www.dx-tv.fsnet.co.ukhs publications

HS PUBLICATIONS

E-mail: GarrySmith405625.hs@gmail.com

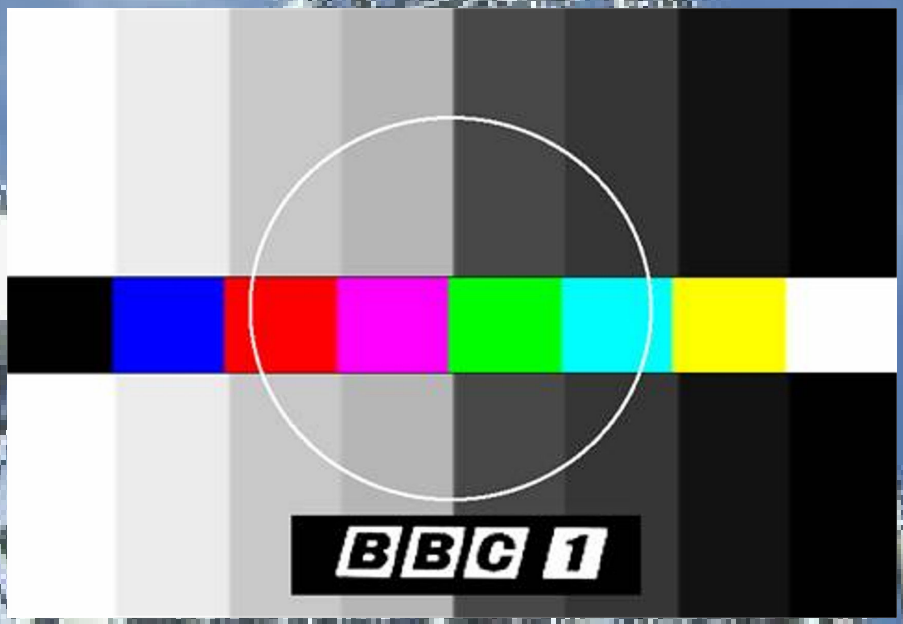
FOR THE LATEST VERSION OF OUR CATALOGUE PDF

TV DX-ING FM DX-ING TEST CARDS

BASED ON OUR FORMER WEBSITES

www.dx-tv.fsnet.co.uk

www.test-cards.fsnet.co.uk



OUR CATALOGUE INCLUDES

ANTENNAS, NOTCH FILTERS, PHASING UNITS, AMPLIFIERS,
TELERADIO NEWS (DX-ING, TEST CARDS & NOSTALGIA) MAGAZINE
TV CLOCKS, BOOKS & DVDs

THANK YOU FOR ACCESSING THIS PDF

If you've recently had problems contacting us or wondering where our websites had disappeared to, the reason is simple.

EE (BT) decided to pull the plug on ALL 'fsnet websites (including ours without prior warning) and also 'fsnet' email addresses. Anyone attempting to access an 'fsnet' website is diverted to EE's sales without any explanation or apology!

HS Publications **was established in 1975 when Keith Hamer and Garry Smith launched 'Guide to Worldwide Television Test Cards', a World-wide seller.**

Our involvement in the long-distance TV reception hobby and a massive interest in TV graphics, especially test cards, has generated quite a following over the past 50 years.

Requests for non-mainstream products from other enthusiasts involved with both hobbies created a situation where *HS Publications* has been able to offer these specialised products.

Below are some of the many products we can supply:-

TV & FM DX-ING

- FM Notch Filter, Rejector, Phasing Kit
- Antennas: BAND I, FM, Band III, DAB & Airband
- Telescopic Dipoles & UHF/VHF Survey Antennas
- Amplifiers, Distribution & Power Units
- Band I Notch Filters, Band II Rejector
- 4G Filters, UHF Bandpass, Combiners/Splitters
- Coax, Connectors, Plugs, RF & AV leads
- Mast Parts including Pivots, Brackets & Clamps.
- D100 & D500 DX-TV Converters

TV & RADIO NOSTALGIA

TeleRadio News (A bi-monthly magazine devoted to TV, FM DX-ing + Archive Broadcasting), Back-copy magazine packs, Technical Books, DVDs, Test Card Music CDs, Clocks and Framed Prints.

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7 Epping Close, Derby DE22 4HR, UK

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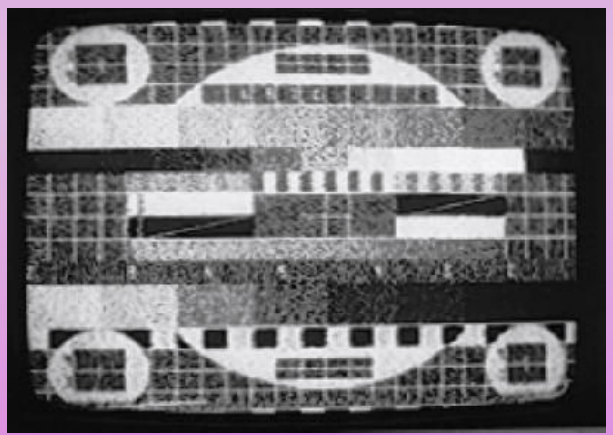
TV DX-ING

By Keith Hamer and Garry Smith

Most activity occurs between May and September (November-March in the Southern Hemisphere) when Sporadic-E ionisation allows the reception of Band I TV signals over distances in excess of 1000km. Reception occurs randomly and so you cannot pick and choose the countries that appear. This is one of the fascinations of the hobby.

The shaded area gives some idea of which countries and transmitters may be received during a typical opening.
Skip distances can vary constantly and so can direction.



Stable reception from Lithuania.

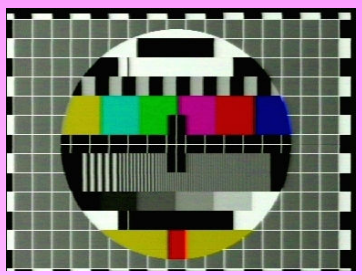
THE BASICS

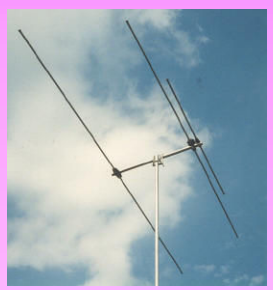
You need a receiver and an aerial covering Band I (48-70MHz). Most modern flat-screen receivers and set-top boxes provide analogue tuning throughout Bands I, II & III but their wide bandwidth will often disappoint as they will only perform well on strong signals – this also applies to PC tuner cards.

Don't neglect the aerial and always use the correct type. An FM array may seem to work in Band I but it will not be very efficient. The designs in our catalogue have proved VERY effective over the decades and are TRIED AND TESTED.

For Sporadic-E reception where signals arrive at a shallow angle, aerials installed at heights of around 5 metres work fine but try and avoid any immediate obstructions.

For weak-signal work we recommend the D100 or D500 DX-TV Converter with vision I.F. bandwidth reduction. A reduced IF bandwidth provides greater selectivity (better rejection of unwanted signals) and has the ability to lift weak signals from the noise.





This wideband array covers 48-110MHz, a neat answer to TV & FM DX-ing during the summer.

The D-100 Converter first launched in 1983.

The unit has been exported to all corners of the globe and has received enthusiastic praise in the technical press and club magazines.

PLEASE NOTE!

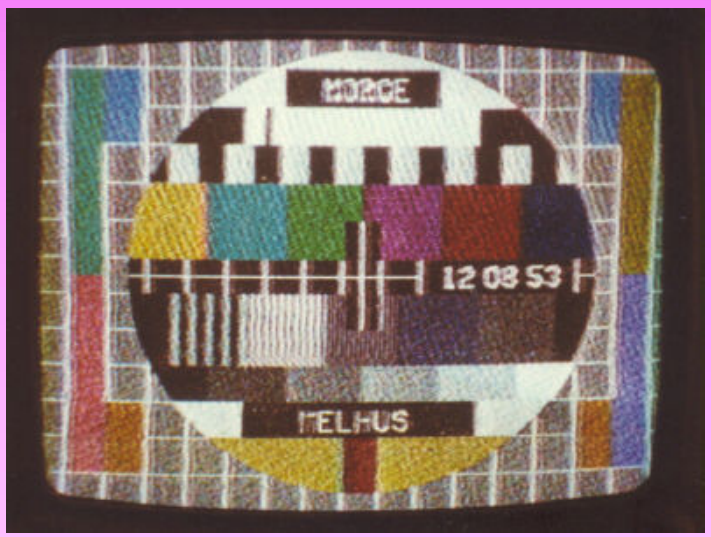
We can still supply these on a 'built-to-order' basis while components are still available but these are now in VERY short supply at the time of updating this page.
If interested, please contact us first at GarrySmith405625.hs@gmail.com
for availability, prices and supply times *before* you place an order.

DIGITAL TREND

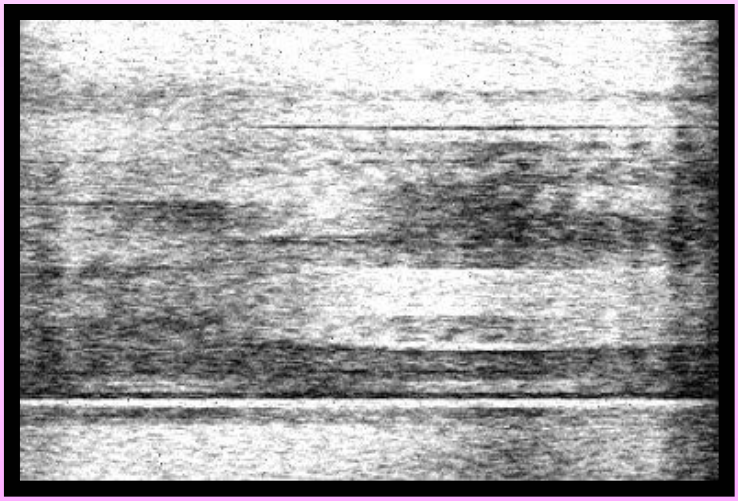
Within the past few years much of the World has converted to digital whether we like it or not. We don't and this feeling is echoed by almost every enthusiast on the planet. Currently only Russia and Ukraine (and possibly Moldova) are operating in Bands I/II but given a good Sporadic-E opening who knows what still lurks out there.

There are new Band I transmitters operating in Africa but these are more than a typical skip distance away. Sites such as 'DX Maps' (www.dxmaps.com) should give some clues as to the direction and ferocity of an opening.

TV DX-ing is certainly more of a challenge these days and we shouldn't forget how we used to moan and groan when strong Spanish signals would block Channels E2, E3 and E4, dashing any hopes of capturing the likes of Jordan or any US stations.



A Norwegian test pattern breaks into colour.



An exceptional opening to Venezuela (TVES) in May 2012 (Paul Farley, Newhaven).

CURRENT TV CHANNELS IN BANDS I & II

System D: PAL/SECAM, 625 lines 50Hz frame frequency with 6.5MHz sound spacing. Used by Russia, Ukraine and Moldova.

	VISION	SOUND
Channel R1	49.75MHz	56.25MHz
Channel R2	59.25MHz	65.75MHz
Channel R3	77.25MHz	83.75MHz
Channel R4	85.25MHz	91.75MHz
Channel R5	93.25MHz	99.75MHz

Best indicators: Presence of Eastern European FM stations, OIRT FM band open.

System D: China (with slightly different channels to Russia, etc).

Channel C1	49.75MHz	56.25MHz
Channel C2	57.75MHz	64.25MHz
Channel C3	65.75MHz	72.25MHz

Best indicators: Intense openings to the east.

System B: PAL, 625 lines 50Hz frame frequency with 5.5MHz sound spacing. Was widely used in Europe. Now only Middle East and Africa.

Channel E2	48.25MHz	53.75MHz
Channel E3	55.25MHz	60.75MHz
Channel E4	62.25MHz	67.75MHz

Best indicators: Intense FM openings into Africa or to the east.

