CQ-TV

THE MAGAZINE

for all Hams interested in

AMATEUR TELEVISION TRANSMISSIONS

Produced for the British Amateur Television Club

December 1951 CQ-TV Number Eleven
3rd year.

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Editor's Note

As this is the first number of our third year of publication, besides being Christmas, a review of technical progress may of interest and encouragement. We have proved that using simple 200 line 50 frame sequentially scanned equipment, results over a closed circuit can be as good as those received from the BBC over the air. Our Dutch friends have shown that on 2 metres at any rate, results transmitted over the air are similar to fringe area reception of the BBC. Other members have shown how a 405 line double interlaced picture can be produced, although at this time it is doubted whether the video equipment available is of sufficient quality to take advantage of this. The RCA 5527 tube is now in use by some 15 stations throughout the world, not including the USA, and has amply justified its makers' claims. In spite of repeated enquiries, no other source camera tubes at a reasonable price has been located.

For those with insufficient cash to afford a 5527, the sale of large numbers of scanning tubes of the ACR1 and 2X series at 5/- each has put about 45 members on the active list. Telestill and telecine results can be made as good as the 5527 results, although it has been found difficult to lay down hard and fast values due to small differences introduced in construction. Experiments with colour and stereoscopic TV are in progress; the extremely useful RCA 931A photocell, available very cheaply surplus, has not proved such a boon for colour work, due to its high blue sensitivity. Once again, no alternative types appear to be available at reasonable prices.

Many interesting and more specialised enquiries have come in from various sources, industrial firms, research people, and so on. They have asked for information on simple TV arrangements for a variety of purposes, many of which are trade secrets, of course, but the majority of which are to do with remote indication of meters, the monitoring of large scale experiments from a distance, etc. There are amongst the members doctors, lawyers, and possibly also Indian chiefs; many big names in commercial TV are hiding incognito amongst us, as well as many who know "absolutely nothing" (they say).

Unfortunately, owing to expense, few members are working on actual TV transmission on the air. Nevertheless, those who are in that position are steadily breaking new ground. It may not be generally appreciated that wideband video modulation of a 70 cm carrier, say, using readily available tube types and circuits, involves probably more work than was required when amateurs changed from 440 metres to, say, 10 metres. The private and unpaid experiments going on at VHF have already put the United Kingdom at the top of the VHF activity list, and the video-only workers can only express their thanks to the VHF men, and wait for that simple, inexpensive, easy-to-copy circuit.....

From the time in 1949 when there appeared to be no technical literature or information available on the subject of amateur TV work, we now have a fairly comprehensible list of references and data. Circuits

of every unit of a complete TV system have appeared at one time or another in the pages of this magazine, and as better methods are found, so they are presented for all to use. It is hoped that this system of exchanging information on the rather specialised equipment in use will continue as before, because, with its limited circle of interest, no radio magazine can at the moment offer space for such articles as a "New Type of Interlace Generator", and the like.

In conclusion, it is hoped that commercial firms will be able to help still further in the future, so giving us better results from better equipment.

And so, the Season's Greetings to you all. May your YL or even XYL have the kind thought to put a 5527 in your stocking; may the outlook be brighter in 1952, and your TV rasters brighter still. More power to your elbows, and sufficient from the British Electricity Authority!

73s

Michael Barlow.

This Month's Short Notes:

Remember that the Club AVO Electronic Test meter can be borrowed gratis from G2D US, 40 Regent St. Stotfold, Beds.

If you are dealing with kVs, remember this jingle from QST:

Here lying dead is Stupe Dorrans,
His XYL is sickly -
He hunted trouble wearing cans,
And fried his brains darn quickly!

For SALE: GEC Oscilloscope, brand new. Cost 22gns take £15. Baird Tape recorder cost 58 gns take £48. Write H.Cohen, 15 Pitmaston Court, Goodby Rd, Moseley, Birmingham 13.

35mm movie camera lenses 6" f4.5, 4" f2.9 Eymo, 2" 3.5 Tessar; Parvo Debrie hand driven 35 mm cine camera with attachment for electric drive, 300' capacity, rough body but otherwise OK, has 35 mm 3.5, 50 mm 3.5 and 75 mm 3.5 Tessars. Reasonable offers from BATC members, or will exchange for TV gear. D.P.Nolan 3 John St, Co Wexford, Eire.

Photographs of telestill or telecine units are wanted for reproduction.

No, Algernon, that lecture on "High Fidelity in the Home" was NOT what you thought.....

Contrary to popular rumour, the BATC sub will remain at 5/- this year.

PAØZX is running a TV sked at 2100 GMT on Saturdays on 3785 kc/s; he says that by applying some shading, the picture has been immensely improved; details later.

