

FILE

P5 NEWSLETTER

Secretary's Report



Greetings again! For my sins I have volunteered to be your secretary and P5 Editor. I hope you like the P5 format (tried and

tested) and agree that the past editors have provided you with a vast selection of information and correspondence over the years. Articles for P5 that have been submitted which have not appeared in this issue will be in the early Decembers issue. Although I retired from the Committee 3 years ago due to family commitments I have been in the background helping out. Unfortunately, at the AGM it was evident that a Secretary had to be found in order for the group to remain as per the constitution. Helping me with the change over will be Pat and Brian GW6BWX who have moved QTH to pursue business interests but will still be involved within the group. It was agreed at the AGM to send out the P5's by email to those who wish to receive it this way. Of course not every one may have an email facility so they will traditionally receive it by post. There are many benefits for choosing the email option. One it saves the group vast amount of money spent on printing and posting. Two, you can receive it hot off the press, save it, and print it out. I am not sure what format it will take but I guess it will be in PDF.

General News

Mike G7JTN and myself are currently sorting out minor changes to our Web Site. It became apparent during the year that all was not well. I hope to put the faults right and make minor changes in the next month. From that point on the Web site can be developed and carefully controlled.

The group attended both the BATC and Longleat Rally this year. Rallies are always unpredictable in terms of sales but again we managed to raise more funds and increase our membership. A big vote of thanks must go to all the volunteers who manned the stands. Without your help STG would not be represented at these events as found out to the costs of other repeater groups.

GB3ZZ is performing well having been surrounded by a building site for the last year whilst the council refurbishes it's building. Brian GW6BWX is currently developing new logic to replace the ageing but reliable BBC logic. I will have more information as time goes on.

GB3XG has under gone major engineering, which Ian Bennett has written about in this issue of P5. Much of the planned, previous years engineering was hampered by the outbreak of foot and mouth, which prevented access to the site, and like wise the ATV competitions.

This year's ATV summer fun contest went ahead despite the weather. Members of STG set up a cut down version of the contest site to limit the amount of effort required. Over the weekend, under the call sign G7ATV they operated on 23cm and 13cm bands. As you can see the results are excellent with us coming first on the two bands operated and overall winners. There was no 3cm activity.

Don't forget the next contest on the 14th and 15th September 2002. Starting Saturday 7 PM and finishing Sunday 1 PM. Come on the air and give us your support.

Results Summer Fun

Place	Call Sign	Locator	Total Score
1	G7ATV/P	IO81QG	2765
2	GW4NOS/P	IO81FP	872
3	G6MNJ	IO91SR	766
4	G8GKQ	IO91TP	66

	70cm	23cm	13cm	Overall
1st	G6MNJ	G7ATV/P	G7ATV/P	G7ATV/P
2nd	G8GKQ	GW4NOS/P	G6MNJ	GW4NOS/P

Mail Bag

I received this email from Giles Reed he writes: -

“Thanks for everything at Longleat this year. I have attached some photos of my /P operation in case you'd like to include them in the newsletter and/or put them on the web site. There are also some detailed pictures of the homebrew transceiver I was using. It comprises one of my transmitter modules with a G3WDG driver amplifier and a Quad PA, a Platinum receiver and a LCD controller.

There are also a few other things in the box such as a character generator and a logic sequencer. I had to use two co-ax relays: the one on the back panel switches the TX to the antenna: it can

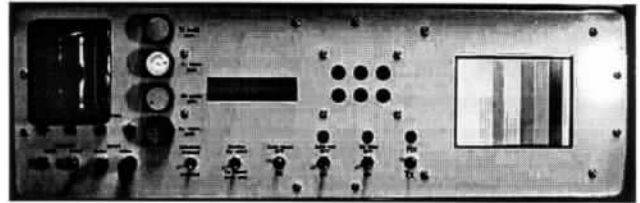


handle the power but doesn't have sufficient isolation, so a second relay is used to isolate the receiver. The transceiver puts about around 80W at the antenna socket.

