



P5



Newsletter of the Severnside Amateur Television Group

Summer 1999

New Faces

At the Group's Annual General Meeting on April 29th, the new Committee was elected:

Chairman: Ross Wilkinson, G0WJR
Vice-Chairman: Ian Bennett, G6TVJ
Secretary: Mike Stevens, G7GTN
Treasurer: Jacqueline Thorne, SWL
Other members: Jim GW3PYX, Ivor G1IXF, Dave GW0ROL, Brian GW6BWX, Matthew G0ECM.
Frank G0CEN has kindly offered to continue assisting with the P5 Newsletter.

Thanks to all who attended, and it is my pleasure to welcome some new members onto the Committee. Many thanks to retiring Committee members Paul Stevenson and Alan Tink for their sterling work on the Group's behalf over the last few years. Paul will continue to handle membership subscriptions for the Group (still only £6 per annum). His address is given later in this Newsletter.

Coming attractions

The **Longleat Rally** will take place on **Sunday June 27th**. The Group will be running a stand, where the yagi antennas and CD-ROMs will be on sale, and we will also be delighted to receive membership subscriptions and renewals.

Ross and Ivor will be giving a demonstration of ATV at the Bristol RSGB Group on **Monday June 28th**. Martyn reminds us that you don't have to be an RSGB member to attend.

Ken and Ross are organising an **ATV Activity Day** on **Sunday July 11th**. More details are given on page 2.

Beacons of hope

At last, the new output frequency has been confirmed as **10.065GHz**. This is 70MHz below the previous channel, which may cause problems if your satellite receiver will not tune down far enough. One solution is to change the dielectric resonator in the LNB. (The December *P5* gave details of a supplier of 9.0GHz resonators)



We now have a temporary low-power beacon transmitting the above test-card from the site, which should help you to tune in your receivers. The antenna is only a uni-directional one though, so don't expect to see it from the South!

Nigel G7JZP is building a new transmit antenna for us, and once the new hardware is complete, the repeater aerials should be relocated on the main tower at the Dundry site. Fingers crossed that we don't experience any more bandplan changes in the near future!

We will also be doing some work on the **GB3ZZ** aerials in the near future, so the repeater may be out of service (ie. off-air or running in a beacon mode only) for a short while. Hopefully this aerial refurbishment will result in worthwhile improvements in coverage.

ATV Activity Day

After enjoying the activities of the Contest last September, Ken G4BVK and I thought it would be a good idea to hold a similar event during the (hopefully!) warmer and lighter summer months.

Rather than assembling the considerable equipment used by G7ATV/P during the contest, we plan set up a small portable station on the Mendips one weekend, and activate the **23cm, 13cm and 3cm** bands. The aim of this event is to have some fun, and get some activity going, either from home-base or portable. All ATV enthusiasts are encouraged to come on during the event and exchange pictures with us (hopefully some live pictures, rather than just numerical captions?). As usual, talkback will be on 2n FM, around 144.750.

This event will take place on **Sunday July 11th**: Ken and I plan to be on site from early in the morning until we run out of contacts, weather or daylight. We'd also welcome visits from other members, to help with the operations, and maybe have a picnic, or even a drink at the local hostelry?

Please get in touch if you would like to set up any skeds during the day, or if you'd like to come along in person.

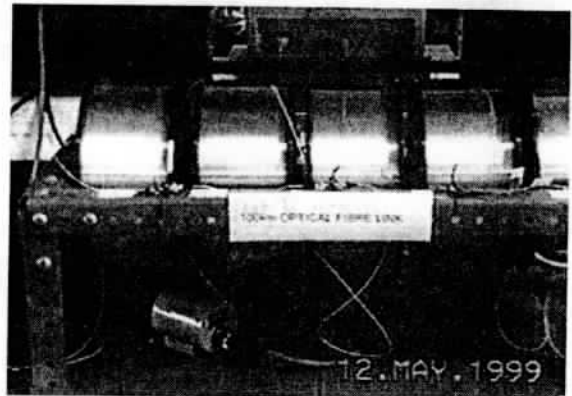
Making light of ATV?

During the recent Preview Day at the University of Bristol, I was involved in setting up a demonstration video communications link.

