



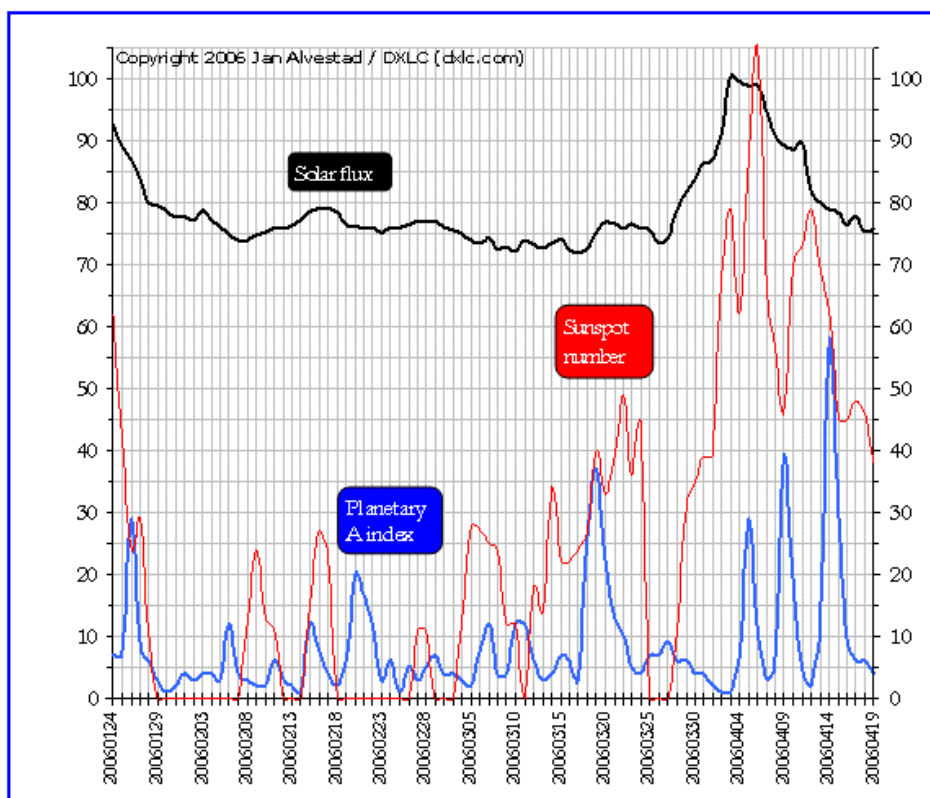
## Hello and welcome to Skywaves 109.

March appears to have been a very quiet month for FM propagation. Just 6 entries in the online logbook, which did make my life easy assembling them into the column. Though I'd prefer it if life wasn't actually quite as quiet as this.

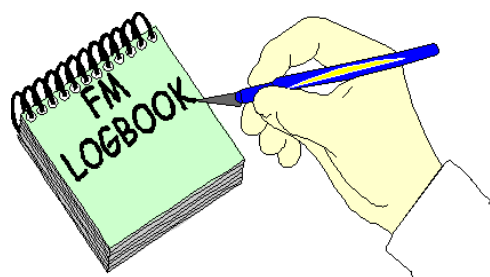
With Ofcom now having awarded 93 community licences, most of us must live somewhere near one. What sort of programming are they running? Have they put the localness back into local radio? Do they feature local live programming, or are they often automated jukeboxes?

Now for the magazine. What do you want to see in the magazine each month? Do you want more feature articles on equipment, on broadcasters, on propagation? Maybe some historical articles on quadraphonic broadcasts, early stereo? Other types of signal we've encountered on Band 2 ... the "Eurosignal", listening into the police channels? Photo's of studios and transmitter sites? OK – lets put pen to paper, fingers to keyboard or whatever takes your fancy. We can use just about anything that's sensibly written and accurate. Julian is the Features Editor – his email address is on the back page in the Contacts.

