

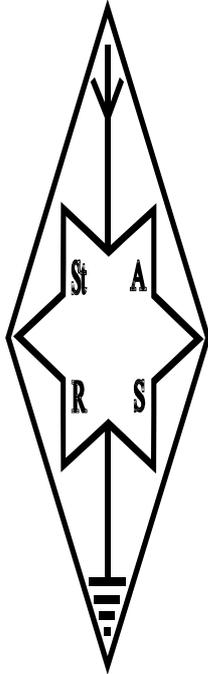


# STARLITE

**G6OI**  
1938

*The Newsletter for Members and Friends of*  
**Stourbridge and District  
Amateur Radio Society**  
incorporating  
**Old Swinford Hospital School Radio Club**

**G6SRS**  
1938



**G4CVK**  
1969

**ISSUE**  
**11/12**



## Table of Contents

EDITORIAL.....	3
NEWS AND NOTICES.....	4
DIGITAL TERRESTRIAL TV IN THE UK.....	7
FROM OUR ROVING REPORTER.....	10
YOUR COMMITTEE.....	11
CALENDAR OF EVENTS.....	11



# STARLITE

## MEETINGS

Visitors always welcome

The Society holds its full meetings on the  
1st and 3<sup>rd</sup> Monday of each month at

**Old Swinford Hospital School  
Heath Lane  
Stourbridge  
(8.00pm – 10.00pm)**

Additionally the shack is open during the same times on the  
intermediate Mondays

Telephone Enquiries to :-  
Hon Secretary  
John Clarke M1EJG  
(01562) 700513

Or by e-mail to :-  
[honsec@g6oi.org.uk](mailto:honsec@g6oi.org.uk)

All correspondence/enquiries should be  
addressed to the Hon. Secretary :-  
STARS  
c/o The Mill House  
21 Mill Lane  
Blakedown  
Kidderminster  
DY10 3ND

STARS Web Site URL :-  
[www.g6oi.org.uk](http://www.g6oi.org.uk)



# STARLITE

## EDITORIAL

Dear Readers,

As always I would be interested to receive contributions and feedback on any of the articles. I aim to make Starlite available for the first day of each month, so please can you submit any articles in time for this deadline.

I was unable to attend the talk on the Witch computer, but have the dubious distinction of writing some programs for the computer whilst I was a student at Wolverhampton many years ago. Unlike modern computers, programs were not stored internally, but externally on paper tape. If you needed a loop in your program, you had to make a physical loop of paper tape to hold the instructions. Debugging consisted of looking at the values stored in decatron valves to make sense of what your program had done. I think we only had around three hours with the Witch computer, but at the end of this time we were able to write simple programs.

**I would like to draw your attention to the article “Is your Ham Radio Licence About to Expire”**

### **Any Suggestions?**

Next year 2013 will be the 75<sup>th</sup> Anniversary of the founding of StARS. Do you have ideas or suggestion how we can mark the event?

Adrian Bryan (G0NLA) Starlite Editor

## NEWS AND NOTICES

### **STARS Christmas Lunch**

This year's Annual Christmas Lunch will be at same venue as last year, namely the The White Horse, at 7.30pm on 10th December 2012.

However the arrangements for payment have changed and a deposit is required which is non-refundable. Please read on -

So we need £5 deposit off everyone who wishes to come to the meal.

They need to know roughly what everyone is having.

There is the 3 courses at £7.99 and a 2 course ( main and a pudding ) for £5.99.

The 3 course choice is:

Starter: Tomato soup, or Prawn cocktail ( North Atlantic prawns, crisp iceberg lettuce and Marie Rose sauce )

Main: Roast Turkey / Roast beef & Yorkshire pudding / Honey & Mustard Glazed Gammon / Quorn Lasagne

Sweet: Christmas Pudding with brandy sauce / Profiteroles with Belgian chocolate sauce / Apple &



# STARLITE

Cinnamon Pie with custard / Bottomless Dairy Icecream

The 2 courses are Main: Roast Turkey / Roast beef & Yorkshire pudding / Honey & Mustard Glazed Gammon / Quorn Lasagne  
Sweet: Christmas Pudding with brandy sauce / Profiteroles with Belgian chocolate sauce /  
Bottomless Dairy Ice cream

**Members wishing to go need to see Adrian M3HBA or Andy M6APJ with their deposit and their required menu order ASAP please.**

A menu will be available from Monday 5th November 2012 on the notice board and a few available to take to show friends.