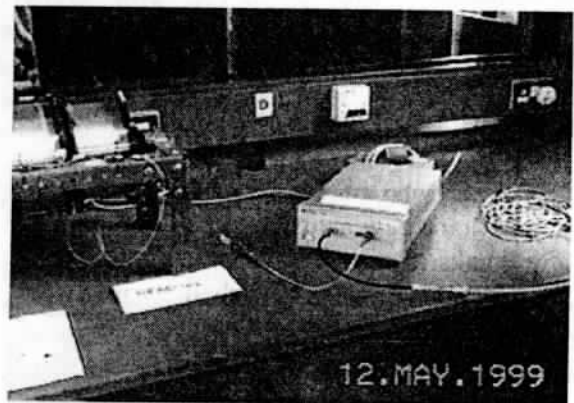
The video signal was transmitted across the room on a 10GHz FM radio carrier, and received using a modified satellite receiver. The UHF modulated output was then supplied to a rather expensive laser modulator, converting it to a carrier frequency of 200 terahertz (200 million megahertz)!



This modulated light was amplified with an Erbium optical amp, before being sent down 100km of optical fibre (enough to stretch from Bristol to Reading).



An optical detector recovered the UHF signal, which was then fed straight to a UHF TV receiver.



No degradation in picture was noticeable, except when the fibre was twisted (changing the polarisation). I later found out that the electrical bandwidth of the modulator was 19GHz, so we could even have sent the 3cm RF signal, (and all the rest of the spectrum) down the fibre just as easily!

My thanks to Adrian Wonfor and Dr. Richard Penty for providing all the expensive bits, and the expertise to set them up!

In addition to this demonstration, the same 10GHz signal was transmitted across Woodland Road to the Merchant Venturers' Building, where it was downconverted to 1.3GHz with a "remote LNB", and sent across the atrium on yet another radio link, before being displayed on a monitor: it's a hard life for a video signal!

Local 13cm activity

There is now another station in Bristol QRV on 2.3GHz. At the end of April, I worked Ken G4BVK a couple of times from the G3KAC Club Station. Ken was using a homebrew transmitter based on a Mini-Circuits VCO, and yielding about 20mW. The receiver was also a homebrew design, downconverting to a conventional satellite receiver, and Ken had built two excellent loop-yagi antennas to the G3JVL design. He hadn't had time to mount the aerials on his mast, so they were pointed out of his bathroom window!

Other stations currently active from Bristol are G6TVJ and G1IXF. If you're interested in joining us on 13cm, see the introductory feature in the last P5. All of my gear is easily portable, so if you would like a sked from outside the Bristol area, get in touch, and we'll arrange something.

May Day Station

On the May Day Bank Holiday, I was operating with portable equipment on 10GHz from near Clevedon (can't get much nearer to the SevernSide that that?).



Jim GW3PYX and Dave GW4ROL were picnicking with their families on Garth Hill, overlooking Cardiff, and had taken their portable gear with them.

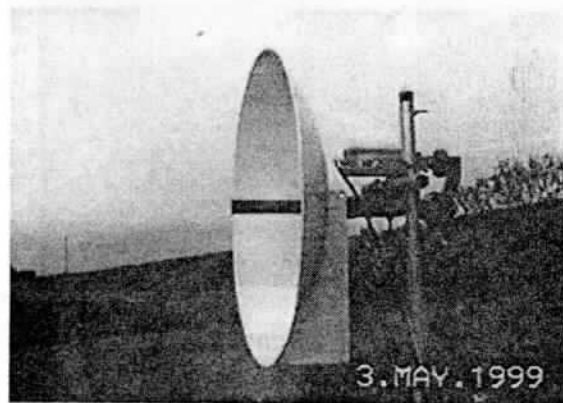
The first test was with Jim's low-power transmitter, which was just a Gunn head feeding a horn. After much swinging of the dish at my end (there was a lot of mist over the estuary, which made it impossible to get any bearings of the Welsh coast), I managed to receive him at P4 on a 30cm dish. My return signals, using a Solfan head and PW Exe dish with penny feed, were reported at P5.



Dave then switched on his transmitter, which had a small GaAsFET power amplifier and an offset-fed 30cm dish, and this signal was an instant P5 with me.



I later tried an alternative setup, comprising a slightly larger dish with penny feed. This unit has a waveguide switch, which allows the dish to be instantly changed over from receive to transmit. Again, the transmitter was a simple Solfan Gunn head. This also gave P5 signals each way.



Finally, I was able to send pictures to Brian GW6BWX in Risca, who managed to receive me using his fixed dish, which was still pointing at Dundry, several degrees away from my heading.

Do-it-yourself?

The single-dish portable set-up which I used on May Day is owned by the Group, and is available for loan to any member who would like to try out 10GHz. All you need in addition is a video (and audio?) source, 12v power supply, mast, tunable receiver and monitor.