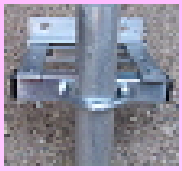
System M: NTSC colour, 525 lines 60HZ frame frequency with 4.5MHz sound spacing. Used by Caribbean, Central and South America.

System N: NTSC/PAL colour, 625 lines 50HZ frame frequency with 4.5MHz sound spacing. Used by some South American countries.

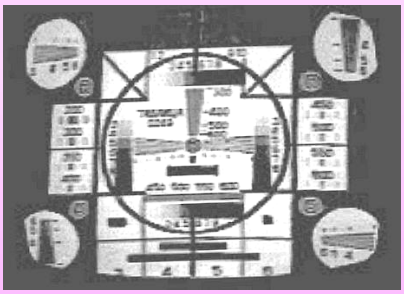
Channel A2	55.25MHz	59.75MHz
Channel A3	61.25MHz	65.75MHz
Channel A4	67.25MHz	71.75MHz
Channel A5	77.25MHz	81.75MHz
Channel A6	83.25MHz	87.75MHz

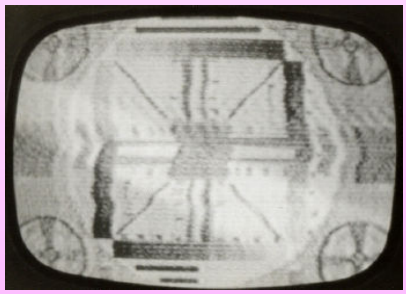
Best indicators: Presence of utility services below 50MHz and six-metre band (50MHz) open to the west.

Lower Antenna: Manually rotatable Band I array.
Top: VF-100 array covering 48-110MHz (Bands I, II & FM) + 175-230MHz (Band III).
Location: Derby UK (Garry Smith).
A wideband UHF array was later added to the VF-100 boom for local/DX reception.



A pole mast is easy to create using a pivot and retaining bracket (available via our catalogue).
The mast can be lowered single-handed in seconds.





Test cards from Russia, Spain and Poland in 1970 - the good old days of DX-ing!

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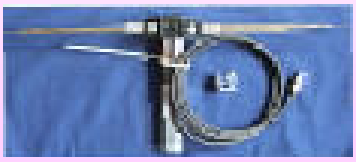
An ambitious installation (Andrew Jackson, Birkenhead).

MOBILE DX-ING

Truck-mounted UHF Antenna (George Garden, Scotland).



A telescopic half-wave dipole and amplified mini-UHF log can be obtained separately or as part of a package. Handy for a spot of mobile TV or FM DX-ing.

OTHER DX SITES

Todd Emslie (Australia): home.iprimus.com.au/toddemslie/dx.html
Worldwide TV-FM DX Association (US): forums.wtfda.org

DIGITAL DX-ING

The transmission system for broadcasting may have changed from analogue to digital but the atmospheric conditions that cause the overseas signals to be received still exist.

The bad news is that Band I is NOT used for digital TV transmission in Europe but it is in the US (and maybe Canada). So we have to rely on tropospheric reception which is likely to occur during periods of settled weather when atmospheric pressure increases. The UHF band is dominated by digital TV broadcasting although some European countries are now opening up multiplexes in Band III.

MPEG-4 encoding, with its greater compression and an increase in bandwidth capacity, is now the preferred option of most countries when new services or multiplexes are introduced. The adoption of the second-generation DVB-T2 standard also provides greater capacity.

Some countries currently operate a mix of DVB-T, DVB-T2, MPEG-2 and MPEG-4 transmissions. Countries still using DVB-T MPEG-2 include the United Kingdom SD (Standard-Definition) channels, Belgium and The Netherlands.

A Freeview SD (DVB-T MPEG-2) receiver will limit reception possibilities but HD sets also cater for DVB-T2 MPEG-4, which should satisfy these encoding combinations.

Note that Germany and the Czech Republic have launched HEVC (High Efficiency Video Coding), another standard. It is expected that France will also adopt this standard.

Years ago most DX-ers used a horizontally-polarised antenna for UHF reception as most high-power transmitters used this polarisation. The Dutch have changed to vertical and so have the Belgian VRT transmitters. Many German ones are now vertically polarised. Attempting to receive a vertical signal on a horizontal antenna will result in around 15dB loss which is quite considerable. It makes sense to add a second array.

An original Philips set-top box dating from October 1998.
The official OnDigital opening was on November 15th, 1998.

ANTENNAS

The Wolsey/Triax array features a double-director chain.
This antenna is incredibly well constructed.
It covers Channels 21 to 60 and is LTE filtered to protect against 4G interference.
The gain ranges between 8.5 (Ch21) and 12dBi (Ch60).

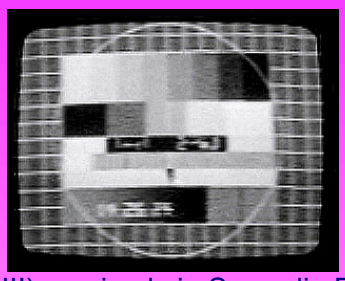
The latest version of the Triax-52 (Channels 21 to 60) has a reasonably level gain throughout the UHF spectrum ranging between 11 and 14.5dBi.

Over the decades, the Wideband Grid has been a keen favourite for DX-ing
but it seems to have fallen out of fashion for domestic use in the United Kingdom.

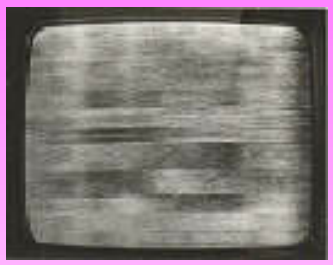
A grid offers a fairly level response throughout the UHF band
and it has a good front-to-back ratio.
The four sets of stacked dipoles means that it is ideal contender for vertical polarisation.

Antiference RX12, a neat compact array.

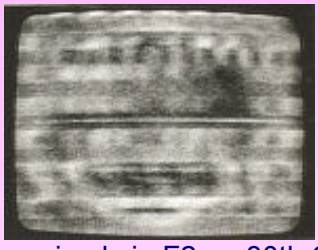
SOME RARE EXAMPLES OF DX RECEPTION



Libya Ch. E6 (Band III) received via Sporadic-E in June 1988 using the VF-100 aerial atop a 5-metre mast.



Equatorial Guinea? Ch. E2 via T.E.P. (Trans-Equatorial Skip) in April 1990.



Iraqi test card Ch. E2 received via F2 on 30th Oct 1989 at 1235UTC.

CALLING ALL DX-ERS!

TV & FM DXING

ARCHIVE TV & RADIO

Our DX magazine 'TeleRadio News' was established in 1983 and caters for long-distance TV and FM reception enthusiasts Worldwide. We've broadened its appeal to include all aspects of broadcasting, past and present. It is now available in COLOUR via email – See Page 23

BROADCASTING NOSTALGIA

We also have our 'Broadcasting History In Print' packs which contain invaluable useful information about how the radio and TV landscape has evolved over the years. A real feast of nostalgia at a very small price.

CALLING ALL DX-ERS!

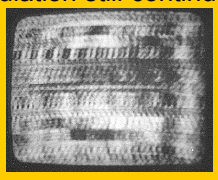
OUR BACK-COPY PACKS TELLS ALL!

Rare hardcopy packs of early TeleRadio News magazines.
Relive those incredible TV DX openings!
Ideal for propagation research.

THE 1990-1993 F2 YEARS

12 RARE ISSUES

This period of F2 was a truly fascinating spectacle, spanning several winters of incredible DX reception from all parts of the globe. It was routine to switch on at 0800 and witness pictures from Asia, rock solid and at high-strength thanks to an upsurge in solar activity. Skip distances were far in excess of Sporadic-E ones and quite a few mystery stations were encountered, some of which were never fully identified. Speculation still continues……



These 12 rare issues of TeleRadio News issues cover October 1990 to March 1993 feature lots of reception reports, pictures and logs which are regarded as an important piece of DX-ing history by enthusiasts.

THE 1998-2002 F2 YEARS

12 RARE ISSUES

Although some DX-ers do not regard the 1998 to 2002 solar cycle to be not quite as potent as the previous one, to receive Australian pictures at 46.25MHz as one of the first F2 encounters was something to treasure. Nevertheless signals were encountered over several winters in the United Kingdom and the logs and pictures within these 12 selected TeleRadio News issues are there to savour. Covers Oct 1998 to Jan 2002 logs.

YEARS 2001 -2005

These issues contain a mine of information featuring various technical topics, also test cards and graphics, transmitter listings of the time, not to mention the reception reports and logs in chronological order.
Relive those classic Sporadic-E and tropospheric openings when analogue ruled!

PACK OF 30 ISSUES

YEARS 1994, 1995 & 1996

It's hard to believe how quickly time flies. Over twenty years ago DX was in its heyday.
Lots of rare test cards and pictures.

PACK OF 18 ISSUES

For up-to-date packs and prices please send for our latest catalogue.

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FM DX-ING

The more intense Sporadic-E openings produce openings on the FM band. For this to happen, the m.u.f. (Maximum Useable Frequency) needs to be higher than for Band I TV signals. Distances are similar to the propagation of TV signals in Band I. Occasionally signals from the Middle East can be received and in some cases from across the Atlantic.

For FM reception a receiver with RDS is essential but do your homework first before parting with your valuable cash. Sometimes vital features are missing from the manufacturer's specification info and retailers, particularly the national ones, often haven't a clue what they are selling.

Note the top FM antenna (Compact Five) with its swept-back dipole (Chris Howles, Lichfield). The antenna provides a high front-to back ratio.

The middle antenna is a wideband dipole covering 48-110MHz.
The vertical dipole is wideband type for FM reception.

All these antennas are available via our catalogue.

INTERFERENCE REMOVAL

NOTCH FILTERS, REJECTORS & PHASING UNITS

**These are certainly handy tools to have but there are a few points to bear in mind.
A receiver with high selectivity is essential to avoid interference
from strong adjacent channels.**

All filters impose a slight insertion loss (typically 1-2dB). The usual recommendation is to fit the filter before any amplification nut it can have an impact on extremely weak DX. Filters can be used after amplification but if the unwanted signal is very strong this can cause the amplifier to overload adding to the problems. Experimentation is the key.

NOTCH FILTERS

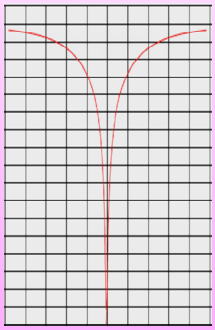
This single-pole varicap-tuned notch filter has a notch depth of 35dB or greater.
The filter is more effective when signals are a minimum of 0.2MHz apart.

A notch filter cannot be used to remove another signal sharing the same frequency but it can be phased out using a second antenna (see Removing Co-channel Signals).

A notch filter is designed to provide rejection at one particular frequency, so if a group of high-level broadcasts, e.g. from one transmitter, are overloading an amplifier or the receiver, then a notch filter may be of little use.

In this situation, a rejector (or trap), with a broader rejection characteristic may be the answer but the loss tail-off either side of its peak can be leisurely and will eat into adjacent channels. Careful adjustment may reach a compromise situation and reduce the impact of the unwanted carriers on the wanted one.

The tail-off is less leisurely with a notch filter but some loss is inevitable on very close adjacent frequencies. This is more noticeable the higher the frequency involved, i.e. a notch filter may seem more effective in Band I (lo-band) than at, say, Band II (FM Band), Band III (hi-band) or at UHF.



For illustration purposes only – not to scale.

In Band I it is possible to reduce the impact of strong baby alarm carriers only a few kHz away from the Channel R1 vision frequency of 49.75MHz. Although some loss is present on the wanted frequency it is really a case of either you see the picture or you don't.

ADJUSTING

When setting up filters it is relatively easy to adjust visually (such as for TV DX-ing) when the wanted signal is present – simply adjust until the image becomes clear enough to see.

