

CE PLI PEUT ETRE OUVERT POUR CONTROLE POSTAL.



DePose a Liege X



REVUE MENSUELLE L.O.E.

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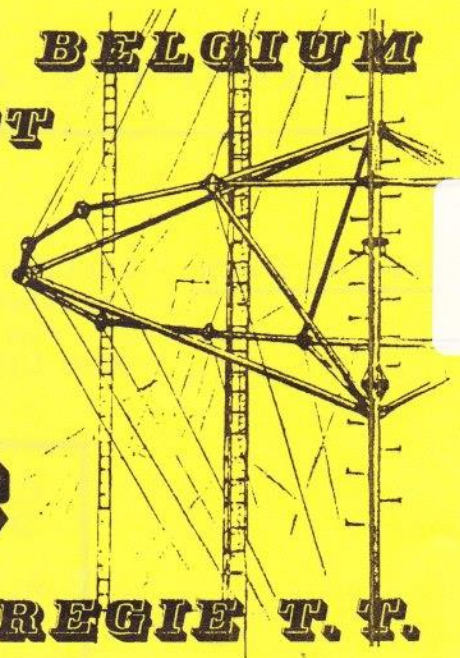
ON5VL

UNION BELGE des
AMATEURS - EMETTEURS

ZONE 14

BELGIUM

OROTT



REGIE T. T.

Mars 89

2.

COMITE L.G.E.

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<u>Instruction</u>	Radio	Hubert Mulkens	ON4FP
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EDITORIAL.

Chers Amis,

Si le mois de mars signifie le retour du printemps, pour nous il est aussi synonyme de préparations d'élection et d'Assemblée Générale.

C'est donc aussi l'occasion de prendre ses responsabilités au sein de la section donc au sein de l'Association.

Il est donc question de se manifester, de faire entendre sa voix ou comme dirait l'autre de se taire à jamais...

En effet c'est la période où notre Association vous offre deux moments privilégiés à savoir:

- l'élection annuelle de votre C.M. et de vos représentants au sein du Conseil d'Administration
- l'Assemblée Générale statutaire

Aussi je vous conseille, vivement, de vous présenter ou de vous faire représenter le mois prochain à la réunion de section afin de choisir votre futur City Manager.

Mais aussi de vous rendre en mai à Namur et de "prendre sa Citadelle" afin de manifester qui sait votre soutien à notre Association ou qui sait présenter vos griefs.

Plus nombreux nous serons et mieux on tiendra compte de nos arguments.

C'est donc le moment de mettre en pratique notre devise nationale "L'union fait la force".

En conclusion j'espère vous retrouver nombreux à la prochaine réunion de section et lors de l'A.G.

73 QRO

Jacques - ON4DX
C.M. U.S.A./LGE.

Rapport d'écoutes du mois de janvier 1989

Date	Gmt	Call	Freq	Rst	
02	22.27	T18AHO	7789.9	456	QSL M: DJ2VZ
	22.44	T5JOW/VP5	7053.1	567	
04	19.47	FM5BT	14115.9	527	
	19.47	FY5YE	14115.9	569	QSL M: W5JLU
05	16.28	J6LDC	28441.1	539	P.O.BOX 1553 CASTRIES .ST LUCIA
	21.54	J37AH	11181.1	579	
06	21.06	JX1UG	7053.0	587	QSL M: LA5NM
	21.51	C53GB	14111.5	416	
07	10.40	9X532	28474.8	579	Op: F5QN
	11.23	8P9AF	28483.4	579	QSL M: VE3LGC
	11.44	NP4CC	28504.9	537	
08	09.14	TZ6FTC	28499.8	559	
	09.35	TR8RLA	28445.0	539	P.O.BOX 15144 LIBREVILLE. GABON
09	14.23	3V5TS	28550.0	599	P.O.BOX 251 CP 85100. RHODES ISL
10	07.41	FK8FB	14118.0	539	
	07.43	TU2NH	14115.4	508	P.O.BOX 1083 YANOUSSOUKRO. COTE D'IVOIRE
13	08.37	HZ1AB	21234.2	549	QSL M: K8PYD
	18.35	9J2AL	20539.9	519	P.O.BOX 3281 LUSAKA. ZAMBIE
	17.29	A41JV	14198.6	599	
14	16.25	4U1UN	21193.4	579	
	22.56	9K2RA	3798.4	599	
15	15.18	D68NG	14117.7	506	
18	16.10	CM20J	28504.8	537	
20	17.15	TL8CK	14135.1	559	
	17.42	FY5AN	21169.9	569	
	18.01	4U1ITU	21160.2	506	Op: F8RU
	18.01	5T5HH	21160.2	506	
	18.02	V P2M/P2JD	21170.0	506	
21	09.22	BY1QH	28450.0	505	
	09.44	FR5EL	28495.0	506	
	16.30	308FV	14131.5	507	
	22.55	V P2M/P2JD	7043.5	404	
	23.05	9X5NH	3792.0	405	QSL M: D06CA
22	09.30	672EX	28428.6	527	
23	16.41	672EX	21195.5	568	
	17.59	V29A	21170.0	579	QSL M: W4FRU
24	17.55	VP2ERP	21222.1	508	
25	17.43	ZD7CW	21335.1	537	
	18.03	FN5CL	21170.0	599	QSL M: W3DJZ
26	17.37	A47RS	21203.9	568	P.O.BOX 981 MASQAT. OMAN
	17.48	V7VGT	21185.3	506	Pays DXCC inconnu.
27	22.53	OH2PJ	14117.4	527	
28	11.04	LV33J	21297.6	537	QSL M: I0JUD
	13.40	YK0/HED	23520.0	599	QSL M: DK0EBE
	14.01	AP25V	23527.4	548	
	14.02	KX1R	23527.4	599	
29	10.21	OH2BH	21297.9	599	QSL M: OH2BH
	15.01	TT2RFL	28513.7	518	QSL M: N2AU
31	15.05	TU8TD	21273.0	579	QSL M: 913CA
	16.20	FY4FC	28500.0	527	P.O.BOX 6095 97306 CAYENNE. GUY FR
	17.20	J79TOJ	21290.1	569	
	17.42	3X13G	21174.8	538	

P.V. Réunion mensuelle de section (08.02.89)

Présents: ONL1081, ONL2652, ONL3540, ONL3689, ONL7495
 ON2KDK + Xyl et ON2KCW
 ON1JU
 ON4CA, ON4DX, ON4KDM, ON4KSP, ON4MI, ON4NL, ON4TI, ON4VL.
 ON5CQ, ON5CJ, ON5LJ, ON5MR, ON5PO
 ON6AC, ON6AM + Xyl, ON6AO, ON6GS, ON6PM, ON6QP, ON6RD, ON6TJ.
 ON7TP

Excusés : ON4KAL

Invités : ON2KAO
 ON1KEL, ON1KWF, ON1KZD + Xyl
 ON5KI

1. Accueil des participants par le CM

2. Les Oms sont heureux de retrouver notre ami Arthur, ON6MA en pleine forme après son petit séjour forcé au CHU.

3. Le CM signale que le journal sera deux semaines en retard s'en excuse et en explique les raisons.

4. Candidatures C.M.

Jacques signale que cette année encore il y aura deux candidats au poste de CM à la section de Liège Est. Les deux candidats sont:

- Jean - ON1KFN
- Jacques - ON4DX

5. Contest UBA

Fin février le CM invite les opérateurs au Contest UBA en phonie

6. Emissions ATV

Reprise des émissions de télévision ON5VL/T le samedi 11/2/89
 A ce sujet vous pouvez acheter un convertisseur prêt à l'emploi pour la modique somme de 2500 F.
 Pour l'antenne voir plus loin un exemple facile à réaliser.

