



May-June 2004 Volume 50 No. 2

Members survey

♣ History: R Anguilla

- ♣ Beacon receiving station
- ♣ Ionospheric measurement
- ♣ Navtex information
- * Tenerife bandscan
- ♣ 2 DX-peditions



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STOP PRESS:

This month we welcome another good crowd of new members to the Circle: Martin Elbe, Wolfsburg, Germany (rejoin); Giampaolo Galassi, Italy (rejoin); Francesco Clemente, Udine, Italy; Gunter Lorenz, Freising, Germany; Brent Taylor, New Brunswick, Canada; Andrea Lawendel, Italy and John Bryant in Eastsound, WA, USA. WELCOME TO YOU ALL!

Stop Press Deadlines:	27 th June for July/August 2004	22 nd August for Sep	ptember 2004		
Cover illustration: Edwin Armstrong – radio pioneer died 1954 (see Editorial)					
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EDITORIAL

with Steve Whitt

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It's extremely gratifying to see another sizable bunch of new members this month including several re-joiners. Welcome to the Circle, guys. I hope you make the most of your membership of the Circle.

Thank you also to those of you who have chosen to continue supporting the Circle by renewing your membership. It is also great to get feedback from 47 of you as you renewed your membership this month. I hope the findings of the Members Survey as compiled by Clive Rooms are truly representative. However if there is something we've missed, your comments will always be welcome via Herman's Mailbag.

Publications: A DXers Technical Guide

The fourth edition of A DXer's Technical Guide is now available from the IRCA Bookstore. In its nearly 200 pages you will learn about the principles underlying the design of successful receivers, antennas and receiving accessories, find reviews of the best commercially available DXing equipment in different price ranges, as well as detailed instructions for building one's own antennas and other DXing aids.

Although it focuses on the technical backdrop to medium wave DXing, it will also be of interest to serious shortwave listeners and low band radio amateurs.

IRCA members can get their copy by sending \$15.00 US to the IRCA Bookstore, 9705 Mary Ave NW, Seattle WA 98117-2334. The non-IRCA member price is \$17.50. overseas, please add \$3.00. Make checks and Money Orders out to Phil Bytheway

Publications: WRTH update

Sean D. Gilbert (International Editor – WRTH) writes to update us; "WRTH are pleased to announce that A04 season broadcasting schedules are now available for free download at our webite (www.wrth.com). This link will take you to the file: www.wrth.com/WRTHA04WEB.pdf You will need the free Adobe acrobat reader to open this file.

The 62 page (215k) file contains the latest broadcasting schedules for over 200 International, Foreign Service and Target broadcasters. The format is the same as WRTH and includes transmitter sites and languages for each broadcaster."

Another good reason to get online and to stay up to date.

Member to Member

This month I have a request from Ken Crescendo who's looking for a second hand Sony ICF2001D. It must be in working order but it does not matter if it has/hasn't got the Airband facility. Please contact the General Editor in the first instance with price & condition if you have a 2001D for sale.

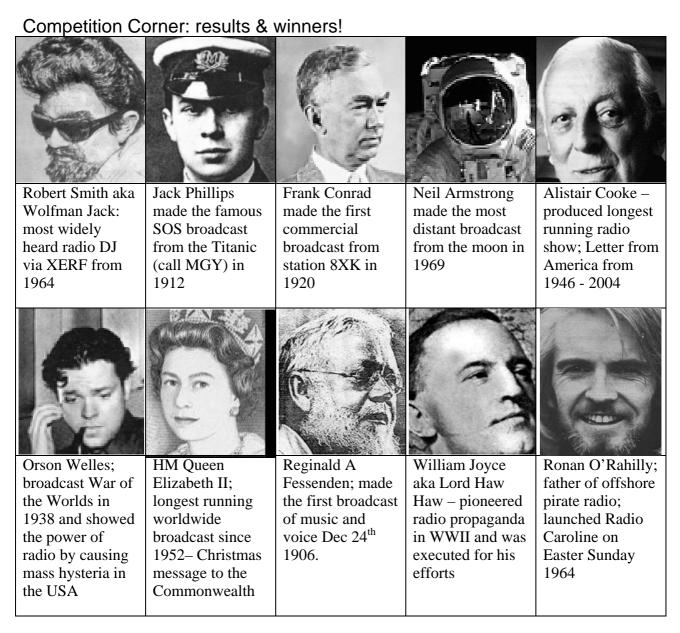
MWN Columns

This month you will find World News is still here thanks to the volunteering efforts of Jeff Weston. I must thank Jeff for coming forward to help. This month really is an experiment with Jeff to make sure all the processes work out. I hope we can make everything run smoothly and that Jeff's contribution becomes a regular fixture in the MWN landscape.

Fifty years young: MWC 1954-2004

This month's cover carries a picture Edwin Armstrong. Armstrong is one of the great engineers of the 20th century. Most of the greats are known for one or two key innovation, but Armstrong had three: regeneration, super-heterodyning, and frequency modulation. He was the last of the line of heroic individual American inventors, and he came to a particularly American end - death by lawyers. Sadly Armstrong's epic career ended in a protracted and bitter legal battle with RCA that virtually bankrupted him. On January 31, 1954, he wrote a two-page letter to his wife and left it on his New York apartment desk. He dressed neatly in an overcoat, hat, scarf, and gloves, and walked out of a 13th story window.

His wife took another 13 years to win the legal battles and vindicate her husband. Armstrong's legacy lives on all around us in the world of radio.



The challenge was to name 10 people who had made some of the most significant broadcasts in radio history. Although this competition lasted a whole year that did not deter people from entering. I had lots of people identify one or two pictures but five Circle members stood out for their perseverance, and their knowledge. Nobody correctly identified all 10 pictures and some faces proved much harder to identify than others. The most elusive image was that of Frank Conrad.

When the competition closed it turned out to be an international photo-finish and the five challengers at the finishing line were:

Olaf Haenssler in Germany with 9 out of 10 correct; but Olaf had difficulty with Cooke until the news of his recent death and O'Rahilly

Harry Richards in the UK was stuck on 8/10 but just before the deadline he identified Jack Phillips to up his tally to 9/10. The only face that eluded Harry was that of Frank Conrad.

Jens Sondegaard in Denmark got 8/10 but could not ID Conrad and Joyce.

Jim Renfrew in the USA got 8/10 but was stumped by his compatriots Fessenden and Conrad!

Allan Smart in the UK was a late entry but he came storming in with a very creditable 7/10

Deciding between Harry & Olaf was not easy but Harry described the reason for inclusion on the cover of MWN marginally better than Olaf. Furthermore Harry achieved his winning entry without the benefits of the Internet for on-line research. Consequently **Harry Richards of Barton upon Humber** is declared the winner. Certificates are on their way to the winner and four runners-up and Harry wins a free year's membership of the Circle. Congratulations to Harry and well done to everyone who participated. I hope you had a bit of fun as well.

So who was Frank Conrad?

Frank Conrad, pioneered radio broadcasting in the backyard garage of his home in Wilkinsburg, Pennsylvania in 1919-20. Conrad's experiments led directly to the start of today's multi-billion dollar broadcasting industry. Although his achievements rank among the most important of the 20th century, Conrad is scarcely known today.

It is Conrad to whom the broadcasting industry owes its existence. Often working into the wee hours of the morning in his garage workshop, he advanced not only the technology but also the business concepts upon which the industry is based. When he substituted a phonograph for his microphone, he discovered a large audience of listeners who had built their own crystal radio sets and who, upon hearing the music, wrote or phoned requests for more music and news. When he became swamped with these requests, he decided to broadcast regular, scheduled programs to satisfy his listeners.

When he ran out of his own collection of records, he borrowed from a Wilkinsburg music store in exchange for mentioning the store on the air--the first radio advertisement. (The store owner soon discovered that records played on Conrad's station sold better than others.) All of these concepts for broadcasting--the station, the audience, the programs, and a means to pay for the programs-came about through Conrad's work. The launch of station KDKA was a direct result of Conrad's work.

Until next time 73s	Until	next	time	73s
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Steve

