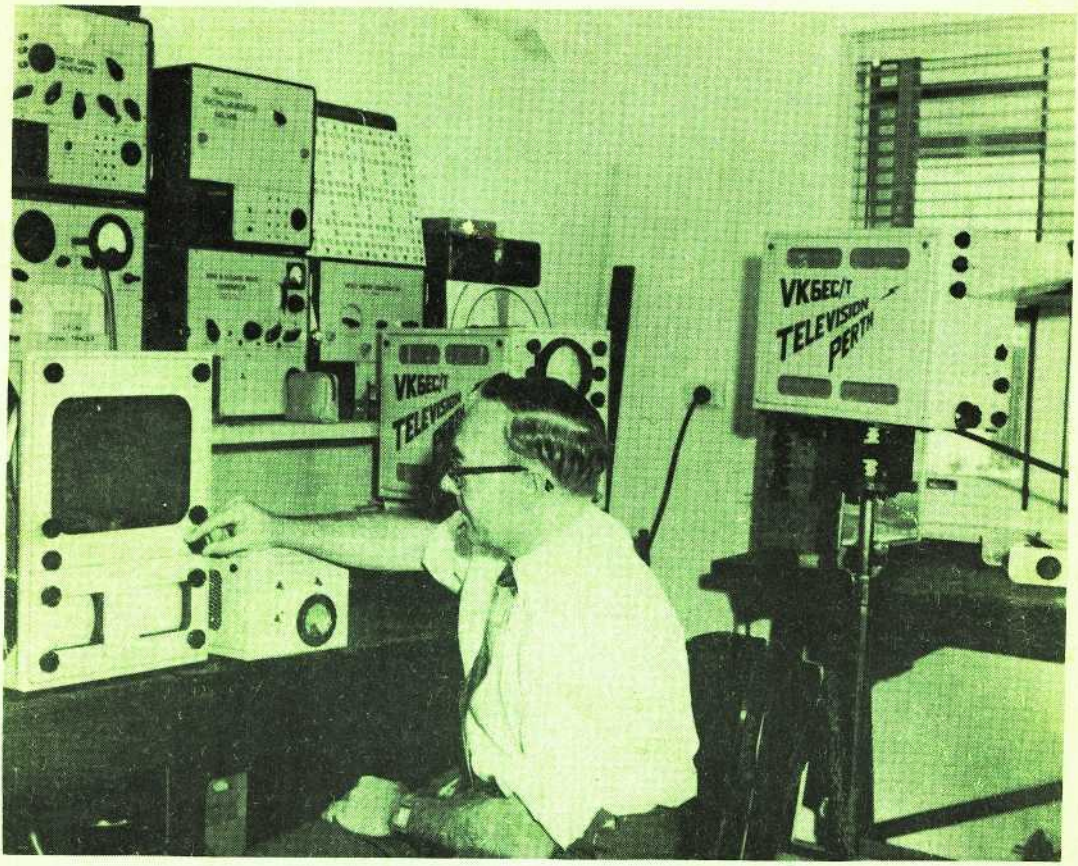

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Editorial

Since the last edition several things of interest have occurred

The fourth convention is now over and a full report appears elsewhere in this edition; however, one point that Ivan Howard mentioned is very important, not only to British members of the club, but to all television amateurs. At the present time a large number of club members hold licences for television operation in the 430 mcs band. This band is now becoming a practical proposition for short range communication work and as such is being watched with considerable interest by many prospective users. It is of the utmost importance therefore, that as many stations as possible start radiating. If the use of the band should come under consideration for commercial reasons the television amateur is most likely to suffer, and only if there are many active stations operating will there be any grounds to claim priority to the band. This is most important, and publication of results from as many stations as possible goes even further to show that the band is being used, so do send in any information of interest.

A souvenir booklet was produced for the convention; it contained activity reports from different groups and other items of interest. These were sold at 6d each and there are still over 100 copies left. These are being sold at 6d each, post free, and the offer is open to all members.

D.S.Reid is now Hon. Secretary of the B.A.T.C. following the elections at the A.G.M. held during the convention; Doug Wheele stood down as he now finds insufficient spare time to do the job. I feel sure that all B.A.T.C. members will join with me in thanking Doug for all the hard work that he has put into the club over the past years, and in wishing Don Reid every sucess.

At the A.G.M. the main discussion point concerned the status of groups wishing to run as separate organisations and yet remain connected with B.A.T.C. It was approved that clubs should be able to affiliate themselves to B.A T.C., and in that respect it was decided that the committee should further investigate and discuss affiliation conditions. The committee are circulating group secretaries with a list of proposals and the final affiliation conditions will appear in CQ-TV 59.

The 1958 Radio Hobbies Exhibition is being held in the last week of November and this edition might just appear in time for it. B.A.T.C. will be having a smaller stand than last year with only one or possibly two cameras in action. We will be on Stand number 54.

As this is the last edition before Christmas I would like to take this opportunity to wish all BATC members a very happy Christmas, and to remind you that subscriptions will become due on January 1st, 1959.