The Sunday morning sked appears to be between 1100 and 1130 up at the HF end of 40 metres. Listen for 5AKJ 5BLV 5ZT 3CVO (6UW). G3CVO on 145.1 Mcs and G3GBO on 1776 kcs are often on duplex evenings and weekends.

Mail for the H on Sec/treas/editor to St Johns College, Cambridge after Jan 16th, please. G6UW (Cavendish Lab) will be active for messages....

What are your opinions on the relative merits of vertical and horizontal polarisation of aerials on 70 cms? If vertical, we can use receivers covering only the 432-428 mcs section due to presumed cross-polarisation effect, but we can use the same aerials as fone types if horiz. ????

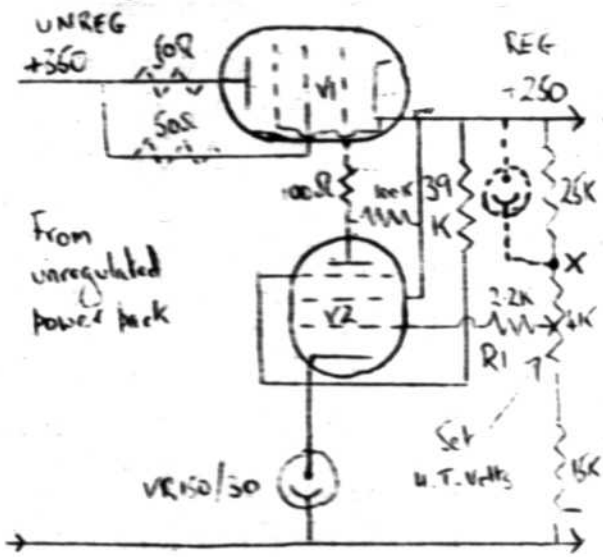
o.d.

TELEVISION POWER SUPPLIES - AND HOW

By Don Bradford, G3GBO.

Power supplies for TV transmitters fall into three general classes: what might be called "normal" supplies of about 350 volts or so for time base and pulse generator use, regulated supplies of 250 volts for the camera amplifiers and accurate timing equipment, and the EHT pack, the latter depending on the type or types of CRT in use.

The use of a stabilised supply for timing circuits is an obvious idea, and where the current drawn does not exceed 30 mAs or so, tubes such as the VR150/30 can be used to good advantage, being put in series if higher voltages are required. Much better stability can be achieved by using an electronically regulated power pack. For video amplifier use, an unregulated supply has an internal impedance substantially equal to the reactance of the output filter condenser, and in order to avoid VLF ocillation, or motorboating, plus such annoyances as picture "bounce", this condenser needs to be in the order of 500mFd. As the usual value is about 32 mfd, low frequency distortion can be introduced. The use of a regulator circuit drops the impedance to well under 1 ohm, and the smoothing condensers come back into the economical - and surplus- size.



The circuit shows the usual method. As the current drawn drops and the output voltage tends to rise, the current passing through the control tube V2 increases, and its anode potential drops, icreasing the bias on the series tube V1 and tending to restore the output voltage to its original figure. The cathode of V2 is held at a fixed potential by the VR tube. Still better regulation can be produced by holding the [redacted] at a fixed value with another VR tube (shown dotted).

When the HT required is not too high, it is quite possible to use the same LT supply to V1 and V2. Ingeneral, a voltage drop of about 100v should be allowed for, so that a 350v input from a standard power pack will give a 250 volt regulated output. The choice of tubes is pretty wide; at V2 6SJ7, 6J7, SP61 or 41, EF50, EF91 or similar will do. The series tube must pass the full HT current required, so a power tube is called for, such as the 2A3, 6B4, 6L6, 6Y6, 807 or 6AS7. A good surplus one is the 4volt CV73, which can be used with SP41/VR65A control tubes to use up an old 350-0-350 4v 4v transformer. If still more current is needed, two or more series tubes can be placed in parallel. In this case, the provision of 50 ohm grid and anode stoppers is essential to prevent oscillations, and are worthwhile incorporating in any case. Odd negative resistance oscillations due to the cathode VR tube can be cured by connecting a 0.1 or higher condenser from cathode of V2 to ground. A voltmeter across the output will form a useful check for such troubles, and in any case enables the HT to be reset to the correct value by operating R1.

"....BEING AN M.I.5 REPORT ON THE ARTICLE "TV FOR ALL COMRADES"....."

Translated by our Welsh representative Dai Poll, GW1TV.

Moscow , December 11th.

As all true party members will be aware, considerable secret and fundamental research has been going on in our television laboratories at Novasigorsk ever since the invention of Nipkow's disc by Comrade Syn Klevel. Afetr the formation of the Marconi Wireless Telegraph Co by Vassilovsky, work proceeded apace, and the RCA 5527 Iconoscope was produced in 1907 by Gorgov and Pedrov, at Rostov. Basic research at the Rostov Collective Animatographical Institute (known as RCA) has also been done on photocells, these being named Pecs in honour of their inventor, Andrei Pec, who also wrote Beethoven's Fifth. Colour television, denied the workers in capitalist countries by the machinations and intrigues of the British Secret police, known by the code letters BBCTV, was first demonstrated by Rota Diskov at the Moscow Convention of 1925; this event was fully reported in the current isue of the RS NKVD Bulletin of the time.