7. Réunion DM

Le DM -Robert, ON4VL nous fait connaître les questions qu'il posera à cette réunion. Les questions sont une synthèse des remarques qui lui ont été transmises par les différents CM du district.

8. Parole aux Oms.

Fin de la réunion à 21 heures

Prochaine réunion de section le Mercredi 8 mars à 19h30

QUALITE PROFESSIONNELLE PRIX...?

AMATEUR

VOYEZ PLUTÔT

- UNE ANTENNE **CUE DEE** AVEC SES **5 ANS** DE GARANTIE D'USINE
- UN MOTEUR GARANTI **1 AN** MARQUE **EMOTATOR**
- CABLE DE COMMANDE POUR MOTEUR (8 CONDUCTEURS)
- UN CABLE COAXIAL (A FAIBLES PERTES) LE **H100** (POPE)
- EGALEMENT AUTRE COAX DE STOCK (RG213, RG58, RG174, RG178, RG188, ...)
- RELAIS ET COMMUTATEURS COAX **HOFI-HOSCHA**
- CONNECTEURS COAXIAUX (DE BONNES MARQUES) A ISOLATION TEFLON

ON6RD DANIEL

TOUT CECI VOUS EST PROPOSE PAR : LA MAISON **DAN'ELECTRO**

ROUTE DE HOMBURG, 2 - 4841 HENRI-CHAPELLE - Tél. 087/88 11 70 (0)

DOCUMENTATION ET LISTE DES PRIX (**GRATUIT**) SUR SIMPLE DEMANDE
PAR COURRIER OU TELEPHONE (APRES 18 H OUI SUR REPONDEUR SI ABSENT)

— UN RENSEIGNEMENT N'ENGAGE A RIEN MAIS PEUT VOUS FAIRE GAGNER BEAUCOUP

Amateur Radio Band Plans

R.S.G.B.
FEBRUARY 89.

On all bands there are recommended sections set aside for use by each mode. In some parts of the world (e.g. the USA) observance of these band sub-divisions is mandatory and their use also depends on the class of licence held by the operator. The IARU Region 1 hf band plan (which is supported by all IARU member societies in Europe and Africa) is set out below and should be observed at all times even though its recommendations are only advisory as far as UK amateurs are concerned.

IARU Region 1HF Band Plan

Band (MHz)	Type of emission
1.81 - 1.84 1.84 1.84 - 2.00	±2kHz CW rtty CW and phone
3.50 - 3.60 3.60 3.60 - 3.80	±20kHz CW (2) rtty (1) CW and phone (2, 3)
7.00 - 7.04 7.04 7.04 - 7.10	±5kHz CW rtty (1) CW and phone
10.100 - 10.150 10.145	±5kHz CW rtty (1)
14.00 - 14.10 14.070 - 14.099 14.10 - 14.35	±12.5kHz CW rtty (1, 14) CW and phone (14)
18.068 - 18.110 18.105 18.110 - 18.168	±5kHz CW rtty (1) CW and phone (13)
21.00 - 21.15 21.10 21.15 - 21.45	±20kHz CW rtty (1) CW and phone
24.890 - 24.930 24.925 24.930 - 24.990	±5kHz CW rtty (1) CW and phone (13)
28.00 - 28.20 28.10 28.20 - 29.70	±50kHz CW rtty (1) CW and phone

The 1.8MHz band is shared with other services. Below is a list of coastal radio station frequencies to be avoided.

All frequencies are used for sabb, except those marked with an asterisk (rtty), apart from those in brackets, which are available when required, they are all in regular use. "W" indicates a working frequency.

Call sign	Location	Frequencies (kHz)
GNI	Niton toW	(1831) 1834 (1911) (1922) (1925)
GLD	Land's End	1841w (1908) (1911) (1925)
GIL	Ilfracombe	(1852) 1855
GLV	Anglesey	(1911) (1922) 1925
GPK	Portpatrick	(1880) 1883w
GHD	Hebrides	1866w
GKR	Wick	(1824) 1827w
GND	Stonehaven	(1853) 1856w 1946
GCC	Cullercoats	1838 (1841)
GKZ	Humber	(1866) 1869w
GNF	N. foreland	(1845) 1848w
Guernsey Radio		1810w
EJM	Malin Head	1841w
EJK	Valentia	1827w
OST	Ostende	1817w 1820w 1905 1908 *1971.5
OSA	Antwerpe	1901w 1904
PCH	Scheveningen	1862w 1890w *1919.5 1939w (1971) *1972.5 (1995)
DAN	Norddeich	1911
DAO	Kiel	1880 1883 1915 1918
OXB	Blavand	1813
FFU	Brest	(1894) (1995)
FFO	St Nazaire	1817 (1995)
FFC	Bordeaux	1820 1862w
FFM	Marseilles	1906w 1988
TKM	Grasse	1834 1988

In addition to these, 1950 and 1953kHz, both J3E/USB, are assigned to all UK coastal radio stations. The frequencies which tend to suffer interference from stations in the amateur service are 1,820, 1,841, 1,852 and 1,953kHz, with the last being by far the most commonly affected.

Notes

- (1) for rtty, recommended section of operation shared with CW.
- (2) 3,500 - 3,510 and 3,775 - 3,800kHz reserved for intercontinental working.
- (3) 3,635 - 3,650kHz is used by USSR stations for intercontinental working.
- (4) For sabb recommended operation frequencies are: 3,735, 7,040, 14,230, 21,340, 28,680kHz all ± 5kHz.
- (5) For beacons, 28,195 - 28.3MHz is recommended.
- (6) The downlink for amateur satellites is reserved on 29.30 - 29.55MHz.
- (7) The transmitter power on the 10MHz band should not exceed 250W mean output power. (NB: UK max carrier power is 20dBW).
- (8) No contests should be organised on the 10MHz band.
- (9) Credit for awards or diplomas should be accepted for contacts made on the 10MHz band.
- (10) SSB may be used on the 10MHz band during emergencies involving the immediate safety of life and property, and only by stations actually involved in the handling of emergency traffic.
- (11) Contest preferred segments for major contests: 3.5 - 3.56, 3.6 - 3.65, 3.7 - 3.8, 14 - 14.06, 14.125 - 14.3MHz.
- (12) The following frequencies are reserved for the international Beacon Project: 14.099 - 14.101, 21.149 - 21.151, 28.190, 28.300MHz.
- (13) Use of SSB on 18 and 24MHz in the UK is not permitted at the present time although it is hoped that such permission will be granted during 1989.
- (14) Packet operators are asked to take special care to avoid causing interference to the beacon network on 14100kHz.