IONOSPHERIC REPORT

from U.S. Dept. of Commerce, NOAA, Space Environment Center

Daily Geomagnetic Data

•	Middle Latitude	High Latitude	Estimated
	Fredericksburg	College	Planetary
Date	A K-indices	A K-indices	Ap K-indices
2004 03 28	12 3 4 3 2 3 2 2 1	35 4 5 6 5 4 4 3 2	17 3 5 3 3 3 3 2 2
2004 03 29	9 1 3 2 2 3 2 2 2	23 2 2 3 4 5 5 2 4	12 2 3 3 3 3 3 3 2
2004 03 30	11 2 2 3 3 3 3 2 1	28 2 2 4 6 6 3 1 1	12 1 2 4 4 4 3 2 1
2004 03 31	7 1 2 3 1 2 2 2 2	14 1 1 4 3 4 3 3 1	7 1 2 3 1 3 2 3 2
2004 04 01	2 0 0 1 0 1 0 2 1	3 1 0 0 1 2 1 1 1	3 0 0 1 1 2 1 2 1
2004 04 02	3 1 0 1 0 0 0 1 3	1 1 0 1 1 0 0 0 0	3 1 0 0 1 1 2 1 1
2004 04 03	21 2 3 2 2 4 4 4 5	56 2 3 4 4 6 7 7 3	23 2 3 4 3 4 4 5 5
2004 04 04	12 5 1 2 1 2 2 2 3	8 4 2 1 1 2 2 1 2	12 5 3 2 1 2 2 1 3
2004 04 05	9 1 1 0 1 3 2 4 3	38 0 0 0 2 5 6 7 4	14 1 1 0 1 3 4 5 4
2004 04 06	17 5 3 3 4 3 1 2 2	39 4 4 6 6 6 2 2 2	21 4 4 4 4 4 2 3 2
2004 04 07	7 2 3 2 1 1 2 2 2	14 2 3 4 4 3 2 2 2	10 3 3 3 2 2 2 2 3
2004 04 08	16 5 3 3 3 3 2 2 1	30 3 3 5 6 5 4 2 1	16 2 4 4 4 3 3 2 2
2004 04 09	11 3 3 4 2 2 1 2 2	25 3 5 5 5 3 3 2 1	16 3 5 4 3 2 2 2 2
2004 04 10	10 3 2 3 1 1 1 3 3	17 1 2 5 4 3 1 3 3	10 3 3 3 2 2 2 3 3
2004 04 11	6 3 2 2 1 1 1 2 1	10 2 1 3 4 2 2 1 2	8 3 2 3 2 2 2 2 2
2004 04 12	7 3 2 2 1 1 1 3 1	19 4 3 5 4 2 2 3 1	11 3 2 4 3 2 2 3 1
2004 04 13	5 2 1 1 1 2 1 2 1	7 1 1 2 3 3 1 1 1	6 2 2 2 2 2 2 2 2
2004 04 14	2 1 1 0 0 1 0 0 2	2 1 0 0 0 2 0 0 1	5 2 1 1 0 3 2 2 1
2004 04 15	3 1 1 0 1 1 0 2 2	4 0 0 0 1 2 2 1 3	6 1 1 1 1 2 2 2 3
2004 04 16	10 2 3 2 2 2 3 3 2	27 2 3 5 5 4 4 2 2	12 2 3 4 3 2 3 3 2
2004 04 17	6 1 3 1 1 1 1 2 2	8 2 2 2 2 3 3 1 1	9 2 3 2 1 2 3 3 2
2004 04 18	6 1 2 3 2 1 0 2 2	18 1 3 4 4 5 3 1 1	11 1 2 4 2 3 3 3 2
2004 04 19	4 2 2 1 1 1 1 1 1	8 1 2 3 4 2 1 0 0	6 2 2 2 2 2 2 2 1
2004 04 20	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 1 0 2 1 0 0 0 1	4 1 1 1 2 2 2 1 2
2004 04 21	6 1 3 1 1 2 1 2 1	4 0 2 1 1 1 2 1 1	5 1 3 1 2 2 2 2 1
2004 04 22	2 0 0 1 1 1 1 1 1	5 1 1 1 1 3 1 2 1	4 0 0 2 1 2 2 1 1
2004 04 23	16 2 2 4 4 3 3 3 3	34 2 3 4 5 6 6 2 2	20 2 3 4 4 5 4 2 3
2004 04 24	7 1 2 2 3 2 2 2 1	17 1 2 3 4 5 4 1 1	11 1 2 3 4 3 3 1 2
2004 04 25	7 1 2 3 2 2 1 1 2	17 2 3 5 4 4 2 1 1	12 1 3 4 3 3 3 2 2
2004 04 26	4 2 1 1 0 1 1 2 1	5 2 2 2 0 1 1 2 2	7 2 1 3 1 2 2 2 2
2004 04 27	5 1 2 1 1 1 2 2 1	2 1 2 0 0 0 1 1 1	5 1 1 1 1 2 2 2 2
2004 04 28	8 1 0 2 2 2 3 3 2	7 1 0 1 0 2 3 3 3	8 1 0 2 1 2 3 4 2
2004 04 29	3 1 2 1 0 1 0 1 2	3 1 1 2 1 0 0 1 1	4 1 2 1 1 2 2 1 2
2004 04 30	-1 -1-1-1-1-1-1	-1 -1-1-1-1-1-1	-1 2 3 3 1-1-1-1-

Space Weather Outlook Table (based on 27 day forecast)

UT	Date	3	10.7cm Flux	Ap Index	Max. K
2004	May	04	85	20	4
2004	May	05	85	15	3
2004	May	06	90	12	3
2004	May	07	90	8	3
2004	May	80	90	5	2
2004	May	09	90	5	2
2004	May	10	90	5	2
2004	May	11	90	5	2
2004	May	12	95	5	2
2004	May	13	95	8	3
2004	May	14	95	15	3
2004	May	15	95	10	3
2004	May	16	90	8	3
2004	May	17	85	5	2
2004				5	2
2004				8	3
2004	May	20	85	15	3
2004	May	21	85	20	4
2004	May	22	85	15	3

May/June 2004

MAILBAG

with Herman Boel

I'd like to start of with a nice letter from **Bernard Brown**, who talks about the 50th anniversary of MWN:

"I suppose I could claim to have been the *founder* of MWN. In 1954 I was the Broadcast Bands Editor for the International Short Wave League. MW conditions were particularly good at that sunspot minimum and I began including MW reports in my column in the ISWL magazine. However, this did not meet with the approval of other members of the League Council who felt scarce space should be kept exclusively for SW news.

Consequently a separate MW newsletter was started to enable MW DX'ers to exchange news of loggings. It was a two-man operation, Ken Brownless as editor and myself as 'publisher'. In other words, Ken wrote out the whole thing in longhand, sent it to me, I typed it up and sent it off to be duplicated and then I despatched it to what was at first a small number of subscribers, but one which grew steadily despite the fact that we were climbing to a sunspot maximum.

At first MWN was virtually just a record of loggings, but gradually as Ken wrote articles and news items, it expanded to three or four double-sided A4 sheets.

The 50's were of course paradise for DX'ing compared to today's crowded band. Almost all European stations closed down by 2400 UTC, I think Rome on 846 was the only station heard in the small hours. Until the Eastern Europeans opened up around 0500 UTC, we had an empty band to search for TA and other DX. Most of us had standard communications receivers but we were mostly reliant on simple long-wire antennas, although loops were being tried out.

MWN today and MW DX'ing today have progressed beyond anything we visualised 50 years ago, and we owe a lot to all those dedicated to keeping MWN in being."

Many thanks, Bernard, for the nice retrospect and for your initiative so many years ago, without which we would not be enjoying the MWN as we are right no.

Last time I asked you what your favourite LW/MW shows are. I received several interesting replies

that may be of interest to several readers.

Jim Renfrew from Byron NY (USA), likes to listen to National Public Radio and mainly to the shows 'Morning Edition', 'All Things Considered', and 'Talk of the Nation'. For the late night breaking news, he switches to WCBS-880 New York, when much of NPR shifts to music.

Martin Hall says: 'Mine has to be Folk Favourites on VOWR 800 kHz from St John's. If I'm tuning down the band and I come across a song I like, then I tend to stick

FOR SALE

BPL Celeste Worldspace Mk II Radio

Includes Worldspace Satellite reception + AM & FM bands. The receiver is new and unused. Cost £150, will accept £110.

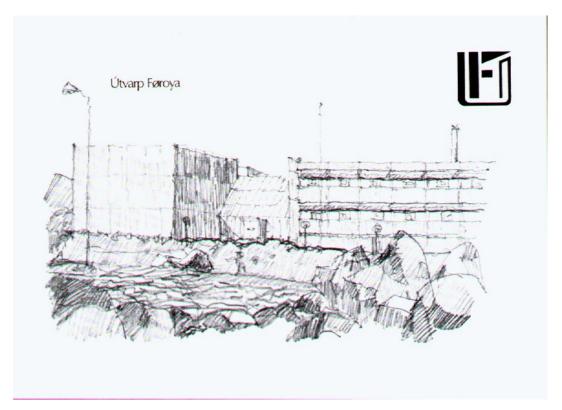
Mike Tregenza, Ranchi, Longdown, Exeter EX6 7SR, UK

on the channel for a while and put the DXing on one side. Tends to be a mix of Scottish, Celtic, English, Australian (and maybe even Canadian!) folk music.'

Italian DXer **Stefano Valianti** sent a whole list of shows that have priority to DX sessions. A quick overview: "VOA on 1197 at 2100utc with American Gold on Mondays, Classic Rock on

Wednesdays, Jazz America on Saturdays/Sundays; Radio Suisse Romande's Option Musique on 765 kHz with oldies throughout the day; the evening music shows on France Inter 162 and RTL 234; "Memorabilia" at 2200utc (2100 from March 28) on RAI Radio 2, Mondays to Fridays; "Buongiorno in musica" at 0500utc (0400 Summer) on Radio Capodistria 1170; ...and whenever I'm in their coverage area, One-O-Five Live from Vatican Radio on 585"

Many thanks to these members. If you also have favourite shows you like to listen to, why not have them mentioned here? It may be of great interest to other MW listeners.



In the previous mailbag **John Williams** asked whether other members also had trouble with their disc man. This reply came from **Max Van Arnhem**: The trouble that John describes with his Sony MZ-G750 is exactly the same trouble I had with a Sony MZ700 minidisc recorder in connection with my Sony 7600GR. I wanted to use this combination during travelling, but unfortunately it doesn't work because of the noise. I contacted Sony The Netherlands about this problem. First, they denied the interference produced by the minidisc recorder. I insisted and they promised to check this combination in their laboratory. Some time later, they phoned me and confirmed they experienced the same problems. I could return the minidisc recorder and the money was refunded! I am still using an old Sony TCS-430 stereorecorder in connection with my Sony 7600GR. This works perfect, but the recorder is about 15 years old, so how long will this combination continue? I am very interested to know if other DXers use a Sony 7600GR receiver and how they make recordings. A desktop minidisc recorder is no option, because I am only using the Sony 7600GR during travelling."

Any suggestions to a solution for John's and Max' problem are of course very welcome! And that's it for another edition of this mailbag. Keep those letters and e-mails coming in!

73

- Herman

MEMBERS SURVEY

with Clive Rooms

Thank you to the 47 members who filled in all or most of the member's survey concerning their MWN likes and dislikes.

rank	Topic	Previously	Like votes	Dislike votes	Like-Dislike
1	DX Loggings	1	12	3	9
1	World News	2	9	-	9
3	Home Front	5	7	-	7
4	Antenna & receiver articles	7	6	-	6
5	Eurolog	-	6	1	5
5	All/Most	5	5	-	5
7	Technical articles	4	5	1	4
8	Historical features	-	3	-	3
8	North American Desk	11	3	-	3
10	Feature articles	7	2	-	2
10	Editorial	7	2	-	2
10	General MW news	-	2	-	2
13	Station profiles	7	1	-	1
13	DXpedition reports	11	1	-	1
13	Propagation articles	-	1	-	1
13	Verifications Section	16	1		1
13	South American Desk	11	1	-	1
18	Ionospheric Report	18	1	-	1
19	Central American Desk	11	-	1	-1
20	Beacons & Utilities	19	-	9	-9
21	Nothing **	20	-	10	-10
ale ale			.1.1 .1 11.1	. 111 1 . 3 633	7 3 7

^{**} actually is a positive comment as 10 members said there was nothing they did not like about MW News.