73,

John Tanner

G3NDT/T

THE FOURTH CONVENTION

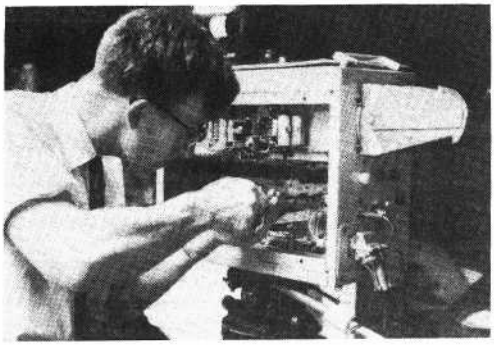
The Fourth Amateur Television Convention was held as planned on September 6th in the Conway Hall, London. Although the night before saw the worst storm in Southern England for many years, attendance was well up, although not as good as the previous convention. The programme for the day consisted of a general show of equipment in the morning with the Annual General Meeting in the early afternoon. This was followed with more demonstrations of equipment and a film sent over from Canada. Equipment on show came from all over the country; Colour from Ross-on-Wye, an Image Orthicon camera channel from Chelmsford, Staticon cameras from High Wycombe, Cambridge. Stotfold, Manchester and Chelmsford. Also there were several Flying Spot Scanners and a 5527 camera. Items of U.H.F. and microwave gear were also shown.

Colour: Two club members showed colour: Grant Dixon brought his colour camera channel from Ross-on-Wye, displaying the pictures on his 5" monitor, and Jack Terry brought his 14" colour monitor to work with Grant's gear. Although the frame timebase of the colour monitor was rather non linear the pictures showed very good colour. The mastering of the mechanical problems involved in a 14" colour monitor is a great achievement. More details of the camera gear appear elsewhere.

Monochromatic Video gear is now reaching a really high standard. Possibly the most noteable item this time being the Image Orthicon camera. This has been built and designed by Brian Partridge, G3KOK/T and is an extremely compact, efficient unit.

Ivan Howard, G2DUS, brought his Staticon camera and although this has been running now for about 4 years without modification, the results were really good. The Cambridge Group showed the camera that usually sits on top of Matilda. Due to lack of time Matilda was not running as Roving Eye, but the camera was running and caused much interest due to its fine pictures and smart appearance. The only other working camera was Mike Cox's 5527, and although the pictures were reasonably good it was unfair to judge the results as power supply problems restricted the available light. Mike Cox also had a monoscope running. The High Wycombe Group's flying spot scanner seemed to be giving good pictures, although it is rather difficult to tell much from a 2½" monitor! Martin Lilley's F.S.S. gave the usual good pictures until the negative supply for the 951a gave out.

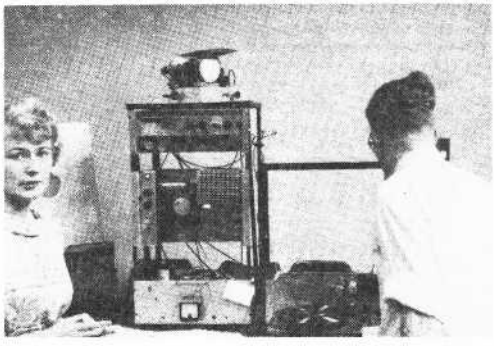
All the other gear there on the video side was not working, being shown as static exhibits. Included in this section were several more Vidicon cameras; larger 'studio' cameras from Roger Berral, Mike Soames and the High Wycombe Group; and smaller 'industrial size' ones from Gordon Sharpley and John Tanner.



ARTHUR CRITCHLEY tightens the lens turret on the Cambridge group camera.

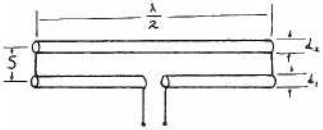
R.F. and Pulse gear Peter Burrage showed a wide range of 3cm microwave equipment, including his complete microwave link that is to be described in CQ-TV shortly. Also a 430 mc/s R.F. amplifier using a pencil triode caused considerable interest. Bob Flood-Thain and Brian Partridge both showed 70 cms convertors for vision and Brian also brought his 438 mc/s vision Tx. Possibly the smallest item to arouse considerable interest was Brian's new pulse generator, this used Transistors and home made printed circuits, and was running for the whole day giving a 405 line interlaced output. The whole unit was only about 5" x 3" x 3".

The Convention went off very sucessfully and was enjoyed by all, special thanks are due to Mrs Wheele, Mrs Ball and Miss Sylvia McKay for their help with the refreshments, and to Miss Pauline Gandy who looked after reception. Please send any suggestions or ideas for the next Convention (1960 Probably) to D.S.Reid.

