aerial systems on the Arfon mast are spaced one above the other to provide protection against signal fading which occurs on the path between Presely and Arfon under certain atmospheric conditions. The theory is that when the signals arriving at one aerial height are weak and possibly distorted, the signals at the other aerial will be acceptable. The preferred signal is selected and passed into the transmitting equipment which consists of four similar chains of rather specialized apparatus. These, in turn, pass the re-processed signals to radiating aerials at the top of the 1,000 ft. mast for viewers in the North-West of Wales.

Four sets of this particular apparatus are provided at Arfon because no staff are regularly employed at this 'satellite' station. The selection of the receiving aerial output and the working combination of the transmitting apparatus is under the remote control of the staff at the 'parent' station, Presely. To assist in this operation the signals radiated by Arfon are picked up at Presely and monitored there.

It would not be possible for signals to be picked up at Arfon, re-radiated and in turn picked up at Presely without a change in the carrier wave frequency of the Arfon station. An appropriate frequency change is therefore part of the signal processing introduced by the apparatus at this station. As in the Presely/Arfon operation, the Arfon radiation is picked up at a further repeater station which is at Nebo in Anglesey. Here the signals are taken from one of two receivers and sent into microwave transmitting equipment which beams the signals from metal 'dishes' erected on a low tower to a reflector/dish combination on the 750 ft. mast at the Moel-y-

At the Moel-y-Parc station, and for this particular arrangement, the signals are for the last time processed and re-radiated from the transmitting aerials at the top of the 750 ft. mast to viewers in the North-East of Wales. These viewers, despite the many intervening operations, receive their pictures and sound only a few millionths of a second after the viewers who use Presely.

Control and monitoring of the Nebo equipment is the responsibility of the staff at the Moel-y-Parc transmitter. One novel facility which is available enables them to telephone the unmanned repeater and to have 'read out' in plain language the operational state of much of the apparatus. All being well, the staff at Moel-y-Parc visit the Nebo and Arfon sites once in three or four weeks for routine maintenance purposes.

THE ITV NETWORK

Reproduced from the ITA Handbook 1968, with acknowledgement.

THE PROGRAMMES WHICH THE VIEWER RECEIVES from his local ITA transmitter originate from many different sources and come over routes which vary from programme to programme. It is an operation which involves the programme companies, the Post Office (which provides the bulk of the cable and microwave circuits), and the ITA transmitters.

The Independent Television system is unique in the way in which so many sources are linked together: this whole complex operation is known as 'networking'. The BBC tends to route most of its programmes through a central control in London; regional studios then opt to pass on to the transmitter either the programme from London or their own local output. The ITV network, on the other hand, is re-established after each programme break, usually with a different centre of origin and only going to London for programmes actually originating there. The organization of this network has become increasingly sophisticated over the years and provides one of the sources of vitality in the Independent Television service.

The programme journal may announce the following series of items for a particular Independent Television region:

12.40	*The ABC of Do It Yourself*
1.00	*First Steps in Physics*
1.20	*Interval*
1.25	*The Grammar of Cookery*
2.05	*News from ITN*
2.10	*World of Sport*

If the viewer switches on his set in advance of 12.40 he will find a tuning caption on the screen. The complete sequence of items on the transmission schedule will be:

12.36.00	ITA tuning caption (slide/music)
12.39.07	ITA announcement (slide/tape)
12.39.20	Company identification (slide/tape)
12.39.47	Opening announcement
12.40.20	*ABC of Do It Yourself*
13.00.00	*First Steps in Physics*
13.19.42	Interval and announcement
13.25.00	*The Grammar of Cookery*
14.04.15	Announcer giving programme details
14.04.45	Company symbol
14.05.00	*ITN News* (from the network)
14.10.45	Introductory announcement
14.11.00	*World of Sport* (from the network)
14.23.45	Advertisements (2½ minutes)

The news will originate from ITN's studios in Kingsway, London; from there it will be passed by cable to the switching centre under the new Post Office Tower and thence by cables and microwave radio links be passed on to the complete network. The news will start exactly on time and each local company will switch over as the ITN opening caption appears. The symbol from the local studio will be used here to bridge the small gap between the announcement of programme details and *ITN News*.