Vicky told us that 3 course meals : The starter and pudding orders will be ordered and bought to the table.

Also drink orders will be taken and bought to us.

Members only then need to fetch their own main courses.

## **Is Your Ham Radio Licence About to Expire? (Important)**

You may recall receiving a letter from Ofcom around February 2007 informing you about your new lifetime licence. On the reverse side of the letter it states -

*You will no longer be required to renew your licence every year or pay renewal fees. You will need to validate your licence on a timely basis (please refer to your lifetime licence terms and conditions);*

At paragraph 4(5) of your new lifetime licence terms and conditions states -

4.5) *Ofcom may automatically revoke this Licence five years after the later of:*

*(a) info omitted*

*(b) the date on which the Licensee last confirms to Ofcom that the details set out in Section 1 of the Licence are still valid*

There was a straw poll at the Stars Club last night on 29<sup>th</sup> October 2012 and only two out of the eight or so members present had re-registered with Ofcom. The consensus was that if you do not re-validate your licence, your lifetime licence will be revoked. It was suggested that an article of this nature was sent out in Starlite, and hence the reason for this article. I understand we were give an extra years grace in re-registering as Ofcom were busy dealing with extra call signs for the Olympic Games.

Re-validating your licence is easy, but the process will be much smother if you have your licence number (which is not your call sign) and the login and password you registered with Ofcom in 2007. There was also a challenge question that you registered with Ofcom as part of the registration process (e.g. What town were you born in?) which you may need if you need to contact Ofcom by phone.



# STARLITE

**The following was contributed by John Scott**

The bicycle is reputed to be of a boy from Australia who exaggerated his age to join the army during the first world war. The boy died in action during the eight month campaign in Gallipoli peninsular. There were considerable casualties on both the Allied and Turkish sides. The battle changed Turkish history and gave considerable boost to the fortunes of a little known army officer named Mustafa Kemal who went on to become Kemal Atturk, founder of the modern day Turkey.



A boy went to war in 1914 and left his bike chained to a small tree. He never made it home, and his family left the bike by the tree in his memory. This is that tree today.

## SHARE

this if it's one of the best monuments to our fallen soldiers that you have ever seen.



# STARLITE

## DIGITAL TERRESTRIAL TV IN THE UK

### Introduction

It has been a long process, but the UK switch-over to DTV was completed during October 2012, with Northern Ireland being the last to complete the process. Large parts of the world already broadcast DTV signals with the exception of a few countries in sub-Saharan Africa. Briefly four DTV standards dominate, with North America using ATSC, South America, Japan and Taiwan using ISBD-T, China uniquely using DTMB. Europe, large parts of Asia and Africa use DVB-T with gaps where Digital TV has not yet been adopted.

### So why has the move to Digital TV taken place?

The cynical might say the the main reason is money. Realistically, digital TV makes better use of the radio spectrum, but there is the added incentive in the large amount of revenue that can be collected when parts of the radio spectrum can be auctioned off, mainly to the mobile telephone companies. In the short period of 100 years, the use of the radio spectrum has gone from very limited use for military, maritime and commercial users to the present day where there is almost a telephone SIM card in use for a large proportion of the human race. The TV broadcast spectrum in the UK starts at channel number twenty one number on 470 MHz and occupies forty eight x 8MHz up to 854 Mhz. Clearly a very large portion of the easy to utilise radio spectrum – 384 MHz of bandwidth to save you doing the arithmetic. Up to the change over to DTV, the 8 MHz slots were utilised by analogue signals.