Adjusting a filter while listening to an audio carrier can be difficult; it is better to attenuate it first then it becomes easier to hear any changes. With FM reception it is better to tune into the wanted signal and adjust for best results. Success depends on the relative levels of the two signals and such filters work better when there is at least 0.2MHz separation.

INTERFERENCE STRAYING ONTO OTHER BANDS

A adjustable rejection filter such as the F/9100 can be used where a group of strong FM carriers interfere with other bands; this situation can arise if using an amplifier when high-level signals drive it into overload (cross-modulation).

One example is when FM signals affect Band II TV channels R3, C and R4 which lie just below the FM band. Another is where FM signals affect the lower end of Band III (hi-band).
Adjust the rejector until the interference reduces or clears.

'Guide To DX-TV' (HSP20, available via our catalogue) provides a wealth of useful information about bandwidth reduction, amplification and techniques on curing interference whether it be for TV or FM DX-ing.

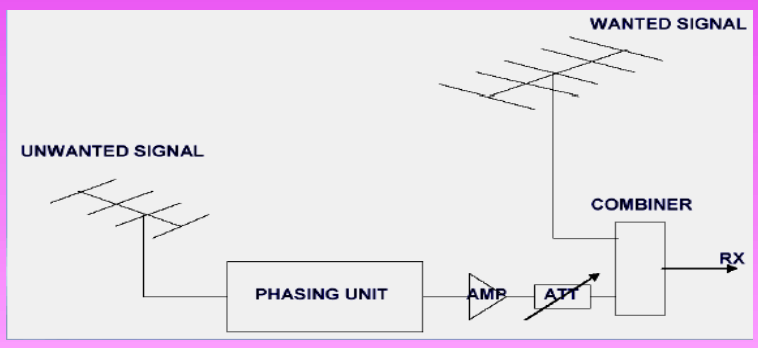
A notch filter for reducing baby alarm carriers around 49.75MHz (Channel R1).

REMOVING CO-CHANNEL SIGNALS

Carefully orientating two antennas to provide phase shift is one way of canceling an unwanted co-channel signal.
The technique can also be used to remove troublesome adjacent channels.

A more elegant technique is to use a phasing unit which creates the phase shift. A second antenna is still required to pick-up as much of the unwanted signal as possible – this should be directed at the offending source but should pick up as little of the DX signal as possible.

The PH1 unit features phasing and balance adjustments to create a 180-degree phase shift between the unwanted signals captured by both antennas. An attenuator is required to ensure that the levels are equal in amplitude.



A higher level of signal needs to be available via the 'interfering' antenna for the system to work and in some cases amplification may be required, either before or directly after the phasing unit. A variable gain amplifier (e.g. Item M90) can be used as an alternative to the separate attenuator. The signals are then combined using a fully shielded wideband combiner and fed into the receiver.

Operation is relatively simple but some experimentation may be required to master the technique and obtain the best results. Readjustment will be necessary for other unwanted signals arriving from the same source as phase relationship alters with frequency. Only one unwanted carrier can be removed at a time.

PH1 KIT (40-230MHz) INCLUDES:-
Phasing unit (fully-screened diecast housing), fully-screened diecast combiner, variable attenuator, F-connector, F to female coax adaptor, phasing section with coupler.

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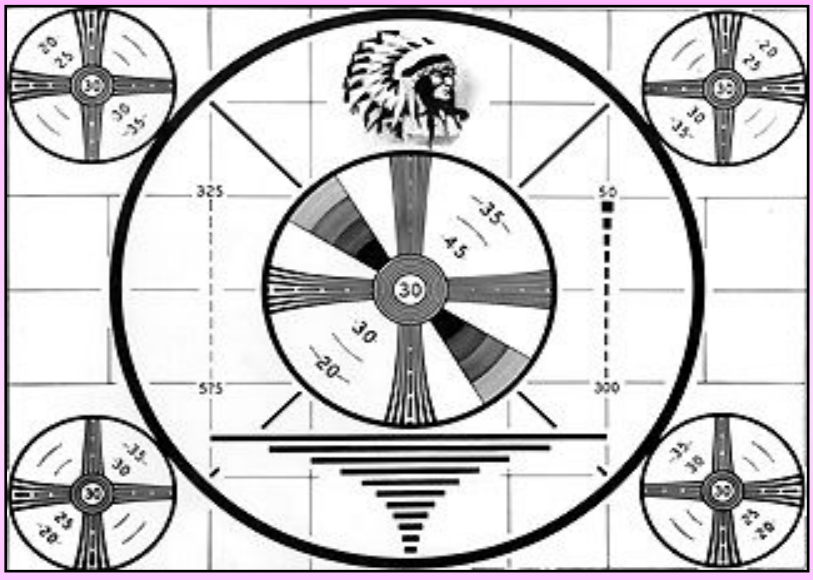
ARCHIVE TV

A spin-off from the TV DX-ing hobby is the fascinating subject of test cards and the various aspects of archive broadcasting. The early days of television was an exciting period for those interested in the technical side of broadcasting. Will today's graphics and presentation be as fascinating in generations to come?

Unlike today where graphics change at the flick of a button, early TV broadcasts features traditional captions and identification symbols which created a station identity which often remained unchanged for years.

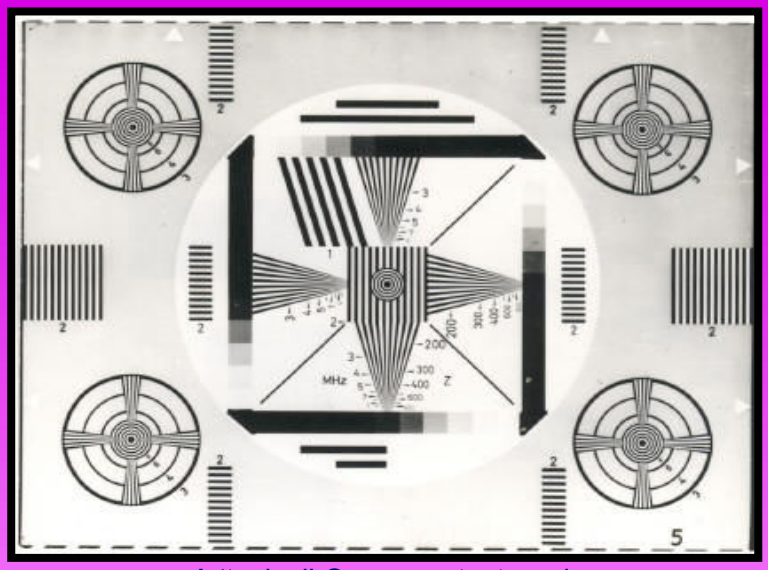
There were wildly differing test card designs in the early days of television. UK enthusiasts used to the corner focussing 'blocks' in Test Cards C, D, E and F often found the concept of corner circles on Overseas test cards a little strange. However some early ITA test cards featured circles, such as the Rediffusion one aired in the London area at the start of commercial television.

These are well documented on the Internet.



The famous Indian Head monoscope test pattern widely used in the US.
This was also used by Sweden in the early days of its TV service.

Italian private station NCT aired a variation of this test pattern with top identification and a greyscale strip below the circle.



A ‘typical’ Overseas test card,
the Telefunken T05, featuring corner circles.
Most networks in the former West Germany showed test cards based on the T05 design but with different greyscale configurations.

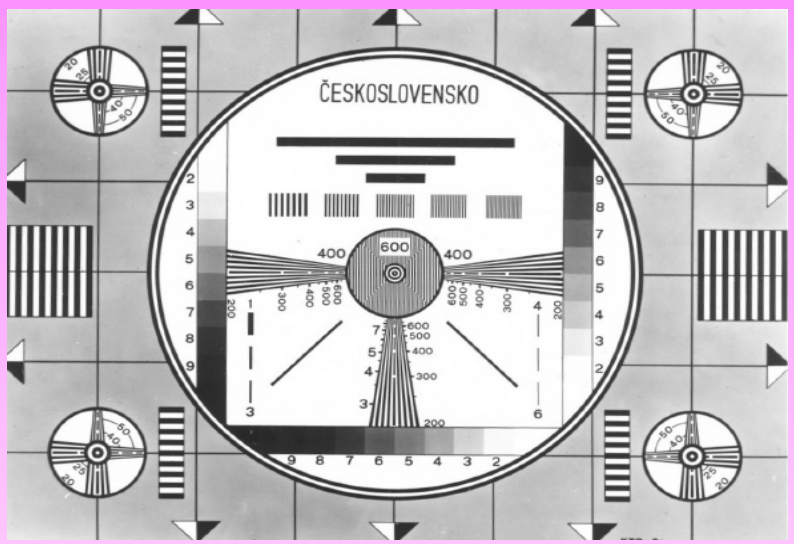
This colour test card was broadcast by Swedish TV in the late 60s.

With the arrival of colour to British television in 1967 we were treated to a colour picture in the centre of the test card, featuring a girl called Carol. Test Card F, as it was known was also used by a few other countries such as Sweden in the early days of colour broadcasts.

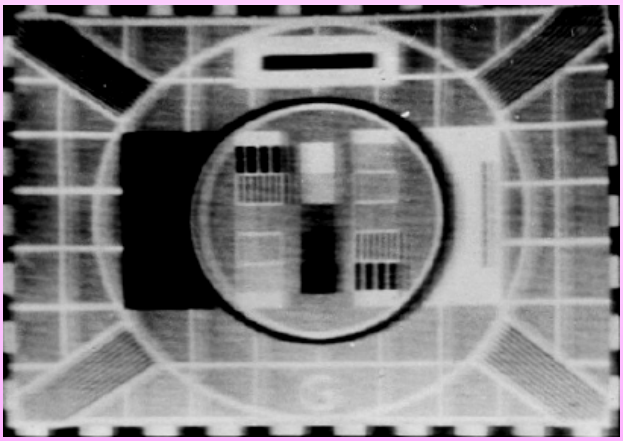
The along came the ubiquitous Philips PM5544 electronically-generated colour test pattern which seemed to spread like wildfire throughout the World!

Off-screen reception of Belgium.

Round-the-clock broadcasting means that test cards are rarely transmitted these days but our range of DVDs, videos and publications show the diverse selection aired in the past. These are the real thing, i.e. either official pictures or off-air shots rather than Internet reconstructions, some of which have been inspired by our past publications.



A distinctive test card design used in the former Czechoslovakia.


An off-screen shot of a Spanish test card (Test Card G) in 1960 photographed by the late Ken Edwards (Aberystwyth).

A FLAVOUR OF ITALY

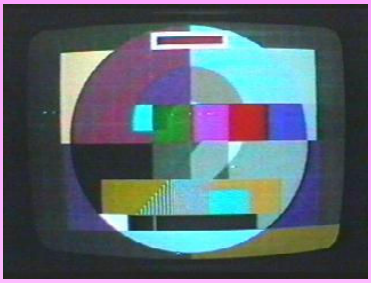
Italy – Veneto

Italy – ATV7

Italy - Espansione TV

Pictures by David Bocca Corsico Piccolino (Italy).

ARCHIVE TV
FURTHER READING



There is even a range of BBC TV clocks in various frames.

In 1983 we launched *TeleRadio News,* a DX-TV magazine featuring logs, reception reports and general news items. In the Nineties *TV Graphics Review* provided archive enthusiasts with lots of interesting material including many in-depth feature articles on various BBC topics, all carefully researched.