As we do each year, we asked the question; What has improved/got worse over the past 12 months? In the improvements corner, two members thought that there were more interesting items and articles in MWN. Two members thought that The Home Front had improved whilst another thought that the World News section had improved, another that there were better receiver reviews and yet another thought that the overall readability had improved. Another member liked the fact that the electronic version of MWN is in colour. On the debit side, one member complained that the number of pages devoted to DX loggings had got worse. I'm not sure if the complainant is saying there are too many pages or not enough pages in DX loggings! All I can say is that Martin can only print what he receives! Somebody else stated that the magazine is "slowly being taken over by beacons". I've just checked back through Volume 49, and of the 10 issues, the Beacons & Utilities column only appeared in 7 of those issues. As we don't currently have anybody willing to edit this column, I can't see that being a "problem" in the future.

Another question we asked was how many years they had spent in the radio hobby. 2 members had spent 1-10 years, 2 members 11-20 years, 8 members 21-30 years, 16 members 31-40 years, 2 members 41-50 years, 7 members 51-60 years and one member has spent between 61 and 70 years in the hobby!.

Once again, we conducted a survey into member's receivers and aerials that they were currently using. The top two receivers in use this year are the same top two receivers as last year, and the good old reliable outdoor longwire has finished top again in the aerials section. Here are the results.

AOR 7030 [incl +] 7 Icom R71A 1

Sony ICF 2001D	7	Ten Tec RX350	1
Lowe HF225	3	Eddystone 830/7	1
Yaesu FRG 7	3	Panasonic DR22	1
Grundig YB 400	3	Collins R390A	1
Drake R8	2	Racal RA 1772	1
Trio R5000	2	FT 101B	1
Icom R75	2	McKay Dymek DR101	1
Sangean ATS 909	2	Icom IC 718	1
NRD 535	2	TS 430 Transceiver	1
Realistic DX 394	1	NRD 515	1
Sangean ATS 803A	1	Drake R4C	1
Roberts R983	1	Sony ICF-SW40	1
Grundig Satellit 700	1	CC Radio	1
Roberts R909	1	CR100 Sony Transworld	1
Racal RA17L	1	Fairhaven FT 87	1
TS 850	1	Yaesu FT100	1
FT 726R	1	Win Radio 303	1
R 7100	1	PCR 1000	1
Realistic DX302	1	Homebrew	1
Drake R8B	1	Kenwood R2000	1
Drake R8A	1	Drake SPR4	1
Realistic DX160	1	Trio 9R59 DS	1
Trio R1000	1	Lowe HF 150	1
Brandt RS902	1	Grundig Satellit 800	1
TS 870S	1	Drake R7	1
Icom R70	1	Hammarlund SP-600JX	1
Icom 8500	1	Murphy B40	1
National Panas. DR28	1	Sony SW 07	1
Nove for the conict come			

Now for the aerial survey.

1 to w for the actial bar	, c , .				
Outdoor longwire	16	Active Whip	1	Pennant	1
Wellbrook ALA1530	9	Inverted L	1	EWE Antenna	1
Indoor Loop	7	Datong AD270	1	Radio West Loop	1
Datong AD370	2	Maynard ATL 1	1	Dipole	1
Beverage	2	Datong IB5	1	Loft antenna	1
Wellbrook ALA100	2	Telescopic	1	Trap Dipole	1
G5RV	1	Flag	1	Worcester Space	
DX 1	1	Sloper	1	Magnet	1

As usual, we asked the question; "What would you like to see in MW News." As usual, it produced quite a varied response. Interestingly, 4 members said they don't want to see any changes at all, they like MWN the way it is. Once again, somebody said they would like to see a column devoted to the 160 metre Top Band, somebody else would like to see a carrier column, and 3 members said they would like a column devoted to the pirate scene. As I say each time somebody comes up with an idea, we need a volunteer to edit that column. It will NOT happen unless somebody steps forward! Among the subjects mentioned that some members would like to see more of are; news about transmitter sites, history of pioneering stations, Irish radio, digital radio, more feature articles, more DRM info, articles on combating electrical noise, info on where to buy loop antennas, history of European transmitting stations, recommended books on radios and antennas, slightly more information on receivers and antennas. Most of these need input and contributions from our membership, so I am sure Steve would be delighted to hear from YOU. One member said he would like to see a monthly index. That question was raised last year when I gave a long and detailed explanation as to why we didn't have one.

HISTORY: RADIO ANGUILLA

Radio Anguilla was born out of political expediency. For years prior to the 1967 revolution, those Anguillians who possessed receiving radios listened to far away broadcasting stations like the BBC and the Voice of America, and nearby stations like WIVI in St. Thomas and WVV in Vieques. By about 1962, St. Kitts, to which Anguilla was then constitutionally and politically linked acquired ZIZ but it was essentially a broadcasting service for that island and its people.



The political upheaval in 1967 found Anguilla without its own radio communications. This inability to communicate by radio with the people of the island was to say the least an awkward situation in a time of revolution. At times announcements had to be broadcast in St. Thomas in the hope that Anguillians back home would hear the information. Public meetings had to be the order of the day. The coming of the then one-

sheet weekly Beacon Newspaper was like a godsend to many as it kept them informed about general matters.

The British invasion of Anguilla in March 1969 was to add a new dimension to communications. On April 3rd, 1969, Anguillians were surprised to pick up the transmission of a nearby radio station and were alarmed when the station identification was made – "This is Radio Anguilla" The broadcast came from the British Frigate HMS Minerva anchored off Road Bay, using some extra radio communications equipment it carried. But the broadcast service was not meant for Anguillians, but rather the British paratroopers and other personnel who were occupying the island. The radio was essentially to entertain them with the British pop music they had missed as well as to rebroadcast the BBC News and British programmes for them.



The British frigate could not however remain indefinitely in Anguillian waters and so the decision was taken to set up the radio equipment on the island. Within days it was installed in the storeroom of the old Agricultural Department in the Valley (now demolished) and two transmitter towers were hastily erected. On April 9, 1969, Radio Anguilla began broadcasting from its new location, but still for the British occupation on the island.

However, the need to communicate with Anguillians eventually led to a gradual shift in the focus of Radio Anguilla which was able to refute misinformation and to begin a well-needed service to the island.

Over a period of time, the station emerged as a community radio station – seeking to inform, educate and entertain the people of the island. In April 1976, the station was handed over to the Government of Anguilla and became known as the Department of Information and Broadcasting.

After much delay, the British Development Division in Barbados provided funds for the construction of new studios and offices for the Department of Information and Broadcasting (upstairs the Customs Department at the Secretariat Compound. The building was completed by the end of 1988 and was occupied as from February 1989 following installation of the equipment.

In 2000, the British Good Government Fund provided new equipment to modernize the station's operations. This included a new state of the art 1000 Watt FM transmitter, a broadcast jeep which allowed greater flexibility in broadcasting events across the island as well as computers and other studio equipment.



On April 9th, 2002, the station automated most of its services allowing for the more efficient and effective delivery of its services. The station also took its news and programme services to the world wide web in May 2003. This will allow Anguillians in the region, the United States, the United Kingdom and the world over to tune in via the Internet for important events in Anguilla such as Carnival and House of Assembly as well as to keep in touch with family and relatives back home.

The station holds membership in several regional and international agencies and organizations including the Caribbean Media Corporation (Caribbean News Agency and the Caribbean Broadcasting Union), GIS Online and the OECS Newslink.



The broadcasting landscape has significantly changed over the years. The station has gone from enjoying an unchallenged monopoly in the early years to one where it has now to exist alongside other media entities. There are to date five other local stations two of which are religious-based. This has served to widen the listening choices for the island's more than 10,000 inhabitants.

Despite these competing forces, the station still remains the 'Choice' of many with its wide range of programming designed to cater for every taste and age group.

TENERIFE BANDSCAN

with Max van Arnhem

Just back from Tenerife, I can inform you that I never heard RN Sahara on 700 kHz. Only 7460 and 1550 were audible. Conditions weren't good, possibly because I was on the north-side slopes of Volcano Teide (3700 m). Enclosed are my MW loggings, 73 Max