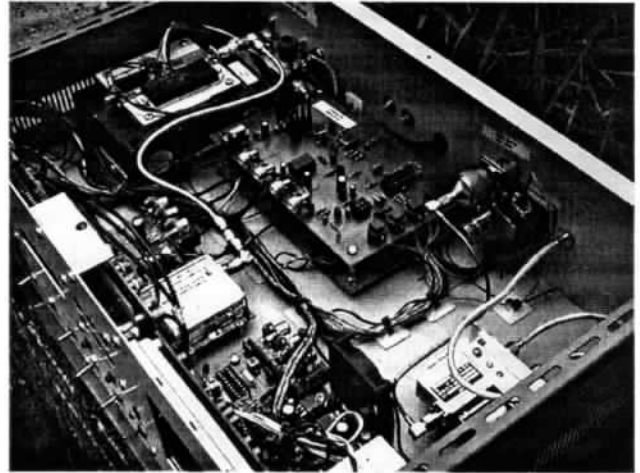
A cheap security camera and a LCD monitor complete the assembly. Believe it or not, most of the items were junk box parts - but I suspect I have a slightly larger junk box than most people. If bought new, the component cost would be somewhere in the region of £1600.

I was using this system with my 60' trailer mast at Longleat. The antenna was a G8CKN Yagi and was connected using a 100' run of highly flexible Cellflex cable”.

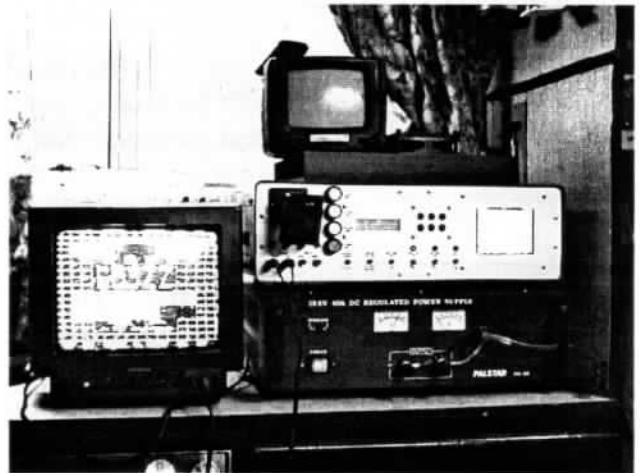
73 Giles G1MFG



Front Panel of Transceiver



Inside the Transceiver



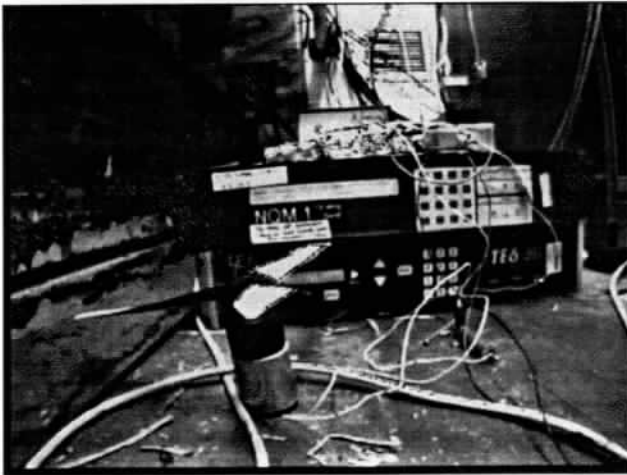
Picture of Complete ATV Setup

Photo's © Giles Reed G1MFG

Digital ATV

Ian Bennett G6TVJ recently carried out digital manned trials on the 23cm band. The captured photo shows the picture received at my QTH using a standard Nokia Digital Satellite receiver connected to an 18 element STG Yagi.

Although it cannot be seen in the picture the quality was stunning. The background shows a commercial digital encoder and foreground a highly scientific rotating fan to provide movement within the picture. Ian is writing a full report for the next issue of P5 so I have purposely kept my report short.



Received Digital Picture

To summarise, I guess we are some way off personally owning individual digital encoders for transmitting. However, on the basis of receive only we are not. If the repeater was fitted with a decoder on it's output we could have Analogue in and Digital out! Just a thought!

DX TV

One of our long-standing members although not active through the repeater is Stephen Michie G7KXD. Stephen for many years actively looks out for DX TV and has sent us a report on his activities from October 2001 to January 2002, which I have simplified for the readers. Apologies if I have not got the station prefixes quite right. He reports: -

REPORT

Tropospheric Reception was received during the winter with daily F2 signals being received throughout October and November 2001.

January and February 2002 brought a lot of E2 signals one particularly was the Syria (2 L Logo) showing a P1 to P5 picture at times without ghosting or cross modulation. Other signals received were from the Iran IRIB 1 (Diamond logo top left) and Iran IRIB2 (Arrows logo top right) TV stations.

Also received

Nov 2001 RAIONO 1A and 1B transmissions and TVA 1A Dutch and German ARDI Band 3 and MDR Brockgn.

Dec 2001 Belgium RTBF1, VRT TV1 very strong colour. Dutch many regions RTV, 2wolge, TV Flevoland, Legstad, Frysan with German TX blacking out BBC1 Oxfords transmissions at times.