50MHz Band Plan

50.000	50.020 - 50.080 50.090	Beacons Centre of CW activity
CW only		
50.100	50.110 50.100 - 130 50.300 50.350	Intercontinental calling SSB dx CW ms ref. freq. SSB ms ref. freq.
All narrow band modes		
50.500	50.600 ± 50.620 - 50.760	rtty (fsk) packet radio
All modes		
51.000		
Pacific DX window		
51.100	51.410 - 51.590 51.510	FM telephony FM calling
All modes		
52.000		

UK 70MHz Band Plan

70.000		
Beacons only		
70.075		
CW only		
70.150		
SSB and CW only	70.200	SSB calling frequency
70.260	70.260 70.300 70.350 - 70.400	National mobile and calling frequency RTTY calling frequency Raynet
All modes		
70.400		
FM simplex only	70.450	FM calling frequency
70.500		

UK 144 MHz Band Plan

144.000			
CW only	144.000 – 144.025 144.050 144.100	Moonbounce CW calling frequency MS cw reference frequency	
144.150			
SSB and cw only	144.250 144.260 144.300 144.400	Used for GB2RS (ssb) and slow morse transmissions Used by Raynet SSB calling frequency MS ssb reference frequency	
144.500			
All modes non-channelised	144.500 144.600 144.600± 144.625 144.650 144.675 144.700 144.750 144.775 144.800 144.825	SSTV calling frequency RTTY calling frequency RTTY working (fsk) Data and packet radio AX.25 packet radio repeaters and mailboxes Data and packet radio FAX calling frequency ATV calling and talkback Raynet Raynet Raynet	
144.845			
Beacons	144.850	Raynet*	
144.990			
FM repeater inputs	145.000 R0 145.025 R1 145.050 R2 145.075 R3 145.100 R4 145.125 R5 145.150 R6 145.175 R7		
145.200			
FM Simplex channels	145.200 S8 145.225 S9 145.250 S10	Raynet Used by Raynet Used for slow morse tone modulated transmissions	
	145.275 S11 145.300 S12 145.325 S13 145.350 S14	RTTY atsk	
	145.375 S15 145.400 S16 145.425 S17 145.450 S18 145.475 S19 145.500 S20 145.525 S21	FM calling channel Used for GB2RS (fm) broadcast Used for rally/exhibition talk-in	
	145.550 S22 145.575 S23		
	145.600		
	FM repeater outputs	145.600 R0 145.625 R1 145.650 R2 145.675 R3 145.700 R4 145.725 R5 145.750 R6 145.775 R7	
	145.800		
	Satellite service		
	146.000		

Notes on UK 144MHz and 430MHz Band Plans
MS operation can take place up to 26kHz higher than the reference frequency (see RSGB Amateur Radio Operating Manual p80).

The beacon and satellite service must be kept free of normal communication transmissions to prevent interference with these services. (* – 144.850MHz in use by Raynet until further notice, subject to 25W ERP max and vertical polarisation).

The use of the fm mode within the ssb/cw section and cw and ssb in the fm-only sector is not recommended.

Repeater stations are primarily intended as an aid for mobile working and they are not intended to be used for dx communication. FM stations wishing to work dx should use the all-modes section, taking care to avoid frequencies allocated for specific purposes.

From January 1987, 433.200MHz ceased to be a simplex channel and became a permanently designated repeater channel, RB8.

UK 430 — 440 MHz Band Plan

RSGB FEBRUARY 89.

430.000					
NB: 431 – 432MHz not available within 100 km of Charing Cross, London					
432.000					
CW only	432.000 – 432.025 432.050	Moonbounce CW centre of activity			
432.150					
SSB and CW only	432.200 432.350	SSB centre of activity Microwave talk-back			
432.500					
All modes non-channelised	432.600± 432.625 432.650 432.675 432.700	RTTY (fsk) UK packet links UK packet links Data and packet FAX calling frequency			
432.800					
Beacons					
433.000					
FM repeater outputs in UK only	433.000 RB0 433.025 RB1 433.050 RB2 433.075 RB3 433.100 RB4 433.125 RB5 433.150 HB6 433.175 RB7 433.200 RB8 433.225 RB9 433.250 RB10 433.275 RB11 433.300 RB12/SU12	RTTY repeater and rty atsk working			
	433.325 RB13 433.350 RB14 433.375 RB15				
	433.400				
	FM simplex channels	433.400 SU16 433.425 SU17 433.450 SU18 433.475 SU19 433.500 SU20 433.525 SU21 433.550 SU22	FM calling channel		
		433.600 SU24 433.625 433.650 433.675 433.700 433.725 433.750 433.775	Used for rally and exhibition talk-in RTTY atsk Packet radio Packet radio Packet radio Raynet Raynet Raynet Raynet		
		434.600			
		FM repeater inputs in UK only	434.600 RB0 434.625 RB1 434.650 RB2 434.675 RB3 434.700 RB4 434.725 RB5 434.750 RB6 434.775 RB7 434.800 RB8 434.825 RB9 434.850 RB10 434.875 RB11 434.900 RB12 434.925 RB13 434.950 RB14 434.975 RB15	RTTY repeater atsk	
			435.000		
			Satellite Service	434 – 440	ATV — frequencies chosen so as to avoid interference to other band users and, in particular, the amateur satellite service
			438.000		
440.000					

1,240 to 1,300MHz Band Plan — Region 1

1,240,000				
All modes	<i>Digital communications</i>			
1,241,100				
ATV				
1,251,500				
All modes	1,258.150 to 1,259.350	<i>R20 - R36 repeater output</i>		
1,260,000				
Satellite service				
1,270,100				
ATV				
1,286,000				
All modes	c)			
1,291,000				
Repeater Input	RMO RM19	<i>(UK) 25kHz spacing</i>		
1,291,475				
1,291,500				
All modes	1,293.150 to 1,294.350	<i>R20 - R36 repeater input</i>		
1,296,000				
CW	1,296.000 1,296.025	<i>Moonbounce</i>		
1,296,150				
SSB	Narrow band DX segment	a)	1,296.200	<i>Narrow-band centre of activity Linear transponder input</i>
			1,296.500	
			1,296.600	
			1,296.600 1,296.700	
1,296,800				
Beacons exclusive	b)	1,296.500 1,296.600 1,296.700	<i>SSTV RTTY FAX</i>	
1,296,990				
1,297,000				
Repeater output	RMO RM19	<i>(UK) 25kHz spacing</i>		
1,297,475				
1,297,500				
FM simplex	d)	SM20 SM30		
1,298,000				
All modes	<i>Digital communications</i>			
1,298,500				
1,300,000				