MW reception by Max van Arnhem, location: Icod de los Vinos, Tenerife, Canary Islands Receiver: SONY 7600GR; Ant: telescopic ant

kHz	Station	ITU	Date	UTC detail	SINPO
531	RDP Porto Santo	MDR	13 April 2004	1007 P nx	35543
576	RNE1 Las Palmas, Gran Canaria	CNR	13 April 2004	1017 Sp nx	34443
594	R Renascenca, Muge	POR	15 April 2004	2005 P nx	34444
603	RDP Pico de Arieiro	MDR	13 April 2004	1007 P nx parllel to 531	35543
612	RTM Sebaa-Aioun	MRC	15 April 2004	2006 Ar nx	34444
621	RNE1 Santa Cruz, Tenerife	CNR	13 April 2004	1008 Sp px	45554
648	BBC World service	G	22 April 2004	2300 BBC WS	34333
684	RNE1 Sevilla	E	15 April 2004	1746 Sp nx	25442
711	RTM-A	MRC	13 April 2004	0708 Ar nx	34443
720	RNE5 Sta Cruz, La Palma	CNR	13 April 2004	1125 Sp local ID	35443
747	RNE5 Las Palmas, Gran Canaria	CNR	13 April 2004	1015 Sp parallel to 720	25442
747	Radio 1	HOL	14 April 2004	2005 Dutch px	34433
765	RTV Senegalaise	SEN	22 April 2004	2253 Fr songs, Fr ID, nx	34333
783	R Mauritanie	MTN	14 April 2004	2055 local mx //.4845	24442
837	COPE Las Palmas	CNR	13 April 2004	0708 Sp local ID	34443
882	COPE La Laguna, Tenerife	CNR	13 April 2004	1009 Sp px	34443
936	RTM A Agadir	MRC	15 April 2004	2012 Ar nx	33333
1008	OCR Las Palmas, Gran Canaria	CNR	13 April 2004	1013 Sp px	35443
1125	RDP Ponta do Paryo	MDR	13 April 2004	1011 P, mx	35444
1179	SER R Club Tenerife	CNR	19 April 2004	0830 Sp full ID, adv	34443
1269	R Ecca , Las Palmas	CNR	19 April 2004	0500 Sp ID	34443
1314	NRK Kvitsoy	NOR	22 April 2004	2225 Norw talks	34443
1332	2 RDP Senhora do Monte	MDR	13 April 2004	1011 P	35443
1395	Radio 10 Gold	HOL	18 April 2004	2234 Dutch jingle ID	35443
1440	CRI Luxembourg	LUX	14 April 2004	2006 Eng ID, nx	34443
1458	BBC Newcastle	G	22 April 2004	2244 Newcastle nx	33322
1458	SSunrise R	G	22 April 2004	2245 Asian adv	33322
1510	WWZN Boston	USA	15 April 2004	0218 E ann, mx, lots of fading	34322
1512	R Vlaanderen Int	BEL	14 April 2004	2010 flemish px	34443
1521	General Arabic Px Saudi Arabia	ARS	14 April 2004	2011 Ar talks	44444
1530	Posto Emissor do Funchal	MDR	13 April 2004	1012 P mx, ID jingle	35443
1550	RN Dem Saharan Rep	CLAN	13 April 2004	0701 Ar ann, ID	34433
1550	RN Dem Saharan Rep	CLAN	22 April 2004	2223 //7460.	33333

BEACON RECEIVING STATION

by Alan Gale

Introduction

I thought a few words about the equipment that I use for my beacon dxing might be in order, so this short piece is a brief overview of my receiving set up. I mainly use an AOR 7030+ for my beacon chasing, but I've also had great results using a more unconventional piece of equipment, and I've given a little more information about this below.

Receivers & Accessories

One of the main receivers used for my beacon dxing isn't really a receiver at all. "It's not really a receiver?" I hear you asking. "Well what the hell is it then?". Well the simple answer to that is it's a piece of test equipment, better known as a Selective Level Meter or SLM. So why do I use this, and what are its advantages you may well ask? Well, the selectivity is very good (around + - 60 Hz at -3db), and since it only covers the range between 2 and 612 kHz, and the dial offers very fine tuning, it is quite good at tuning in weak beacon IDs.

Yes, it does have some disadvantages, for instance it doesn't have AGC, and the audio output is quite low and at a fixed level, and it only has an analogue frequency readout and doesn't offer other



modes such as SSB and AM. All of these problems can be easily overcome though, and since these sets can often be picked up at a reasonable price they are well worth the effort.

← The SPM-3 can be seen in the centre of the picture surrounded by most of my other junk!.

I use a Racal Dana frequency counter with my set and this gives me incredible accuracy when measuring the frequency of the

incoming signals. I also feed the audio output through my Datong FL3 audio filter, and into an old audio amplifier. I also added a RF pre-selector to the front end, since this has the advantage of offering RF gain control and an extra stage of amplification if required. The very narrow IF filter means that I can generally tune in the carrier and both sidebands of a A2A or Non A2A beacon - this is very useful when I need to measure the offsets to help with the identification of unidentified beacons.

A couple of years back I also added an AOR7030+ receiver to the shack, and with the addition of a 125 Hz INRAD IF filter, this is also a very efficient receiver for beacon hunting. This receiver has one big advantage over the SPM-3 and that is the 400 memory channels that it offers. Memories can be a great help when making regular nightly checks on popular Transatlantic frequencies, and it has also proved very useful for catching some of the more irregular Oil Platform beacons regular checks can be made very quickly by stepping through pre-programmed memory channels trying to tune through the whole band on a very slow tuning SPM-3 can be a very long job in comparison!:-)

In addition to my trusty and long serving Datong FL-3 audio filter, I also added a MFJ-784B DSP filter to the shack. This has proved very effective in the battle to dig weak beacons out from under

the QRM, heterodynes and static levels. I still use the FL-3, but both units are now wired in series, and I can easily switch between them, or in extreme conditions even use both units at the same time!

The AOR 7030+ with MFJ-784B DSP Filter and the Datong FL-3 Audio Filters sitting on its back!. \rightarrow

Antenna System:

The two main aerials I use for beacon DXing are both commercially made and 'specialised' products from Wellbrook Communications (see the Beacon World datafile for more



information about these). I have the Large Aperture ALA100 outdoor Active Magnetic Loop, which for LF and beacon work has a 40 metre circumference Loop attached to it, and this is mounted in my back garden running WNW to ESE - ideal for Transatlantic beacon reception here.



I also use another Wellbrook aerial - the ALA1530, which is an aluminium Loop of 1 metre diameter and this is mounted on a rotator and calibrated for DF working. This is the main antenna used for my 'DF Circle' activities and a photo of it can be seen below mounted on the rotator amongst the 'elephant grass' in my back garden.

Both aerials are broadband systems which work on the Magnetic field, and coverage is approximately 150 kHz to 30 MHz. I have been using these aerials almost daily during the past winter season, and have been very impressed with the results received so far. I am currently working on a review of their performance, and this will be available shortly. Meanwhile, if you would like more information about these I would recommend contacting the company and requesting their comprehensive product datafile, or why not visit the new WELLBROOK COMMUNICATIONS website www.wellbrook.uk.com, and check out their pictures and datafiles these show their products off to better advantage than my poor efforts!:-)

Who says the Sun never shines in Lancashire, and that it just rains here all year round? Well yes, most people I guess, and they're usually correct. On one very magical and sunny day last summer though the sky was blue and the Sun was shining so I decided to replace the old gloomy shot which formerly appeared on this page with this bright cheerful one instead.

Yes, I know the grass could do with cutting, but it would only grow back again, and would lessen the amount of time I can spend listening. Anyway, this wonderful thing happens every September, it magically stops growing and just reverts to it's pre summer look without me even having to touch it!:-) In the background you can just see the HF Trap Vertical, and in the distance up at the top of the hill, the mast which supports my G5RV and much larger ALA100 Loop. My ground mounted ALA 1530, its rotator hidden from sight peeks out of the jungle:

Thanks to Alan and his website <u>www.beaconworld.org.uk</u> for this introductory article.

IONOSPHERE & FREQUENCY MEASUREMENT

by Murray Greenman

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The following article is written from the perspective of a New Zealand-based radio amateur operating on HF frequencies. However the phenomena he describes and illustrates are equally relevant to MW and in particular to anyone using precision frequency measuring software (e.g Spectrum Lab) to monitor signals.

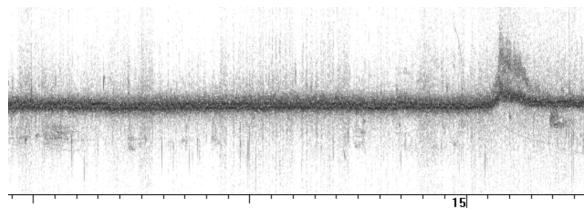
Introduction

All HF transmissions are of course subject to ionospheric propagation effects. Some of the effects are very obvious on all transmissions (selective fading, back scatter, and so on), but some effects are quite small, and can only be detected using very stable signals with minimal modulation, or at least very stable carriers and no modulation close to the carrier (hence a well designed AM broadcast transmitter is appropriate, although few are stable enough). The transmissions should not have phase or frequency modulation, phase noise, keying or unwanted sidebands which would obscure the observations. Traditionally, the standard frequency transmissions of CHU, WWV, WWVH, VNG and the like have been used for this purpose.

There are two main effects that can be observed using such stable transmissions. These are DOPPLER effects and POLARIZATION effects.

On occasions dramatic frequency shifts due to solar flares are also to be observed. As with all HF transmissions, you will also frequently see BACKSCATTER under the signals. METEOR SCATTER can also be observed, but the effect is small on 80m. The picture that follows (recorded

on 17.675MHz) shows some meteor reflections above and below the carrier of Radio New Zealand International (in skip), and has a spectacular solar flare effect showing at the right.



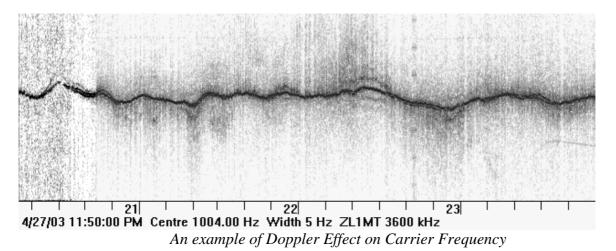
5/13/01 3:05:30 PM Centre 986.00 Hz Width 40 Hz RNZI 17675 kHz meteors 0.4 samp/sec

Meteor scatter and a flare (to the right)

Of these effects, Doppler has the most effect on the accuracy of frequency measurements.

Doppler

The Doppler effect is well known. However, not many Amateurs realize that changes in the ionosphere can cause measurable changes in observed frequency and phase of radio transmissions. The ionosphere's ion density varies all the time, due mostly to time of day (angle of the ionosphere to the sun), temperature (affects ion density) and solar activity, which causes the charged particles in the first place. As a result, the altitude at which any frequency is reflected back (actually refracted) by the ionosphere changes as the ion density and therefore refractive index changes. In general the effect is small (less than 1 part in 10⁶ or 1Hz per MHz), but can be spectacular during solar flares and around sunrise and sunset.