At the end of the news item the network will be switched over to receive the output from Teddington studios for *World of Sport*, which in itself consists of a large number of contributions from outside broadcast units covering various sporting events. This switch over of the network is locally covered by the announcer, seen in vision, while the engineers are busy checking that the next incoming programme is correctly routed and properly set up in both sound and vision.

Also the local station will be made to run exactly in step with the next incoming programme, line-by-line and frame-by-frame, so that at the correct time the announcer can be faded out and *World of Sport* faded in. The announcer and engineers can then relax for a few moments, just making sure that all goes well, until their next burst of activity, the running of the advertisements. These are always sent out from the local studio and involve using film, slides, the announcer, or videotape. To warn the local studios of a break for advertisements a little striped dot appears one minute before the break on the top corner of the screen (usually out of sight on the home receiver) and disappears again exactly five seconds before the break. This five seconds allows the local film scanner to be run-up to speed, ready to take over from the network.

So it goes on all through the day, sometimes from London, sometimes from Manchester, Birmingham, Cardiff or a remote O.B. unit. More dramatically the pictures might be coming from America via a satellite, received at Goonhilly, converted from American 525-line pictures to 405-line pictures by ITN and passed into the network. Always the announcer is ready to come on the screen to hold the fort during a delay or to explain a breakdown. When the number of switching operations and miles of network route are considered, it is perhaps surprising how seldom any mishaps occur.

The Independent Television System

1968: A Year of Change

Area	Until 29th July 1968		From 30th July 1968	
The Borders & Isle of Man	*All week*	BORDER TELEVISION	*All week*	BORDER TELEVISION
Central Scotland	*All week*	SCOTTISH TELEVISION	*All week*	SCOTTISH TELEVISION
Channel Islands	*All week*	CHANNEL TELEVISION	*All week*	CHANNEL TELEVISION
East of England	*All week*	ANGLIA TELEVISION	*All week*	ANGLIA TELEVISION
London	*Weekdays* *Weekends*	REDIFFUSION TELEVISION ATV NETWORK	*Weekdays to 7 p.m. Friday* *Weekends from 7 p.m. Friday*	ABC/REDIFFUSION LONDON WEEKEND TELEVISION
Midlands	*Weekdays* *Weekends*	ATV NETWORK ABC TELEVISION	*All week*	ATV NETWORK
North	*Weekdays* *Weekends*	GRANADA TELEVISION ABC TELEVISION	*LANCASHIRE All week* *YORKSHIRE All week*	GRANADA TELEVISION YORKSHIRE TELEVISION
North-East England	*All week*	TYNE TEES TELEVISION	*All week*	TYNE TEES TELEVISION
North-East Scotland	*All week*	GRAMPIAN TELEVISION	*All week*	GRAMPIAN TELEVISION
Northern Ireland	*All week*	ULSTER TELEVISION	*All week*	ULSTER TELEVISION
South of England	*All week*	SOUTHERN INDEPENDENT TELEVISION	*All week*	SOUTHERN INDEPENDENT TELEVISION
South-West England	*All week*	WESTWARD TELEVISION	*All week*	WESTWARD TELEVISION
Wales & West of England	*All week*	TWW	*All week*	HARLECH TELEVISION

Note: The ABC/Rediffusion company for London weekdays from July 1968 is to be called Thames Television Ltd.

BACK TO THE FIFTIES

Doug Bond

The title of this article is taken from that of a 60-minute cassette which I made some time ago, featuring 78 rpm discs of 1954 vintage. Those records were some of the first Test Card music to which I ever listened, and were commercially available. But more about those presently. Firstly, a little background to the story.

1953 saw the coronation of H.M. Queen Elizabeth II, and in order that people who lived in North East England could watch the ceremony, the BBC brought forward its plans for the opening of the Pontop Pike transmitter, so that transmissions began toward the end of May. My parents decided that television was going to be 'a good thing', and so a 14" model was installed in our house in West Benwell. (I was just approaching my 13th birthday at the end of June). I was immediately enraptured by the concept of television broadcasting, and from time to time, I used to switch on during non-scheduled transmission time just to see what was happening. At most times the answer was 'nothing' apart from a snowstorm! One never-to-be-forgotten morning, however, there was what I remember describing to my mother as 'a pretty pattern with a horrible noise'. This was later to be identified as Test Card 'C' and tone. Obviously, for the first few months of transmission, Pontop Pike must have radiated this locally, for it was some months later before I discovered the delights of the original Demonstration Film.