Notes on the 1,240 to 1,300MHz Band Plan

RSG-B FEBRUARY 89

1. IARU Region 1 Band Plan
The following notes are part of the provisional IARU Region 1 band plan, adopted at the IARU Region 1 conference in Cefalu (1984), and all member societies should strongly promote adherence to the recommendations made in these notes.
 - 1.1 Footnotes
 - a. CW is permitted over the whole narrow-band dx part of the band; cw exclusive between 1,296.000 to 1,296.150 MHz.
 - b. Regional planning by the Beacon Co-ordinator only for beacons with more than 50 Watts ERP.
 - c. DARC draws attention to the fact that in order to avoid interference to/from primary users the use of 1,286 to 1,291MHz for atv will be continued in The Federal Republic of Germany.
 - d. In countries which do not have access to 1,298 to 1,300MHz (e.g. Italy) the fm simplex segment may also be used for digital communications, if necessary.
 - 1.2. Miscellaneous agreements
At the IARU Region 1 conference in Warsaw (1975) it was recommended that France, after their loss of the upper part of the band to other services, adopt the portion 1,298 to 1,240 MHz for narrow-band operations in the same way as the rest of Region 1 uses in 1,298 to 1,298MHz segment of the band.
2. Usage
The following notes are referring to the usage column in the band plan. In the right amateur spirit operators should take notice of these agreements which are made for operating convenience, but no right to reserved frequencies can be derived from a mention in the usage column or from the following notes.
 - 2.1 During contests and band openings local traffic using narrow-band modes should operate between 1,297 to 1,298MHz.

2,320 to 2,450MHz Band Plan — Region 1

2,300,000		
Sub-regional (National band plans)		
2,320,100		
CW exclusive	2,320.000 2,320.025	<i>EME (Moonbounce)</i>
2,320,150		
CW & SSB	2,320.200	<i>SSB centre of activity</i>
2,320,800		
Beacons exclusive		
2,320,990		
2,321,000		
Simplex & repeaters (FM)		
2,322,000		
All modes	2,322 to 2,355 2,355 to 2,365 2,365 to 2,370 2,370 to 2,390	<i>ATV Digital comms Repeaters ATV</i>
2,390,000		
	<i>EME (Moonbounce)</i>	
2,392,000		
All modes		
2,400,000		
Amateur satellite service		
2,450,000		

Notes on the provisional 2,300 to 2,450MHz Band Plan

- a) In countries which do not have access to the ALL MODES against 2,322 to 2,390MHz, the FM SIMPLEX & REPEATER segment 2,321 to 2,322MHz may be used for digital data transmissions.
- b) In countries where the narrow-band segment 2,320 to 2,322MHz is not available, the following alternative narrow-band segments can be used: 2,304 to 2,306MHz and 2,308 to 2,310MHz.

3,400 to 3,475MHz Band Plan — Region 1

3,400.000		
All modes		
3,456.000		
Narrow band CW/EME/SSB	3,456.200	Centre of activity
3,458.000		
All modes		
3,475.800		

5,650 to 5850MHz Band Plan — Region 1

5,650.000		
Amateur satellite service (up-link)		
5,670.000		
All modes		
5,760.000		
Narrow-band CW/EME/SSB	5,760.200	Centre of Activity
5,762.000		
All modes		
5,830.000		
Amateur satellite service (down-link)		
5,850.000		

10,000 to 10,500MHz Band Plan — Region 1

10,000.000		
All modes (ATV, data transmission, FM simplex, duplex and repeaters)		
10,368.000		
Narrow-band CW/EME/SSB/ Beacons	10,368.200	SSB centre of activity
10,370.000		
All modes		
10,450.000		
Amateur and amateur satellite service (all modes)		
10,500.000		

Notes on the provisional 10,000 to 10,500MHz Band Plan *RSGB FEB. 89.*

In those countries where the narrow-band segment 10,368 — 10,370MHz is not available, the segment 10,450 to 10,452MHz is suggested as an alternative narrow-band segment.

24.0 to 24.25GHz Band Plan — Region 1

24,000.000		
Amateur satellite service	24,025.000	Preferred operating frequency wide-band equipment
24,050.000		
All modes		
24,192.000		
Narrow-band CW/SSB/ Beacons	24,192.000	Centre of activity
24,194.000		
All modes		
24,250.000		

47.0 to 47.2GHz Band plan — Region 1

47,000.000		
	47,088.000	Centre of narrow-band activity
47,200.000		

IARU: Band Plan co-ordination

As the RSGB represents the interests of radio amateurs within the UK, so the International Amateur Radio Union (IARU) represents amateur radio on an international scale. Its membership is made up of national societies rather than individuals and it has 124 member societies. It was founded in 1925 and has its headquarters in the USA. It is split into three sections as is the International Telecommunications Union (ITU), the UK coming under the administration of Region 1.

The aim of the IARU is to promote worldwide growth in the movement and where necessary represent the movement's interests at the ITU. It also regulates and co-ordinates band plans, and makes recommendations for the use in operation of specialised activities such as meteor scatter.

Another service provided is the Monitoring Service (IARUMS) which monitors unauthorised transmissions by other services within the amateur bands. Reports from the IARUMS are sent to both the ITU and national telecommunication administrations.

Planning Permission

Got An Aerial?

No Planning Permission For It?

Are You An RSGB Member?

If you answered yes to all three questions; why not contact the Membership Services Department at RSGB HQ. They have available just to RSGB members, a free advice booklet on planning permission. This booklet will help you decide whether or not you need permission, and if you do, how best to go about it. It has just been revised and now gives the latest situation on breakthrough.

Furthermore, through the Membership Services Department, you can call upon the advice of the Planning Advisory Committee, assuming of course that you are an RSGB member! They can assist you in the event of you having to appeal to the Department of the Environment for permission.