In this picture, spanning some three hours (horizontal scale) the transmission from ZL1MT on exactly 3600kHz appears to have moved up and down about 2Hz (the vertical scale is 5Hz top to bottom). At times the frequency changes quite quickly. Note that the transmitter has not changed - it is the apparent received frequency that changes. Sometimes the apparent frequency is above or below the true frequency for hours on end! When making frequency measurements on signals experiencing Doppler, take readings over an extended period of time, at different times of the day, and over several days, in order to determine what you consider to be the mean frequency. If within ground wave range, make the measurements when sky wave is less likely to affect the signal.

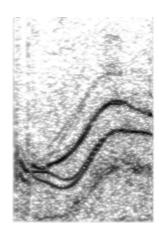
Polarisation

The refractive index of the ionosphere differs at different heights, so for rays arriving at different angles to the refractive layer, different penetration and delays are caused at different angles, hence the NVIS - Near Vertical Incidence Signal - delay and fading effects. However, the refractive index is also different for signals in different planes to the refractive layer, i.e. signals of different polarization. This is because the ions that cause refraction behave differently in different directions, due to the effect of the earth's magnetic field in which their electrons are spinning. This is most noticeable near the poles, where the earth's magnetic field is concentrated. Since most signals contain all polarizations to some extent, a signal coming into the receiver will contain components refracted at different points in the ionosphere. The effect is most marked when the signal is close to the MUF (Maximum Usable Frequency), is crossing a polar region, or when the ionosphere is changing quickly. What happens is that the various components of the signal appear to arrive on different frequencies!

In the picture above you can see this effect at around 2230. The signal has apparently split into several paths, called "Pedersen Rays". Usually one ray will predominate - this is the "ordinary ray", and is the only ray visible most of the time. On occasions one or more fainter "extraordinary rays" will appear, either higher or lower in frequency. These rays frequently appear to intermodulate, so you will see in the above example the extraordinary rays are equally spaced about the ordinary ray.

In the next small example, the Pedersen Rays are really spectacular! This is a transmission from ZL2CA, and was recorded early evening on 80m using the same settings as the previous picture.

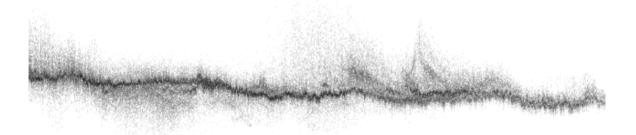
Pedersen Rays on ZL2CA \rightarrow



Backscatter

Backscatter occurs when signals are reflected back in the direction they have come, usually off the earth's surface. Since the reflections are irregular, when they arrive at the receiver they can be on different frequencies, and tend to form a cloud around the signal. If the main signal is not propagated to the receiver, all you may get is backscatter. This is normally what we receive in the South Pacific from WWVH, which explains why it is no real use for frequency measurement and comparison. The next image shows backscatter on the carrier of ZLXA (Levin) on 3935kHz. This transmitter is not stable enough for precision measurement, but exhibits good backscatter, and is on 24 hours a day, and of course near 80m.

In monitoring ZLXA you will see different effects every day. Often the sky wave arriving after sunrise is preceded by backscatter from somewhere East of the path where the sun is already upgiving a ghostly foretaste of what is to come perhaps 10 minutes before the sky wave carrier arrives. As the D layer is energized at sunrise, it often enhances sky wave for a period before it absorbs completely, perhaps due to upward reflection from the top of the D layer.



Backscatter on ZLXA

This signal was recorded at around sunrise. Note how the backscatter "clouds" are sometimes above the carrier frequency, and sometimes below, since the path to the receiver from the backscatter source is quite different to the forward signal. Some Pedersen Rays are also visible on the scattered signal. Towards the end of the recording, the sky wave (carrier) has died out as the D layer absorbed the signal, leaving only the backscatter. The width of this picture is 10Hz.

Provided backscatter is not accompanied by excessive Doppler, measurements of modest accuracy can be made by measuring the centre of the fuzzy signal. Unfortunately this is not usually the case (see the above example), and measurements on DX signals such as WWV and WWVH are fraught with problems.

GRAYLAND, WA DXPEDITION

with Bruce Portzer & Chuck Hutton

March 28th 2004

Introduction

DXing by Bruce Portzer and Chuck Hutton, using 800-ft E-W and 1100-ft SW Beverages. Receivers included Drake R8A (Bruce), and Drake R8 and AOR 7030 (Chuck).

Chuck writes: "This was an unusual night. Signals were certainly not at record levels, but I think I heard more New Zealand stations in one night than ever. There were so many that I'm quite sure I was able to stop and listen to less than half. A minor geomagnetic storm had knocked out all the Asian stations for me, although Bruce said he heard one of the Japanese big guns and 1566 South Korea. Even Australia was partially gone. Only the big stations from the east were there, and in the place of Asia and a lot of Australia were the NZ stations. New Zealand is none too strong here due to low power; I think there are no 50 kW stations and nearly everything I hear is 10 kW or less."

Bruce writes: "This was an interesting DXpedition. I have to agree with Chuck - this was easily my most productive DXpedition for NZers, with 1017, 1026, 639 and 1287 being the most prized catches of the night. Oddly enough, Radio Sport in Auckland was absent from 1332, even though Radio Tarana on 1386 was in well from the same city. The Aussies were OK, but not all that spectacular. Many of the regulars were in well, like 4BC-1116 and 5AN-891, while other like 4RN-792 and 4QD-1548 were below normal. Pacific Islands were only so-so, with just Tahiti and two Fijians heard. Asians were likewise pretty scarce, 594 was in briefly and 1566 was good at times, but that was it. I also heard brief audio on 20-30 other channels but never pulled anything worth noting."

- 529 ALASKA SQM Level Island 0445 Code IDs weak with interference from 530 TIS stations.
- 567 NEW ZEALAND 2YA Wellington 1113 Good; classical music, YL announcer parallel others.
- 576 AUSTRALIA 2RN Sydney NSW Fair; noted parallel 585, 1413. [Hutton]
- 585 AUSTRALIA 7RN Hobart 1415 Aussie woman parallel 576. [Portzer] ABC program parallel 576, 1413. [Hutton]
- 594 AUSTRALIA 3WV Horsham Good; 1-800-?? number mentioned, two men with talk program and parallel 612, said Bruce. [Hutton] 1431 Fair; phone talk parallel 612. [Portzer]
- 594 JAPAN JOAK Tokyo 1110 Good; talk and pop song in Japanese. [Portzer]
- 612 AUSTRALIA 4QR Brisbane 1433 Aussie woman parallel 594. [Portzer]
- 639 NEW ZEALAND 4YW Alexandra 1119 Poor in KFI splat, parallel 567. [Portzer]
- 657 NEW ZEALAND Southern Star, Wellington 1240 good; promo with Southern Star ID. [Portzer]

- 702 AUSTRALIA 2BL Sydney 1313 Good; Aussie talk, still there with promo and pop music 1446.
- 720 HAWAII KUAI Eleele 1313 Tentative; strong Hawaiian music over KDWN, didn't wait for ID.
- 738 FRENCH POLYNESIA Papeete 1109 Strong with man and woman in French. [Portzer]
- 756 NEW ZEALAND 1YA Auckland National Radio Good all morning, and to very good peak at 1357 but then faded down to a fair-poor ID at the top of the hour. [Hutton]
- 774 AUSTRALIA 3LO Melbourne 1320 Strong; rock music, some domestic splatter, // 828.
- 783 NEW ZEALAND 2YB Wellington Assumed with pop music that was not parallel 2310 so not Alice Springs, Australia and the only other Australian is in Western Australia which was way off the boresight of this antenna. Some of the songs were not in English and I could not recognize the language. Wellington runs ethnic programs. [Hutton]
- 792 AUSTRALIA 4RN Brisbane 1413 While the Aussies were not many nor strong, this one was quite good with a strange classical / jazz piece. [Hutton]
- 801 AUSTRALIA 2RF Gosford 1331 Very nice at times in Italian with a soccer game. Extremely dominant. [Hutton] 1339 Radio Italia, man in Italian briefly good, then gone. [Portzer]
- 819 NEW ZEALAND 1YZ Rotorua 1125 Baroque music parallel 756, 567, good
- 828 AUSTRALIA 3GI Sale 1318 Good; man talking about Aussie recording artist Midnight Oil parallel 774. [Portzer]
- 830 HAWAII KHVH Honolulu 1305 Ending news, "Hawaii's Talk Radio, AM830, KHVH" ID, strong.
- NEW ZEALAND 4ZA Invercargill 1321 Parallel the ZB Newstalk network, fair but a good peak or two. Someone mixing with them from time to time, who? [Hutton] 1333 Newstalk ZB, poor with teletalk parallel 1035. [Portzer]
- 873 AUSTRALIA 2GB Sydney 1341 Teletalk good, call ID. [Portzer]
- NEW ZEALAND Southern Star, Auckland 1238 Soft music parallel 657. [Portzer]
- 891 AUSTRALIA 5AN Adelaide 1235 Good; "ABC News" ID, then weather over unID music (NZ?). Good 1435 with weather and "8-9-1 ABC Adelaide" ID. [Portzer] 1314 Making it through with talk program, fair signal. [Hutton]
- 936 AUSTRALIA Brisbane 1259 Fair with news, mentions of Newsradio. [Portzer]
- 963 NEW ZEALAND 3YC Southern Star, Christchurch 1149 Parallel 657 (which is usually the best of the bunch) and with good ID at 1354.
- 1008 NEW ZEALAND Newstalk ZB 1104 Nice and strong with news discussion, best of the trio on 1026 and 1035. [Hutton] 1222- Newstalk ZB teletalk parallel 1035 etc. Fair-good, strong 1349. [Portzer]
- 1017 NEW ZEALAND R.Hauraki, Christchurch 1349 Strong; phone interview about blues festival, then rock music, 1401 ID "...Hauraki, classic rock that rocks." [Portzer]
- 1026 NEW ZEALAND Newstalk ZB, Whangarei 1215 Talk parallel 1035, "25 past midnight" time check and "Newstalk ZB" ID 1225, fair-good mixing with unID music. [Portzer] 1244 Talk fair, parallel 1035 and 1008. [Hutton]
- 1035 NEW ZEALAND Newstalk ZB, Wellington 1106 A good "News Talk ZB" ID, // 1026 & 1008.
- 1044 NEW ZEALAND Newstalk ZB, Dunedin 1510 Weak teletalk, phone number 0-800-80-10-80.
- 1053 NEW ZEALAND Newstalk ZB, New Plymouth 1205 Teletalk parallel 1035. [Portzer]
- 1060 HAWAII KHBC Hilo 1408 Excellent, way on top of the channel with great Hawaiian music, call letter IDs, and a snatch of the old classic song "KHBC."
- 1116 AUSTRALIA 4BC Brisbane 1255 Strong with teletalk, several local ads, call IDs, good at several rechecks, still there 1457 and 1525. [Portzer]
- 1143 NEW ZEALAND 1YW Waikato 1450 Tentative; with country and country-pop music at a poor level. 1413 talk with weather and possible mention of Waikato making this 1YW National Radio Waikato.
- 1152 FIJI 1439 Up to a fair level just like its 1467 brother. [Hutton]