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TELERADIO

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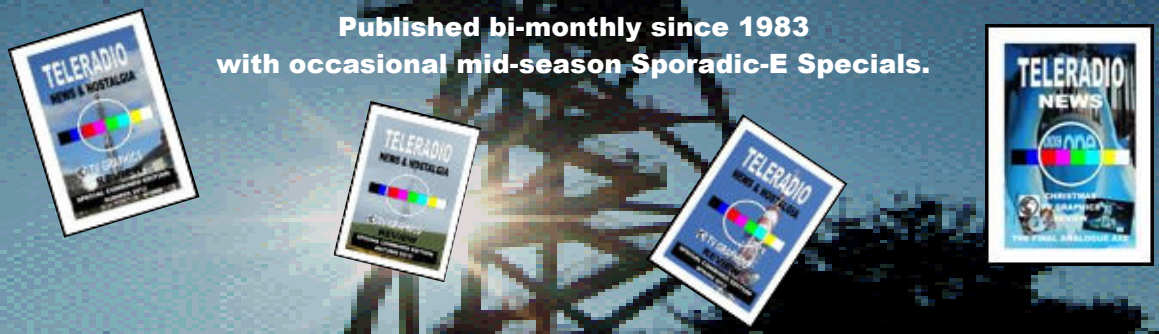

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TELERADIO NEWS

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TV GRAPHICS REVIEW

BBC TEST CARD CLUB PAGES

CHRISTMAS ISSUE 220

SAMPLE COPY

CONTENTS....

CHRISTMAS ISSUE 220 TV GRAPHICS SPECIAL

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January 28th, 2017

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Newsdesk

Compiled by Keith Hamer

GERMANY: DVB-T2 switchover will begin on 29th March, 2017. Initially DVB-T transmitters in metropolitan areas will be closed; and by mid-2019 those across the rest of Germany will be switched off..

NETHERLANDS: NPO 'Radio 4' is airing classical music on FM and DAB+. Sometimes NPO 'Radio 4' is airing a classical concert on TV via NPO 1, NPO 2, NPO 3 or a regional broadcaster (PBS national and regional via MUX 1, all free-to-air). It's own logo is used at the right top of the screen.

AUSTRIA: By 2018, every channel is expected to be encrypted, although viewers who register their cards with 'SimpliTV' (the Austrian digital TV company) will receive the basic channels without paying a monthly subscription.

UNITED KINGDOM: In 2017, Ofcom will auction 190 MHz of spectrum in the 2.3 GHz and 3.4 GHz bands. This is an increase of just under a third of the total mobile spectrum that is currently available. This represents more than three-quarters of the 4G airwaves that were released in 2013.

The 40 MHz of spectrum to be sold in the 2.3 GHz band is already supported by mobile devices, such as the iPhone. This spectrum could be used immediately after release to provide extra capacity, meaning faster downloads and internet browsing for consumers.

The 150 MHz of spectrum to be sold in the 3.4 GHz band is not currently used by most mobile devices, but is likely to be usable by future devices in coming years. The 3.4GHz band has also been identified as central to the rollout of 5G across Europe.

Ofcom proposes to apply a cap in the auction, of 255MHz, on immediately useable spectrum that any one operator can buy.

POLAND: The following DVB-T2 (MPEG-4). transmitters for MUX 8 are on the air These air in Band III (former channels R6, R7 and R9) and the relatively high ERPs suggest DX-ing opportunities.

Ch/Transmitter/Province/ERP/Pol

Channel D06
Gdańsk/Chwaszczyno (Pomorskie) 20kW V D
Katowice/Kosztowy (Śląskie) 20kW H D
Krosno/Sucha Góra (Podkarpackie) 18kW V D
Wrocław/Góra Ślęża (Dolnośląskie) 16kW V D

Channel D07
Warszawa/PKiN (Mazowieckie) 17kW H D
D07V Kraków/Chorągwica (Małopolskie) 10kW D

Channel D09
Łódź / Zygry (Łódzkie) 25kW D

D = Directional radiation pattern.

FREEVIEW SD DOWNGRADE

Ofcom has confirmed a number of changes to the technical code for Freeview, ITV, Channel 4 and Channel 5 now free to choose a lower picture resolution on their Freeview SD (standard-definition) channels.

The technical code was the subject of a consultation earlier in 2016, with the document needing to be updated to remove references to analogue TV, four years after the last analogue terrestrial TV transmissions were switched off.

Following the consultation, Ofcom has agreed to deregulate aspects of the technical code, with requirements dictating a minimum picture standard and resolution enforced on ITV, Channel 4 and Channel 5's Freeview SD channels being abolished. Until now, the broadcasters have been forced to adopt a minimum resolution of 720 x 576 or 704 x 576. Recommended audio bitrate levels will be removed from the code.

However, the three broadcasters, plus 'STV' in Scotland, will be required to submit an annual report each July to Ofcom, including an analysis of viewer complaints relating to poor reception quality and technical faults, a summary of any significant service-affecting studio or playout faults, and a brief description of any notable changes in the technical architecture of the service.

LIP-SYNC ISSUES

The revised technical code will also continue to require broadcasters to ensure that lip-sync issues do not annoy viewers, and multiplex operators will need to notify Ofcom of any transmitter outages lasting more than 30 minutes at main transmitter sites and 2 hours at relay sites. The minimum standard of availability of a Freeview signal is expected to be 99.8% of the time for viewers served by main transmitters and 99.0% for other transmitters.

Ofcom decided against including HEVC for Ultra HD TV broadcasts in the revised code, but has made it clear it will welcome applications to use the standard in the future.

Most respondents within the industry were supportive of the originally proposed changes, with just lip-sync issues being flagged up as an item worth retaining in the code.

Of concerns about the removal of the SD picture resolution standards, Ofcom said "We do not believe that the removal of the SD resolution requirement will necessarily lead to the affected broadcasters delivering services with degraded technical quality. Nor do we believe that removing the resolution requirement from the three specific services to which they currently apply will lead to a wider reduction in picture quality on the DTT platform.

MORE CHANNELS

However the loosening of the restriction could allow more channels to be launched on the Freeview multiplex carrying ITV, Channel 4 and Channel 5. Currently it carries 10 standard definition channels, although this could be increased if some or all services reduced their picture resolution. The changes could allow services such as 'ITV3' to be accommodated as part of the signal carrying most of ITV's other Freeview channels and made available to everyone using Freeview. 'ITV3' is currently available to 90% of households, compared to 98.5% for ITV/STV, the maximum Freeview level of coverage.

The move may allow more flexibility for channel operators as multiplexes changes take place around 700MHz clearance, when the number of frequencies available to Freeview are reduced.

COMMENT

Many years ago there were proposals to reduce the resolution quality of the rolling news programmes aired by the BBC and maybe ITV to accommodate more channels per multiplex. This never came to fruition but, instead, we now have BBC News in HD, plus others such as Al Jazzera, all wasting space.

The BBC have pulled out the stops to create HD versions of programmes for children. Surely there aren't many young kids out there who would scream their eyes out having to watch standard-definition TV!

AUSTRIAN UPDATE

More DVB-T (SD) transmitters have been converted to DVB-T2/MPEG4-AVC during 2016. By the end of 2017 all DVB-T transmitters will have been taken out of service region-by-region.

During a grand tour of Europe last summer **Niels van der Linden** (Belgium) was able to check out the following two Austrian transmitters which lie close to the German border. DVB-T2 multiplexes are as follows:-

INNSBRUCK 1/PATSCHERKOFEL (TV)

MUX A	D23H	100kW
MUX B	D27H	100kW
MUX C	D36H	100kW
MUX D	D37H	100kW
MUX E	D24H	100kW
MUX F	D22H	100kW

INNSBRUCK 1/PATSCHERKOFEL (RADIO)

Ö1	92.5 MHz	45 kW H
Radio Tirol	96.4 MHz	45 kW H
Hitradio Ö3	88.5 MHz	45 kW H
FM4	101.4 MHz	45 kW H

SALZBURG – GAISBERG (TV)

MUX A	D32 H	80 kW
MUX B	D29H	80kW
MUX D	D47H	80 kW
MUX E	D59H	80 kW
MUX F	D55H	80 kW

SALZBURG – GAISBERG (RADIO)

Ö1	90.9 MHz	100 kW H
Radio Salzburg	94.8 MHz	100 kW H
Hitradio Ö3	99.0 MHz	100 kW H
FM4	104.6 MHz	100 kW H
R. Oberösterreich	101.2 MHz	10 kW H
Antenne Salzburg	101.8 MHz	10 kW H
Energy Salzburg	94.0 MHz	270W H+V

Salzburg-Gaisberg transmitter.

D47 ORS MUX-D Salzburg - Gaisberg 80kW. Showing 'ORF-2 HD' news 'Heute Österreich'.

D29 ORS MUX-B Salzburg - Gaisberg 80kW. Commercial station ''ATV' with the news.

BELGIAN REGIONAL PROGRAMME

'Via één', a regional programme, is aired on Saturdays, starting around midday local time. The old regional name was 'TV Brussel' but recently the name was changed to 'BRUZZ'.

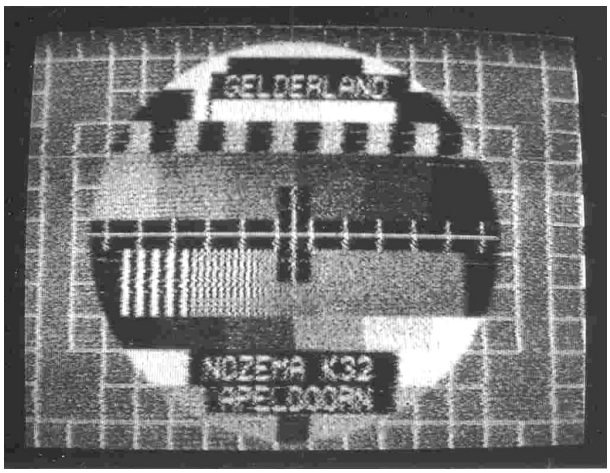
Newsdesk information kindly supplied by Gösta and Niels van der Linden (BDXC); Niels van der Linden (Mol, Belgium); Lionel Michelland (France), Ofcom and Garry Smith (UK).

ANNIVERSARIES

Gösta van der Linden (Rotterdam, Netherlands) has reminded us that several broadcasting anniversaries have taken place this year.

NETHERLANDS

'TV Gelderland', a regional TV service on UHF, opened in September 1996.



'TV Gelderland' test pattern on ChE32 (Apeldoorn) received in February 2006 by Stephen Michie.

'Omroep Brabant' commenced in September 1976 with a regional radio programme delivered via the cable networks in that province. Only in 1997, 'Omroep Brabant' commenced TV broadcasting but it was still confined to cable.

Following analogue switch off in 2006, all regional broadcasters were assigned a channel in terrestrial MUX-1.

omroep gld

New graphics launched in early 2013.

ICELAND

Not to be confused with the frozen food chain! RÙV (Rikisutvarpid-Sonvarp) came on the air on 30th September 1966 via a transmitter at Reykjavík using Band III channel E10 with 4kW ERP. This was the only station listed in the EBU's 'List of VHF/UHF Television Stations' dated March 1968.

By 1969 Band I transmitters were operating and by 1971 there were two high-power transmitters using E4: Gagnheidi 80kW and Skálafell 300kW, the latter being one of the highest powered Band I transmitters in Europe and one on E3 (Stykkishólmur 90kW). In 1971 Hvalfjörður a 20W relay on E2 was listed.

Transmissions initially took place only on Wednesdays and Fridays, gradually expanding to the rest of the week over the years. There were no transmissions on Thursdays.

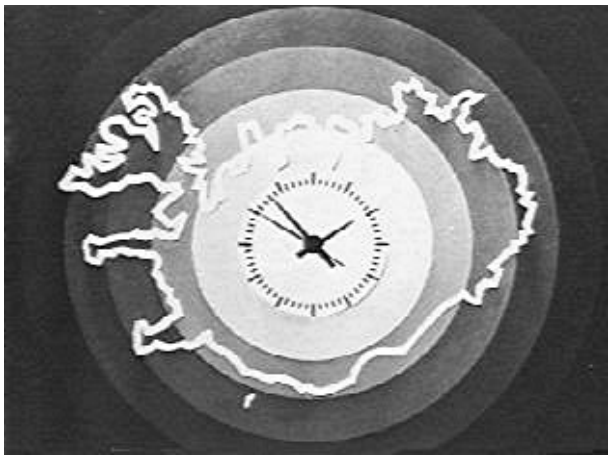
The 1972 WRTHB indicates that programmes were scheduled as follows:-
Mon, Tues & Fri: 2000-2300
Wed: 1800-2300
Sat & Sun: 1700 -1900 then 2000-2300

For several years broadcasts were suspended during the months of July (and possibly August) to allow inhabitants to make the most of the summer evenings rather than be glued to the box. This continued throughout the years until 1983 when competition arrived.