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

listen to the music during this transmission, it must not have made much of an impression upon me, as I made no attempt to ascertain the details. I do remember, however that some of the tracks were called 'Frenesi', 'Spanish Serenade', and 'Winter Sunshine', and I think that they were all instrumental.

Then in 1954 came the breakthrough with, as far as I was concerned, the first change of music. There was a two-hour sequence of discs 60 minutes of classical music on BBC and other non-commercial labels; and 60 minutes of dance music on commercially-available records (Paxton, Oriole and Harmonic). These were used during the 1618 - 1653 slot, and also in the newly-introduced (I think) 1200 - 1300 broadcast. I would estimate that between June and November 1954 (when all of the Oriole discs were withdrawn) the dance music selection was used for 75 per cent of the time. Although the two sequences were never mixed, there was no standard playing order, the sequence being varied with each transmission, with one notable exception. When the dance music was used, 'Buck Dance' by the David Carroll Orchestra was, on 99 per cent of occasions the last record to be played in each transmission. Those of you who remember it will know why. It is also the last track on my 'Back To The Fifties' cassette. I think that the thing which attracted me to these so much was that they included vocals, and I suspect that this led to their early withdrawal. After that it was to be many years before vocals were to be heard again during Test Transmissions. Having obtained a copy of the play list from the BBC, I began to gradually purchase all of the Oriole, Paxton and Harmonic records. I am pleased to say that after 35 years I still have all of them, with the exception of Harmonic CBL37 ('I'm so lonesome tonight'/Square Four') which has somehow gone missing over the years.

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

My second change of music came in May 1955, when a shorter list of records, again a mixture of classical and dance music was introduced, but this time all BBC discs. These included a Mozart Cassation in B, Arthur Benjamin's 'Red River Jig', 'Envy', 'The Moon Was Yellow', 'In All The Country Round', 'Under Paris Skies' and many more. At one time I had detailed lists of all of these, and indeed, of later transmissions also, and I now curse my lack of perspicacity in not filing these lists permanently. In those days, the BBC were more than willing to supply these play lists, but around 1964 they began to adopt a less than helpful attitude to inquiries concerning test transmission music. I regret to say that this unhelpful attitude persists some 25 years later.

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

These then are my earliest recollections of trade test transmissions. If

my memory has proved faulty, I am sure that some of you out there will be able to put me right.

[*This article is taken from issue 1 of the newsletter of The Test Card Circle and is reproduced by kind permission of the editors. More details about the TCC on page 9 of this issue.*]

FAMOUS QUOTES !

"THE NEXT PROGRAMME is in Welsh, and on certain transmitters only. The next programme on all transmitters is the lunch time news at 1.25. Until then.....A Trade Test Transmission."

FOR ADULTS ONLY !!!

Malcolm Batchelor

Musing through Radio Times recently as I often do, in the issue dated February 13 - 19 1955 I noticed on Monday's Television Page 4.00-4.15pm *Watch With Mother: Picture Book - a new series for the very young - see page 15.* This I promptly did and was delighted to read an endearing article by Freda Lingstrom.

Introducing 'Picture Book' for the Under-Fives "From Monday onwards there will be four Watch With Mother programmes for the amusement of the under-fives each week. The first three programmes, Andy Pandy, The Flowerpot Men, and Rag, Tag, and Bobtail, rely on puppets for their stars, but Picture Book, the new programme, will be introduced each week by Patricia Driscoll [*see 'Swash and Buckle' also in this issue*]. This charming young actress, whose looks and manner will instantly endear her to the children, will play games with them, turn the pages of the book, show them her kitten or her puppies, or help them to make such things as clay rabbits. Although Picture Book will set out to interest its very young viewers and awaken in them a sense of wonder and discovery, no attempt will be made to teach. Patricia may go so far as to count out five apples and she may draw attention to halves and quarters by dividing a cake. She may also show how to recognise the pattern of a clock-face when the hands stand at twelve or at six, but all this will be done as play.