Lastly, there has been some issues with the main Skywaves internet domain ... skywaves.info ... over the past month or two. Largely that's all been sorted out, at least from the user perspective. So it's business as usual. Watch out for some website updates and new features in the coming months. A big thank you to the people who've endeavoured to keep the service available.



Solar Chart courtesy of  
Jan Alvestad  
DX Listeners Club  
Norway  
[www.dxlc.com](http://www.dxlc.com)



*Edited by – Mark Hattam*

*E mail: mark.hattam@skywaves.info*

*Standard Deadline – 1<sup>st</sup> of every month*

### Meteor Scatter logbook

<u>FREQ</u>	<u>TIME</u>	<u>DATE</u>	<u>ITU</u>	<u>STATION</u>	<u>RDS CODE</u>	<u>SIGNAL</u>	<u>M</u>	<u>RP</u>
94.9	0308	01/03	F	France Inter, Bourges Talking	F201	__INTER_	strong	M WK
94.9	1738	01/03	F	France Inter, Bourges Talking	F201	__INTER_	strong	M WK
94.9	0133	25/03	F	France Inter, Bourges Talking	F201	__INTER_	good	M WK
94.9	0246	27/03	F	France Inter, Bourges Talking	F201	__INTER_	good	M WK
94.9	1331	08/03	I	RAI 1? Un-attended reception. Music and Talking	5401		strong	M WK

### Tropospheric logbook

<u>FREQ</u>	<u>TIME</u>	<u>DATE</u>	<u>ITU</u>	<u>STATION</u>	<u>RDS CODE</u>	<u>SIGNAL</u>	<u>M</u>	<u>RP</u>
89.1	1043	20/03	IRL	RTE1, Kippure Talking	2201	_RTE__1_	strong	T WK

### WHO USED WHAT

WK William F Kitching Telford, Shropshire

Pioneer F737, Kenwood KTF 3010, 8 element horizontal Triax and 5 element Vertical. Conrads and DOS RDS software.

# FM & Digital News Desk

*Edited by – Mark Hattam*

*E mail: mark.hattam@skywaves.info*

*Standard Deadline – 1<sup>st</sup> of every month*

## UNITED KINGDOM

### Ofcom awards new FM commercial radio licence for Plymouth

Ofcom today (9 March) announces the award of the new FM local commercial radio licence for Plymouth.

By the closing date of 8 December 2005, Ofcom received five applications for the Plymouth licence. After giving careful consideration to each of the applications submitted, the Ofcom Radio Licensing Committee has decided to award the licence to:

- Radio UK Holdings Limited (Diamond FM), Macquarie Bank Limited, Level 30, Citypoint, 1 Ropemaker Street, London, EC2Y 9HD. Contact: Tim Schoonmaker Tel: 020 7065 2066. E-mail: radioukholdings@macquarie.com

Diamond FM is wholly-owned by Macquarie Bank Limited. It will provide a full service station for people aged 18 to 54 in the Plymouth area featuring local news and information mixed with mainstream classic rock music during the day and alternative rock music during the evenings.

The licence is for a service to cover Plymouth and the immediately surrounding area which has an adult population (aged 15+) of around 200,000. However, the exact coverage will be determined by the location of the transmission site and other technical characteristics.

Ofcom expects Diamond FM to begin broadcasting at the earliest opportunity and no later than two years from this award date.

Ofcom will publish a statement setting out the key determining factors for the award of this licence shortly.

The licence will be issued for a twelve year period.

## **Ofcom advertises new FM commercial radio licences for Bristol and for Oxford and South Oxfordshire**

Ofcom today (10 March) advertises two new local FM commercial radio licences. One licence is advertised for Bristol and the other for Oxford and South Oxfordshire.

### **BRISTOL**

Ofcom is advertising an FM commercial radio licence to cover the city of Bristol and the surrounding area.

Ofcom estimates that this licence could achieve coverage of an area with an adult (aged 15+) population of around 500,000. The exact coverage will be determined by the location of the transmission site and other technical characteristics.