DEPARTAMENT

25000 de chere

0100-serang

0100-0100-0100

010000-010000

de son departement

radio amateurs



emetteurs icom

antennes cushcraft, jaybeam, Met

modules microwave... tel:374686 fax:374871



renseignements : on6ao

A2	AF-38	Botswana	EU-14	OE	EU-15	Austria	UR2	EU-15	EA-6KM	EU-15	Survey Military of Malta
A3	OC-32	Tonga	OH	OH-6	EU-15	Finland	V3	NA-7	1A	EU-15	Sprally Is
A4	AS-21	Oman	OH-6	OH-6	EU-15	Aland Is	V4	NA-8	1A	EU-14	Monaco
A5	AS-22	Wales	OH-6	OH-6	EU-15	Market Reef	V5	OC-28	3A	AF-39	Agalega, St Brandon
A6	AS-21	Bhutan	OK	OK	EU-15	Czechoslovakia	VE	NA-1, 2, 3, 4, 5	388-7	AF-39	Mauritius
A7	AS-21	United Arab Emirates	ON	ON	EU-14	Belgium	VK	OC-29, 30	389	AF-39	Rodriguez Is
A8	AS-21	Bahrain	OX	OX	NA-40	Greenland	VK	OC-30	3C	AF-36	Equatorial Guinea
A9	AS-21	Pakistan	OX	OX	EU-14	Faroe Is	VK9	OC-29	3C-6	AF-36	Pagalu Is
BV	AS-24	Taiwan	P2	P2	OC-28	Denmark	VK9	OC-29	3D2	OC-32	Fiji
BY	AS-23, 24	China	PA	PA	EU-14	Netherlands	VK9	OC-30	3D6	AF-38	Swaziland
C2	OC-31	Nauru	PJ	PJ	EU-14	Netherlands Antilles	VK9	OC-30	3V	AF-33	Tunisia
C3	EU-14	Andorra	PJ5-8	PJ5-8	NA-8	St. Maarten	VK9	AF-39	3X	AF-35	Guinea
C5	EU-35	Gambia	PP	PP	SA-11	Brazil	VK-6	OC-30	3Y	AF-38	Bouvet Is
C6	NA-8	Bahamas	PP-6F	PP-6F	SA-11	Fernando de Noronha	VP2A, V2	NA-8	4S	AS-22	Sri Lanka
C9	AF-37	Mozambique	PY	PY	SA-11	St. Peter's Rocks	VP2E	NA-8	4U	EU-14	IT U, Geneva
CE	SA-12	Chile	PY-6S	PY-6S	SA-11	Trinidad Is	VP2M	NA-8	4UN	NA-5	U. N., New York
CE9, FB8Y, KC4, LU, VK-6, VP8, ZL5, ZS1, 3Y, 4K1, 8U1	(*)	Antarctica	PY-6T	PY-6T	SA-9	Surinam	VP2V	NA-8	4W	AS-21	Yemen
CE9, HF-6, LU, VPR, 4K1		South Shetland Is	PZ	PZ	SA-9	Bangladesh	VP5	NA-8	4X, 4Z	AS-20	Israel
CE-6A	SA-13	South Shetland Is	S2	S2	AS-22	Seychelles	VP8	SA-13	5A	AF-34	Libya
CE-6X	SA-12	Easter Is	S7	S7	AF-39	Sao Tome and Principe	VP9	NA-5	5B4, ZC4	AS-20	Cyprus
CE-6Z	SA-12	San Felix Is	S9	S9	AF-36	Sweden	VP9	NA-5	5H	AF-37	Tanzania
CN	AF-33	Juan Fernandez Is	SI	SI	SM	Poland	VQ9	AF-39	5R	AF-35	Nigeria
CO	NA-8	Morocco	SP	SP	EU-15	Sudan	VR6	OC-32	5S	AF-39	Madagascar
CP	SA-10	Cuba	ST	ST	AF-34	Southern Sudan	V56	AS-24	5T	AF-35	Mauritania
CT1, 4	EU-14	Portugal	ST-6	ST-6	AF-34	Swaziland	VU	AS-22	5U	AF-35	Niger
CT2	EU-14	Azores Is	SV	SV	EU-20	Greece	XE, XF	NA-6	5W	AF-35	Togo
CT3	AF-33	Madeira Is	SV9	SV9	EU-20	Dodecanese	XE4, XF4	NA-6	5X	OC-32	Western Samoa
CX	SA-13	Uruguay	SV/A	SV/A	EU-20	Crete	XU	AF-35	5Y	AF-37	Uganda
CY-6	NA-5	Sable Is	T2	T2	OC-31	Tuyulu	XU	AS-26	6W	AF-35	Kenya
D2	AF-36	Angola	T3-6	T3-6	OC-31	Western Kiribati	XV, 3W	AS-26	6Y	NA-8	Senegal
D44	AF-35	Cape Verde	T3	T3	OC-31	Central Kiribati	XW	AS-26	70	AS-21, 37	South Yemen
D6	AF-39	Comoros	T4	T4	OC-31	Eastern Kiribati	XW	AS-26	7P	AF-38	Lesotho
DA-4	EU-14	West Germany	T5	T5	AF-37	Somali	XZ	EU-14	7Q	AF-37	Malawi
DU	OC-27	Philippines	T7	T7	EU-15	San Marino	Y2-9	EU-14	7X	AF-33	Algeria
EAI-5, 7	EU-14	Spain	TA	TA	EU, AS-20	Turkey	YA	AS-21	7Y	NA-8	Jamaica
EAI-6	EU-14	Balearic Is	TF	TF	EU-40	Iceland	YB	AS-21	8Q	AS-22, AF-39	Maldives
EAI-8	AF-33	Canary Is	TG	TG	NA-7	Guatemala	YB	OC-28	8R	SA-9	Guyana
EAI-9	AF-33	Canary Is	TI	TI	NA-7	Costa Rica	YB	AS-21	8S	AF-35	Ghana
EAI-10	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YJ	OC-32	8T	EU-15	Malta
EAI-11	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	8U	AF-36	Zambia
EAI-12	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	8V	AS-21	Kuwait
EAI-13	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	8W	AS-21	Sierra Leone
EAI-14	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	8X	AS-21	Sierra Leone
EAI-15	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	8Y	AS-21	Sierra Leone
EAI-16	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	8Z	AS-21	Sierra Leone
EAI-17	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9M2	AS-28	West Malaysia
EAI-18	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9M6-8	OC-28	East Malaysia
EAI-19	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9N	AS-22	Nepal
EAI-20	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9Q	AS-22	Zaire
EAI-21	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9R	AF-36	Burundi
EAI-22	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9S	AS-28	Singapore
EAI-23	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9X	AF-36	Rwanda
EAI-24	AF-33	Canary Is	TJ	TJ	NA-7	Costa Rica	YK	AS-20	9Y	SA-9	Trinidad and Tobago

(*) NOTE: • Continent and zone divisions are based on WAC and WAZ regulations respectively
 • Antarctica includes three continents of SA, OC, AF and seven zones of 12, 13, 29, 30, 32, 38 and 39
 • UAGS and UAW are EU-16, other UAGs are AS-17 and 18, UAGY is AS-23, other UAGS are AS-18 and 19
 • The number of extant countries amounts to 216 and the number of large countries estimates 52 effective April 1, 1985.

TRIO-KENWOOD CORPORATION

Shorongi, Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

ELECTIONS U.B.A. 1989

A droit de vote tout membre adhérent ou effectif en ordre de cotisation LGE 1989 .

Tout électeur sera contrôlé par le comité , comme les années précédentes .

Ce contrôle sera effectué à l'aide du dernier listing reçu, de la carte de membre 1989 ou éventuellement du talon du bulletin de versement ou de virement de la cotisation .

Le vote par procuration est naturellement autorisé à condition que le membre absent soit en règle de cotisation et fasse partie de la section LGE .

Les élections se dérouleront le 12 avril 89 , dès 19.30 Hrs au centre d'accueil de la piscine, rue Largevoie, 4400 HERSTAL.

PROCURATION

Le soussigné , (nom) ON.....

Section U.B.A. de

Donne procuration par la présente à (nom)

ON

de voter en son nom lors des élections U.B.A. avril 1989 .