Maria Bird, whose musicianship, knowledge of Young Children and Professional skill were so successfully employed in the development of Andy Pandy, has compiled Picture Book, and many of the artists whose names are familiar to children have contributed the tiny items. There are too many for their names to appear each week in Radio Times, so perhaps they will allow me to thank them most sincerely for their work and interest. It is safe to say that everyone thoroughly enjoys working on Watch With Mother programmes, and it is certain that this was no exception.

Among those taking part were Audrey Atterbury, Molly Gibson, Reginald Jeffryes, Arthur Langford, Julia Williams, Peter Hawkins, and Gladys Whitred.

Thanks are also due to the cameramen, David Prosser and Jack Howard, Bill Welch and Harold Dines, the sound recordists, and the film editor, John Pullen. Good luck to Picture Book, the first of its kind for the very young."

For the record, the billing on each programme page for that week was as follows:

Monday: Picture Book - A new series for the very young. Pages turned by Patricia Driscoll. Edited by Maria Bird.

Tuesday: Andy Pandy - Maria Bird brings Andy to play with your small children.

Wednesday: The Flowerpot Men. A BBC Television Film.

Thursday: Rag, Tag, and Bobtail. A BBC Television Film.

Friday: -nothing-

February 13 - 19 1955 THIRTY-FIVE YEARS AGO !!

RETURN TO THE RADIO SHOW

Dicky Howett

More memories of the 1961 Radio Show, the one where colour TV was displayed before an avid audience. I was there, and what is more important, with a 16mm cine camera loaded with colour film!

Having obtained permission from the 'press office' at Earls Court, this sixteen year old trundled off with his fixed-focus second-hand Keystone movie camera loaded with 50' of 'Ansco Color'.(That was high speed reversal stock in those days; 100 ASA!) First port of call was the 'glass tank' colour studio with its two lumbering Marconi/RCA cameras (one with a zoom lens and one with the usual turret). I took a few shots there and then moved off to one of the monitors just in time to photograph the slide of the 'girl with the flowery hat'. I also managed to capture a snippet of a test film about racing cars.

Further images on my movie include a panorama of the trade stands; 'new TV sets' , a shot of me on a monitor photographing the monitor whilst being photographed by a Beulah CCTV camera. The '625' line stand with a 'transistorised' Pye broadcast camera peering glumly at a fish tank. (The image displayed on the monitor seemed to me to be rather wishy-washy and not at all like the pin-sharp 405-line pictures I was used to.) Finally, I made my way to the 'Star Stand', where Mandy Miller (remember her?) was dishing out autographs. A Marconi Mk III was photographing this, and there I was again, up on the monitor photographing the autographing! All very exciting, but such is the stuff TV fans are made of.

Twenty eight years later I offered this movie material to BBC TV's 'The Late Show' who were putting together a programme about early colour TV. The programme was broadcast last year, (14/11/89) and proved rather tedious, mainly because hardly any of my movie was used. However, it was there and if you blinked you would have missed seeing the 'motor racing test film' and the 'girl with the flowery hat', all four seconds of it!

However, my little movie still exists and stands as a record (and also as a correction to faulty memory) of an event now long gone. The real pity is that so much of early TV is now lost (due mostly to the frantic junking of TV recordings in the 1970's) No blame can be attached to the TV companies for this policy (only a pathetic lack of foresight) and in any case the BBC had no mandate to form an archive, nor indeed the cash to do so.

FEEDBACK

• TV22 at York Castle Museum

We sent a copy of the last issue (with Barrie Portas's letter) to them for comment. Gillian Greaves, Keeper of Social History, has kindly written as follows: "I was interested to read the comments about our exhibition in your letters page. I am happy to be able to inform your reader that we have been able to replace the two missing knobs on the front of the television. We have indeed put a modern television monitor inside the TV22 case as Mr Portas suggested. The television is part of a display of televisions and radios in the exhibition 'Every Home Should Have One' at York Castle Museum'."