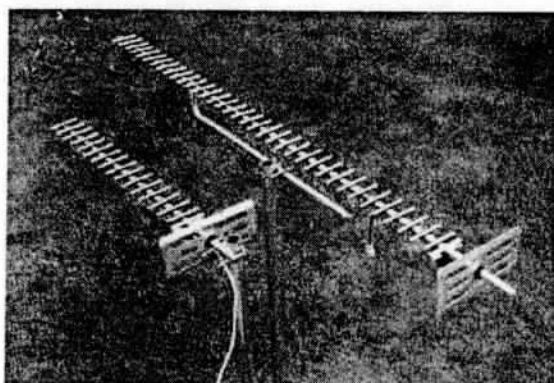
Please give me a call if you're interested in having a go.

BATC Rally '99

This event was held at the usual venue near Coventry on April 29th, and it was good to see several STG members there during the day. The Group had a stand in the main hall, and sold a number of the 18- and 38-element yagis. In addition, a preliminary version of the CD-ROM which Mike G7GTN has been preparing was demonstrated. Further details of this are given below.

STG Merchandise

Mike G7GTN has now taken over the responsibility for aerial sales, so please don't ring Matthew with any more orders. I'd like to take this opportunity to express our thanks to Matthew for all his dedicated work over the last few years.



The **wideband yagi antennas** are available from stock at £15 for the 18-ele and £26 for the 38-ele versions. The extension kit to convert an existing 18-ele to a 38-ele is also available separately for £13.

A new **CD-ROM**, *The Sevenside Guide to Amateur Television*, will soon be available, containing all the information from Shaun G8VPG's book, plus a lot more new content. The cost will be around £5

Profits from the sales of this merchandise go to the Group, and help to fund the maintenance of our repeaters.

Material for P5

The editors of *P5* would be pleased to hear a little more from the members: if you have any news of on-the-air activity, new equipment, etc. which may be of interest to other members, please get in touch.

Contacts

P5 Newsletter & STG matters:

Ross Wilkinson G0WJR
13 George Court, Hampton Park, Redland, Bristol,
BS6 6LL.
Tel. 0117 973 8794
email ross.wilkinson@bris.ac.uk

Membership:

Paul Stevenson G8YMM
14 Camelford Road, Greenbank, Bristol BS5 6HW.

CD and aerial sales:

Mike Stevens G7GTN
The Beeches, 13 Downs Road, Westbury-on-Trym,
Bristol BS9 3TX.

Helpline

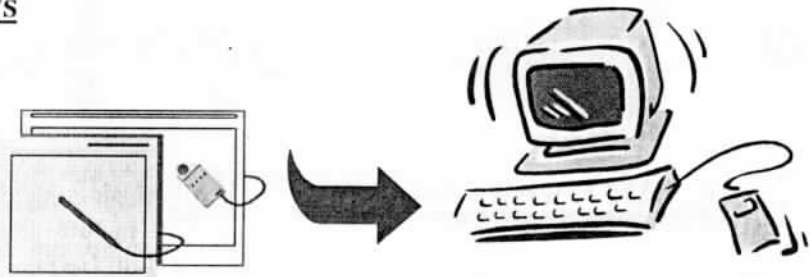
Does anybody know a U.K source of **ROHM BA7004 IC'S** ? - They are used in TV modulators to produce a simple test pattern. Details of any suppliers and prices please to Mike G7GTN.

Sad news

News has just reached us of the recent death of **Bill Chenoweth, G6PJS**, who will have been known to many members, especially from his activities on 70cm ATV.

Two interesting Computer toys

Mike G7GTN reports on a couple of recent purchases



The Wacom ArtPad II & Dabblor 2

This is a very small graphics tablet with active dimensions of only 128mm x 96mm. It comes complete with a pen which has its own eraser on one end, to allow you to take care of those inevitable drawing mistakes. The tablet plugs in to any spare serial port on your P.C. and the power supply arrangement is one of the neatest that I have seen, with the 2.5mm power adapter being plugged directly into the back of the 9-pin socket.

Software installation from the supplied CD-ROM was faultless on my Windows 95 system, but alas only contained the graphics program Dabblor and not the Wacom driver that is required. It seems a little strange that everything was not put on the CD.

Once you have completed the software installation, you simply have to get used to moving and making selections with tablets and pens, which is slightly different from using your mouse. The multi-lingual manual is very good and indeed quite comprehensive.

The working area of the pad is coloured in darker beige to signify that the pen will have some kind of effect if used within this area.

Overall view

Dabblor is a reasonable program to get started with if you have nothing else to hand, but the tablet only really starts to come to life if used with something like Fractal designs Painter 4, or even better with the vastly more powerful Adobe Photoshop 4.

It's a lot of fun, ideal for just scribbling a little picture or diagram, even better for drawing hair etc onto that picture you just frame-grabbed from GB3ZZ. If used with a PC genlock, you could even overlay your designs on top of a video camera picture.