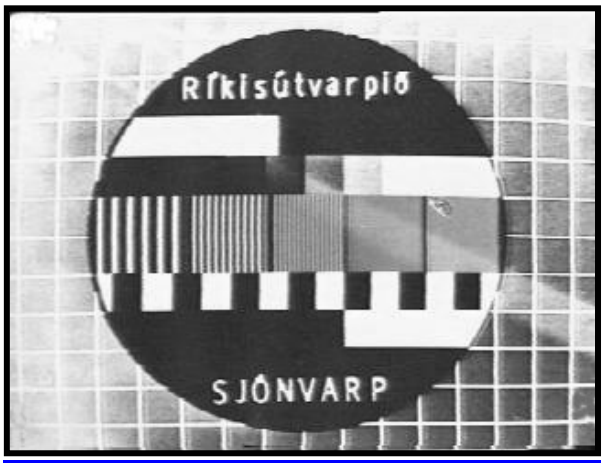
The test pattern looked similar to the West German electronically-generated mono-chrome one of the 60's. The official photograph as supplied by RÙV showed 'Rikisutvarpid-Sonvarp' identification but in all instances when it was received none was displayed.

The test pattern was shown for lengthy periods and well into the early hours, long after European services had switched off and had vacated the channels. Icelandic reception was strictly for night owls and DX-ers would welcome it as it might pave the way for some transatlantic DX.

Colour tests were introduced in 1973 and the Philips PM5544 test pattern was used.



Unmistakable clock caption from the 60s.



Icelandic testcard used in the 60s (an official picture from RÙV).

RÙV announcer in 1966.

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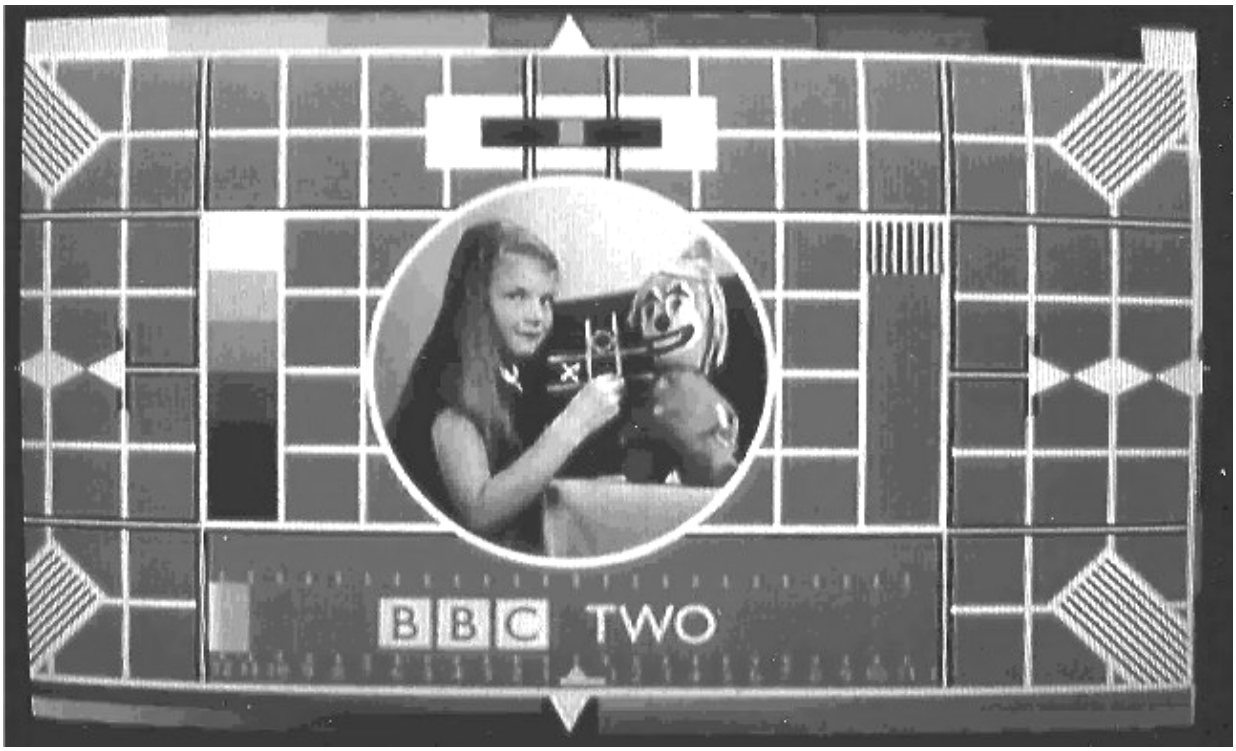
THE BBC PAGES

BBC TEST CARD CLUB ITEMS

MYSTERIES AT THE BEEB



Mystery Test Card transmission spotted by Stephen Michie.

SPECIAL TEST

Stephen Michie (Bristol has brought to our attention a widescreen test card which may have been part of special tests. The test card was noticed between programmes during the nights of June 7th and 8th. It seemed to be shown on the five-to-the-hour for approximately two minutes.

BBC THREE

Another mystery is the strange transmissions on the former 'BBC Three' channel, where the TV receiver has not been retuned. This consists of BBC CBBC material (in parallel) but with the sound missing on certain scenes.

Are there any of our BBC experts out there who has further information about what was or is happening?

TEST CARD F IS BACK

Meanwhile, the widescreen version of 'Test Card F' which had disappeared from Channel 200 (Red Button channel) is back.

The 24/7 test card can be accessed by juggling with the coloured buttons on the TV handset. To access it:-

1. Select Channel 200 and wait for it to load.

2. Press the YELLOW button then changed channel.

3. Return to Channel 200, press the YELLOW button and wait for the page to load.

4. Press GREEN button, a page comes up, press it again and the test card should load.

If not, repeat the sequence!

ANOTHER GLOBE RECONSTRUCTION

Colourful 'BBC1 Scotland' Hogmany/New Year globe (Courtesy Mike Pitt).

Al Hines (Orkney) writes "My Roobarb's Forum friend Mike Pitt has come up with the goods again.

"I was watching the 1975 Doctor Who story "Pyramids Of Mars" and remembered a special effect used for the villan's time machine being used on the 1975/76 BBC1 Scotland Hogmanay / New year globe, the same effect was used in 1976/77 :

"The Doctor Who story was called "Pyramids Of Mars" Starring Tom Baker from October/November 1975 - the same effect was also used in a BBC-2 colour TV show called 'Colour Me Pop'.

"The BBC1 Scotland "Colour" idents seen in issue 219 were fantastic, shame there were no dates! Let's hope someone caught the seasonal variants!

"All the best Garry, and I look forward to Issue 220!

Unfortunately some of the early off-screen shots do not have dates written on them. Here are two more shots from the 70's and 80's as received in the Netherlands. The right-hand one that Gösta van der Linden has sent is dated and was received by Rijn Muntjewerff during a tropospheric lift on January 15th, 1982.

THE CORONATION & DX SIGNALS

63 YEARS AGO

Alan Keeling (West Midlands) draws our attention to a website called 'BBC TV From AP' (www.bbctv-ap.co.uk) which features the televising of the Coronation on June 2nd, 1953.

The programme originally started at 10.15 a.m. and was preceded with Test Card "C" (on film) commencing at 9.15 a.m. with the tone followed by music at 10.10 a.m. featuring an excerpt from the 'Three Elizabeths Suite' by Eric Coates. Test Card 'C" was followed by the BBC "Coat Of Arms", then announcer Sylvia Peters who introduced the proceedings. Sadly, Sylvia passed away last summer.

English actress Sylvia (full name: Sylvia Peters Sylvia Lucia Petronzio) played a role as a continuity announcer and presenter for BBC Television between 1947 and 1958.

The BBC Coat of Arms.

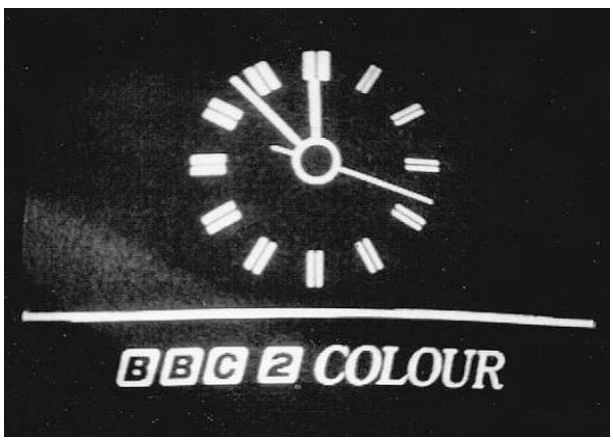
Sylvia Peters.
Born: September 26, 1925
Died: July 26, 2016.

45 YEARS AGO

Gösta van der Linden (Rotterdam, NL) has sent two photos of BBC-2 Sandy Heath as received in September 1971. He writes "One evening the vision of NOS-2 Lopik on the same channel (E27) was unwatchable due to heavy co-channel interference giving the well known broad bars rolling up the screen.

"I knew that the interference was caused by a strong BBC-2 signal. When I switched the sound to 6.0MHz, I got the bad NOS-2 pictures but with the BBC-2 sound. After the last news and weather NOS/Lopik-2 showed the PM5544 test card. After sign off I noticed clear pictures of the BBC-2. The same evening I also received Grampian TV. etc.

"In those days I used a large screen Philips TX170 TV, an UHF Polytron aerial amplifier and a twin log-periodic UHF aerial (2xTewea Multiwing).



EIGHTY YEARS OF BBC TELEVISION

By Keith Hamer

Here in the UK, we celebrated our own special broadcasting anniversary. The World's first, public, high-definition television broadcast aired from the BBC Studios at Alexandra Palace in London on November 2nd, 1936.

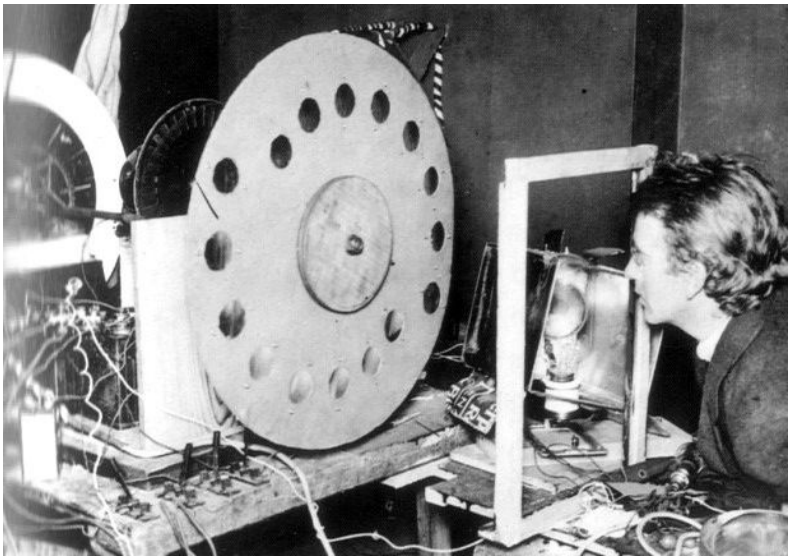
The iconic TV tower, which still partially exists atop the 'Ally Pally' building, was illuminated to mark the 80th anniversary. 'BBC Four' staged a modern-day reconstruction of the opening ceremony. Although some eighty years earlier, John Logie Baird managed to achieve a 240-line high-definition mechanical system, the challenge was much too great for the latter-day university professor-led team. Despite having 21st Century equipment to hand, only a replica 30-line system could be created and even that was not a genuine reconstruction!