Jan 2002 TV2 Denmark, TOPIC, Hedenstead and Varde. ARDI E2 Germany via Tropo reception

EDITOR

Stephen we look forward to your summer's report. I was wondering how signals varied from our two repeaters during the season's etc comments would be welcome to the Editor.

Coming Events

International Contest

14th / 15th September 2002

Start time 19:00 hrs Saturday

Finish time 13:00 hrs Sunday

Christmas Social

Saturday 14th of December 2002

Starting 19:30 hrs

73 Paul Stevenson G8YMM / M3PGS

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GB3ZZ Re-Engineering Spring 2002

By Ian F Bennett G6TVJ

During the spring of 2002 the ATV repeater GB3XG has undergone some significant re-engineering. A synthesized 3cm transmitter has been installed to replace the Gunn diode unit.

The new set up consists of an indoor mounted synthesized 2.5 GHz exciter feeding an outdoor antenna mounted X4 multiplier and power amplifier. This arrangement minimizes the outdoor mounted equipment.

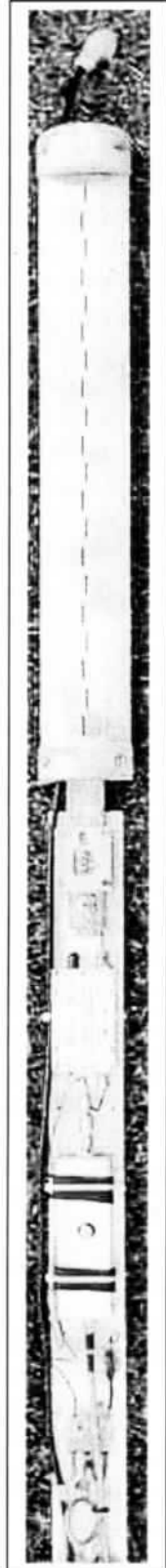
The indoor and outdoor units are interconnected with a low loss Westflex 103 feeder. The new system provides improved frequency control and better modulation linearity for sharper quality pictures.

The sound subcarrier modulator is also synthesized as with GB3ZZ providing an accurate 6.0 MHz frequency reference.

The receiver equipment has also undergone changes. A receiver LNB input filter has been aligned and installed, the old post LNB L-band filter has been removed. It is believed that this will prevent de-sensing of the receiver by the repeater output.

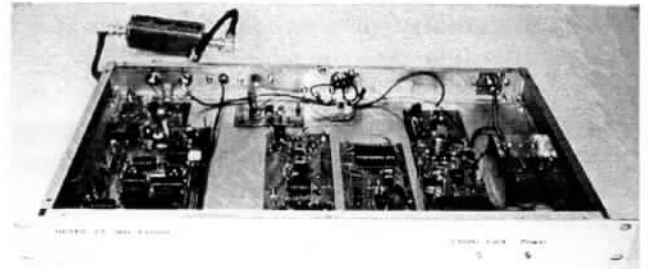
The units were tested at home with a low power receive signal to check for TX/RX isolation, reliability and low signal performance.

**Picture Right ⇒
GB3XG TX Chain**



The new transmitter is designed to maintain good results down to low-level signals, i.e. maintain a locked in-colour picture with no tearing or rolling.

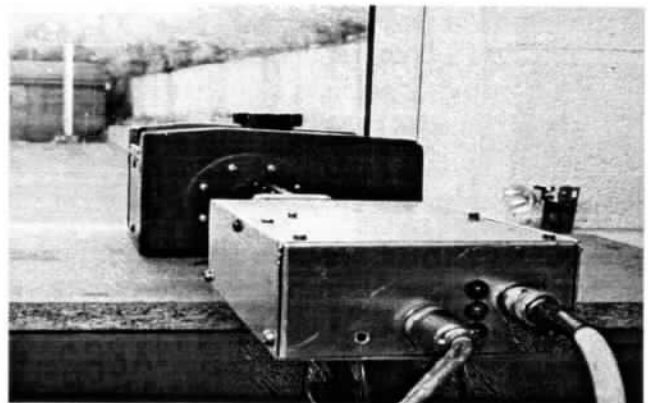
Special thanks to all who contributed to the re-engineering project including Ken G4BVK, Ivor G1IXF, Viv G1IXE, Bazil G7FEQ and also Nigel G7JZP for his original Gunn transmitter which worked so well for many years.



GB3XG Indoor Exciter Unit



**Testing the Exciter and Receiver together in the
Garden Shed**



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