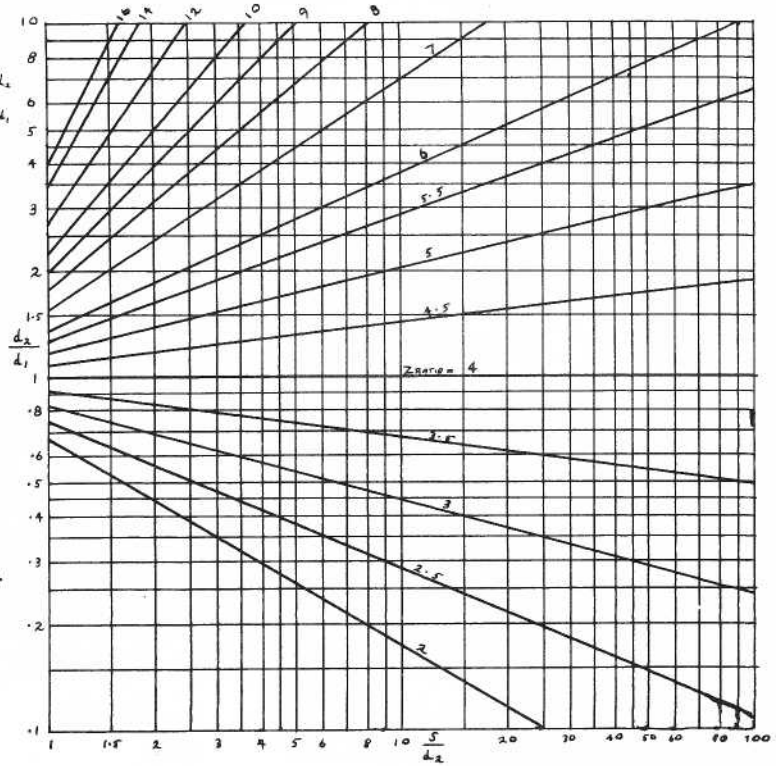


Mr & Mrs Mike Cox and gear.

DESIGN CHARTS



Impedance ratio of a two element folded dipole when used in place of a single dipole.



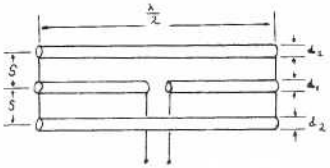
These design charts have been drawn by Peter Burrage and he adds the note that a good way to match the aerial system to the feeder is to vary the distance 'S', keeping the bottom of the array at least 6 ft above the ground.

book — review

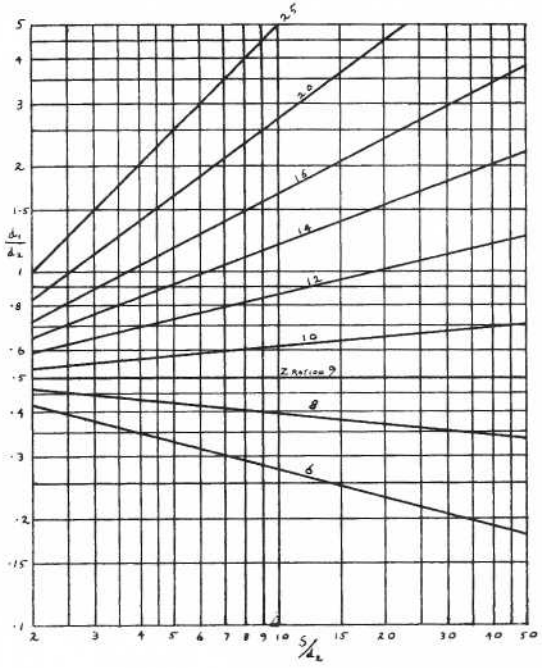
Television Engineering, Volume 4.
Amos and Birkinshaw.

This book, published by Iliffe at 55/- is the last of the series of TV engineering text-books written by Amos and Birkinshaw of the B.B.C. It covers general circuit techniques, and includes chapters on the following topics: frequency dividers, counters, D.C. restorers, D.C. clamps, gamma control amplifiers, delay lines, equalisers, line and frame scan output stages, and shunt regulated amplifiers and cathode followers. The maths employed is not too advanced, and the practical examples which are worked out give a helpful idea of the values of components to use in the circuits described. In general, the amateur will find all the chapters useful, although the two dealing with equalisers are unlikely to have direct application for other than professional work. Those who intend to build vision modulators would do well to study the chapters dealing with shunt regulated stages; by the use of this technique it is possible to save considerable H.T. current. It is a little dissapointing to find only 1½ pages devoted to the two diode D.C. clamp, but taking the book as a whole it can be well recommended as a readable and authoritative work. The price is unfortunately rather high for the amateur but it is probable that local libraries can be persuaded to purchase copies.

D.S.R.



Impedance of a three element folded dipole when used in place of a single element dipole.



LOOKING FORWARD with Mike Barlow.

That excellent but expensive magazine the "Journal of the Society of Motion Picture and Television Engineers" (JSMPTE) often has articles of interest to BATC members. The July 1958 copy was very much so for its news of recent developments in CRTs.