With the opening of the world's first television service from the transmitter at the Alexandrov Palace in 1933, technical advances were rapidly made. The televising of the Volga boatrace from a moving sledge, the use of Steppe waveforms and red-level clamping, and the universal use of the cathode fellow-traveller have made Soviet TV the envy of the Wall Street warmongers. FM ("From Moscow") transmissions are now relayed by microwave links invented by Gecco to the stations at Holme Moscow and Kharkov Shotts. The invention of the universal TV receiver by Votno Mainz has brought cheap television within the means of every good party worker who has no need to buy food or clothes; indeed, as the worker comes home from work, nibbling a samovar sandwich, thinking of the peace doves he has made as a voluntary effort in his lunch hour for despatch via Box 88, he is often to be seen reflecting on the glories of Soviet culture and life, as brought to him by the famous Commissar for Broadcasts to the Soviet, or CBS.

Naturally, programmes have become world famous. Indeed, suppression of car ignition QRM by the NKVD has now made it possible to see such old friends as Kuffin the Kulak, Rudolv the Red Nosed Cossack and Andy Vyshinsky. For the older viewers there are such programmes as Stricture Page, On Your Collective, and What's My Party Line?. Outside broadcasts are another regular feature, for such occasions as Racing from the British Zone border. An extension of this service will be made as soon as roubles are made available, in which case it will probably be a regular thing to take viewers to Siberia at frequent intervals.

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NEW MEMBERS THIS MONTH

W.Howarth	G3LHF	2, Mervyn Rd, Owley Wood, Weaverham, Cheshire.
Alain Decavel	F9MN	31, Rue Nationale, Tourcoing, Nord, France.
B.Cederqvist	OH2NL	Minna Canthg. 1, Helsinfors, Tolo, Finland.
J.W.Woodfield	G3???	5, Hitherbroom Rd, Hayes, Middx.
Tom Carmalt		87, Ravenstone Rd, West Hendon, London N.W.9. (13.
H.Cohen		15, Pitmaston Court, Goodby Rd, Moseley, Birmingham)
G.A.Newman	G2FIX	41, West St, Wilton, Nr Salisbury, Wilts.
G.H.Brown		44, Salcombe Drive, Chadwell Heath, Romford, Essex.

G2DUS and Iconoscope camera in 1950

1951 Style: Mr. K.A.Y. Russell's five camera unit.

AMATEUR TELEVISION STATION

G3CVO-TV

QTH: Cheyne Cottage Dukeswood Drive Gerrards Cross Bucks
Tel: 2935

SOUND **VISION**

To RADIO

/ /19 Many thanks for your report on my signals

73s

Ur RS
Mi Sigs CD

B.A.T.C. Op.

Title 8 A specimen B.A.T.C. Q.S.L. card . . These are available from the Secretary, minus the call sign and QTH.

OUR PHOTOS!

By way of a Christmas treat, the Editor of CQ-TV has arranged, at TREMENDOUS expense, of course, to have printed some photographs of some of the TV gear belonging to members. Unfortunately many of those in my possession are unsuitable for reproduction by this method; prints should be half-plate for preference, with no large areas of black or shadow, and with not too much fine detail. We shall be delighted to let you know whether your print is any use for this feature, so send them in now.

The first one shows Ivan Howard's 5527 Iconoscope camera, mounted on an old floodlight stand. This unit was completed in 1950, and has since been overhauled. It was this unit that did such good service at the RSGB show in 1950. The power supplies and pulser are mounted at the base of the tripod. (Photo by courtesy of The Bedford Times).

The second one shows a 1951 model, completed in August by Cdr Russell, of Bournemouth. The camera unit contains time bases, video amp, viewfinder and turret for lenses. Each unit is hinged, the whole opening out for ease of servicing.

The third was to have been a photo of PAØ equipment, but these are not suitable. We have therefore filled in with a reproduction of one of the BATC QSL cards. These are available on glossy white card @ 1/- per dozen. Your call and QTH to be overprinted by you. Note the RS scales for the sound transmission, and CD for the vision. The latter stand for Contrast and Definition; the first corresponds to the S meter reading of sound practice, and the D scale is marked in Mc/s of response. Thus, at Gerrards Cross I give Alexandra Palace R5 S9+ and CD+ D2.5, Sound 41.5 Mc/s Vision 45 Mc/s.