Alexandra Palace in the summer of 1996.

The 'London Television Station' (the first to be designed and constructed by the BBC) was established at the Alexandra Palace. This site was selected as it seemed to offer the best compromise between a number of requirements. There was the necessity for the station to be situated as high as possible above sea-level, and yet be near the centre of the city of London.

The Palace still exists today and stands some 300 ft. above sea-level, between Wood Green and Muswell Hill. It is quite a large building, a feature which was due to an additional recommendation back in the Thirties. As the new station was experimental, it was difficult at the time to estimate how much space would be required.

MECHANICAL VERSUS ELECTRONIC

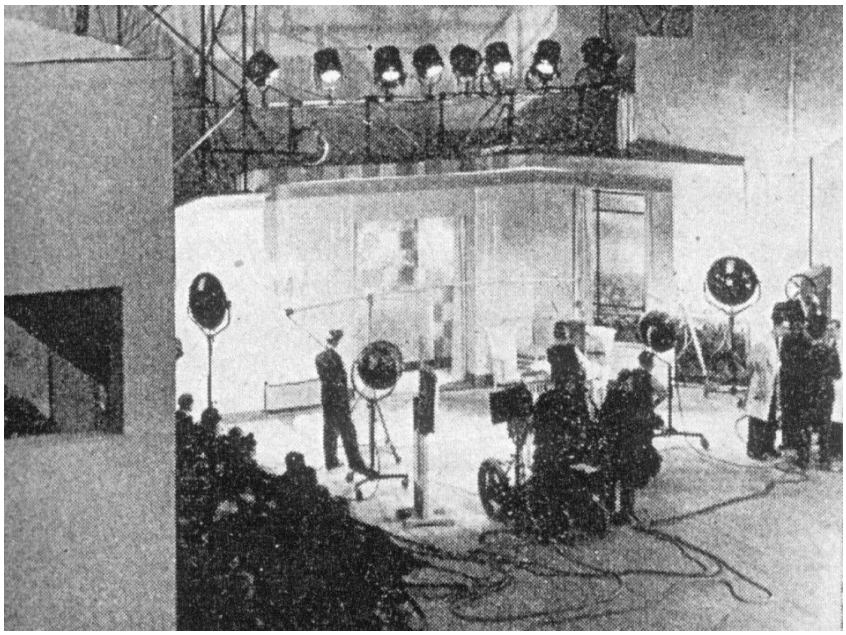


John Logie Baird with his Nipkow rotating disc system.

The Postmaster-General's Committee, which considered the development of television, recommended that the BBC should equip the station with two different systems of television, namely, that provided by the 'Marconi-EMI Television Company Limited', and that of 'Baird Television Limited'.

The Marconi-EMI system was fully electronic (405 lines 50 frames, interlaced scanning) using a camera system while the Baird one was electro-mechanical using a rotating disc (240 lines with 25 frames per second). The latter system had the added complication that a photographic process was involved, with the disc scanning a strip of film. This meant that the scenes had to be filmed and developed, a process taking about one minute, so the broadcast could never be strictly 'live'. The two systems were duly tested under extremely strict comparable conditions, and were used alternatively for periods of a week.

It wasn't very long before it was decided that the electro-mechanical Baird transmissions should cease. Accordingly, only the electronic Marconi-EMI 405-line system was in use from February 8th, 1937.



The studio stands by for the performance to begin

THE OFFICIAL OPENING

The Postmaster-General, Major the Rt. Hon. G.C. Tryon, performed the opening ceremony on November 2nd, 1936. It was first transmitted by the Baird mechanical system, followed thirty minutes later by a repeat performance using the Marconi-EMI electronic equipment which provided viewers with greatly improved picture quality.

Those present included Mr. R.C. Norman, Chairman of the BBC, Lord Selsdon, Chairman of the Television Advisory Committee, Lord Inverforth and Sir Harry Greer. The London Television Station went on the air at 3.00 p.m from the BBC's 17kW transmitter at Alexandra Palace. Channel BI was used with vision and sound carriers of 45MHz and 41.5MHz, respectively.

The first fifteen minutes were taken up by the actual opening ceremony including Adele Dixon singing 'Magic Rays Of Light', which also had the alternative title, 'Television Is Here'. Programmes finished at 4.00 pm to be resumed five hours later with a programme summary followed by a BBC film called 'Television Comes To London' which traced in great detail much of the preparations required to build and equip the studios and transmitter at Alexandra Palace. This film was subsequently used many times during Trade Test Transmissions to demonstrate television to prospective viewers. Programmes ended promptly at 10.00 pm.

From November 2nd 1936 until February 1937, the Television Service was operated for two hours each day on six days of the week. The two systems were used on alternate weeks. Daily reception of the television programmes was arranged in the Grand Committee Room in Westminster Hall for Members of Parliament between November 30th and December 11th, 1936.

The legendary Adele Dixon performs at the opening ceremony.

COMMENTS

Stephen Michie (Bristol) thought that the programme ("In The Box") on BBC-4 was biased towards Baird's system with little mention of the Marconi-EMI apparatus. Also, the photographic process involved with Baird's mechanical system could not be replicated in the programme on the grounds of Health and Safety due to the chemicals used.

A BBC News report on November 1st covering the opening showed Pye monitors from 1959!

On the following day, November 2nd, the BBC made no acknowledgement of the anniversary whereas ITV did.

TEST CARD WATCH

Stephen Michie (Bristol) is always on the lookout for test patterns during breaks in transmissions. Here are a couple of September successes.

'BBC Breakfast News' in September 2016.

Bristol local station inadvertently airs a test pattern in September 2016.

CHRISTMAS GRAPHICS FROM THE PAST

BBC-1 from 2006.

BBC-2 2012

ITV's festive entry in 2012

SEASON'S GREETINGS TO ALL OUR READERS

LOGS Compiled by Garry Smith

SEPTEMBER 2016 RECEPTION

Sporadic-E activity continued well into September and with the added bonus of tropospheric propagation there was little to grumble about.

A Sporadic-E opening occurred on September 10th from 1215UTC with unidentified pictures received by **Tom Crane** (Hawkwell) on Channel R1 (49.75MHz); a block-type logo was present in the top-right of the screen.

George Garden (Inverbervie, Scotland) encountered an impressive FM-band opening on the 13th from 1013. Highlights included the German station 'SWR-2' (Südwestrundfunk) on 88.8MHz from Königstuhl (Heidelberg) with 100kW ERP, 'Radio Centar' on 89.6MHz from Poreč (Croatia) with 7kW ERP and a Spanish station on 91.8MHz.

Nick Gilly (Whitchurch, Hampshire) reported a mid-afternoon opening on the 4th to Italy. On the 10th, the Swedish network 'SR P1' was identified on 87.6MHz and 88.8MHz.

On the 14th at 0925, short-lived Italian signals on 87.5MHz and 87.6MHz were heard here in Derby. Later in the month, on the 26th, French signals fluttered up for several minutes on 87.6MHz.

TROPO TV DX

On the 7th and 15th**, Stephen Michie** (Bristol) logged Sandy Heath 'BBC A' and 'ITV' (D3&D4) multiplexes on channels D27 and D24 respectively.

On the 8th, Tom Crane received Belgium on D22 (VRT multiplex) from Egem (20kW Vertical). Dutch signals were present on D49 (MUX 2) and also D24 (MUX 4), both from Rotterdam-Waalhaven (10kW Vertical).

French multiplexes from Lille were identified on the 22nd carrying 'F3 Nord Pas-de-Cal' regional programmes on D24 and D42 while on D36, 'Grand Lille TV' (MUX8) was present.

On the 27th. **Gösta van der Linden** (Rotterdam, Netherlands) received the following DVB-T2 signals:-
D30V Omroep Brabant
D42V Omroep Gelderland
D54V Omroep Zeeland
D24 Multiplex R1 Nord-pas-de Calais (Lille)
D27 Multiplex R3 (Lille)

Switzerland: D32 (SRG D1 MUX) from Uetliberg at 45kW (Niels van der Linden).

Late on the 27th I noticed severe break up of our local Waltham Ch56 MUX, rather annoying, but then decided to investigate. A check on non-local channels showed that signals were present due to the tropo. Tuning resulted in receiving Tacolneston D55, D59, Sandy Heath D24 and D27 and Crystal Palace D23 and D26. This was a start and some encouragement to eventually sort out the aerials! These signals were received on the 'local' 12-element but at least I now have the key transmitters stored and the banner displays the channel number which is useful.

This reception confirmed that D23, 24, 26 and 27 are clear channels. I thought they should be after receiving Northern Ireland, Crystal Palace/Bilsdale after analogue switch-off in this area and digital multiplexes took over the original channels. In the analogue days The Wrekin on channels 23 and 26 used to block Crystal Palace/Bilsdale and Nottingham would block channels 21, 24 and 27, also used by Sandy Heath. So at lest things have improved!

TROPO FM (SEPTEMBER)

On the 2nd, **Nick Gilly** (Whitchurch, Hampshire) logged Spanish FM stations 'SER' (Gijón) on 96.5MHz and 'RNE 5' on 105.0MHz from Liérganes. Other signals arrived from northern France, Belgium, Luxembourg and Germany. One interesting logging was 'Décibel Dinan' on 87.8MHz. The following day, 'Euskadi Irratia' was identified on 87.7MHz from Azkoitia in northern Spain. French sites logged included Nantes, Bayonne, Paris ('Radio Alfa' on 98.6MHz), Amiens, Troyes, Hirson, Reims, Tours, Chartres, Sens, Bourges, Clermont-Ferrand, Ussel-Meymac, and Troyes.

An evening opening on the 6th produced French and Spanish stations but after midnight, the German station 'MDR Kultur' emerged on 87.8MHz from Inselsberg.

The 7th, 9th and 15th were the best days for **George Garden** (Inverbervie, Scotland); the most distant signal was 'Classic FM' on 101.5MHz from Tacolneston.

Widespread conditions were present on the 27th. **Gösta van der Linden** (Rotterdam, Netherlands) reported that on that morning while driving through the city 'Classic FM' from London on 100.9MHz had wiped out 'Studio Brussel' on the same frequency. This signal was also present without fading and interference. Stations from northern France were also present. On returning home, 'Classic FM' was still present on an old transistor radio with a telescopic aerial on the living room table!

Other tropo reception that morning:-

DAB(+)
6D F RNT Paris, Tour Défence, 10 kW.
7A HOL Zuid NL DAB+
9D HOL Zuid West NL DAB+
10C G BBC Surrey, Crystal Palace, 3 kW.
11A BEL Norkring DAB+, (Sint-Pieters-Leeuw ?).
12A BEL VRT DAB

For DAB(+) Gösta is using a Rotel RT11 tuner and a J-aerial on his balcony.

Nick Gilly (Whitchurch, Hampshire) commented that the 2016 autumnal tropo season got off to an excellent start, with this being the first major event of the season on the 27th. Nick had high hopes for this one, as both William Hepburn and F5LEN were showing a very strong finger of tropo going down into north-west Spain, a bit of Portugal and down the Atlantic to the Canaries. When these two forecasts agree then there is a very good chance that the forecast is accurate.

The first signs of tropo were during the evening alerted by an increase in signals from Wales, south-west England and Brittany. By 1900 Brest was reaching a full 3 bars with RDS on the Sony XDR tuner, and at 1906 the first hint of Spain with 'RNE Radio Clásica' on 91.6MHz from Culleredo at very weak levels. The Spanish tropo really got going from around 2000 when several transmitters from Galicia came in, some at very good strength eventually. Portugal also made sporadic weak attempts on 94.6MHz ('Antena 2' from Muro). Several new sites/stations were logged.