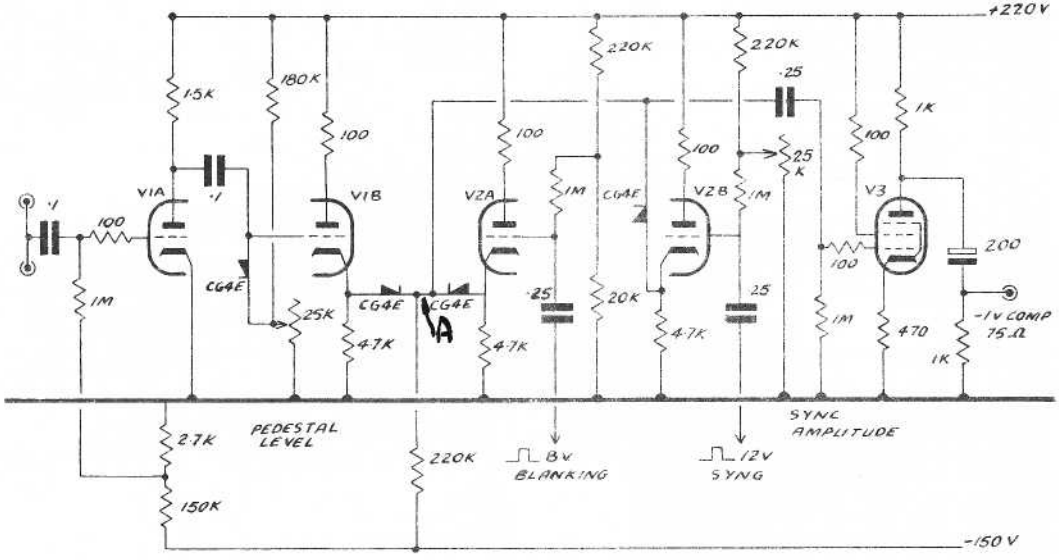
Although you can now get 110° 21" tubes only 10" deep, the problems of scanning and maintaining focus over the face area are considerable (one firm here actually advertises as a Service to Servicemen that it uses NO 110° tubes - and also NO printed circuits!) and it is apparent that any form of "flat" CRT is a possible money-spinner of gigantic proportions. Both Gabor in London and Aiken with the Kaiser Co. in California have developed tubes. Dr Gabor's was shown to the IEE earlier this year; a feature is that vertical scanning is intrinsic to the tube by the interaction of electrostatic fields. The Kaiser tube described in the JSMPTE can be 24 ins square and 2 ins thick. A standard CRT gun can be used and this fires electrons down one side of the tube. A system of 10 or so deflection plates about 1" wide are at 1kV and carry one set of deflecting signals (which may come from a special tube with a 10 sector anode, etc). The beam is then turned through 90° and is further deflected by another set of strips right across the tube. These are at final anode voltage of say 20kV, so that deflection circuitry is highly unorthodox! Resolution far in excess of standard tubes is claimed, 400 lines to the INCH being obtained in some models. An interesting feature is that by making the deflection strips transparent, the tube can be viewed from either side (titles permitting). A great deal of money is being put into the project as the tube is ideal for use as a windscreen in an aircraft, when all the radar and instrument data can be displayed in a pictorial form without interfering with the pilots normal vision.

Another development of great interest is the transparent phosphor, used especially in the aircraft case mentioned above. The inside of the CRT must be painted matt black, and now there is no light reflected from the phosphor due to room lighting. The screen appears quite dark. A picture was shown of a radar plot at 40ft-L on the CRT screen lit by a searchlight producing 10,000 ft-L on a white. This means that you could watch a TV picture in full bright sunlight - and the possibility of the application of this principle to cine screens should not be overlooked. How about a Drive-In cinema in full sunlight?

Since the phosphors are transparent, several can be superimposed, and alternate layers of RGB for instance enable colour pictures to be produced. BATCs may like to ponder that if the layers are made really thick a 3-D presentation is quite possible. Taken all round it looks as if the next few years may see quite a revolution in our accepted TV reciver design, and this will be of great interest to all of us- especially if it means a lot of "old" TV sets will become a drag on the market!

A NEW VISION-BLANKING-SYNC MIXER

by G3KOK/T



This unit is designed to be an economical and efficient way of combining non composite video with sync and blanking pulses to give a composite output of 1 volt into 75 ohms. It was designed to be a composite part of a complete sync generator, hence the high impedance inputs for sync and blanking. Simple one valve amplifiers could be made to run the unit from standard pulses.

The heart of the circuit is the three Xtal gate. Three cathode followers take video, sync and blanking respectively and feed into three Xtal diodes with their remote ends joined together. In order that the small amount of voltage required to open up the diode from 0 volts shall not give a false pedestal, the mixing is done at a fairly high level. Let us assume that we require 10 volts of composite signal from the gate; i.e. 7 volts of video and 3 of sync. To achieve this the non comp video must be amplified by 7 in V1a. To obtain this gain with a low anode load it was decided to use fixed bias on the amplifier stage, in which case a cathode resistor is unnecessary and there will be no current negative feedback from the cathode. This amplified video which is negative in polarity must now be given a D.C. component. To do this a Xtal diode which opens on positive going volts will hold the most black parts of the picture at the voltage to which the black level control is set. V2a takes positive going blanking pulses and its grid has on it a fixed voltage of 20 volts, the grid excursion of V2a will be from +20 volts to 20 + Blanking amplifier volts. If the cathode of V2a goes more positive than the cathode of V1b then D3 will open and D2 will close. From this it can be seen that if the blanking pulses take the cathode of V2a just more positive than the cathode of V1b when its voltage corresponds to picture blacks, then during blanking period D3 will open and D2 will be shut, resulting in the video signal being completely shut off at point A. The difference in voltage between signal blacks and blanking may be adjusted by the black level control resulting in a variable pedestal level.

One of the most frequent difficulties with V-S-B mixing is the combining of syncs with blanked video in an absolutely D.C. manner. It is often found that with large variations of video or pedestal level the sync amplitude varies stightly. To overcome this it was decided to insert the syncs at point A in a completely D.C. manner. To do this a third cathode follower which takes positive going syncs is used. This cathode follower also feeds point A via a diode, D4; as in the case of the blanking if the cathode of V2b goes more positive than V1b or V3a cathodes then D4 will open and the other diodes D2 and D3 will close. The amplitude of syncs may be varied by the sync amplitude control which varies the voltage on V2b grid and hence the voltage on V2b cathode.