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K.A.Y.RUSSELL'S 5527 EQUIPMENT

The writer has had a simple ½pl telestill scanner in use for some time, and results were good; however, it was decided to buy a 5527 and try and get live results. The complete system now consists of a timing unit, a sync and blanking generator, the camera unit, camera control unit, monitor, and regulated power supply.

The timing unit employs a 25 kc/s oscillator, a 4 stage divider to 50cs, and the usual discriminator and reactor valve to lock the whole thing to the mains. A magic eye indicator is used as a beat detector for locking purposes.

The 12.5 kc/s and 50 cs o/ps from this unit are fed to the sync and blanking shaping stages. A sawtooth phase delay circuit is incorporated to give control over the phasing of sync and blanking. As a 250 line sequential scan is used, no attempt is made to insert half-line pulses during the frame period.

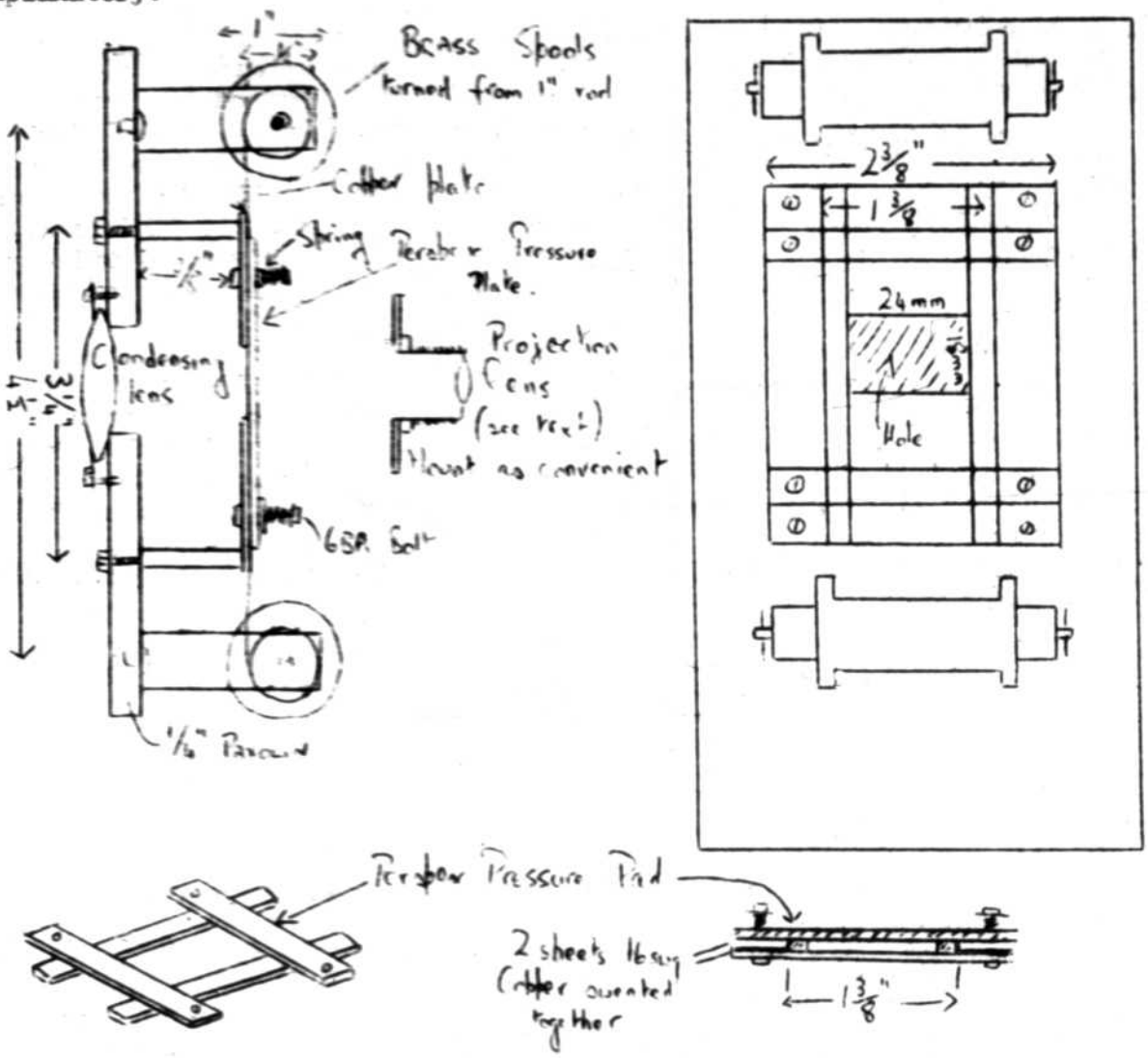
The frame and line scan generators for 5527 and viewfinder are EF50s with 6SN7 amplifiers. Also in the camera unit, the preamp consists of 5 6AG5s and a 6J6 CF in the RCA circuit. The viewfinder amp uses 3 6F12s with shunt compensation, and in the camera control and mixer unit are 2 6AC7s and a 6V6 giving an 80 ohm composite signal out. Total, just 50 tubes.