1179 NEW ZEALAND 1201 - A jingle or ad with English words and hip hop music at fair level. At 1230 a good ID which sounded like "Radio Maori" but might have been "Radio Mai." Modern disco-pop-R&B mix. Only 1 kW but a good signal! [Hutton]

1242 AUSTRALIA unID 1515 - Aussie-accented ads in weakly, one may have mentioned Bendigo. 3GV, 4AK, or 5AU? [Portzer]

1287 NEW ZEALAND R.Sport, Westport 1148 - American male talk fair signal but heavy domestic splatter, at 1152 repeated a phone number several times sounding like 1-800-705-5551. IDed with the help of NZer David Ricquish who says Radio Sport runs lots of American sports talk feeds late at night.

1314 AUSTRALIA 3BT or 2ZW 1410 - Fair-good with horse racing results. [Portzer]

1341 AUSTRALIA 2HH Newcastle 1529 - Tentative; most likely the one weak with what sounded like horse racing results. [Portzer]

1386 NEW ZEALAND R.Tarana, Auckland 1131 - Fair-good; Hindi music, ads mostly in Hindi with some English words, still there at 1505. [Portzer] Good (sometimes good+) all night, 1208 Hindi pop music, 1426 Hindi disco pop with a heavy beat. [Hutton]

1413 AUSTRALIA 2EA Newcastle NSW 0212 - Assumed the one with fair talk in an unID language.

1467 FIJI 1432 - Fair signal, Hindi program and was one of the few island stations to be heard. Reason: our antenna was on a 220 degree bearing and Fiji is about 225 degrees. Most of the rest of the islands are much further west; the Philippines are about 300 degrees and were well off the boresight of this antenna.

1548 AUSTRALIA 4QD Emerald 1424 - Fair with talk, good at 1443. [Portzer]

1557 AUSTRALIA 2RE Taree NSW 1427 - Assumed the one with bluegrass. There's a NZ station here but it is news / talk. [Hutton]

1566 SOUTH KOREA HLAZ Cheju 1247 - Good with religious music. [Portzer]

OUTER BANKS DXPEDITION

with John H. Bryant & Harold N. Cones

March 5th-7th 2004

DXpedition to The Outer Banks of North Carolina

Harold Cones lives in Newport News, Virginia and vacations regularly on the Outer Banks of North Carolina, which lay about two hours to his south. Given the success of other coastal sites for long distance reception on medium and shortwave (Nova Scotia, Maine and Mass. on the East Coast and Vancouver Island and Washington State in the west) in the past decade, Harold decided to use the occasion of John Bryant's visit to Virginia to test the suitability of the Outer Banks for similar activities. A preliminary visit by Harold indicated few if any motels or rental properties where 500 to 2000 foot longwire antennas might be stretched between the structure and the Atlantic shoreline. Thus, we opted to concentrate on "12 volt DXing" from vehicles. Harold was able to identify several areas where a 500 to 1000 foot single Beverage antenna might be stretched for a single evening of DXing. He eventually located a site which would accommodate a fan of three antennas: 1000 feet Northeast to Europe, 500 feet East to the Mediterranean and 1000 feet SE to the Caribbean and South America from the eastern shore of Bodie Island, one of the northerly Outer Banks barrier islands.

Unfortunately, none of the locations that we identified are really useable during the rather lengthy tourist seasons on the Outer Banks. The population density of both year-round residents and "shoulder season" visitors was rather amazing to John Bryant, being used to the relatively unpopulated wilds of the Northwest Coast. Even in the early spring, visitors to the beaches were numerous enough to delay antenna installation until the last vestiges of daylight and to force the removal of all antennas at or soon after dawn, each day.

Daily Notes: Evening of Mar4/5

Set up at the site for first time. 1000 feet NE (Europe), 500 feet E (Med. and Africa), 1000 feet SE (Carib. and SAm.) Harold Cones was using a NRD-525 receiver, operating on 12 vDC. John Bryant was using both a NRD-535 and a Ten Tec 320 computer-controlled receiver.

Due to the unfamiliar new set-up and late arrival at the site, we missed the hour of pre-sunset DX. First tuned medium waves at about 2330, almost an hour... Some European signals were present, primarily on the mid and lower segments of the band. Higher frequency MW Trans-Atlantic signals were absent. Monitored MW and LW until about 0600 UTC. Long wave signal levels seemed quite good, though they, too, seemed to favor the Mediterranean area rather than more northerly transmitter sites.

The fair to good medium wave Trans-Atlantic signals were, with very few exceptions restricted to those from transmitter sites along the shores of the Mediterranean. France Inter Network, Toulouse, 945 kHz was excellent, while the French stations on 1206 kHz (France Info, Bordeaux) and 1377 (France Info, Lille) were poor to absent. Even the Spanish stations, prevalent at other East Coast locations were largely absent or in only as hets/threshold audio. A number of the Caribbean MW signals were at excellent levels on the SE wire. No real effort was made toward monitoring signals from South America. Reception of the morning sign-ons of a number of "nearby" West African MW stations was expected; careful monitoring was not rewarded as no signals were heard, even at sub-threshold levels. Long wave was certainly more rewarding than medium wave.

Daily Notes: Evening of Mar5/6

Arrived at the site earlier and accomplished the set-up much more efficiently. We were tuning the bands by 2239 UTC. Noted a sub-audible signal on 1521 for about 15 minutes; this was almost certainly the large transmitter in Saudi Arabia. Throughout the evening, other Trans-Atlantic MW signals were noted, but with the exception France Info Bordeaux on 1206 even the audible signals were at threshold levels. Long wave and Caribbean signals continued to be good to excellent.

Daily Notes: Evening of Mar6/7

Signals on the northerly routes to Europe had been absent both of the previous evenings, so we opted not to erect the NE Beverage. It had been a useless antenna for both of the previous sessions.

Again, we were able to begin listening soon after 2230, about 45 minutes before local sunset. Trans-Atlantic MW signals were even poorer than on the previous night. During the first three hours of the evening, no Trans-Atlantic MW signals were heard above threshold levels. Long wave continued to be full of signals. Those LW stations and the MW stations in the Caribbean were the only easily available targets. Bryant gave up in disgust and was bedded down in the back of his Toyota Matrix by 9PM. Harold Cones lasted about two hours longer, catching up on long wave and netting TRT Turkey on 180 kHz.

Propagation

The propagation conditions encountered on our three day DXpedition seemed quite poor to us, at the time on medium wave, only moderately good on the shortwave bands. Thankfully, the reception conditions on long wave appeared to be excellent, with fairly predictable reception of most, if not all LW broadcast outlets from northern Africa, southern and central Europe. Since we have returned, we've found several other sources of propagation data to illuminate what we experienced, at least a bit. First, Nick Hall-Patch has been running a continuous propagation monitoring project for several years now, automatically noting the strengths of Trans-Pacific medium wave signals very accurately each morning. He was kind enough to share the results of his monitoring for the relevant three mornings. His results for our first two nights indicate only fair strength on TP signals, but at least some presence of both high and low latitude paths (from his QTH of Victoria, BC to Japan/Korea and Down Under, respectively.) His results for Sunday AM,

about 10 hours after our third evening DX session ended, indicated a significant opening in the higher MW frequencies on high latitude paths (as shown by 1566-Korea.) It is interesting to note that our only even partial reception of 1314-Norway was at the previous sunset. We may have noted the beginning of a high latitude opening.

Two sets of loggings have been published on-line that also bear on our experience. Martin Hall from Clashmore, Scotland reported that, between 0645 and 0900 on March 4, conditions were "not as good as yesterday – quite a lot of LA stations about, dominating, plus some Canadian Maritimes and the usual X-banders, but not a lot of note. Fairly unstable with signals up and down in strength." He went on to log a number of Columbians, a Venezuelan, a Cuban and a Mexican station. His session ended about 14 hours before our first one started. It might be significant that Martin noted declining conditions and a southerly, low-latitude path, just as we did. (Our conditions on MW were southerly and went from bad to worst, literally.) Patrick Martin of Seaside, Oregon reported on his DX between 1400 and 1500 UTC, also on March 4, about 9 hours before we began. He found "A fair DU morning, but with a "twist," a new one, 8RN-639-Katherine, NT popped in briefly at 1430 with an ID!... Nabbing my second NT catch was a thrill!" His six loggings in that hour were mostly DU regulars, with the addition of a possible 6WA-Wagin on 558. While we are deeply jealous of 8RN, otherwise, it was as Patrick stated, only a fair DU morning... again, a southerly, low-latitude route.

Unanswered Questions

It is not really possible to assess the quality of MW propagation on the Outer Banks on the strength of one single testing session. Several other aspects of an overall assessment as a listening site are clear, however. Thanks to population pressures and quite narrow beaches, good listening sites on the northern half of the Banks are few and far between. It appears highly unlikely that a good site for the more relaxed "120 volt" style of DXing listening can be found at all. From a propagational point of view, the first question has to be "Where were the Spanish stations?" The Great Circle route to Spain from the Cape Hatteras area essentially parallels our East Coast on a ENE path. Thus, the distance to Spain is considerably farther than it is from either Maine/Mass. or Nova Scotia. However, the signals seemed, intuitively, to be poorer than could be accounted for by the increased distance, especially when the French stations seemed more prominent than expected. Could it be that the Outer Banks are in the first or second "skip zone" of most of Spain, with signals skipping over and largely missing the area?