DateSignature

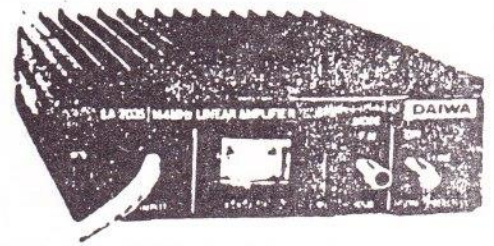
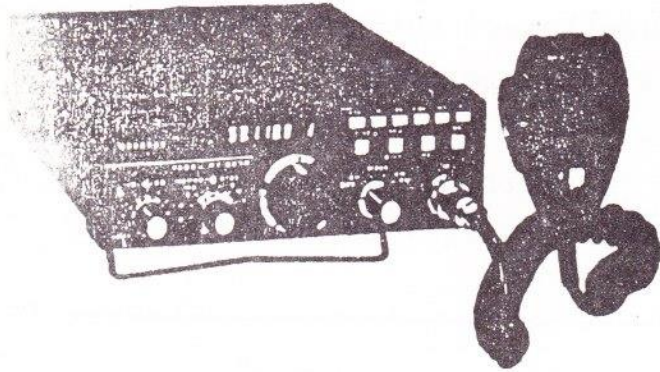
RAPPEL

Pour les élections , munissez vous
de votre carte de membre U.B.A./LGE 1989 ,
de votre carte d'identité ,
du talon du bulletin de versement .



YAESU

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ANTENNA
SYSTEMS



TRIO

KENWOOD CORPORATION

SERVAIS Marcel (ON5FO)
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YOUR DEALER

Specialised in Radio Equipments

ALINCO

ELECTRONICS INC.



NOUS SOMMES HEUREUX de vous apprendre que

Le matériel H E A T H K I T est à nouveau disponible
en BELGIQUE.

Il est importé par MCR et distribué par les dealers.

INVITATION.

RADIO AMATEURS TILLEUR.

R.A.T PORTES OUVERTES

WEEK-END DU 8 ET 9 AVRIL.

ECOLE ST-JOSEPH

TILLEUR

=====

PROGRAMME=

DEUXIEME WEEK END PORTES OUVERTES ORGANISE PAR LA
SECTION RADIO AMATEURS TILLEUR.
OUVERTURE LE SAMEDI A 13H.

SAMEDI=

Démonstration de différents modes de communication.
Collections, divers; Clés de télégraphie, diplômes.
Exposé et débat sur les satellites par ON1KHP.
Démonstration montage fabrication maison des OM'S
Exposition fantastique vieilles radio's début 1940
à ce jour.
Guidage par nos membres au personnes visiteurs.

Avec participation: De la CROIX ROUGE.
Animateurs Patro.

DIMANCHE=

Début de la journée à 9h00.

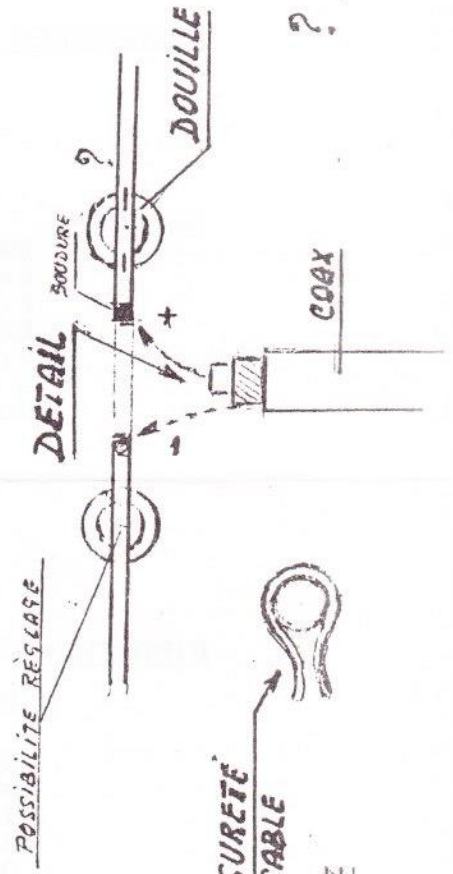
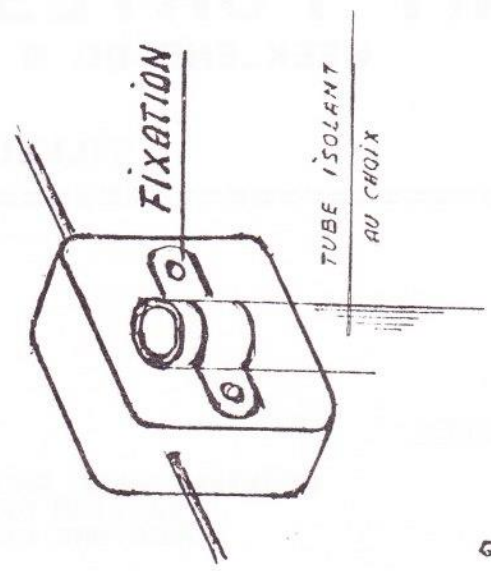
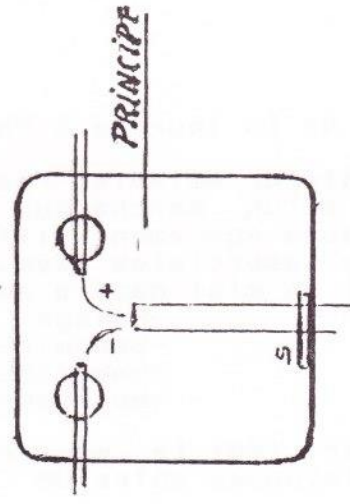
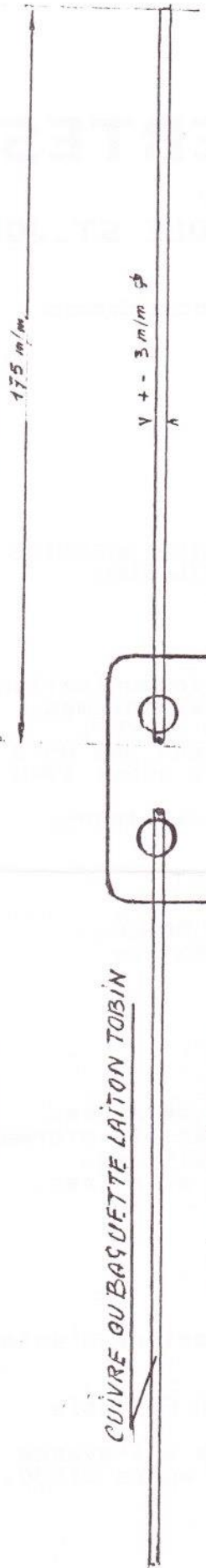
Brocante de matériel radio et pièces, détachées
ainsi qu'un marché aux puces de matériel informatique.
Il y aura également différentes expositions.
Stands commerciales exem. DAN ELECTRO et autres.
A midi un mini gastro avec au menu:
-Potage
-Sandwichs divers
-Gauffres
-Boissons

Le bar sera ouvert tout le week-end pour permettre d'entamer ou
d'achever des dialogues entre OM 'S ET YL'S

Remarques: La location des tables exposants 150 Fr/table
Dimensions 1.00/0.60.
Une réservation au plus tard 8 jours à l'avance est
souhaitée via ON7BM au 041/33.77.40 après 21h30.
Egalement via 2 Metre 145.575 Mhz.

GUIDAGE SUR 145.575 MHZ.