The lenses are 2" f3.5 and 1.4" f2; optical focussing is carried out by racking the whole 5527 backwards and forwards on a sliding base in the usual way. All units are finished in grey crackle and chromium.

A SIMPLE 35mm FILM-STRIP GATE FOR TELESTILL WORK

By Grant Dixon.

This little unit is designed around the lens from one of the ex-RAF camera guns available surplus, and, when placed between scanning CRT and PEC, provides for scanning of 35mm transparencies. The sketch is reasonably self-explanatory:



The spools are mounted on Meccano rods held in U-shaped brackets. Some form of tensioning device is desirable, such as a piece of string wound around the axle and secured by a spring. The copper plate must be very well polished where it comes into contact with the film, and the same applies, of course, to the perspex parts; if desired, the whole could be made from copper, and chromium plated professionally. The lens is a 1" f3.5, and the condenser is of about $2\frac{1}{2}$" focal length and 2" diameter.

For those who wish to design their own optical systems and who are unfamiliar with optics, a few notes on the design of the optical system may be of use. Consider a film-gate used in conjunction with a scanning CRT, and 931A P EC.

For the condenser lens $\quad \frac{1}{a} + \frac{1}{b} = \frac{1}{\text{focal length.}}$

Diagram illustrating the optical theory

(Contd).

To make the apparatus more compact, it is usual to use two or more condensing lenses; if two are used, then

$$\frac{1}{\text{foc. length A}} + \frac{1}{\text{foc. length B}} = \frac{1}{\text{foc. length A+B}}$$

For the projection lens

$$\frac{1}{c} + \frac{1}{d} = \frac{1}{\text{foc. length}},$$

and also:

$$\frac{\text{height of CRT raster}}{\text{height of image on film}} = \frac{d}{c}$$

The focal length should be as short as possible, otherwise c and d become inconveniently large.

The light gathering power of the lens, which is important, is determined by the "f number", which is:

$$\frac{\text{lens diameter}}{\text{focal length}} = f.$$

The smaller the f number, the better the lens. Unfortunately, short focus lenses of small f number ("large aperture") are expensive. The gun camera lens is f3,5, and with reasonably short values of a,b,c, and d (c. 4"), it is necessary to run the 931A at higher gain than in the absence of the lens system.

The writer will be glad to be of assistance, but does not know a source of gun cameras or lenses!

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IT COULDN'T BE EASIER DEPT, or Put Out The Cat, Ma, I'll Be Late Tonight

Here is a late flash from Doug Wheeler. As he was walking down Lisle St, he saw a familiar looking tube in the window of a certain shop. Sure enough, ' twas a 5527 - yes! And the price? 35/-! However, Doug felt it was his good day, and offered the chap 30/-, and was accepted! He reports that the tube appears to be brand new, works perfectly, and that they have NO more..... Happy Christmas, Doug.

REMEMBER THE REGULATIONS CONCERNING PUBLIC EXHIBITION OF HIGH VOLTAGE GEAR.

COLOUR CORNER

By Grant Dixon.

(If there is a demand for articles on colour TV transmission, this feature will be a regular one).

Owing to the phenomena of persistence of vision, the eye will combine individually coloured pictures, if sent in rapid succession, into one complete colour picture. This is the basis of all colour TV systems. The actual process varies from system to system; either frame, line or individual picture elements, or dots, can be individually coloured. In this connection, it is worthwhile to point out that the "compatibility" of the system, i.e its ability to reproduce a black and white picture on normal TV sets at the same time as colour pictures on a colour TV set, and the special types of colour receiving CRTs necessary for some systems, make the economics of colour TV at least as important as the technical difficulties when making a choice between the systems.

For the amateur, the simplest method, which is also the simplest, cheapest and most compatible, is the rotating colour disc method used by Baird, Pye's and CBS. Unfortunately, using 931A cells, which are blue sensitive, the colour reproduction is not too good. Since all colours can be made up of suitable mixtures of the three primary colours red, blue and green, for perfect colour reproduction it is necessary to transmit each picture in its entirety in three colours. Since the frame frequency must be sufficient to avoid flicker, the frame time base is normally run at 150 cps for a 405 line double interlaced picture, giving six scans per picture. The writer has a 50 cycle 200 line telestill unit (non-interlaced), and he tried running a 3 colour disc in front of the receiving CRT, giving a 16 2/3 cycles picture repetition rate. Colour flicker was very bad, but by doubling the frame time base speed to 100 cycles, this trouble was eliminated.