To maintain fast rise times on the output of the gate point A is returned to a negative rail through a 220K resistor. This means that if a diode shuts off with a fast rising pulse before point A can reach the correct voltage then the 220K resistor will soon bring point A back to the required voltage. To explain this a little more; consider a sync pulse on V2b cathode, the pulse is positive going so that as soon as the diode opens stray capacities at point A are soon charged up to the right voltage due to the low output impedance of V2b cathode and the low forward resistance of the diode. When this sync pulse finishes V2b cathode goes rapidly negative and the strays at A will have to discharge through the diode forward resistance, but if the fall time is very fast the strays will not have discharged before the diode shuts off. The discharge path is now through the back resistance of the diodes (several Megohms) and whatever else is loading point A. Hence we should have to load point A with a low resistor to chassis (1.5K) which would upset the cathode follower D.C. levels considerably, or as in this case we return A to a negative point through a fairly high resistor, the rate of discharge is then very high in Volts/Second but A has only to drop two or three volts which it will do very quickly. With this circuit the fall times obtainable in practice are better than .1uS.

The last feature of this diode gate circuit is its ability to peak white clip. If the blanking pulses at the cathode are only 8 volts in amplitude then if the video signal increases to 8 volts or above (peak white is negative going at V1b cathode) then V2a is again more positive than V1b and hence the video is shut off at peak whites of excess amplitudes. The voltage at which it clips depends on the amplitude of the blanking pulses.

The output stage, V3, was designed to give phase reversal to economise on valves, the stage has a large amount of negative feedback from the cathode to help both the linearity and in dealing with the 10 volts of signal from point A. The signal from the anode of V3 is fed into the 75 ohm output by a 200uF 350 volt capacitor, the tilt on the output waveform is about 2% which is reasonably acceptable. A word of warning: the 1K resistor across the output is there to stop the full H.T. wandering unsuspectingly round unterminated cables, a thing to beware of, especially at exhibitions in wet marquees!

DUTCH CONVENTION

SIXTH NETHERLANDS AMATEUR (VERON) TV CONFERENCE.

This was held at Eindhoven on May 11th, 1958 and attended by some hundred TV amateurs. Most of these are engaged in TV receiver building, but the interest in camera building is also on the increase again after the lull in the last few years. Well known camera and transmitter experimenters at the conference included PAØLQ, PAØLAM, PAØAR, and PAØZX. Apart from demonstrations by PAØLQ with pattern generator and BBC standard generator, by PAØLAM with simple but very neat auxiliary camera equipment and by PAØADA and others of simple unit receiver design, there were worthwhile demonstrations of Philips colour Television. A flying spot system was shown, which very faithfully reproduced colour slides both on a direct view tube (shadow mask type) and on a projection type receiver. These demonstrations were preceded by a clear explanation of principles by Mr F. de Vrijer (ex PAØXW) from Philips. The lecture and demonstrations certainly provided a stimulus for amateur activity in this field.

There was plenty of opportunity during the conference to meet old friends and make new ones as well as to exchange ideas and circuit diagrams. Great interest in the activities of the B.A.T.C. was expressed by those present and new B.A.T.C. membership applications resulted from the conference. During the discussions it was agreed that Netherlands amateur TV be transmitted preferably between 420 and 432 Mc/s. Depending on the character of the transmission, e.g. short or long distance, the accompanying sound will be transmitted either on a subcarrier 5·5 Mc/s above the video carrier or in a different band, preferably in the 144Mc/s band. These decisions are important also to British Amateurs who may expect transmissions beamed to England from PAØLQ. Harry is planning a colossal beam for 70 cms. and already has his Tx in an advanced state of completion. We all hope that his efforts will not prove in vain and that G-PA DX-TV communication will shortly be established.

PAØZX.....

VIEWFINDERS

michael barlow

Most of us, being human, leave the viewfinder for our camera until last - something we feel can be built in a jiffy with no trouble, so we'll do it at the same time as the painting and the finding of matching knobs..... Certain well-known BATC cameras have run for years without viewfinders, the operator relying on a nearby floor monitor for seeing what he is taking. Whilst simple wire frames or gunsights enable the cameraman to frame the subject roughly (unless the lens is changed), obviously he cannot focus correctly. Brian Partridge used an audio focus method with fair success; a pair of headphones across the camera video output, and focus for maximum HF response!

Whilst optical lens-type viewfinders can be made, there is little doubt that the electronic viewfinder is most satisfactory and easiest for the average amateur to build. Clearly the viewfinder is basically just another monitor, but there are some design points to be thought about.

Firstly, consider the matter of timebases. The viewfinder is going to be part of the camera, so it is possible to use some of the camera circuits for the viewfinder as well. Assuming that the camera TBs are driven, that is they are not free-running in the absence of driving pulses, the question is whether or not the viewfinder timebases should be driven, or should run from a composite video signal via a sync separator. If the viewfinder TBs are also driven, then the sync separator is saved. It may be possible to drive both camera and V/F deflection coils from the same output stages, so saving more tubes and also giving the cameraman clear indication that the camera tube is being scanned - saving scan failure circuits.