The GSE VideoMouse FUN

This as the name might suggest, is a device for editing video from Sony LANC to Panasonic 5-Pin using a jog/shuttle wheel to control the source or player. The device is a funny blue wedge-shape, with seven black buttons to control the tape transport operations of both player and recorder, and also to select the desired cutting points. Near the bottom is a large jog/shuttle wheel that makes searching through lots of video tape very quick and easy. Software takes the form of two 3.5" floppy disks. The main operating program is called WinEdit FUN 1.4 and will supposedly run under all Windows operating systems from 3.1 up to 95, but oddly not on the top Microsoft system Windows NT. I made all of my tests on an AMD K5 166MHZ Pentium PC running a copy of Windows 95 OSR.

To set up the program requires telling it which of four COM ports (COM1 - COM4) you wish to use, since on most systems COM1 will have the mouse installed; I selected COM2. To use the program for editing work, you need to set up both the player and recorder machines. At this stage you may also set any required pre- and post-roll times for your video machines. My camcorder, an ancient SONY TR805 Hi-8, will write time-code to tape but not read it back again, which may explain why some of my test results were not altogether very satisfactory when using this as the player with the RCTC mode selected.

Snags

I have already discovered a few, the main one being the inability to edit video sequences that are placed too close to the beginning of the source tape. The company suggests planning for this when shooting your original footage, by not putting important scenes near the start. Quite how you are supposed to do this in practice is curious. I sometimes seemed to lose control of the player for a few seconds, this was only when using the TR805, and did not occur on the company's EVC2000 Hi-8 home deck. This slight hitch could be due to the camera's own control software?

Overall view

This device can also be used with a non-linear digitizer card, and the packaging makes the bold claim "Now all digitizers supported". I have not used this product with a digitizer yet, but nothing to do with computers and software ever seems to be quite that simple! The software allows you to save your edit decision list or EDL; with this facility, re-edits of old projects become child's-play.

The infra-red learning facility worked very well when tried with both a cheap Toshiba VHS machine and a Panasonic S-VHS machine, I also tried this with a very dusty old SONY EVC 8mm player, again with no real problems or nasty surprises to report. The documentation is a single 4-page booklet which contains some last-minute updates, the rest of the manual is contained within a Wordpad file which you have to print out yourself if you desire a hard copy. Gone forever are the days when you received a thick packing crate full of manuals!

This would seem to be a "best of both worlds" solution being able to operate as both a linear and non-linear edit controller. GSE also sell a version entitled the VideoMouse™, which has the ability to write the time-code back to videotape: the cost is slightly higher at around £300. If you only want to do non-linear stuff, this version would be a waste of money, since you won't want to time-code the recorded tape.

"GOO"

What is it, and what can you do with it ?

Our reviewer, Mike G7GTN gets stuck in to some more new software

Kai's Power Goo is a software program created by American company *MetaTools*™ for your PC that allows you to take any Photoshop (PSD) or Windows (BMP) picture and distort it in any number of strange or imaginable ways. As the product packaging says "*Goo* is fun, *Goo* is versatile, *Goo* is flexible, *Goo* is easy, turn your favourite images into something that looks like molten liquid on your computer screen"!

The starting point to the program is what the manufacturer calls the "In Room" this is where you select the file that you want to *Goo*. You can use some of the supplied images from the CD-ROM to practice with. If you don't have any files in these formats, then you can convert using programs like *Paint-Shop Pro* or similar.

Once you've selected an unsuspecting person, it's time to "*Goo*" them: this sounds more painful than it actually is. You are now presented with one of the strangest user interfaces that I have ever seen: this is what they call "The Fusion Room". It is within this that you make changes to your images, perhaps squashing someones face, or may be taking the eyes from one image and adding it to another. I had a great deal of fun when trying this program (and wasted a lot time, when I should have been doing housework !!)

With *Goo* you also have the ability to make changes to images over time, and with the option of outputting to a Windows (AVI) file, can create some quite good animations. The manufacturer calls these "*Goovies*": they do seem to like the word "*Goo*" don't they?

There is no real technical upper limit on the resolution that can be output to the required file format.

Shown below are two sample "*Goos*"



This is quite a fun little program which seems to be bundled now with lots of hardware packages (Digital cameras, Scanners, Colour inkjets.) in its limited-edition format.

If you want to buy a copy (and waste "hours" of time!) the price is around £30, from most of the usual PC software suppliers. A newer version is also available now: yes you've guessed, it's called "*Super Goo*"!

Check out the company's Website for this and other leading-edge graphics packages such as *Bryce*.
[HTTP://WWW.5.Metacreations.com/](http://www.5.metacreations.com/)