At the receiving end, a 3 or 6 sector colour disc is rotated in front of the 5" CRT. This disc is about 13" in diameter, and must be kept in synchronisation with the transmitter disc. Where both are locked to the mains and synchronous motors are used, this is a simple matter of switching the receiver motor off and on until it locks in on the correct colour. A full red picture is often used as a colour test signal. When the picture has to be transmitted, it is necessary to use a colour pulse to lock the motors together, and on the Pye system a small pulse is transmitted every third frame for this purpose. The colour of the sectors can be varied to a certain extent to correct for colour deficiencies in the system.

A similar disc is used at the transmitter ahead of the camera; three outputs corresponding to the various colours are amplified separately and mixed in the correct proportions. The following notes on amateur systems may be of interest:

Two Colour System — It is quite possible to use a red-orange and a blue-green filter to give a two colour picture. Alternate frames are the same colour, so a simple 50 cps blanking pulse is all that is necessary. The disadvantage is that reds and blues will never be seen as true colours.

Three Colour System — A rotating disc is placed in front of three 931As, which work into a common load resistor and video amp. A blanking pulse switches off the two cells not required as each sector comes round; in this way it is possible to preset the red, blue and green gains to give a balanced picture. To overcome the excess blue sensitivity of the cells,

the writer is trying an orange filter instead of a pure red at the transmitter, and a yellow filter over the face of the receiving CRT.

Two methods of synchronism may be used:

(i) a synchronous motor may be used, and the frame time base locked to the mains in the usual way, or

(ii) the motor itself may be used to generate a sync pulse by a commutator or other means, and this can be used to lock the scanner time base. Of the two, the first method is preferred, as there is less chance of the receiver wandering.

Suitable colour filter material is sold by Strand Electric, 29 King St, London WC2 @ 5/3 per sheet 24" x 20". The material is cellulose acetate, called "Cinemoid", and suitable colours for three colour work are red No 6, Green No 39, Blue No 20. A deep orange is No 5A. To cut the sectors out, it is best to make a metal template and use a razor blade. The sectors may be cemented together by overlapping them slightly and applying a little acetone to the edges.

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TV AT THE 1951 RSGB EXHIBITION

Although the BATC did not show any equipment at this year's RSGB show, there were several sections of interest to members. English Electric showed various products, including an Image Orthicon and a 16" metal CRT, and the Television Society had their latest televisor design on view; cases and cabinets of useful sizes were shown by several firms. On the amateur side, the RF section was well represented. A large and varied array of 70cm plumbing on both the receiving and transmitting sides raised envious eyebrows amongst many. The equipment shown, in general, would not be difficult or expensive to reproduce, although some of the tube types are not too easily come by.

The main TV exhibit of John Erskine and H.Grubb, G3FNL, was not working, unfortunately, during the writer's visit, owing to the indisposition of John, who apparently is the only one who can get the interlace generator to function! On show was the pulse generator and attendant monitor (12"), connected to a low power 420 Mc/s Tx. Modulation was on the grid of the GGT PA via a cathode follower, with a DC clamp and bias stabiliser. The receiver fed another 12" CRT. No attempt was made to transmit any form of picture, a standard black cross being the pattern transmitted. As G3FNL explained, they are more interested at the moment in getting a good raster across before tackling the picture side of things.

Many BATC members were at the show, amongst them G3GBO, G3AST, G2DD and G6UH. Some useful information changed hands when the BATC members met such stalwarts as G2FKZ of the South London VHF group. Charlie, who is very well known for his researches on 70 cms, in the course of a somewhat protracted tea interval, gave the opinion that CV90s, 88s, 82s, and to some extent 53s, QQ06/40s, 832s and 8012s were not much use for our purposes; he has no axe to grind, but recommends the Standard 3B240M GGT costing 37/6d only. This is rated at 12 watts o/p at 250 Mc/s, and appears to be just the job. He suggests always driving the PA straight through, and not trying to use two tubes as a p-p doubler or trebler. Incidentally, a double triode is to appear shortly at about £3, and should run to the max TV value on 70cms.