The closing date for the receipt of applications is 3.00 p.m. on Friday 9 June 2006. A non-refundable fee of £10,000 will be payable for each application submitted.

The full details for this licence, including the guidelines and procedures for the submission of applications, can be obtained from the Ofcom website at: <http://www.ofcom.org.uk/radio/ifi/rbl/car/advts/bristol>

### **OXFORD & SOUTH OXFORDSHIRE**

Ofcom is also today inviting applications for a licence to provide an FM commercial radio service to cover Oxford and South Oxfordshire.

Ofcom estimates that this licence could achieve coverage of an area with an adult (aged 15+) population of around 300,000. The exact coverage will be determined by the location of the transmission site and other technical characteristics.

The closing date for the receipt of applications is 3.00 p.m. on Friday 9 June 2006. A non-refundable fee of £5,000 will be payable for each application submitted.

The full details for this licence, including the guidelines and procedures for the submission of applications, can be obtained from the Ofcom website at: <http://www.ofcom.org.uk/radio/ifi/rbl/car/advts/oxford>

### **GENERAL INFORMATION**

Both licences will be issued for a twelve year period.

All applications for these licences will be published on the Ofcom website as soon as is practicable after the closing date.

Ofcom welcomes the views of the public about the local radio needs of listeners in these areas and the types of services required. Opinions on these issues can either be emailed to [commercialradio@ofcom.org.uk](mailto:commercialradio@ofcom.org.uk) or posted to Neil Stock, Head of Radio Planning & Licensing, Ofcom, Riverside House, 2a Southwark Bridge Road, London SE1 9HA.

## **Ofcom awards nine new community radio licences**

Ofcom today (16 March) announces the award of a further nine new community radio licences, bringing the total number of community radio licences awarded to date to 93.

Community radio is a new sector of radio being introduced in the UK. It is a third tier of radio which complements the mix of services already provided by the BBC and commercial radio sectors. The characteristics of community radio are distinct from commercial radio in that the services cover a small geographical area and are provided on a not-for-profit basis focusing on the delivery of specific social benefits to enrich a particular geographical community or a community of interest.

Ofcom has awarded community radio licences in the following areas:

Dorset  
West Yorkshire  
Suffolk  
Lincolnshire  
Bedfordshire  
Salisbury Plain  
Hertfordshire  
North East Wales

The new community radio licensees in each of these areas are:

### **Hope FM ( Bournemouth)**

Contact: Blair Crawford, Bournemouth YMCA, Delta House, 56 Westover Road, Bournemouth, Dorset, BH1 2BS.  
Tel: 01202 780396 email: [bmouthymca@aol.com](mailto:bmouthymca@aol.com) website: [www.bournemouthymca.org.uk](http://www.bournemouthymca.org.uk)

A faith-based group, linked to the local YMCA, Hope FM will provide programming intended to be of interest to the Christian population and members of the wider community within the Bournemouth area.

### **Branch FM (Dewsbury)**

Contact: Stephen Hodgson, 17 Halifax Road, Dewsbury, West Yorkshire, WF13 2JH.  
Tel: 01924 454750 email: [studio@branchfm.co.uk](mailto:studio@branchfm.co.uk) website: [www.branchfm.co.uk](http://www.branchfm.co.uk)

Branch FM is a Christian group which will provide programming intended to be relevant to members of its faith-based community of interest as well as members of the wider community in the town of Dewsbury.

**Ipswich Community Radio**

Contact: Nick Greenland, Ipswich Community Radio, CSV Media Clubhouse, 120 Princes Street, Ipswich, Suffolk, IP1 1RS. Tel: 01473 418022  
email: [info@icrfm.co.uk](mailto:info@icrfm.co.uk) website: [www.icrfm.co.uk](http://www.icrfm.co.uk)

Ipswich Community Radio will serve a number of different groups within Ipswich; in particular residents in south east Ipswich, minority ethnic communities, asylum seekers and refugees, young people, and those whose musical tastes are non-commercial.