Less controls will be required. If the drive pulses are correctly timed to occur before sync pulses, then the camera and viewfinder will "pre-scan" the picture, giving a safety region that can be extended all round the picture in which the cameraman can glimpse mic booms, unwanted personnel etc before they appear in the transmitted (central) part of the picture.

If the viewfinder TBs are fed from a sync sep--arator, the unit becomes independent of the camera and can be used as a spare moniotr if required. If the video feed to the V/F is on a standard plug, it can be looped through the V/F into additional monitors near the camera, for commentators, studio monitors and so on. Conversely one of these monitors can be pressed into service as a viewfinder in an emergency.

A similar problem arises with the video input to the viewfinder. Should this come from the camera-to-CCU line or from the main CCU output? The simplest feed is usually straight from the camera pre-amp, but this may be at low level, will not be blanked, and will not include any compensation or shading signals. It will give an indication of correct camera operation in cases where the CCU is at fault. Feeding the V/F from the main video outlet requires an extra video cable in the main camera cable, but has the advantage that the picture will be a much better one, which will be easier for the cameraman. In addition it is easy to superimpose other signals from other cameras into the viewfinder for tricky effects shots so that the cameraman can align his scene accurately with the external signal.

Less difficult to decide is the matter of power supplies. The viewfinder can pick up power from the camera or contain its own supply - which may be weighty and upset the camera balance. With long camera cables it is usual to have the heater trans-former mounted in the camera, and this can be made large enough to feed the viewfinder as well.

These various considerations lead to the suggestion that contrary to normal amateur practice, the viewfinder should in fact be a self-contained monitor, detachable from the camera, with its own power supply, and running off standard level comp video. When working on the camera, or in the con-fined space of a small workshop, it can be used as a monitor separate from the camera.

Mechanically, the viewfinder tube should not be less than 5" diameter unless an enlarging lens is to be used, in which case a 3" tube is just enough. The display should be black and white of maximum contrast and highlight intensity (green phosphor tubes are not very satisfactory) and a good rubber hood should be available. Otherwise the operator will not be able to use the viewfinder in bright sunshine. It may be advisable to arrange the hood, or the complete viewfinder, to tilt, so as to avoid straining the cameramans neck for low and high angle shots. The tube focus must be first-class since this picture is to be used for optical focussing. Normal operating controls should be placed so that they can be reached whilst the operator has his head in the hood. The video amplifier response should be good so as not to confuse the focussing. A dim cue-light should be mounted inside the viewfinder hood to indicate to the cameraman that he is on the air. Using a tube such as the surplus 5FP7, or the MW13-35 or 5WP4, the whole viewfinder can be built in a case about 12" long, 7" wide and 6" deep. However, bear in mind that the CRT takes some scanning, and both the scanning fields and any PM focussing arangements may upset the camera tube unless both are well screened.

WANTED August 1957 edition of 'Electronic Engineering to complete set for binding.
D.S.Reid.

FIRST GW/T CONTACT

GW5JGA/T received on Portable Ekco with G5KOK/T convertor in GW5FDZ/T's car. Photo '5JGA.

Following a number of 40 metre QSOs on Sunday mornings between Derek Whitehead, GW5FDZ, Llandudno and John Lawrence, GW5JGA Prestatyn during 1957, arrangements were made for 430 Mc/s tests between the two stations but, due to a large mountain in the way, a direct 430 Mc/s signal path was impossible.

On 7th of April, 1958, a test card was radiated from GW5JGA/T to Llandudno and this was received by an amazed GW5FDZ/T, sitting in his car on the top of the Great Orme at Llandudno, armed with a 6 over 6 slot and a G3KOK convertor into an Ekco 12V portable TV-a distance of 18 miles.

The next weekend, 13 April, GW5FDZ/T transported his complete /T shack, by car, to the Hotel on the Great Orme known as 'Randy Turpins Place'. After reconnecting all the gear everything worked first time and very soon a Test Card was being radiated to GW5JGA/T, who after prolonged fiddling with the oscillator injection on the convertor, received an excellent picture. Transmissions of various captions and slides were made for 30 minutes each way, making the first GW/T two way contact. Some improvements resulted from adjustments of the vision Tx at both ends. The sound link was on Top Band. On Monday, May 5th at the Railway Hotel, Prestatyn, GW5FDZ/T and GW5JGA/T gave a demonstration of closed circuit and 'on the air' Amateur TV, to a meeting of Flintshire Radio Society members.

Unfortunately, Derek Whitehead left Llandudno to go to Canada almost immediately after the completion of the tests, and so left GW5JGA as the sole /T station in GW. John Lawrence is now looking for someone with whom to do some more tests, so what say anyone!

STATION DETAILS GW5JGA.

GW5FDZ/T

405 lines interlaced.
Flying spot scanner MW36-44 - 931a.
Vision Tx. 432 Mc/s
18 Watts in to 832A. Power tripler.
Aerial. 6 over 6 slot. 30 ft high.
Receiver. G3KOK convertor - Ekco T207

GW5JGA/T

405 lines interlaced.
Flying spot scanner. 7FP7 - 931a
Vision Tx. 432.6 Mc/s.
16 Watts in to 832A. Power tripler.
Aerial. Corner reflector. 30 ft high.
Receiver. G3KOK convertor.
Ekco T161.