During the past 50 years an immense amount of research and development has gone into computing and the handling and processing of digital information. Forty years ago data processing capability was relatively expensive to manufacture. Now digital processing advances allow us to handle large and complex data processing tasks very cheaply.

### So what improvements does digital signal processing bring?

Broadcasters using digital data processing techniques are able to combine TV sound, TV pictures, Teletext and radio programs into multiplex groups. Presently (mid October 2012) there are six multiplex (MUX) groups – Mux1, Mux2, MuxA, MuxB, MuxC and MuxD. Muxes (Multiplex Groups) are able to vary the amount of data allocated to a service such as a TV channel. This can have the effect of varying picture quality and can be done dynamically. For example the picture and sound on QVC will not be as good as BBC1. A mux group only uses as much radio spectrum bandwidth as the analogue channel it replaces but carries approximately ten to twenty times more program information. On the old analogue system, the radio spectrum was divided into five bands covering different frequencies. These UHF groups were as follows :-

Group Letter	Channels	Range in MHz
A	21-34	470 - 582
B	39-51	614 - 718
C	50-66	702 - 854
D	49-68	694 - 854
E	39-68	614 - 854

Following completion of the digital switch-over the Mux groups will be renamed to PSBx, COMx,



# STARLITE

SDN and ARQx to reflect the owner or usage of the Mux group - SDN, Arqiva, D3&4, Public Service Broadcasting.

A different specification of aerial that 'optimised' reception was used for each band groups listed above. In order to free-up parts of the radio spectrum currently occupied users must move to different frequencies. This is achieved by using a, so called 'digital aerial'. In reality an aerial that will give an acceptable reception over the whole of the old analogue frequencies – a wide band aerial.

Consequently the contents of a mux group can be changed and also the frequency on which the mux group is broadcast can also be changed. It therefore becomes less of an inconvenience to migrate viewers and listeners to different parts of the radio spectrum. The broadcaster therefore has the capability to move mux groups more easily vary mux group content and migrate users to other parts of the TV radio spectrum.

Although prohibitive on the grounds of cost, it would probably have been more beneficial if digital terrestrial users had been moved to using satellite receivers and current satellite frequencies. The number of users receiving only digital terrestrial TV is reducing, although I suspect that a move to all TV broadcasting via satellite is still some way off.

## **So what is the impact of DTV**

Perhaps the main benefit of DTV over analogue TV is to improve choice. Programs can be broadcast in high definition, 3D etc. and more TV channels can be made available. This can be a mixed blessing. A large amount of Freeview is given over to shopping channels which are in effect one long advertisement. Viewing figures per channel will be much lower than during the 'analogue' days of 1966 when 32 million viewers tuned in to watch the England/Germany World Cup. More choice does not seem to be improving program content. More HDTV and 3D TV means that bandwidth will get used up quickly.

## **What is all the effort for?**

To enable another part of the radio spectrum to be sold off.

Tablet computers, iPhone and Android phone sales have risen and are rising dramatically. These increases will cause a marked increase in the perceived need for greater availability to even faster data access speeds and consequently a larger part of the RF spectrum to satisfy this demand. Whereas previously commercial access to head office data was mainly by corporate laptop devices, this load will be increased by users accessing head office data from their own touch screen phones and tablet devices. This practice termed BYOD (Bring Your Own Device) is becoming more widespread.

It is difficult in the medium term to predict what specific part of the TV spectrum will be sold off. Indications from FCC (the US regulator of the RF spectrum) are that around 120MHz from the higher frequency end of the DTV spectrum may be re-allocated. This is equivalent to reducing the number of TV analogue equivalent channel slots from 48 to 32. Note the figures are guesswork on my part and should not be taken as definitive in any way. In the short term the slots previously occupied by channels 61 to 68 will be made available for the mobile phone users.