**Siren FM (Lincoln)**

Contact: Nikki Dillon, Faculty of Media & Humanities, University of Lincoln, Brayford Pool, Lincoln, Lincolnshire, LN6 7TS. Tel: 01522 886270  
email: [ndillon@lincoln.ac.uk](mailto:ndillon@lincoln.ac.uk) website: [www.sirenonline.co.uk](http://www.sirenonline.co.uk)

A university-based group, Siren FM will provide a service intended to be of interest to students, school children and other young people in the City of Lincoln.

**Diverse FM (Luton)**

Contact: Ashuk Ahmed, Bury Park Community Resource Centre, 161-161b Dunstable Road, Luton, Bedfordshire, LU1 1BW. Tel: 01582 400 906 / 01582 654445  
email: [diversefm@hotmail.com](mailto:diversefm@hotmail.com) website: [www.diversefm.com](http://www.diversefm.com)

This group intends to provide a service containing output of relevance to the various ethnic groups which comprise the population of Luton.

**Castledown Radio (Salisbury Plain)**

Contact: Steve Lawton, Tidworth Development Trust, 3 Melsham House, Wylde Road, Tidworth, Wiltshire, SP9 7QQ. Tel: 01980 842117  
email: [steve@tidworthtrust.co.uk](mailto:steve@tidworthtrust.co.uk) website: [www.castledownradio.info](http://www.castledownradio.info)

Founded by an established local community-based organisation, Castledown Radio intends to provide a service for both the civilian and resident military populations in and around the town of Tidworth and surrounding villages.

**Salisbury Plain Army Radio**

Contact: Phil Gill, Salisbury Plain Army Radio, NAAFI Financial, Tidworth, Wiltshire, SP9 7NR. Tel: 01980 602277 email: [salisburyplainarmyradio@garrisonradio.com](mailto:salisburyplainarmyradio@garrisonradio.com)

Salisbury Plain Army Radio will provide a service for military personnel living and working at Bulford Camp and other nearby military establishments on Salisbury Plain.

**Radio Verulam (St. Albans)**

Contact: Clive Glover, PO Box 396, St Albans, Hertfordshire, AL3 6NE.

Tel: 015827 64530 email: [clive.glover@lineone.net](mailto:clive.glover@lineone.net) website: [www.radioverulam.com](http://www.radioverulam.com)

A long-established community broadcasting organisation, Radio Verulam will provide a service for those living and working in the St. Albans area.

**Calon FM (Wrexham, North East Wales)**

Contact: Michael Wright, North East Wales Institute of Higher Education (NEWI), Plas Coch, Mold Road, Wrexham, LL11 2AW. Tel: 01978 293373  
email: [info@calonfm.com](mailto:info@calonfm.com) website: [www.calonfm.com](http://www.calonfm.com)

Calon FM's target community is the population of Wrexham and in particular the large number of students in the area.

Applications for the first wave of community radio licences were invited in September 2004. Ofcom received 194 applications and is now nearing the end of the process of assessing those applications and examining frequency availability options. The applications can be viewed at: [www.ofcom.org.uk/radio/ifi/rbl/commun\\_radio/tlproc/applications/](http://www.ofcom.org.uk/radio/ifi/rbl/commun_radio/tlproc/applications/)

Licences are awarded for a five-year period.

A statement setting out the main determining factors for the award of the nine community radio licences set out above will be available shortly from the Ofcom website.

Ends.

**NOTES**

1. In addition to the licence awards detailed above, Ofcom has decided not to award licences to the following three applicants:

Nerve Radio, Bournemouth  
Wrexham FM  
Lindum Radio, Lincoln

In the case of a fourth applicant, Lyon Radio in Stevenage, Ofcom would have liked to award a licence. However, this was not possible as Ofcom's engineers have been unable to identify a suitable frequency on the FM waveband that will deliver a sustainable service in Stevenage (either in stereo or mono).