Obviously, if we are to really access the Outer Banks, such a unique geographic feature, as a radio monitoring site, we will have to make several more visits. It's a nasty job, but someone really needs to do it.

Medium and Long Wave Loggings

From Bodie Island, Outer Banks of North Carolina; March 4,5,6 and 7, 2004 John H. Bryant with Harold Cones; NRD-535 and TenTec HF-320 receivers Beverage antennas (1000 ft. to NE, 500 ft. to East and 1000 ft. to SE)

- 153 ALGERIA RTA Chaîne 1, Bechar MAR 6 0226 Presumed. Mostly traditional Arabic singing with some talk by male. I don't think that this is operating 24hr. Believe sign-on is 0200.
- 162 FRANCE France-Inter, Allouis MAR 5 0030 Noted regularly. QRM from a very strong beacon.
- 171 MOROCCO R.Mediteerranee Int'l, Nador MAR 5 0352 Noted at good level with concert program of Arabic pops songs followed by applause following each number.
- 177 GERMANY Deutschland Radio Berlin, Oranienburg MAR 6 0300 Noted with French programming until pips at ToH and into 5 minutes of news in German. Good level.
- 180~ TURKEY TRT 4 Ankara (Polatli) MAR 7 0100 Noted by Cones at TOH with Turkish programming and ID. Fair to good.
- 183 GERMANY Europe No.1, Felsberg MAR 5 0402 -excellent levels in French regularly

- 198 UNITED KINGDOM BBC4 Droitwich Presumed; noted here occasionally. Always far beneath a very strong beacon. Identifiable by language only between key strokes of the beacon.
- 207 MOROCCO RTM Azilal MAR 5 0113 RTM Program A Arabic talk heard at good to excellent level throughout evening.
- 216 FRANCE (MONACO) R.Monte Carlo, Roumoules MAR 5 0515 RMC programming (news and commentary?) in French with male and female announcers. Fair, mixing with beacon.
- 252 ALGERIA RTA 3 Tipaza MAR 5 0435 Presumed; noted here earlier in Arabic with Arabic music. At 0400 French program of popular music and talk. No ID heard. No sign of Ireland.
- 530 TURKS & CAICOS R. Visión. Cristiana Int'l MAR 5 0130 RVC heard with Spanish Christian programming throughout DXpedition at levels well in excess of S-9.
- 555 ST. KITTS & NEVIS ZIZ Basseterre MAR 5 0140 Excellent reggae program hosted by a male announcer with Island accented English. Fair to good level. Noted each night of DXpedition
- 580 DOMINICAN REPUBLIC HIAX R.Montecristi, Montecristi MAR 6 0002 Followed by both Cones and me for almost 30 minutes of what seemed to be a fútbol match. Multiple mentions of Montecristi. No ID heard. Alone on our SE wire.
- MOROCCO RTM Sebaa-Aioun MAR 4 2312 First noted in Arabic at good level parallel 207 at turn-on. Heard throughout the evening.
- 670 CUBA R.Rebelde MAR 5 0530 R.Rebelde programming noted at good level parallel 600.
- 684 SPAIN RNE1 Sevilla MAR 5 0034 First noted at fair level with Spanish talk by male. Heard at threshold levels both other nights.
- 780 BRITISH VIRGIN ISLANDS ZBVI Road Town, Tortola MAR 7 0020 Zed BVI at good level for about 20 minutes, occasionally mixing with presumed R.Coro and WBBM off the backside. Lots of talk by male announcer, many local commercials, 'BVI event' promos and a bit of really fine reggae. What fun!
- 783 MAURITANIA ORTM Nouakchott MAR 4 2330 First heard with Arabic talk at good level at 2330 parallel 4845. Noted at threshold level on MAR 5.
- NETHERLANDS ANTILLES PJB TransWorld Radio MAR 6 2355 Heard in the clear for about 15 minutes in seeming Dutch. Christian talk, mostly, with ID at 0000. Good at times.
- 864 FRANCE France Bleu, Paris MAR 6 2250 Tentative this at threshold level in French.
- 895 ST. KITTS & NEVIS Voice of Nevis, Bath Village, Nevis MAR 5 0130 good level
- 945 FRANCE France Info, Toulouse MAR 4 2330 First noted at 2334 with French talk parallel threshold 1206. 945 levels were often good to excellent on MAR 5. Heard well throughout DXpedition.
- 1116 SPAIN SER synchros MAR 6 0215 Presume these as source of Spanish talk at fair to poor level on east wire.
- 1134 CROATIA Hrvatski Radio 1, Zadar MAR 4 2310 First noted in Slavic language at turn-on. Good level. Was generally the most reliable European MW station all three nights.
- 1206 FRANCE France Info, Bordeaux MAR 5 2326 Noted at fair level at local sunset with French talk, clearly parallel to 945-Toulouse.
- 1215 UNITED KINGDOM Virgin Radio synchros MAR 4 2311 Noted throughout evening at mostly poor levels in English. Noted at threshold level all three evenings.
- 1314 NORWAY NRK Kvitsöy Mar 6 2300 Presume this only heard as a mid-strength sub-audible signal during local sunset enhancement. Heard on the third evening only, even at this level.
- 1377 FRANCE France Info, Lille MAR 6 2250 Noted here very poorly in French parallel 945.
- 1540 BAHAMAS ZNS1 Nassau MAR 5 0201 Heard over/under US station (no phasing)
- 1610 ANGUILLA Caribbean Beacon, The Valley MAR 5 0155 Nasty US minister complaining
- 1620 US VIRGIN ISLANDS WDHP Fredriksted, St. Croix MAR 5 0208; Huge signal all night
- 1660 PUERTO RICO WGIT Canovanas-Moca MAR 6 0150 Heard largely in the clear

SIGNAL SPLITTERS TESTED

with John Bryant and Bill Bowers

An Evaluation of Commercially Available Signal Splitters

In recent years, increasing numbers of radio hobbyists have wished to attach multiple receivers to the same antenna. This need may stem from a group wishing to share a single antenna on a DXpedition to a remote site, or it may be a single hobbyist wishing to operate two or more receivers simultaneously.

In any case, many of us have found out that simply using a stub of wire to hook the antenna ports of two or more receivers to the same antenna is an invitation to all sorts of problems. One of the funnier problems can occur if one of several receivers hooked together presents significantly lower impedance to the antenna than do the others. Years ago, when Mitch Sams, Kirk Allen and John Bryant first "shared" a beverage antenna, Kirk and John spent a frustrating half-night wondering why Mitch's old receiver was so much superior to their more modern gear: they eventually realized that Mitch's old receiver was literally sucking up all of their DX!

A second common occurrence when hooking multiple receivers together is that spurious radiations/local oscillator signals from one receiver can use the common antenna lead as a pathway to enter the other receivers sharing the antenna; this can cause serious but difficult to recognize interference or partial loss of signal. For all of these reasons and more, if you wish to operate two or more receivers, simultaneously, you will need to use a device called variously, an antenna splitter, a signal splitter or a power splitter: when referring to a receiving antenna device, most people use these three terms interchangeably.

Background

Most signal splitters are based on a fundamental building block which is a transformer-like device that accepts a single signal stream and splits it into two identical parts that are each (by the laws of physics) diminished in strength by about 3 dB, minimum. Usually, these transformer-like devices consist of a ferrite core and windings of fine wire and this building block may be diagrammed as an upside-down capital letter "Y."

Antenna splitters that offer four output ports are usually simply three "building blocks" arranged in a cascade fashion, where the first unit splits the signal into two halves, which are then fed into a second rank of two splitters; those second rank splitters divide the half signals into halves again, creating four identical signals of further diminished strength. Since each transformation/splitting incurs about 3 dB of loss, it is easy to see why most splitters of four output ports or more also include RF amplification.

The first antenna splitters that many of us saw were rather expensive and complex devices built with vacuum tube technology. These devices, usually purchased used from government surplus property outlets, often support 8 or 16 receivers simultaneously and contained sophisticated RF amplifiers, as well. In more recent times, smaller-scale solid-state splitters have become available commercially, intended for both the professional and serious hobbyist markets. The most commonly available splitters are 2-port, unamplified units. However, 4-port units, either with or without internal amplification are also currently available and two of the three splitter manufacturers produce a bewildering array of splitters suited for many professional communications uses.

To our knowledge no technical comparisons of these rather costly devices have been published. Since both of us were interested in either purchasing splitters or building them from scratch, we recently undertook to evaluate what was available on the market. Happily, Bill Bowers, a retired engineer, has an array of professional test equipment and was interested in running the tests. John Bryant served as cheerleader and scribe of the project.

The Splitters

Ideally, we would all be using antennas that have 50 ohms impedance, which would couple to feed lines having 50 ohm impedance that would, in turn, match the 50 ohm input impedance of our receivers. We recently published a study similar to this one which outlined tests of the impedance transformers necessary to match several forms of wire antennas (often from 200 to 2000 ohm impedance according to type and size) to feed lines that are nominally at 50 ohm impedance. All of the splitters evaluated in this study are meant to be used within 50-ohm antenna systems.

Since the internal circuitry of most large splitter units are simply multiple two-port circuits which are cascaded to make, 4, 8 or 16 port units, we chose to concentrate our effort on three commercially available two-port units. We also included one home-built two port unit which was based on a design originally received from Sam Dellitt in Australia that has been published rather widely in the hobby press. In the initial testing, Bill also included one passive four-port splitter (Mini-Circuits Model ZSC-4-3B) and one six-port splitter, Model MCL, which appears to actually be a Mini-Circuits Model ZFSC-6-110. These latter two were obtained in used condition from an on-line auction.