The tropo was still ongoing the following morning with plenty of Spanish activity although strengths were maybe a little down on the midnight peak. The duct was also extending towards Germany as Hamburg, Münster and Steinkimmen were also logged. This explains how Jürgen Bartels was able to log astonishing 1715km tropo DX to north-west Spain that morning.

Portugal reached a peak that morning with fair signals from Muro logged on 90.4MHz (RFM), 94.6MHz (Antena 2), 103.4MHz (Rádio Renascença) and 106.5MHz (TSF Rádio Notícias). Not too long after this the long distance DX to NW Spain/Portugal fizzled out.

Later that day there were still some weak Germans around such as Teutoburger and Brocken but these had retreated by mid-afternoon. By the evening the tropo was increasing again to France, Belgium, Luxembourg and Germany, with sites in the latter such as Donnersberg and Hornisgrinde logged. Luxembourg reached good strength.

Thursday morning (29th) saw the last dregs of the tropo with a few weak Germans persisting such as Inselsberg, Bärbelkreuz (Eifel), Linz (Rhein) and Haardtkopf.

OCTOBER 2016 RECEPTION

Sporadic-E materialised at least twice during October but the bulk of reception was due to tropospheric enhancement.

A Sporadic-E opening occurred on October 13th during which **Tom Crane** (Hawkwell) discovered weak unidentified images at 0941UTC on channel R2 (59.25MHz).

On the 15th, an evening Sporadic-E opening produced Spanish and Algerian FM stations for **Nick Gilly** (Whitchurch, Hampshire). A couple of interesting loggings included 'Catalunya Música' from El Vendrell (Spain) on 87.7MHz and 'Chaîne 2' on 100.8MHz from an unlisted Algerian site.

TROPO RECEPTION

On the 3rd, 30th and 31st, the BBC 'A' and D3&4 (ITV) multiplexes were received by **Stephen Michie** (Bristol) from Sandy Heath on channels D27 and D24 respectively.

On the 30th, **Simon Hockenhull** (Bristol) was surprised to find the local station 'London Live' on D29, the only multiplex showing from that area. The following morning, here in Derby, the Tacolneston BBC 'A' and D3&4 (ITV) multiplexes were captured at high-strength on D55 and D59.

On the 30th, **Tom Crane** (Hawkwell) captured French multiplexes on channels D24, D27 and D42, all tentatively logged as Lille. Others included:-

Belgium
D22 (EEN MUX) from Egem 20kW vertical.
D56 (RTBF MUX) from Tornai at 40kW Vertical.

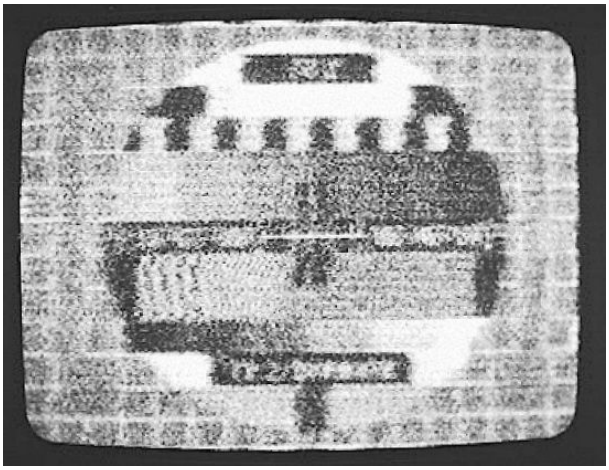
Netherlands
D49 (MUX2 – Pay TV) Rotterdam-Waalhaven at 10kW Vertical.
D57 (MUX3 – Pay TV) Rotterdam-Waalhaven at 10kW Vertical.
D24 (MUX4 – Pay TV) Rotterdam-Waalhaven at 10kW Vertical.
D39 (MUX1 – Free to Air) TX unknown.

The latter signal on D39 remains unidentified due to the use of single-frequency networks throughout the country. However, Gösta van der Linden suggests it is possibly Hilversum (15kW). Rotterdam-Waalhaven MUX1 airs on channel D21. Incidentally, Gösta captured a shot of a recent temporary fault caption shown via this channel.

'RTV Rijnmond' temporary fault caption.
D21 V (MUX1) Rotterdam-Waalhaven 10kW.

D57 V Digitenne-NL 'MUX3' details from Rotterdam-Waalhaven (10 kW).
(Gösta van der Linden).

All Dutch transmissions are vertically polarised, as are most of the Belgian EEN multiplexes, apart from Genk which is horizontal. Most RTBF multiplexes are horizontally-polarised.



TV2 Denmark received in October 2006 by Stephen Michie.

TROPO FM (OCTOBER)

Enhancement between the 2nd and 12th created lots of FM opportunities for **George Garden** (Inverbervie, Scotland). By the 5th, the FM band was overwhelmed with transmissions from 'south of the border', the most distant was the Belgian 'RTBF-1' outlet on 106.0MHz from Tornai (25kW).

During an opening on the 30th, 'Lincs FM' was identified from Belmont (4kW) on 102.2MHz and 'Classic FM' from Peterborough on 101.9MHz (14.5kW H/20kW V). From 0923, 'BBC Radio Cymru' on 104.3MHz and 'BBC Radio 4' on 93.3MHz from Llangollen (both 15.6kW) were present. The following day, 'Classic FM' from Tacolneston on 101.5MHz (125kW) was heard.

From 1700, **Roger Bunney** (Romsey) counted at least twenty-one French signals. Belgian stations heard included 'Radio Klara' on 90.4MHz and 'Radio 1' on 95.7MHz (both from Egem). A mystery on 88.9MHz was 'Radio Via Cinqo' which Roger suspects is a French station, despite its Italian-sounding name.

The following morning FM was still bubbling but the French signals were down in the noise. What was perhaps the most interesting were strong signals from a pirate 'UK Royal London'. Roger is using the Band II version of a WB2 antenna at about 11m aimed south.

Roger adds that 'Angel Radio' (Isle of Wight) had been transmitting high-level hum and distortion due to a major problem but after almost two weeks it was back to normal.

Several French transmitters were identified by **Nick Gilly** (Whitchurch, Hampshire) during the evening of the 28th. These included Argenton-sur-Creuse, Guéret, Clermont-Ferrand, Lyon, Auxerre, Autun, Tours, Parthenay, Ussel-Meymac, Bergerac and Bourges, the latter obliterating 'BBC London' on 94.9MHz at one point.

On the following morning, Spanish station 'RNE 5' on 105.0MHz from Liérganes emerged for over an hour. Later, stations in Germany, Luxembourg and southern Belgium appeared, along with 'Decibel' on 97.6MHz from Amsterdam (Netherlands). Later that evening, ducting occurred bringing in Bavaria with 'B5 Aktuell', logged on 106.9MHz, from Grünten, 'Antenne Bayern' from Hochries, 'SWR4' Rheinland-Pfalz on 107.1MHz from Haardtkopf, 'B5 Aktuell' on 105.7MHz from Wendelstein and 'Antenne 1' on 103.4MHz from Raichberg. French outlets at Metz, Bar-le-Duc and Strasbourg were also logged.

On the 30th, loggings included Germany (the Langenberg/Aachen region), Belgium (Wavre, Liège, Anderlues, and Profondeville-Rivière) and France (French Troyes, Nancy and Bourges). By the afternoon, some rarer stations were logged such as 'Delta FM' on 100.7MHz from Boulogne (France) and 'Nostalgie' on 87.6MHz from Oudenburg (Netherlands). Bizzarely, one station, 'Radio 10' on 103.6 from Amsterdam peaked up beaming due south!

'WDR 2' from Kleve at just 2kW came up during the late afternoon. UK DX also began to intensify during the evening with signals coming in from the Channel Islands, south-west and south-east England, East Anglia, the Midlands and Wales. This extra UK DX was starting to block normally free channels. However, Nick managed to receive 'Touch FM' on 107.3MHz from the Leamington Spa relay, and 'Oak FM' on 107.9MHz from Hinckley. The station apparently closed down in late July but the transmitter is still airing music and IDs! Another new log for me was 'Smooth East Midlands' on 106.6MHz over local 'Sam FM' from Winchester.

DEADLINE FOR NEXT ISSUE: January 2017

PLEASE SUBMIT REPORTS IN UTC

NOT IN MY BACK GARDEN!

NOVEMBER 2016 RECEPTION

Tropospheric enhancement spilled over into November and **Tom Crane** (Hawkwell) noted the following TV channels on the 1st:-

Belgium
D22 (EEN MUX) from Egem 20kW V.
D56 (RTBF MUX) from Tornai at 40kW V.

Netherlands
D49 (MUX 2), D57 (MUX 3) and D24 (MUX4). All Rotterdam-Waalhaven at 10kW Vertical.

On the 1st, 2nd and 3rd, Sandy Heath BBCA and D3&4 (ITV) multiplexes were again received by **Stephen Michie** (Bristol) on channels D27 and D24 respectively.

On the 26th I received Tacolneston on D55 and D59. Also, Tom e-mailed to say he'd just received France on D24 (F3 Nord Pas-de-Cal) and D36 (MUX 8: Grand Lille TV) from Lille.

ZDF (Germany) received on November 6th, 2006, by Stephen Michie.

FM RECEPTION

Rarely a day goes by without some signals emerging either via Meteor Scatter, short-lived Sporadic-E or extreme fringe reception.

On November 11th a Sporadic-E opening occurred affecting the lower Band II channels from 1025 with Italian stations on 87.5MHz, 87.8MHz and 87.9MHz.

On November 16th at 1000 Italian speech was heard at 88.0MHz. A Dutch-speaking station emerged on 87.6MHz at 1020 on the 25th and as I compile this on the 26th a German station is audible on 87.6MHz.

Some minor Sporadic-E activity occurred on the 18th, coinciding with the Leonids meteor scatter event. **Nick Gilly** (Whitchurch) heard two Algerian stations which appeared briefly, the first at 0713. The first was tentatively 'Chaine 3' on 87.6MHz, in for a couple of minutes, with a French-speaking female and typically over-modulated sound that this transmitter puts out. Then short-lived Italian speech popped up briefly on 87.9MHz.

There was a lull for about 30 minutes, followed by an Arabic OM on 87.6MHz at 0755 which was tentatively 'Radio Laghouat'.

TROPO FM

Reception distances were shortening in Scotland by the 1st. Despite this, **George Garden** (Inverbervie, Scotland) identified 'Classic FM' on 99.9MHz from Sandale.

On the 25th George Garden discovered some long-range tropospheric signals around midday caused mainly by the atmospheric pressure declining from 30.25 to 30.15 inches.

The best catches were 'Sky Radio' 101.2MHz (Hilversum 200kW) and 'R538' on 102.1MHz (Hilversum 100 kW) and closer to home 'BBC R Cymru' 104.3MHz from Llangollen. The most distant on the 26th was 'Classic FM' on 101.5MHz from Tacolneston.

METEOR SCATTER DX

On the reception side, most of us tend to think of this time of the year as pretty grim but miracles (!) do occur. Sometimes there is Sporadic-E around the Christmas/New Year period.

Check out the Geminids – these are expected to peak on the night of December 13th and early morning hours of the 14th. The Quadrantids will peak on the night of January 3rd and early morning hours of the 4th.

Both are often lively and the results I have obtained from Band III stations in the past (see TRN214 Page 23) means that the FM band might be quite productive. Finally, don't despair!!!

Good DX-ing,

Garry.