ANTENNE UTILISÉE A ST LAURENT ONSVL ATV



? IL SERA NECESSAIRE D'ECRASER LA BASQUETTE

VISION DIRECT AVEC TROOZ



- * Contest CW 1988 : Très belle 4ème place avec les 5 logs de
ON4NL (12) - ON6TJ (22) - ON4KCD (27) - ON4VL (37)
et ON4DX (42)
- * Contest ATV 1988: Magnifique 11ème place de ON5VL/T dans le contest
IARU région 1 (2ème place pour la Belgique)
- * Contest UBA de Printemps 89
le 12 mars en HF sur 80m SSB (voir QSO 2.89)
de 7 à 12 heures locales
- * 2ème Old Timers et Ham Spirit contest
En 2m : le 18 mars de 11h à 14h et de 16h à 18h GMT
le 19 mars de 7h à 10h et de 13h à 17h GMT
- * Contest UBA de Printemps 89
le 26 mars en VHF phone et CW (voir QSO 2.89)
- * RAT portes ouvertes
les 8 et 9 avril (voir annonce ON5VL 3.89)
- * LGO ardf : le 22 avril (voir annonce ON5VL 2.89)
- * LGE portes ouvertes à St Laurent
les 22 et 23 avril. Ecole en activité et radio-amateurs
Possibilité de repas.
- * Technorama ou le train de la technologie de demain
info de nos amis ON4UN et ON1IY
le train sera en gare de Liège Guillemins du 22 avril au 12 mai 89

ON4MI Cherche
un programme pour Commodore 64 qui lui permettra d'imprimer
différentes formes d'étiquettes.

Exemple : étiquette sur carte QSL
Contacter Joseph le soir sur 144300 USB ou t^{el} 041/628426

Grandeur mesurée	Unité	Sous-Multiples Multiples usuels	Symboles Correspondants	Coefficient Multiplicateur
<u>Tension</u>	Volt.	Millivolt	mV	10^{-3}
		Volt	V	1
		Kilovolt	kV	10^{+3}
<u>Intensité</u>	Ampère	Microampère	uA	10^{-6}
		Milliampère	mA	10^{-3}
		Ampère	A	1
<u>Résistance</u>	Ohm	Ohm	Ω	1
		Kilohm	k Ω	10^{+3}
		Mégohm	M Ω	10^{+6}
<u>Puissance</u>	Watt	Milliwatt	mW	10^{-3}
		Watt	W	1
		Kilowatt	kW	10^{+3}
<u>Inductance</u>	Henry	Microhenry	uH	10^{-6}
		Millihenry	mH	10^{-3}
		Henry	H	1
<u>Capacité</u>	Farad	Picofarad	pF	10^{-12}
		Nanofarad	nF	10^{-9}
		Microfarad	uF	10^{-6}
<u>Fréquence</u>	Hertz	Hertz	Hz	1
		Kilohertz	kHz	10^{+3}
		Mégahertz	MHz	10^{+6}

Il faut savoir que: $10^0 = 1$ et que $10^1 = 10$

Sous-multiples: Pico (p) $10^{-12} = 0,000.000.000.001$

Nano (n) $10^{-9} = 0,000.000.001$

Micro (u) $10^{-6} = 0,000.001$ ou $\frac{1}{1.000.000} = \frac{1}{10^6} = 10^{-6}$

Milli (m) $10^{-3} = 0,001$ ou $\frac{1}{1.000} = \frac{1}{10^3} = 10^{-3}$

Multiples:

Kilo (k) $10^{+3} = 1000$

Méga (M) $10^{+6} = 1.000.000$

Ainsi, un condensateur de 100 picofarads est un condensateur dont la valeur correspond à: 100 picofarads = 100×10^{-12} farads ou 10^{-10} farad = 0,000.000.000.1 farad.

Mise en Série de

1. Résistances.

$$R_t = R_1 + R_2 + R_3$$

2. Inductances (L)

$$L_t = L_1 + L_2 + L_3$$

3. Condensateurs (C)

$$C_t = \frac{1}{1/C_1 + 1/C_2 + 1/C_3}$$

Mise en Parallèle de

1. Résistances.

$$R_t = \frac{1}{1/R_1 + 1/R_2 + 1/R_3}$$

2. Inductances (L)

$$L_t = \frac{1}{1/L_1 + 1/L_2 + 1/L_3}$$

3. Condensateurs (C)

$$C_t = C_1 + C_2 + C_3$$

Réactance

1. Réactance Inductive.

$$X_L = L \cdot 2\pi f$$

(= Ω)

2. Réactance Capacitive

$$X_C = \frac{1}{2\pi f \cdot C}$$

(= Ω)

Impédance

1. Impédance d'une inductance d'une Résistance.

$$Z = \sqrt{R^2 + X_L^2}$$

(= Ω)

2. Impédance d'un Condensateur et d'une Résistance.

$$Z = \sqrt{R^2 + X_C^2}$$

(= Ω)

Valeur Condensateur du filtre R.C.

$$C = \frac{1}{2\pi f \cdot X_C}$$

Mesure Impédance inconnue.

$$Z = \frac{V}{I}$$

Fréquence de Coupure d'un filtre

$$f_c = \frac{R}{2\pi L}$$

(= Hz)

Fréquence de Résonance d'un circuit oscillant.

$$f_0 = \frac{1}{2\pi \sqrt{L \cdot C}}$$

(= Hz)

Fréquence de Coupure d'un filtre

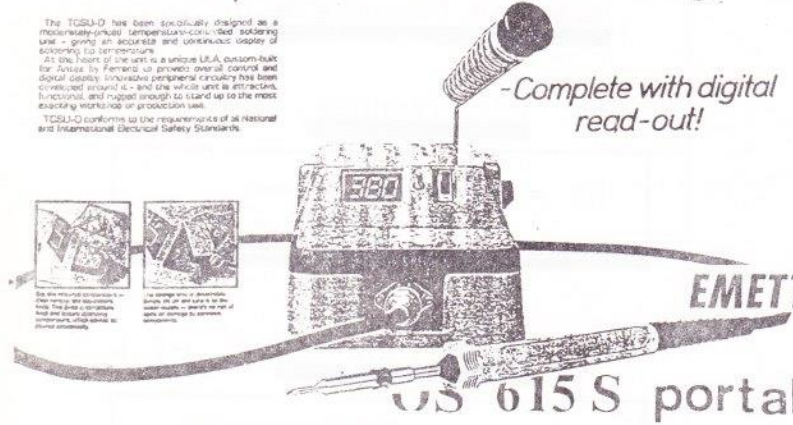
$$f_c = \frac{1}{2\pi R \cdot C}$$

(= Hz)

TCSU-D Temperature-Controlled Soldering Unit

The TCSU-D has been specifically designed as a moisture-resistant temperature-controlled soldering unit - giving an accurate and continuous display of soldering temperature.
 At the heart of the unit is a unique USA custom-built for safety by Ferracord, to prevent overload, current and digital display. Innovative permanent circuitry has been developed around it - and the whole unit is attractive, functional, and rugged enough to stand up to the most demanding working or production use.
 TCSU-D conforms to the requirements of all national and International Electrical Safety Standards.

- Complete with digital read-out!