## **The next community radio licensing round**

The first round of licensing community radio services is drawing to a close. This has been a very successful round, with 93 licence awards made so far. A diverse range of services is now starting to operate in communities all around the UK. Community radio is tailored to the needs of the target community, involving them in providing the service, bringing social benefits to that community, and provided on a not-for-profit basis.

Ofcom is planning to invite applications later this year for the second round of community radio licences.

### **'Letters of intent' to apply for a licence**

In order to assist our planning for the second round of community radio development, we are now inviting prospective applicants for a community radio licence to submit a 'letter of intent', outlining their intention to apply.

A 'letter of intent' should include the following information:

- the proposed station or company name (if available)
- the location of the service you would like to operate (i.e. the area you wish to cover)
- the community you wish to serve
- AM or FM
- your contact details

Please send your letter of intent to apply for a community radio licence to [communityradio@ofcom.org.uk](mailto:communityradio@ofcom.org.uk), or by post to:

Community Radio Licensing  
5 th Floor  
Ofcom  
Riverside House  
2a Southwark Bridge Road  
London SE1 9HA

The closing-date for the submission of 'letters of intent' is Friday 21 April 2006.

Submission of a 'letter of intent' will not be taken as a binding promise on the part of its author to apply for a licence. Equally, the invitation to apply for a community radio licence will not be limited only to those who have submitted a 'letter of intent'.

The 'letters of intent' will help Ofcom to design a licensing process which takes account of the pattern of expected demand in different parts of the country. This may involve inviting applications on a regional basis, rather than from all over the UK at the same time (as we did in the first round). This approach will help us to plan our work more effectively, and to reduce the period between an applicant submitting his or her application and Ofcom reaching a decision on whether to award a licence.

### **The availability of FM frequencies**

For the second round of community radio licensing, Ofcom intends to continue to license the majority of services for stereo broadcasting on FM frequencies. However, due to the general lack of useable frequencies in major conurbations, and the large number of successful applicants in the first round of community radio licensing, there are some parts of the UK where Ofcom expects to experience great difficulty in identifying further suitable frequencies in the FM band. In these circumstances, Ofcom will investigate whether an FM frequency could be used for mono rather than stereo transmission. Operating in mono uses less bandwidth and is therefore less prone to incoming interference than stereo broadcasting. In addition, services may often be planned closer to one another in frequency terms, thus potentially enabling more services to be licensed in a region than if stereo was used. Identifying suitable FM frequencies which could be used for mono transmission may still prove challenging in some parts of the UK, however.

### **Areas of FM frequency scarcity**

Potential applicants should note the areas where Ofcom has found it difficult to identify suitable FM frequencies for community radio services. This situation is not likely to improve, especially in many parts of the following regions:

Greater London (within the M25). We do not expect to be able to find further FM frequencies (for either stereo or mono broadcasts) in much of Greater London, with the possible exception of areas south of the South Circular Road (A205).

West Yorkshire  
Greater Manchester  
Home Counties  
Merseyside  
West Midlands

South Wales (from Swansea to Newport)

This is not an exhaustive list, and there may be other locations where we are unable to find suitable FM frequencies. This is particularly true of large conurbations.

### **AM (medium wave) frequencies**

Applicants may choose to apply for a licence on either the FM or AM band. AM is generally more expensive to broadcast and sound quality is generally inferior to FM, but in some cases AM may be more suitable - for example in rural, hilly areas, or where FM frequencies are not available. We expect to be able to identify a limited number of frequencies on the AM band in some of the areas listed above, where additional FM frequencies are extremely scarce.

# RSL UPDATE

Updated 31 March 2006

Compiled by MARK PRATT (Devon, UK; e-mail: [mark.pratt@skywaves.info](mailto:mark.pratt@skywaves.info))

This list is continually updated at the Skywaves website ([www.skywaves.info](http://www.skywaves.info)), where email and web addresses for many of these stations can also be found.