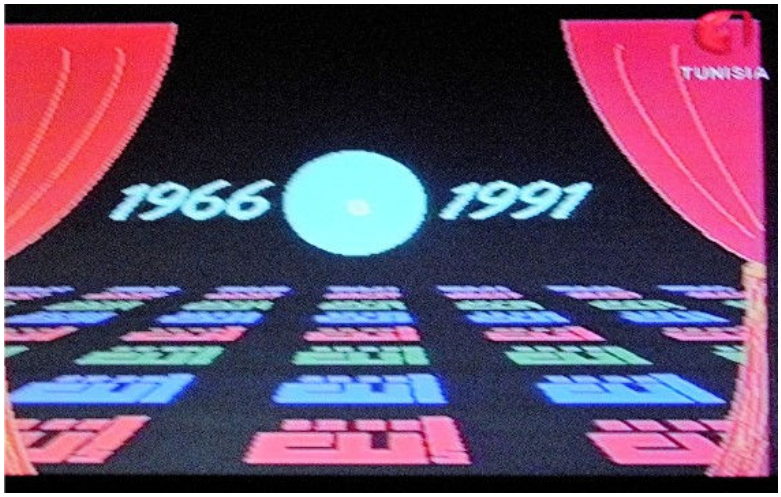
SATELLITE SCENE

Sightings by Roger Bunney (Romsey) and Kevin Hewitt (Chatham).

The 'eye' is a test pattern and the 'coming soon' are both from Express AM6 at 53° East.

New York stock exchange was seen on an NBC feed on Eutelsat 21B at 21.5° East.

Eutelsat 10A at 10° East (Kevin Hewitt).



Whilst on the theme of anniversaries in this issue, Roger spotted a caption from Tunisia via the Eutelsat 21A craft at 21.5° East celebrating 50 years of television broadcasting in the country on May 31st, 2016. A set of commemorative stamps were released to mark the occasion.

One of many feeds (mostly encrypted) on Eutelsat 10A at 10° East.

TV2 Danmark and the Telenor card via 10-02 at 1°West.

LETTERBOX

Martin Rolls-
I was very interested when I read your comments (TRN219) about Sony Bravia TV sets as we have one.

Recently we had our Internet upgraded and the subject of connecting the TV to the internet came up. The TV is internet capable but (there is always a but) it needs a Wi-Fi adapter.

A look on the Internet soon showed discontent with Sony. The company has withdrawn the Wi-Fi adapter (it's no longer made). Yes, you can buy one from Amazon if you are willing to pay over a hundred pounds. It would seem that no other Wi-Fi adapter will work because Sony have their own code in their TV and in their adapter. So that's put paid to a connection to the Internet.

A few weeks back we went to a War time weekend at the heritage railway at Rushden in Northamptonshire. Imagine my surprise when I saw an old BBC Outside Broadcast unit complete with a camera on the top. From the outside it looked like a real OB; inside it had been nicely fitted out with some home comforts but no equipment. According to a printed notice it was used at Winston Churchill's funeral and I think the Derby.

Whenever I stay in a hotel one of the things I do is turn on the TV in my room to see what's being received, sometimes I have even had to retune the TV and set it up because the picture has been so bad. Recently when staying in Hull I switched on and came across a channel called ‘Estuary TV’; it seemed to be local programming.

Your remarks about the BBC are spot on over the years their programmes have got worse at peak time it’s like watching daytime television. Not that I watch daytime TV but I once saw some daytime programme's when I took my elderly mother-in-Law to the hospital and had to wait with her. The Test card and music was much better. I miss the test card.

Godfrey Manning G4GLM-
You're probably experts on the Trade Test Transmissions that promoted BBC-2 colour in the late 1960s. Was there a French cartoon called ‘Villa Mon Reve?’ All I can find on the Internet is references to the producers and a couple of still screen-grabs. Any idea where I can obtain a copy to watch? As Chris is trying to improve her French, I thought the satirical estate agent character's rapid gabble might be of interest to her!

I've just discovered the answer to another question (bet you knew this already). The music to the BP film ‘Divertimento’ (animated views down the microscope) has the same name and is by Malcolm Arnold, Op37 (there's also an earlier piece with that name by the same composer). At first, going by memory, I thought it was a clarinet quartet, so I asked the clarinet teacher who teaches some of the participants who perform at the musical soiree I organise twice a year. I now know why she was uncertain, it's actually a wind ensemble of clarinet, flute and oboe. Ah, takes you back, those were the days.

Simon Hockenhull (Bristol)-
I still use AM radio both at home and in the car to listen to BBC R4 on 198kHz and Absolute on 1215kHz. I used to listen to BBC R Bristol on 1548kHz before our local medium-wave transmitter closed.

It seems that tropo openings only affecting eastern half of the U.K this year possibly something to do with the stronger and more southerly route of the jetstream this year.

Apparently Ofcom have released more details of the 700MHz band clearance. This will occur by the second quarter of 2020. The group of channels known as the ‘K’ group, i.e. 21-48 will now be known as the ‘T’ group. There is mention of the ‘O’ group of channels which I assume will be the channels that are left when they clear the 600MHz band.

There is still speculation of how they will squeeze all the channels in but I suspect this will be made easier by switching to using MPEG-4 only. I still cant wait to see the transmitter and channel plan and if MPEG-4 can offer greater protection than the current MPEG-2 system in the event of enhanced tropo openings My guess is that they will use

SFN (single-frequency-network) for groups of relay stations and possibly for all the multiplexes which are national with no local or regional programme options. Looks like interesting times ahead.

Wesley Colaers (Vancouver)-
Recently I have received a very weak analogue signal on channel A2. As far as I know this was Prince George, BC with the 'City TV' programme. The aerial was pointing to this direction. Nearby Prince George and in the northern part of Vancouver Island some high-power DTV transmitters are planned on channel A34. But these plans were made before the main ASO in 2012.

Also many planned DTV transmitters on VHF are still not on the air. I never have received the DTV UHF test transmitter again... Due to the special status of the analogue TV transmitter in Prince George, this station escaped from the compulsory digitalisation in 2012. So I think that this station will stay on the air for many years. And there are more of such stations in Canada. In a recent BDXC Bulletin it was mentioned that Hugh Cocks in Portugal again has received an analogue TV station on A2 from Canada via TA DX.

AM DX during the dark hours is better with a new long wire aerial, around 40m. We have noticed already:-

560 kHz. KVOK Kodiak -AK US 1 kW.
640 kHz. KYUK Bethel -AK US 10 kW.
780 kHz. KNOM Nome -AK US 14 kW.
860 kHz. CHAK Inuvik -NWT CA 1 kW.
930 kHz. KNSA Unalakleet -AK US 4.2 kW.

At about 150km from from Bella Coola there´s Bella Bella or Waylisia, the home of the Heiltsuk First Nation people. We also have received recently a programme of the First Nations community radio on 96.MHz. The location is Bella Bella or Bella Coola (both low-power on 96.1MHz).

Pascal Colaers (San Diego, California)-
Recently I acquired an old VHF/UHF valve TV set from the early 1970s. It was a TV set of a colleague from work. The TV was of his grandparents. It has been stored in the attic for about 25 years. The TV is still 100%. It is not advisable to switch a valve TV set on after storage of 25 years or more.

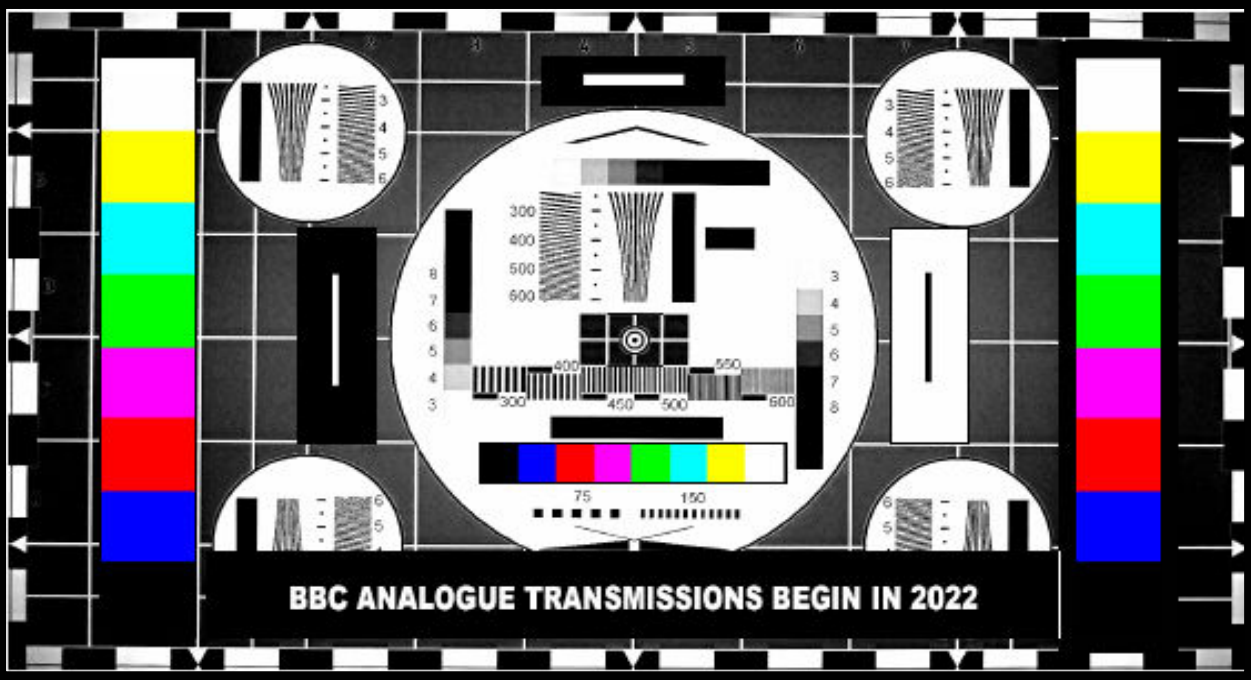
You first have to connect only the filaments of the valves parallel with 6.3 Volts or so, including the filament of the CRT. After one day, the valves can be returned to the TV. Then the TV is ready for use.

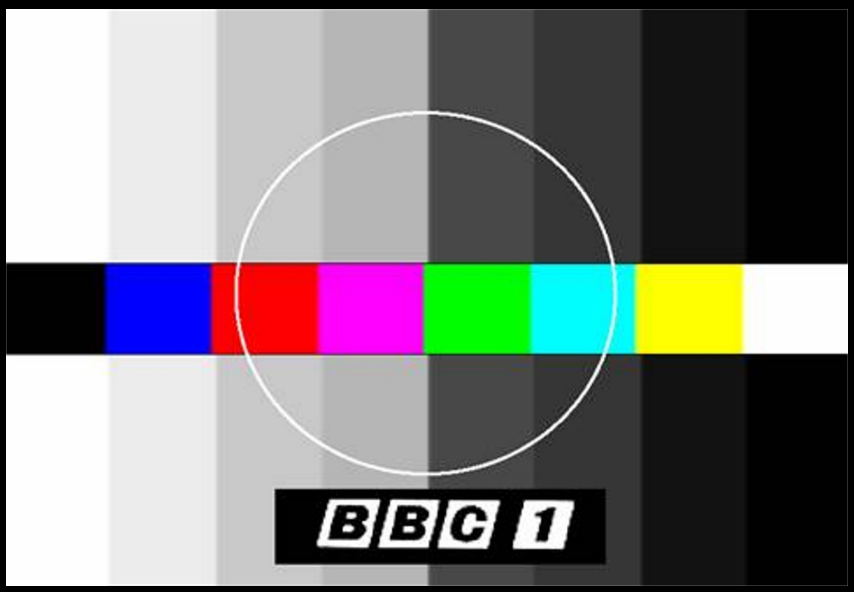
There is a video about a look alike of this old TV set (a Zenith) at:
https://www.youtube.com/watch?v=hGVlt95jL6I

I found more details about Zenith TV sets in connection with the first commercial transmitter 'KPTV' which opened in the US on UHF channel A27 in September 1952 in Portland, OR.

THANKS FOR READING

FINALLY, IF ONLY WE COULD TURN BACK TIME...





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