KENWOOD

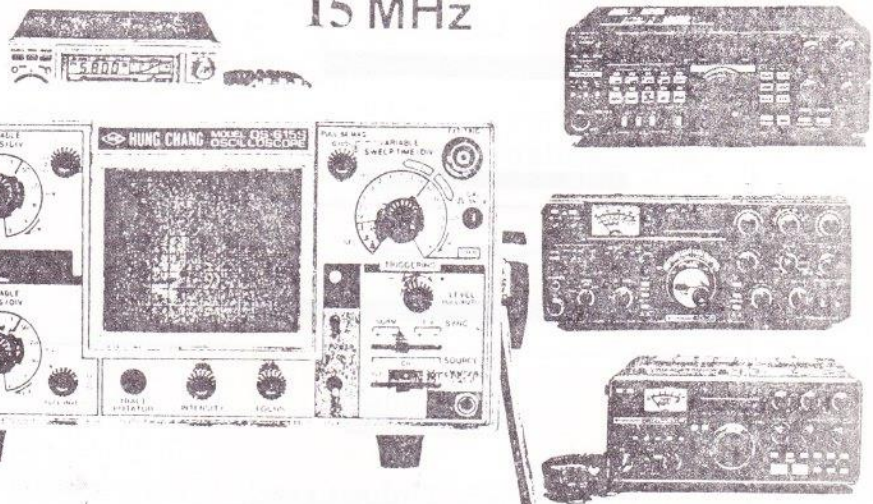
EMETTEUR/RECEPTEUR DECA METRIQUE

YAESU

EMETTEUR RECEPTEUR TOUT MODE VHF/UHF

OS 615 S portable oscilloscope, dual trace 15 MHz

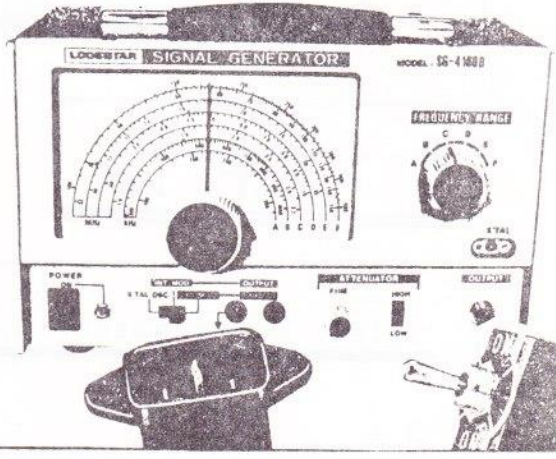
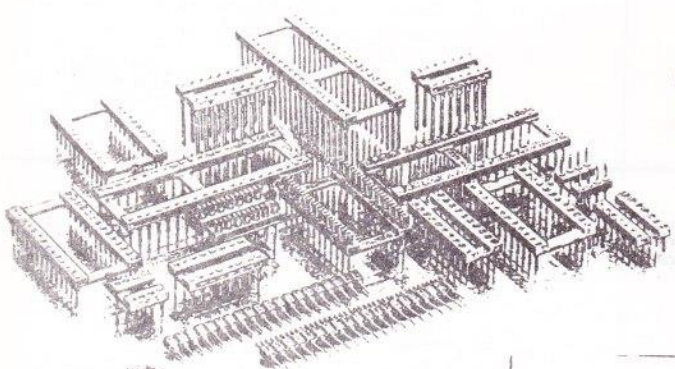
- 1. Chiffre Cijfer
- 2. Chiffre Cijfer
- 3. Chiffre Cijfer
- Multiplicat. Multiplicat.
- Tolerance Tolerantie
- Coefficient de temperature Coefficient de temperature



Coils for: VHF 44-54-58-65-75-80-100 mhz transmitting-receiving.

SG-4160 B SIGNAL GENERATOR

CABLES COAXIAUX

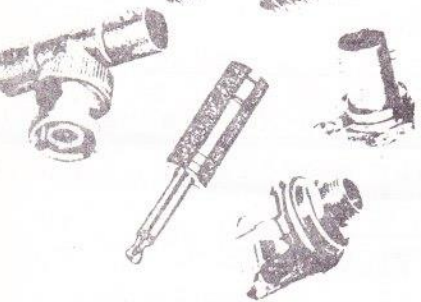
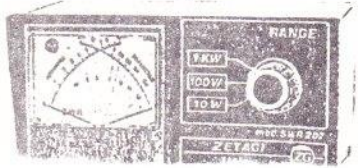


★ S.T.A.R. ~ ELECTRONIC

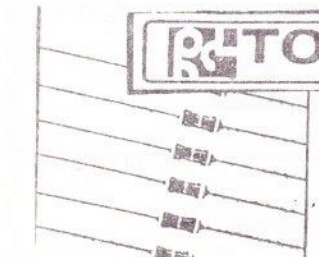
FEUGGELEN J.M.
ON 8 GO

VERBECK N.
ON 1 KVN

KENWOOD - SOMMERKAMP - YAESU - GTV
 SLAGMOLENSTRAAT 17 ST TRUIDEN - TEL. 011/68.67 09



print	sec.
21V 75A	D
23V 7 A	D
25V 6.4A	D
28V 5.6A	D
30V 5.4A	D
33V 4.8A	D
2x21V 3.8A	D
2x23V 3.5A	D
2x25V 3.2A	D
2x28V 2.8A	D
2x30V 2.7A	D
2x33V 2.4A	D



E66TR160 160 VA

100

87

h: 120 fix (M4) x 80 x 64
 M₀-V: ±0.5% Cu, 350 gr
 brut. kg.: 3.7 kg

L I E G E

L G E

activites et participations de la section

- Participation aux émissions nationales de ON4UB
- Participations aux FIELD-DAY (décimétrique, métrique et a.t.v)
- Assemblée mensuelle des Membres tous les mois (sauf 07 et 08)
- Assemblée générale annuelle et élection du CM.
- Représentation à l' Assemblée Générale de l' U.B.A
- Trois shacks actifs.
- Approches des techniques nouvelles (RTTY, PACKET, SATELLITES)
- Cours pour les ONLs
- Journal d'information - Le " ON5VL "
- Un service QSL (présence du responsable aux réunions mensuelles)
- Bibliothèque et notes de cours - cassettes morse disponibles.
- Conférences et exposés techniques.
- Réunion hebdomadaire (shack de l'Institut St. Laurent)
- Attribution du diplôme (DVL)
- Contests HF et VHF faits à partir du shack St. Laurent.
- Insignes et écussons divers disponibles.

=====
Cotisation : 350 frs par an à verser au compte
340-0307582-33

=====
Reunions mensuelle : Centre d'accueil piscine de Herstal
Le 2 ième mercredi du mois (sauf 07 et 08)
19.30 hrs - téléphone : 041-48.00.96

Reunion hebdomadaire : Tous les samedis de l'année
Shack St. Laurent - de 13.30 a 16.55 hrs

=====
Remarque : Pour recevoir ce mensuel, il faut :
 - **Etre membre UBA ou membre IARU**
 - **Etre en ordre de cotisation L.G.E**