Location	Freq	Station	Date On	Date Off	Telephone	Details (and contributor details)
Barnsley	87.7	BHB	31/03/06	09/04/06	07866 768 355	National Hospital Broadcasting Week celebration
Bournemouth		Watchtower Convention- Bournemouth	15/06/06	18/06/06	020 8371 3438	Jehovah's Witness annual religious convention
Bradford	87.7	Milad FM	31/03/06	27/04/06	07813 465185	Religious: Rabi -Ul. Awwal
Bradford	107.1	Sabrang Radio	20/03/06	16/04/06	01274 666 659	
Brighton	87.7	Passion Radio	01/05/06	28/05/06	08707 444702	Valentines Day broadcast and Charity broadcast.
Bristol	87.7	Brunel 200 Radio / Radio 19	27/03/06	23/04/06	07949 094704	2 weeks educational celebration-2weeks community.
Detling		Truckfest FM	03/06/06	04/06/06	01775 768661	Truckfest South East 2006
Dundee	107.5	Hilltown FM	13/03/06	09/04/06	01382 205901	Community Broadcast
Gillingham		Watchtower Convention- Gillingham	08/06/06	11/06/06	020 8371 3438	Jehovah's Witness annual religious convention
Girvan		Girvan FM	01/06/06	28/06/06	01292 885922	Community radio for Girvan
Guildford	87.7	1350 GU2	24/02/06	23/03/06	07900 497383	Student Broadcast
Halewood	105.8	HCR FM	24/03/06	07/04/06	07931 458649	Community Broadcast
Hucknall		Radio Hucknall	31/05/06	07/06/06	0115 9521236	Community Broadcast
Leeds	106.6	Pudsey Grangefield FM	27/03/06	07/04/06	0113 2296000	School/Community broadcast
Liverpool	87.7	Radio Aintree	06/04/06	08/04/06	01280 820438	The Grand National
Manchester	87.7	Unity Radio	11/03/06	07/04/06	0161 9234800	Youth Community Broadcast
Manchester	87.7	Refresh FM 87.7	08/04/06	23/04/06	07960 993 935	
Manchester	106.5	Peace FM	13/03/06	09/04/06	07941 368124	Peace Week event
Newcastle		Watchtower Convention- Newcastle	15/06/06	18/06/06	020 8371 3438	Jehovah's Witness annual religious convention
Norwich	105.1	Future Radio	19/03/06	15/04/06	01603 250505	Youth/Community broadcast
Nottingham	97.5	Ashfield Community Radio	22/03/06	18/04/06	01623 721054	Community broadcast
Slough (Berks)	87.7	Radio Slough FM	25/03/06	21/04/06	01753 511 133	Vaisakhi Celebrations
Willesdon	87.7	Radio Hacc	31/03/06	27/04/06	07961 397650	
Wirral	87.7	Flame FM on Wirral	11/03/06	07/04/06	01516 431 696	Lent and Easter & St Patricks Day broadcasts

## AERIALS AND ACCESSORIES available to SKYWAVES UK MEMBERS ONLY

The following aerial supplies are available to SKYWAVES members in the UK, and can be ordered through Julian Hardstone, [j.omega@members.v21.co.uk](mailto:j.omega@members.v21.co.uk), tel. 0161 431 9761. All items are normally available ex-stock from a national wholesaler. Carriage is the same for any size order - see footnote. Payment should be made in advance, by cheque or BACS - see footnote.

Additional items, including satellite installations, are available - please enquire