A brief look at the changes scheduled for 2012/2013 makes for interesting reading. Please see



# STARLITE

(<http://www.ukfree.tv/fullstory.php?storyid=1107052033>). Channels 61 and 62 are to be cleared for 4G use. Summarising the changes on the above HTML link, the transmitters are increasing power and moving from the higher frequencies to lower frequencies. A typical example is a downward move of ten or more channels or 10 x 8 MHz. TV viewers who have not changed to 'digital aerials' may start to see a reduction in signal, but this may be mitigated by the increase in signal strength. One suspects that this gradual move is deliberate as a larger change in downward frequency could lead to some viewers not being able to receive the new frequencies on their old aerials.

It is anticipated that some terrestrial DTV users may start to have problems when the mobile phone companies operate in the frequencies vacated by the television frequencies. As radio amateurs we know only too well how easy it is to cause TVI (television interference). 'Digital TV Aerials' are made to be wideband with low selectivity and masthead pre-amps are frequently unshielded or poorly shielded leaving them open to interference. DTV signals are particularly susceptible to interference. TV pictures breaking up with blocks on the TV screen have been experienced by most viewers at some time or other. As radio amateurs we need to be defensive and start to log calls if necessary. For us as radio amateurs there is the additional concern that Ofcom may start to look at the 10 MHz allocated to the seventy cms band and wonder if effective use is being made of this part of the radio spectrum.

As usual any errors are mine.

Adrian Bryan (G0NLA)



# STARLITE

## FROM OUR ROVING REPORTER

### Starlite November 2012 Report

How time has passed. In two months it will be the Christmas season. But before Christmas, it is the S.T.A.R.S Annual Surplus Sale, which is early this year on the second Monday 12<sup>th</sup> November, due to the talk on Life Boats. Myself and others who were at the October meeting found the talk on the Witch computer presented by Peter Burden G3UBX of great interest. Peter has given a talk at S.T.A.R.S before some years ago at The Robin Woods Community Centre. It only seems like yesterday that I came into contact with Peter, who I had not seen for ages, whilst I was shopping at the Merry Hill Centre four months ago. I asked him if he could give a talk to S.T.A.R.S. It's one of my interests to look for people who can give a talk to S.T.A.R.S. It was great to see Eric at the meeting on Monday. Due to my other interests I have not done any listening or radio operating recently.

Since the last report, they seem to be about to take over the Buttermarket Shrewsbury once the re-wiring is complete. I will be at the venue to assist with tests on the Wurlitzer which has not been used for two years, since the building was closed and subsequently reopened on 21<sup>st</sup> Sept by the new owner after its £2 million refurbishment. I am looking forward to being able to hold our organ concerts again. I hope that some of you will be able to give support by attending at least one or more of the concerts.

My other project Dudley Hippodrome still continues to gain a lot of support recently from Heritage Theatres Trust who were at the Theatre on 19<sup>th</sup> Oct and were impressed by the building. Bill Kenwright who stages major show productions has also offered his support. The business plan has been sent to Dudley Council showing how the Friends of The Hippodrome intend to run it. Our duty at the moment before this can take place is to get the Council to rescind the threat of demolishing the building. Once that has been lifted, the grants will be available. I started all this by collecting signatures back in September 2011. As I write this report there is another meeting with the Council this afternoon. When the clear-out of the building starts, it will be like being at a big radio rally, as, electronics wise, the site is taken over with bingo equipment left by the previous occupants.

To end the report; on Monday 29<sup>th</sup> at 12:20 I was at the I.C.C. Birmingham waiting to take my Audition for the 5<sup>th</sup> time for Britain's Got Talent. It was 18:20 before I took the audition performing a single song which lasted for 3 mins. I must now wait until results come through. There were three sessions yesterday, Sunday, Tuesday and then they move on to other parts of the country. I enjoy taking part for the atmosphere and meeting other contestants from other parts of the Midlands who like me, want to get on in Show Business. I must confess if it cost anything I would not take part. In any event, if things go to plan I will have my own theatre, Dudley Hippodrome to play in. Looking ahead I will try to contact G2DQU [Lord Brian Rix ] and thank him for his support.

Well that's all for now

Best 73s Malcolm G8BOP

Your roving reporter See photos (on the next page) taken during the wait for the audition.



# STARLITE