York Castle Museum is described as England's most popular museum of everyday life - for more details ring York 0904-653611.

STRANGE BUT TRUE

>>>> COLOUR IN THE BLACK & WHITE DAYS - AGAIN!

An unusual 'refinement' offered by the 1938 Baird T18 (the now famous receiver seen at the 405-line closedown) was the 'Flame Lamp'. This was a red pygmy lamp wired in series with the primary of the mains e.h.t. transformer and positioned inside the set behind the transparent-walled tube. It would light whenever a short circuit occurred on the e.h.t., causing the screen to glow red as if 'on fire'. This could well be behind the anecdote about the lady who rang up Alexandra Palace after a pre-war transmission to say how much she had enjoyed the colours. On being asked what sort of colour she said "It's all in marvellous red shades". it was tactfully suggested she switch off her set without delay !

>>>> THAT MAN BAIRD AGAIN? NOT QUITE ...

It would appear there was another Baird involved in mechanical television. Writing in the American 'Spec Com' magazine, Mel Dunbrack (amateur radio callsign W1BHD) writes: "My first encounter with amateur hobby television occurred in 1928 when I experimented with a whirring disk. Mechanical

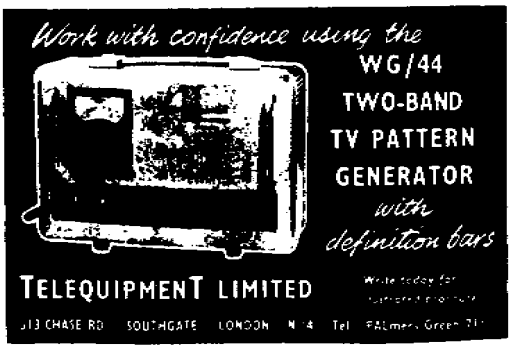
television hit a peak in 1931 when Hollis S. Baird's narrowband scanning disk system became popular by his short wave and television corporation of Boston. They were located on Brookline Avenue. Their transmitter went on the air in 1930 with the [experimental, what we would call test & development] call letters W1XAV. In 1931 they transmitted 60 line, 20 frames per second pictures on the 2850 to 2950 kc band with 1 kW of power. At that time I was working for the Crosley Radio Company in Kenmore Square and it was then that I met Hollis Baird. I have kept in touch with him ever since, our last contact being in January of 1987. I'd like to hear from other old timers. (30 Greenleaf Street, Malden, Massachusetts 02148, USA.)

RECORDING RESOURCES

Certain of our readers possess machines covering the following video recording formats and 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 no charge but you must pay recorded delivery postage costs.

Video tape formats we know we can handle include Philips LDL1000, Philips N1500, Philips N1700, Sony CV-2000, Sony CV-2100, Sony 3420/3470, Sony 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!



We are on Stand No. 63 at the Radio Show

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.

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). 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.

* FOR SALE: several 405-only and dual standard sets cheap for quick disposal, 14" upwards. Dave Higginson (Yorks.), 0427-890768 (T).

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

* 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: Regentone R143T receiver, BBC only, tuned to Holme Moss. Never used, still in manufacturer's box with showcard/price ticket! Very nice, perhaps unique - even gives raster when switched on. Offers please to Brian Day G8EKO on Heathfield (Sussex) 04352-6773.

* FOR SALE: Printed circuit board for David Looser's design of Band I 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: Eckovision TC138B 12" screen 405-line TV receiver. BBC only, came from the Oxford district. Wooden console, speaker at bottom, in good order, minor scratches (not deep). Complete except mains lead. £30 or near offer, can deliver locally. Paul Ewers, Brill (Bucks.), tel. 0844-237131. (T)

* 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: *Practical Television*, many issues (150 plus?) from 1950-1989. £15 the lot. Martin Loach, Oxford 735821.

* FOR SALE: Marconiphone 12" model 4618 TV, 405 lines only, grey wrinkle case, good condition but needs attention. Also Ferguson piano-key VCR model 3V16. Appears to work but needs attention. £20 the pair or exchange for what have you. B. Portas, 4 Summerfield Avenue, Waltham, Grimsby, DN37 0NH. Tel. 0472 -

824839.