						Price inc VAT	Order Qty.
<b><u>UHF TV Aerials</u></b>		A wider range is available - enquire					
'ANTIFERENCE' High Gain							
Antiference EXTRAGAIN 10 W/B						22.27	
'BLAKE' High Gain							
NEW 10 SR boxed W/B		Ideal for DIGITAL reception				8.21	
NEW 18 SR boxed W/B		Ideal for DIGITAL reception				11.74	
J-Beam' JBX 08 Wide Band		Multi-Director UHF. PCB Balun dipole				19.45	
NEW DMX10 W/B Digital Aerial		Balun dipole. super low price				15.26	
<b><u>TRIAX</u></b>							
TRIAX Unix 52 C/D-Wide Band				14.5dB. Anti-ghost		16.44	
TRIAX Unix 100 Wide Band				17dB. Anti-ghost.		31.44	
<b><u>FM Aerials</u></b>							
<b>TRIAX</b>	Gain	F/B Ratio	Beam Width	Dimensions	Weight		
			Hor	lxwxh			
2 Element FM	4.0 dBi	10 dB	+/- 37 deg	820 x 1577	1.1 kg	12.68	
3 Element FM	6.0 dBi	16 dB	+/- 35 deg	1188 x 1577	1.3 kg	13.79	
4 Element FM	7.0 dBi	18 dB	+/- 32 deg	1572 x 1577	1.5 kg	16.80	
5 Element FM	8.0 dBi	20 dB	+/- 27 deg	1932 x 1577	1.7 kg	19.59	
5 Element Split-Reflector	8.0 dBi	20 dB	+/- 27 deg	1932 x 1577	1.7 kg	24.30	
8 Element Split-Reflector	9.5 dBi	24 dB	+/- 21 deg	2383 x 1669	3.2 kg	44.95	
FM Omni (inc. clamp)	-2.0 dBi	0 dB	+/- 180 deg	505 dia	0.6 kg	5.86	
<b><u>DAB Aerials</u></b>		NOTE - Vertical Pol. - How many DAB aerials have you seen installed horizontally? – a common mistake!					
<b>TRIAX</b>							
Omni	-2.2 dBi	0 dB	+/- 180 deg	400 x 625	0.45 kg	10.54	
5 Element	8.0 dBi	>12 dB	+/- 33-43deg	1095 x 705	0.75 kg	15.78	
<b>HIRSCHMANN</b>							
FESA 4	7.6 dBi	14 dB	+/- 60 deg	503 x ?	0.5 kg	17.86	
FESA 6						25.59	
<b><u>Accessories</u></b>		* Small q'ties available from Julian, postage at cost					
Co-ax plugs (alloy, British)	24p ea *		Alloy body, plated brass Claw.			0.24	
Co-ax plugs, Teledes prof.			Screw+clamp fixing for any cable type			1.15	
Satellite Amalgamating Tape	55p per _m*		sufficient for 4 generous joints			4.22	
Mungo Fixings	12p ea *		Masonry fixing, bolt + nylon plug			0.12	
Sleeved anchor bolt M10_50mm	18p ea *		Masonry fixing, steel sleeve, bolt + nut			0.18	
UNIFIX Cable clips (box 100) Black	1.5p ea *		7 mm. Hardened nail.			1.29	
<b><u>Cable</u></b>							
WF125 Black (100m)	See below*		Industry standard, copper sheath + braid			37.60	

### **Masts**

A good range of masts, up to 20' in steel or aluminium, is available from our supplier, but delivery is only available in the NW, or if you can collect from the Manchester area, I would be pleased to discuss your needs.

### **Galvanised Brackets**

**\*These brackets all require V-bolts - order separately**

6" Welded Chimney (Galvanised)	*	1.63
6" Wall bracket (Galvanised)	*	1.68
9" Welded Chimney Heavy Duty (Galvanised)	*	2.43
9" Wall bracket (Galvanised)	*	3.23
12" Wall bracket (Galvanised)	*use 2 1/2"	4.22
12"h x 18"w Wall bracket (Galvanised)	* use 2 1/2"	6.50
8" Mitre Cradle (Galvanised)	*	3.50
13" Mitre Cradle (Galvanised)	*	4.05
Pair Double Brackets (Galvanised)	*use 2 1/2"	5.44
12"T&K Brackets (Galvanised)	*	6.40
18"T&K Brackets (Galvanised)	*	7.60
24"T&K Brackets (Galvanised)	*	9.30
36"T&K Brackets (Galvanised)	*	15.50
Patio bracket (galvanised)		10.00
1_" U Bolts		0.13
1_" V Bolts		0.15
2_" V Bolts		0.25