VIDICON TELECINE

For a long time the 405 and 625 line members have had all the luck with telecine equipment, since the films can easily be run at 25 pps instead of 24, in which case the picture speed is in sync with the TV field speed, and no shutter bar appears with an ordinary projector; also flying spot scanner systems are fairly easy to make (see CQ-TV 31) and give much the best quality. It is also known that acceptable results can be obtained even if the projected film is not quite at 25 pps, say ± 1/2 pps.

525 line members will be pleased to know that by using a vidicon, they can televise their cine films at 16 or 24 pps whilst keeping their TV systems at 30 pps without modifying the projector in any way at all.

The simplest way is by far the most satisfactory. Set up the projector in the normal way to give a reasonable sized picture on the screen. Point the vidicon camera at the screen - Bingo! The success of the scheme depends on the lag of the vidicon, so it is necessary to get a balance between screen illumination and vidicon lens stop. Too much light will cause flicker to be noticeable on bright scenes; too little light will give "trailing" on the picture. As an example a Bell and Howell 601 projector with a 750W lamp giving a picture 24" x 18" on a beaded screen required a 1" camera lens to be at f2 for both colour and black and white stock. More than one projector can be used for continuous programmes, or slides can be inserted too.

WHAT THE OTHER CHAP IS DOING

Amateurs save big BBC show

BACK after a 10-week break, the BBC's "Panorama" last night took viewers to Jamaica (to hear reactions to race riots), to Venezuela (to follow up their recent revolution) and into the sky (for the Comet IV versus Boeing 707 battle).

It was all very solid and competent, writes Andrew Smith. But it lacked light relief which should be part of any panoramic view of life.

The nearest approach to entertainment was the introduction of what Richard Dimbleby called, "A Third Channel." This was G8PYT, a complete outside broadcast unit built into an old taxi by a group of Cambridge amateurs.

Part of the "Panorama" programme was put over by the unit and the picture was reasonably clear.

Perhaps these headlines are rather optimistic, but it is true that the Cambridge Group appeared on B.B.C. Television as part of the first in a new series of 'Panorama' programmes. This followed a visit to the Convention by the Panorama film unit and further details have been given in the report on the Convention. Some of the Chelmsford Group have made a film recording of the B.A.T.C. part of the programme and this is available to members. A tape soundtrack goes with it and the film is 16 mm with sprocket holes on one side only. The tape is recorded at $7\frac{1}{2}$"/sec. The film should be run at about 25 frames/second but the main objection to running at slower speeds is the difficulty of keeping the tape recorder in step! Other news from Cambridge is the Mike Soames now has a Staticon camera in operation and now needs mechanical attention to finish it off. Mike's monoscope is giving very good pictures from the definition and noise pointof view but there is still an objectional streak that refuses to be cleared! Several other Cambridge members have projects under way, Peter Bendall is now G3NBU/T and it is hoped to start the link from Cambridge to Ely again, although there has been some local QRM on 70 cms recently.

John Cronk, G3MEO/T, is busy trying to sort out the bugs in his Vidicon camera. John is active on 144 Mc/s sound and hopes to have a 4X150A on 430 before too long. Mike Cox, also in London, is anxious to start activity again in London and would be pleased to hear from any other London members interested. His address is: 25 The Dene, Wembley Park, Middx.

M.W.Hefferman, Z64MH in Cyprus has been receiving TV signals from England, 405 lines, Persian Gulf, 525 lines and Italy, Russia, Hungary, Czechoslovakia all on 625 lines. All these are in Band 1. Dave Hooper, G3ICU is getting pictures out of his Staticon camera although there are still several minor problems to clear up, his tube is rather spotty, but not as bad as expected!

Ron Bassett writs from Southampton with news of activity in the 70 cms band Although there is no video transmission available yet tests have been carried out with G5IBI and G5GOP. On the Video side the Staticon camera is now resolving 5.5 Mc/s and results are good even at low light levels. A transistorised counter has also been tried, and this in conjunction with a 6J6 transmitter opens up the possibility for portable work. Norman Kay, Los Angeles, has built a transistorised 1846 Iconoscope camera and is now working on a transistorised Vidicon unit. An Automatic Video Tracking Unit' is the name given to an experimental unit that has been built up and this will probably be described in the next edition of CQ-TV. Jeremy Royle is now without any R.F. to modulate as his new QTH at Duddenhoe End (Near Saffron Walden) is too far away from G2WJ/T. Jeremy hopes to be able to take the Radio Amateurs Exam. next May. His new home is on a really good VHF site, being one of the highest points in Essex. Jeremy is representing the RSGB (and therefore BATC) at the meetings to decide on standards for Band 4 transmissions.

Grant Dixon is having a re-build following a gift of a rack full of 19" pan chassis and the possibility of obtaining a new tube for the camera, many members visiting the Convention will remember the high light level required. Also the monitor tube has gone slightly soft, is low emission and has a heater-cathode short with an intermittent grid-cathode short when hot! Have any members some spare MW15-55 tubes?

Arthur Critchley, St Albans and Cambridge, has been giving some thought to Colour Standards recently and has written an article as a result of this. CQ-TV 59 will include the article which is of interest and importance to all members of the club. Besides thinking about colour Arthur has been putting pen to paper to produce the result shown here:

NEW MEMBERS

NEW MEMBERS.