* FOR SALE: Mysterious Sobell 21" Sobell colour TV with round tube (believed OK), vast number of valves and small transistor chassis (PAL mod?). Thorn 2000 chassis, no cabinet or CRT. GEC dual-standard in good cabinet with doors and legs, no CRT. Two Sobell/GEC 19" dual-standard in rough cabinets, complete but various faults. All £10 each. Paul Anderson, 65 Beechwood Road, South Croydon, CR2 0AE.

* FOR SALE: I am retired with a garage full of old TV servicing equipment, which may be of use to someone. Large quantity of valves from 1940 on, some boxed, some loose. AVO valve characteristic meter (bench type with sloping front) and manual. Channel 405-line pattern generator. GEC 9" bakelite model 2147 TV, working. 'Trader' service sheets, approx. 900-1800. H. Keighley, 117 Bradford Road, Riddlesden, Keighley, Yorks., BD20 5JH. Tel: Keighley 603012.

* FOR SALE: two 405-line TVs. Ekco T330 no. 5132 purchased in 1950. Bush TV108 of 1961. Old valve radio with disintegrated cabinet. G.S. Curtain, Mutcombe Farm, Fairfield Park Road, Bath, BA1 6JU. Tele: Bath 0225-310117.

* FOR SALE: 30 years' accumulation of old TVs (mainly 1950s), radios, test equipment, valves, components, telephone equipment including manual switchboard, chemical balances, magazines (Practical Electronics, Practical Wireless, etc.), old Hoovers, teleprinter accessories. Everything must go by July! No reasonable offers refused. Above collection fills a room 30' b' 30'. Phone if you think I might have what you need. Mike Beckley, Albury, .lerts. 0279 74-392.

* FOR SALE: Philips 1" EL3400 video tape recorder, handbook and a few tapes. Also Murphy pattern generator TPGII, handbook. Geoff Barber G8CHN, 666 Bradford Road, Birkenshaw, Bradford, Yorks. (east of Bradford, just off the Leeds Road). tel: 0274-683608.

* FOR SALE: 25 tape cassettes for Philips N1500/N1700 video system very cheap! Martin Loach, Oxford 735821.

* FOR SALE: Service manual for Philips TVette, £1.25 including postage. Andrew Emmerson, 71 Falcutt Way, Northampton, NN2 8PH. Ring 0604-844130 first to check unsold.

* FOR SALE: 625 line CCTV equipment formerly used on the ILEA educational TV system, sold as seen. A few Pye Lynx and Fernseh black & white cameras, some old colour cameras, no lenses though, VTRs, PDAs and test equipment. Rather dusty but probably functional with a little attention. Fairly cheap, see the stuff first. Serious enquiries to John Howard (Battersea Studios) on 01-622 9966.

* WANTED: Practical Television for April 1953, Sept and Oct 1961. Many other issues spare to swap or sell (25p each). Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH (tel: 0604 - 844130).

* WANTED: Head for my Philips N1500 VCR, which I use for 405. Can you sell me one or tell where I can get one? Ray Whitcombe, 91 Winchester Avenue, Kingsbury, London, NW9 9TA.

* WANTED: I desperately need the following parts for a Marconi VC73DA TV. Picture tube, mask, scan coils, focus magnet, back cover and hardware to support tube. Robin Howells, 6 Dunlin Drive, Spennels, Kidderminster, Worcs., DY10 4TA.

* WANTED: Pre-war TV or late 1940s set. Any condition, anything considered, especially with mains-derived EHT system or octal/B9G valves. A.S. Redding, 13 Richmond Park Avenue, Rotherham, Yorks., S61 2JE. Tel. 0709 - 557531 after 6.

* WANTED: Any 405 line TV, valve or vintage electrical equipment and literature required for my personal collection. Also, has anyone a recording of the Anglia TV knight on his horse which used to open TV each morning? Contact Peter Matthews on Colchester 0206 - 766543.

* WANTED (I'm perpetually hopeful!): Loop type set-top aerial made by Belling-Lee for VHF reception - this had a walnut bakelite base. Odhams Television Annuals of the 50s and 60s. *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 - 844130).