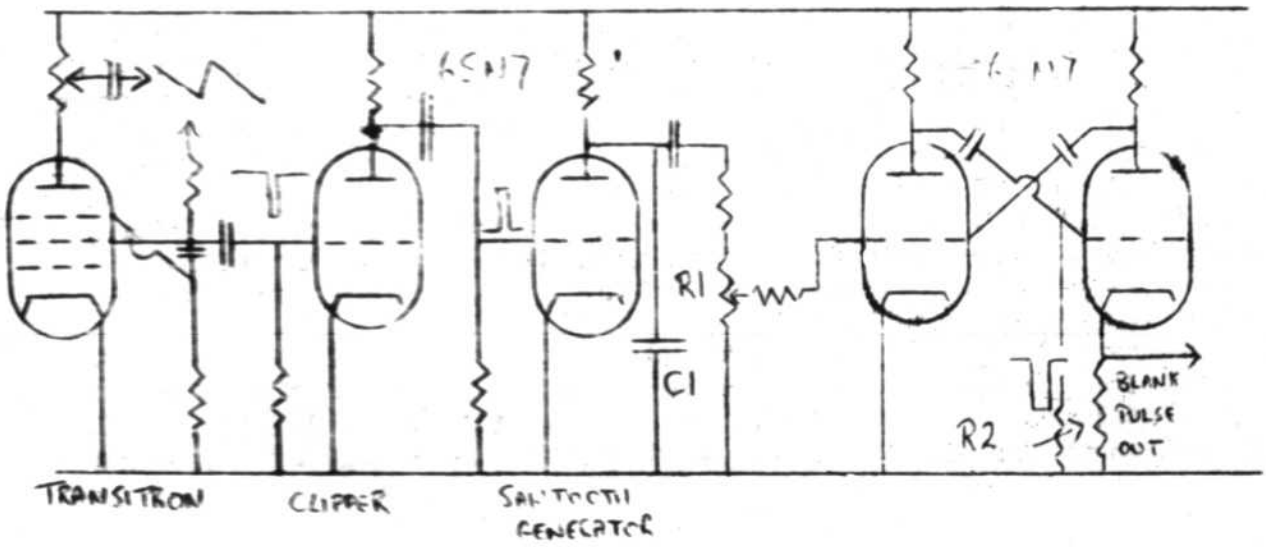
We were delighted to renew aquaintance with many trade personnel, and hope that our association will continue to be as fruitful as in the past.

USEFUL CIRCUITS SECTION

There seems to be a lot of unnecessary trouble caused by people being scared off pulses and their problems. Lets have a look, therefore, at what pulses we need, and how to get them. Clearly, line and frame sync pulses are needed; ideally, these are of 10µS and 390µS duration, or about 10% and 2½% of the total line and frame periods. For amateur use, a pulse to space width ratio of 10:1 for the line and 20:1 on the frame is quite near enough. Naturally enough, for an interlaced system, the pulse lengths must be more accurately maintained.

As is well known, the sync pulses correspond to zero modulation. If there happens to be a white object at the right-hand side of the picture, the carrier level must change instantaneously from 100% (white) to 0% (sync), and this cannot be done. Under these conditions, therefore, erratic sync will occur, and the top lines of the raster may be very unsteady. In order to give the system a chance, then, guard areas of 30% black level, called "blanking"pulses, or "front and back porches", are inserted on either side of the sync pulse. On the line, these are 0.5µS in front and 6µS after the 10µS sync pulse; on the frame, no front frame porch is transmitted, but the rear porch is of 1.98 mS duration. Inother words, on the line, the picture occupies 83.8% and the blanking plus sync 16.2% of the total line time (98.77µS). For the frame, the figures are 18.68mS and 1.38mS, or 188.5 lines and 14 lines.

It is quite possible to dispense with blanking pulses in simple equipment, and many people do this, employing the actual (shorter) sync pulses for this purpose. However, it is obviously better to be able to control the width and position of a separate blanking pulse. A fixed phase relation between sync and blanking pulse can be produced by passing the pulse through a delay line of the required type. However, a more flexible system is shown in the diagram. The action of the condenser C1



produces a sawtooth waveform, which is applied to the multivibrator via R1. The adjustment of this determines at what point on the sawtooth the m/v will operate, and hence is labelled "Pulse position". R2 merely alters the m/v time constants, and becomes "pulse width". Line and frame pulses are mixed in a double diode or triode, and then added to the picture signal, after which the sync is added. (To be continued).

"WHAT THE OTHER BLOKE IS DOING...."