### **Clamps**

**V-bolts included, as shown**

Aerial Slide Clamp		0.58
Aerial Cradle Boom	<u>Includes</u> Slide Clamp	1.75



F.M.Clamp		0.95
Heavy Duty F.M. Clamp		1.06
1" x 1" Mast Clamp		0.82
2" x 1" Mast Clamp		1.29
2" x 2" Mast Clamp		1.86
Rope Grip		0.25
Claw Strainer/Tensioner		1.13
Three Legged Mast Hooks		2.91
DELUXE Lashing Pack		1.75
2" Mast Coupler		8.01
Shelly heavy duty clamp	2" to 1"	5.88
Shelly universal clamp	2" to 1"	3.53
<b><u>Triax Range amplifiers+splitters</u></b>		
MA18dB masthead amp & PSU	Complete masthead kit	17.00
External Splitter Box. TMS 3/2.	2-way inductive splitter	4.95
<b><u>Carriage [any order]</u></b>		9.39



Fig.1, FM Clamps HD



Fig.2, Mast clamps 1" 1"

2" 1"

Std.  
Don't know why they're called "FM clamps" ...



Fig.3, double brackets  
(requires 2 Lashing Kits+2" V-bolts)



Fig.4, cradle boom + slide clamp, & a single  
slide clamp

Two types of slide clamp are shown, the one on its own being by Maxview, from B+Q.

These clamps may be suitable for mounting horizontal 1" booms:





Fig.5, Shelly HD clamp, 2" to 1\_"



Fig.6, Shelly universal clamp, 2" to 1\_"



100m of WF125



Patio Bracket, nom. 2 1/8" int.dia.



Televes co-ax plug with screw + clamp fitting



Finally, don't forget the masonry fixings:



Fig.7, Mungo fixings



Fig.8, Sleeved anchor bolts

\* Unless you want a full reel of cable or box of clips, it may be preferable to order a small quantity direct from Julian. CT100 is then 25p/m  
Cable will incur an additional postage charge, as follows:

10m co-ax	£2.50 + post & packing £2.10+0.75	total	£5.35
15m co-ax	£3.75 + post & packing £3.06+0.75	total	£7.56

However, users may prefer a more flexible 75Ω cable for use with a rotator, in which case URM 70 is recommended - not available here, but available from Maplin, off the reel at 49p/metre (stock no. XS32).

Payment may be made by cheque, made out to J.Hardstone and posted to  
17 Whitefield, Heaton Norris, STOCKPORT, SK4 2PE

Payment by BACS electronic transfer is a convenient alternative, if you have internet banking. Contact Julian for account details.

To keep the carriers happy, please specify where possible, a business address which guarantees: 1) easy access for a lorry (no cul-de-sac!); 2) someone always available to receive the delivery. Problems on either of these issues will mean a loss of credibility for the Skywaves account. As delivery date/time cannot be predicted, delivery must be to somewhere always 'open'.

Carriage conditions will have to be discussed for each order, and may incur a surcharge for delivery to the more distant parts of the UK. Delivery of the full range of poles is available throughout the North West of England and North Wales, in an area bounded roughly by Stoke, Lancaster, Caernarfon and Rochdale.

**Membership:** Skywaves is published monthly as an electronic e-zine, which can be downloaded by members via the Internet and read/printed on a computer using Adobe Acrobat Reader.

**Subscriptions to the British FM & TV Circle, who publish Skywaves, now run from January to November/December, and are free.**

There is also no charge by the BFMTVC to join the early DX warning system.

**The Deadline** for sections is the **1st of the month**, unless otherwise stated. Skywaves is currently compiled using Microsoft Word 98 for Mac. Electronic contributions can be sent in this, or any other Word format, as RTF, plain text, or as text within an e-mail. Written contributions are also welcomed, typed if possible. They should be sent to the relevant section editor by post or e-mail, or to the main address on the front page of Skywaves. Note – "On Screen" deadline is usually the 25<sup>th</sup> of the month.

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