* WANTED: Does anybody know where I may obtain a replacement CRT for the Sony TV9-90UB 9" dual-standard TV. Tube type is 230DB4. Would prefer a new one if possible. Also wanted: Philips N1700 VCR, cheap! *Practical Television* for 1976 Jan., Feb.; 1977 Aug., Oct.,; 1978 Jan., May; 1979 Aug., Oct., Nov., Dec.. Does anyone have any spares for the Philips LDL1000 series reel-to-reel VTR, which they want to dispose of? Martin Loach, Oxford 0865-735821.

* WANTED: Pye V4 or VT4 TV, Pye broadcast equipment, the mauve and light blue valve type. What have you? Michael Bond, 0733-53998.

* WANTED: index to *Practical Television* volume 28 (1977/78). The magazine itself cannot help - was it even printed? Martin Loach, Oxford 735821.

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

* WANTED: any recordings of Test Card C music (1950s until mid-1964). Keith Hamer, 7 Epping Close, Derby, DE3 4HR.

* WANTED: old camera tubes and other imaging devices sought for the BATC's collection. Also data sheets or technical articles relating to same (can photocopy and return within a few days if preferred). Also seeking an Orthicon to fill a gap in our historic collection. Peter Delaney, 6 East View Close, Wargrave, Berks., RG10 8BJ (tel: Wargrave 0734-403121).

* WANTED: 12" CRT type Emiscope 3/18 or Mullard 31/16. Norman Newboult on Cambridge 0223 - 63983.

* WANTED: Test Card C, either as a card or as a transparency. Also sight of the service manual for the HMV 905 7" TV-cum-radio of 1938. David Looser, Maris-

tow, Holbrook Road, Ipswich, IP9 1BP. Tel: 0473-644589 (day), 0473-328649 (evenings).

* WANTED: Circuit diagram and/or servicing information on Philips TVT/5M dual standard solid state crosshatch generator. Geoff Turner, 111 West Malvern Road, Malvern, Worcs., WR14 4NG. 0886-32453.

* WANTED: *Practical Television* index to volumes 1 and 28. I also require some back numbers in the last 10 years. Martin Loach, Oxford 0865-735821.

* WANTED: Independent Television trade test music lists for the following periods: (i) Jan - Jun 1958, (ii) Jan - Jun 1959, (iii) Jul - Dec 1959. Bob Jones, 215 Longheath Gardens, Croydon, Surrey, CR0 7TR. Tele: 01-656 3887. All costs will be reimbursed. [*If you get any response, PLEASE let us know, Bob. Many readers would also like to see this info!*]

* WANTED: *The Quatermass Experiment* and *Quatermass II* by Nigel Kneale in Penguin paperback form. Dicky Howett, Chelmsford 0245-441811.

* WANTED: To buy or copy, all costs reimbursed. Original Bush TV service manuals for TPO1583, TP1421, TP1431, TP1380, TP1396, TP1375 and TP1473 (TV103 to TV118 series); Pye model LV30 original manual and Murphy 'Astra' series UHF/625 converter kits original service data. I already have a circuit diagram for the latter. I am also still looking for a Murphy 'Astra' series TV + Radio/625 convertible, model V789 or V783. Dave Hazell, 0993-771373.

* WANTED: A pre-war vision-only receiver - good price paid. Rudi Sillen, Limberg 31, B-3170 HERSELT, Belgium.

* WANTED: pre-war HMV or EMI radios, paperwork or consider cash sale (offers £30 plus). Andrew Denton, 41 The Grove, Norton, Malton, Yorks., YO17 9BW. 0653-694804.

* WANTED: Photocopy of service sheet for a 9" Ferguson 941T and for Channel type T2 405-line pattern generator, both of which I am working on. Dave Hooper, 2 Cypress Lawn, Templeogue, Dublin 6W, (Eire).

* WANTED: I need a small 9" or 12" 405-line TV or else just the cabinet and back only. Also, does anyone have a 9" GEC in bakelite cabinet? Open for swap/cash. Ian Beckett, Gorran, Chackmore, Buckingham, MK18 5JF. Tel: 0280-813448.