Quite a good batch this time; it must be the cold weather.
Newcomer Tom C arnalt explains that he has been very busy with PA systems, etc, plus the small matter of keeping his XYL and family in food. On the other hand, Alain Decavel, F9MN, who is at present doing a short course with Pye's at Cambridge, has become most enthusiastic, and is therefore promptly promoted to the position of French representative. Alain is normally a 10 and 20 metre fone man, but is going to get down to TV when he returns to France in January.
H.Cohen is building a wired TV system to view chemical experiments from a (safe?) distance. He is getting a 5527 for the job. Although licensed on and off since 1919, OM Cohen, ex-G2WTS, is not on the air at the moment.
Doug Wheele, G3AKJ, has contacted OMs Brown and Erskine who are in his area, and by all accounts something good should come from this Romford group in the near future. More details later.
Bill Hall is now out of hospital, and confesses that after receiving CQ-TV for sufficiently long, he has now been bitten, and is starting on a telestill unit in the near future. Bill is leaving the mag carefully "scattered" around the shack of G3GEC, the GEC Club station - what abt it, oms? He also says that he is no longer able to supply lighting gear for shows.
Quick notes from W.E.Bartholomew and Jack Porter to let us know they are still with us, but busy....
Harold Jones, G5ZT/T reports that his 5527 and 12" monitor are in good order, and he is now having a go at 420 Mc/s with a 6V6 6V6 832 832 into two 8012s, with Parker modulation. The receiver uses a 420 Mc/s cavity, a crystal mixer, 9002 osc and 60 Mc/s IF. He says that Fred Rose, G3BLV/T has been up to his ears in BC TV since the opening of Holme Moss, and has not yet had time to get down to his 5527.
M.Wild has not had much time for TV either as he has just "acquired an XYL" as he puts it! Congratulations from all of us, oc.
Pete Parkin was demobbed on Nov 9th, and has also passed the ham exam. He is going to build a telecine unit with a 3" Mazda 4205 blue tube. Pete is another who listens in on the TV skeds.
Ray Hills has been laid up for a month, and is now attending evening classes. He is busy building TV converters, and trying bigger and better aerials.
John Plowman G3JST reports that he is rebuilding his stabilised power unit. In common with many others, he wants to know if any members have tried scanning faces, etc, by turning the scanning CRT onto said object, and picking up reflected light on 931As. As he says, this sort of thing is ideal for exhibitions and demonstrations. Can anyone try it easily? How about Fred Rose, for instance? I should be very interested to hear of any results, positive or otherwise. Incidentally,
John is putting 1250 volts on his 4103E4 scanner; it is rated at 500 volts in fact, but doesn't seem to mind the extra.
His lens is an f4.5 35mm enlarger type. He passes on a tip for those using 6F33s as mixers: do NOT put the video in on the grid and blanking on the suppressor, but vice versa.

Grant Dixon has been hard at it, of course. His experiments with colour TV are reported elsewhere; in the meantime he has a 5FP7 scanner in use, and reports that it is much better than the ACR8 for scanning, F9MN please note!. He points out that the Acr8 is actually a double layer tube, and hence the higher the voltage the better; he has 3½kV on his at the moment. Grant hopes to be in London at the New Year.
H.C.Barton has built up a telestill unit with an ACR8 as scanner, and VCR97 as monitor, the whole employing Premier kit TBs. The video amp is an American design with plenty of HF boost. Experiments with blanking insertion are in hand.
From IRELAND, David Nolan reports that there is not much TV activity, although VHF enthusiasm is on the increase. DX reception of BBC TV on the local mountain, combined with a simple frequency changer to 45 Mc/s, and a pr of 815s as PA give full coverage to the Dublin area. Not unnaturally, considerable negotiations are in progress between the BBC and the Irish P.O! David's own experiments with stereo and colour TV have continued; he is using 5BP4 black-and-white tubes are used at both scanner and receiver, but with the blue responsive 931A, colour balance is not good at the moment. Common TBs are used, and Kodachrome transparencies. With polaroid inserts on the colour disc, a stereo effect is produced, but this permits of improvement. David would like to put on a ham TV show in Dublin, and would like to contact anyone who can supply gear, costs to be covered by an entrance fee, etc. Members of the trade would be invited to support the show, which would last for about 6 days. Air transport can be laid on. Suggestions to 3, John St, New Ross, Co Wexford, Eire.
From FINLAND, Borje Cederqvist writes that he is getting going, but is keeping quiet about it at the moment for business purposes. More news next time, but Borje certainly has the right idea.
From HOLLAND, Hendrik de Waard writes in that their weekly programme on Friday nights on 2m continues; official TV from Lopik continues, but does not reach Groningen, of course. Nothing startling in the ham TV line, however.
From AUSTRALIA and NEW ZEALAND, ZL2RP sends copies of Radio Electronics, in which are appearing details of a simple telestill unit. Shortage of surplus gear causes difficulties, of course.
From CANADA, Bill Cheek says that TV is rather at a standstill, as all the boys are expecting to be "posted" to defence jobs. DX reception of US TV stations continues - and no licence fees, either!
From GERMANY, DL1BB sends a regular copy of the fb magazine DL-QTC. Although no TV activity is reported, the good VHF activity combined with the recent opening of the Bremen 625 line TV station should bring results soon. How abt it, 'BB?
From FRANCE, F9MN states that as far as he knows there is no amateur activity. The open ing of the Lille 819 line relay station, via a microwave link, is another step forward, and Alain expects to stir up activity by suitable notices in REF, etc.
From S.AFRICA, only silence this time , although ZS6GX and ZS5HZ are known to be active.
Finally, from Gerrards Cross, G3CVO reports that he cannot afford a TV licence at the moment. He is now active on all bands 160m-2m, with txs for 70, 25 and 13 cms. Skeds will be arranged if asked, until Jan 14th or so. After that, a message via G6UW will reach me too. TV work on the pulser units continues.