A. P.Ball, G5MZQ/T Senga, Herrington Grove. Hutton. Brentwood, Essex.
R. Barton, 11 Glade Rd, Marlow. Bucks.
W. T. Boon, VK2ZAB/T Corner Bunnerong Rd & Franklin Street, Matraville, Sydney. Australia.
W. Clarges, 25B. Iveagh Buildings, New Bridge St. Dublin.
R. Cobbold. 247, Bramford Lane, Ipswich.
A. S. Coombes, 120 Palace Rd. London S.W.2.
F. Constable, 59 Northolt Av. Bishop's Stortford
S.L. Crouch. G5MSN/T. 30. Largewood Av. Tolworth Surrey.
N.D. Davies, Evesdene. 195 Rayleigh Rd. Hutton, Brentwood. Essex.
S.R.Edwards. 3. West Halkin St. London S.W.1.
C.A.Evans. 9. Clunas Gardens. Gidea Park.Essex.
P. Glisch. W9ZDU. 2820 North 79th.St. Milwaukee 10 Wisconsin. U.S.A.
G.R.Goldsmith. Strathcombe. Gorey . Jersey. Channel Islands.
E. Harper. 11437. St. Gertrude St. Montreal Nth. Canada.
M.W. Heffernan. Asst. Chief Engineer. Cyprus Broadcasting Service, Broadcasting House.P.O.Box 824. Nicosia. Cyprus.
J.P.Hobbs. Flat A. The Rectory. Hougham. Nr.Grantham Lincs.
P.A. Johnson. The Royal Oak Inn, Poynings. Sussex
P. Jones. 43. Synge St. Dublin.
P.A. Jones.VK7PJ. Hillmorton. East Risdon Rd. Lindisfarne. Tasmania.
C.I. Kennedy. c/o Chief Engineer. Federal Broadcasting Corp. P.O.Box 8008 Causeway Salisbury. Southern Rhodesia.
F.M. Nolan. 9PA-VLT Box 110 P.Office Port Moresby Papua
M. Norman. VK2ZMN. 1074 Barrenjoey Rd. Palm Beach New South Wales. Australia.
C. Kelly. 22. Muckcross Av. Perrystown. Co.Dublin
J. Kiernan. 53. Lissadel Av. Crumlin. Dublin.
P. Lacy. 39 2nd. Av. Seville Place. Dublin.
T.W. Luxford. 90. Endlebury Rd. Chingford. E.4.
W. McKenna. 94. Main St. Bray. Co. Wicklow.
A.R. McWalter. Woodside. Wemyss Bay. Renfrew.
D.C. Miller. W9NTP. Waldron Ind. U.S.A.
N.J.Mitchell. VK4KP. 41. Highland St. Wavell Heights. Brisbane, Queensland. Australia.
F.W. Morris. 69a. Barrowgate Rd. Chiswick. W.4.
M. Murphy. Boherrabreena Water Works. Tallagh, Co. Dublin.
F. O'Sullivan. 25 Thornhill Rd. Mt. Merrion. Co. Dublin.
Major R.H. Petty. 3 Squadron U.K. Comcan Signal Rgt. Weald. Bampton. Oxon.
P.W.F.Porter. G3KMZ/T 51. Cavendish Drive, Edgeware. Middx.
C.L. Rabung. K9BYO 2529 Walter Av. Northbrook Illinois. U.S.A.
A. Solomon. ZS1SW. Box 142. Somerset West. South Africa.
K.N. Sood. 53. Camrose Av. Edgeware. Middx.
H.J. Templeman.26. St. Bernards Rd. East Ham.E.6
P.J. Walsh. 6. Cabra Park. Phibsboro' Dublin.
R.G. Welford. 30. Lyne Way. Hemel Hempstead.Herts
J.A. Wilkins. 91 Fox Lane. Winchester. Hants.

CHANGE OF ADDRESS

J. Williams. 125. St. Patricks Rd.Wilkinstown Dublin.
M.J. Chaney. 219. London Rd. Chelmsford.Essex.
J. Chalwin. Hazelerigg Hall, Loughborough. Leics.
P. J. Bendall. The Manor. Barron Mills. Bury St. Edmunds. Suffolk.

CORRECTION

L.A.F. Stockley. G5EKE. 125 Harbour Road. Wibsey Bradford 6. Yorks.

ENFIELD SHOW, 1968.

B.A.T.C. was again represented at the Enfield Town Show this year by members of the Chelmsford Group. A 'Roving Eye', or more correctly G5MFT/T's van containing the G5KOK/T Image Orthicon camera channel plus vision and sound transmitters was to be the main exhibit, but for various reasons the unit was unable to run mobile.

The usual frantic work in the days previous to the show produced most of the gear in suitcase like boxes mounted in shock absorbed frames, and the requirements for fairly short range omnidirectional aerials produced a design for a vertical co-axial dipole that worked really well.

The weather was one of the reasons for a lack of mobility but several of our convertors are now known to work after being totally submerged in water! Another difficulty was a somewhat overloaded petrol generator due to our not accounting for the 500 watts taken by the mains booster unit. However, the day was very sucessful, 'outside broadcasts' filling all our time, bringing sound and pictures of the various outdoor activities into the tent. The final event 'Beat the Retreat' was televised against a bright horizon in the fading light and although the results were not quite an Edinburgh Tattoo, it was enjoyed immensely by all.

G5KWD.....

The next edition of CQ-TV will include a map showing all BATC members in the U.S.A.