* WANTED: 1960 Ferguson Transvista, Philips TVette, Sinclair Microvision pocket set, any other 1950s or 1960s 9-inch or smaller TVs. Barrie Portas, 4 Summerfield Avenue, Waltham, Grimsby, DN37 0NH. Tel: 0472-824839.

* EXCHANGE: various 405 line recordings on VHS tape or Sony CV2000 format for others. Andy Emmerson, 71 Falcutt Way, Northampton, NN2 8PH.

* EXCHANGE: I have 29 copies of *Television*, January 1968 - July 1970 (with 1968 complete) to swap for *Television* Sept 1984 - April 1985 inclusive. WANTED: pre-war EMI/Murphy/Ultra/Ekco TV, prefer table model. Alistair Jones, tel: (work) 0743-232391.

* CALLING ALL DXers! Keep up to date with *Teleradio News*, the only magazine

for dedicated enthusiasts. Six issues a year cost you just £6 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.

* HELP! I am desperately in search of mains drive belts for Ferguson/Marconiphone reel-to-reel recorders. I just cannot obtain them anywhere. The specific model is 3247/4247 and part number 08C8-110001. Perhaps someone out there has some spares - if they could drop me a line I would be grateful. Paul Pearson, 10 Osborne Road, Hartshill, Stoke-on-Trent, ST4 7PF.

* 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.

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

* FREE! Pye console TV, model VT17CDL, complete. You collect! Contact Jeff Horstman on 01-549 7444 (work).

* TELEMAX PT/V2352 forward projection TV unit, made in 1952. Floor-standing cabinet approx. 2 ft cube. On wheels, with jacking leg to angle display 3 ft x 4 ft or larger on screen or wall. It has an add-on converter tuner for second programme reception. The instrument was made by Telemechanics Ltd of 3 Newman Place, Newman Street, London W1. It has a booklet of instructions for focussing drill, etc., also layout and circuit diagrams. Since no further 405 transmissions are available, this TV is of no use to me as an OAP. I would be pleased if you are able to find or suggest a home for this TV. Mr J. Heckel, 21 Beechwood Close, New Road, Ascot, Berks., SL5 8QJ. Tel: 0344-885696.

WHY NOT WRITE FOR 405 ALIVE?

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

If at all possible, please TYPE your contributions using a dark, black ribbon. I don't have a lot of time to spend retyping and editing: I'd much rather print stuff exactly as it comes in!

Contributions on computer disk are particularly welcome and your disk will be returned. I can handle most variations of IBM PC, Amstrad and CP/M disks in 3", 3.5" and 5.25" size but please process your words as an ASCII or WordStar file. I cannot handle BBC or Macintosh disks, and if in doubt please ring first on 0604-844130. Thanks.

JKY SERVICES (Dave Higginson)

- ALL WORK GUARANTEED!

WATCH YOUR OLD LINE TXs!

THE BACK PAGE

* 405 Alive is the newsletter of the 405 Line Group, an independent, informal non profit-making group devoted to the study and preservation of old television technology. It is sent to subscribers without further charge and thus has no cover price. This publication is not subsidised by any other organisation. Publication is at approximately three month intervals, normally in January, April, July and October.

* Editorial correspondence should be sent 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 - thanks.

* Advertising rates. Classified: free to subscribers. Display, 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. We swap newsletters with the following allied interest groups. For details of the BRITISH VINTAGE WIRELESS SOCIETY send SAE to Gerald Wells, Vintage Wireless Museum, 23 Rosendale Road, London, SE21. To join the BRITISH AMATEUR TELEVISION CLUB send SAE to Dave Lawton G0ANO, Grenehurst, Pinewood Road, High Wycombe, Bucks., HP12 4DD. NARROW BANDWIDTH TV ASSOCIATION: send SAE to Mr N Reynolds, 6a Collingbourne Road, London, W12 0JQ.

* 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. Send SAE for details.

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 ...

You send us a cheque for £8 (made out to A. N. Emmerson), which will pay for a year's subscription (four issues). The address is 71 Falcutt Way, Northampton, NN2 8PH.