Stridsberg MC-102

Model MC-102 was purchased directly from Stridsberg Engineering, 345 Albert Avenue Shreveport, LA 71105 Telephone: (318) 861-0660, FAX: (318) 861-7068 (www.stridsberg.com). The current retail price (2004) is \$65 plus S&H. Frequency coverage, as listed by the manufacturer is 100 kHz to 500 MHz. The Stridsberg unit is exceptionally well finished and is the largest of the three commercial splitters, measuring about 5"W x3"D x1.5"H, counting the ports. The company welcomes telephone orders, for even a single unit, and does ship overseas.



RF SYSTEMS SP-1

The RF Systems Model SP-1 is available from several hobby sources around the world. Our test unit was purchased for \$89.95 plus S&H from our friends at Universal Radio in Reynoldsberg, OH. They accept web orders at http://www.universal-radio.com/catalog/preamps.html or sell to hobbyists by phone at 1-800-431-3939 (Orders & Prices Only) and also ship overseas. RF Systems lists frequency coverage as 50 kHz to 30 MHz. As you will note from the photograph, the SP-1 comes with SO-239 ports, so adapters were used to fit the unit to Bill's BNC-equipped test gear. The box itself is about 1" square and 4" long. However, with adapters to BNC fittings, it occupies about 4"x 4"x1" of space.



Mini-Circuits ZSC-2-2

The Mini-Circuits Model ZSC-2-2 was purchased directly from the Mini-Circuit sales office in Missouri (phone: 718-934-4500, fax: 718-332-4661) for \$52.95 plus shipping and handling. Mini-Circuits lists frequency coverage as 2 kHz. To 60 MHz. Despite being the largest of the three organizations and being primarily committed to the governmental and commercial markets, they specifically welcome small orders from hobbyists. They do ship overseas. They also provide excellent technical information about their products, but no ordering capability, at www.minicircuits.com The Mini-Circuits splitter is the most compact of the three, measuring 2.25"W x 1.5"D x 1.6"D, including the ports.

The Tests

The following characteristics will be measured over a range of frequencies¹ from 150 kHz. to 13 MHz.:

ANTENNA IMPEDANCE MATCH:

This is the impedance that will terminate the coax lead in cable from the antenna. The RG-58 has a characteristic impedance of approximately 50 Ohms and if the antenna port of the splitter has an impedance other than 50 Ohms, part of the signal will be reflected back to the antenna. The greater the impedance of the antenna port differs from 50 Ohms, the greater will be the signal loss. The amount of loss is rather complex and the total loss also depends on the length and attenuation of the coax. This impedance was measured at the antenna port with all receiver ports terminated in 50 ohms, resistive. *The ideal splitter would present 50 Ohms at the antenna port.*

Antenna	Impedance	Match
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	MC-102	SP-1	ZSC-2-2	ZSC-4-3B	ZFSC-6	Home brew		
F	Z	Z	Z	Z	Z	Z		
MHz	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms		
0.15	25.02	24.97	55.22	43.83	37.85	57.05		
0.25	25.01	24.97	54.73	45.87	42.50	57.28		
0.5	25.02	24.98	54.77	46.97	44.89	57.79		
1.0	25.04	25.00	54.86	47.43	45.76	58.99		
1.5	25.05	25.01	54.97	47.92	46.25	60.23		
2.0	25.06	25.01	55.08	48.22	46.61	61.45		
2.5	25.06	25.01	55.19	48.43	46.88	62.71		
3.0	25.06	25.00	55.28	48.57	47.07	64.03		
5.0	25.01	24.95	55.58	48.83	47.44	70.28		
10.0	24.72	24.65	55.63	48.44	47.27	91.37		
13.0	24.40	24.33	55.23	47.88	46.80	107.0		

RECEIVER IMPEDANCE MATCH:

This impedance, in an ideal splitter, should also be 50 Ohms to match the 50 Ohm impedance of the receiver antenna terminal. The mismatch here is not quite as important as there is usually a very short cable between the splitter and the receiver. Further, The 50 ohm input impedance of the receiver is often fairly well defined over a certain bandwidth. This measurement was made at a receiver port when the other receiver port and the antenna port terminated in 50 Ohms, resistive.

¹ Bill's test instrumentation covered the frequency ranges, 150 kHz. to 13 MHZ, so our 11 test points fell within that range. We believe that it is safe to extrapolate the results up to 15 or 20 MHz. to cover most of the bands of interest to our readers. The equipment: HP-4192A, HP-11048C, AG-04192-61001, HP-3456A, and a Fluke-8922A. Test voltage = 0.10Volt.

Receiver Impedance Match

	MC-102	SP-1	ZSC-2-2	ZSC-4- 3B	ZFSC-6	Home brew
F	Z	Z	Z	Z	Z	Z
MHz	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
0.15	71.45	70.33	48.52	39.15	25.35	44.74
0.25	80.42	81.20	48.52	42.44	32.71	44.84
0.5	85.53	90.31	48.54	44.24	38.66	48.24
1.0	89.03	94.43	48.60	45.05	40.82	45.73
1.5	91.12	95.69	48.65	45.57	41.73	46.37
2.0	92.35	96.18	48.17	45.97	42.42	46.98
2.5	93.11	96.43	48.75	46.27	42.95	47.60
3.0	93.57	96.58	48.80	46.46	43.36	48.24
5.0	94.20	96.69	48.92	46.78	44.15	51.17
10.0	93.34	95.41	48.78	46.34	44.10	60.35
13.0	92.46	93.94	48.42	45.71	43.59	66.36

SIGNAL ATTENUATION:

The attenuation of a signal, from a 50 Ohm source, as it passes from the antenna port to one of the splitter receiver ports. The other receiver port(s) are terminated in 50 Ohms, resistive. *The attenuation of a signal, when it is split 2 ways, in an ideal splitter would be 3db, when split 4 ways is 6 db, etc.*

Signal Attenuation

	MC-102	SP-1	ZSC-2- 2	ZSC-4- 3B	ZFSC-6	Home brew
F	α	α	α	α	α	α
MHz	-db	-db	-db	-db	-db	-db
0.15	3.52	3.52	3.10	6.39	8.76	3.10
0.25	3.51	3.53	3.10	6.31	8.41	3.11
0.5	3.52	3.53	3.10	6.29	8.26	3.14
1.0	3.52	3.53	3.11	6.27	8.22	3.23
1.5	3.52	3.53	3.12	6.25	8.18	3.31
2.0	3.53	3.53	3.13	6.22	8.15	3.39
2.5	3.53	3.54	3.14	6.21	8.13	3.46
3.0	3.53	3.54	3.15	6.20	8.11	3.53
5.0	3.54	3.55	3.18	6.19	8.08	3.86
10.0	3.55	3.57	3.24	6.18	8.07	4.88
13.0	3.56	3.58	3.27	6.18	8.07	5.58

SIGNAL ISOLATION: The local oscillator of a receiver radiates back out the antenna connection and thus into the splitter. To prevent one receiver's oscillator from interfering with the signal going into the other receiver connected to the splitter, it is desirable to have as much signal isolation as possible. *The larger the signal isolation the better*. For this test, the

attenuation, from a 50 Ohm source connected to a receiver port, was measured at another receiver port. All receiver ports and the antenna port were terminated in 50 Ohms, resistive.

Signal Isolation

	MC-102	SP-1	ZSC-2- 2	ZSC-4- 3B	ZFSC-6	Home brew
F	α	α	α	α	α	α
MHz	-db	-db	-db	-db	-db	-db
0.15	11.58	11.29	39.85	53.90	20.26	32.43
0.25	1506	14.55	39.89	57.44	22.09	33.75
0.5	18.93	19.40	39.89	60.71	26.25	32.75
1.0	22.01	24.46	39.56	60.54	29.73	29.55
1.5	24.10	27.38	39.15	58.90	30.96	27.25
2.0	25.64	29.37	38.62	57.38	31.75	25.50
2.5	26.85	30.85	38.02	56.03	32.33	24.09
3.0	27.85	32.01	37.42	54.83	32.85	22.88
5.0	30.25	35.24	35.13	51.28	34.20	19.47
10.0	32.09	37.55	31.05	46.00	35.19	15.10
13.0	32.05	36.43	29.40	43.96	35.32	13.72

IMPEDANCE ISOLATION: The antenna input impedance of a receiver with a "coax connection" is nominally 50 ohms when it is tuned to the incoming signal. Some receivers show an impedance as low as 10 ohms at frequencies other than the one to which the receiver is tuned. This 10 Ohm load at one receiver port of the splitter can upset the impedance seen at the other port. Here again the ideal splitter would continue to present 50 Ohms impedance even when the other port is loaded with 10 Ohms. This measurement was made at one receiver port as the impedance at one of the other receiver ports was reduced from 50 to 10 Ohms, resistive.

Impedance Isolation

	MC-102	SP-1	ZSC-2-2	ZSC-4- 3B	ZFSC-6	Home brew
F	Z	Z	Z	Z	Z	Z
MHz	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
0.15	73.88	72.89	48.51	39.10	25.17	44.96
0.25	81.58	83.18	48.51	42.48	32.66	47.86
0.5	85.76	91.98	48.53	44.25	38.66	45.28
1.0	89.12	94.83	48.58	45.05	40.81	45.93
1.5	91.19	95.83	48.64	45.58	41.71	46.58
2.0	92.39	96.25	48.70	45.98	42.41	47.22
2.5	93.12	96.47	48.75	46.28	42.94	47.85
3.0	93.56	96.60	48.80	46.46	43.34	45.51
5.0	94.17	96.69	48.92	46.78	44.14	51.44
10.0	93.28	95.35	48.82	46.33	44.09	59.68
13.0	91.99	93.89	48.49	45.70	43.57	64.56

TOTAL LOSS: This is the total loss of signal as it passes from the antenna through 100 feet of RG-58A/U coax and a signal splitter. A measured signal, (-20dbm.) is fed into the coax at the antenna end and the strength of the signal at the receiver end was measured with a Fluke 8922A RF voltmeter. *This is a comparison of the quality of the splitters under typical conditions*.

Total Loss

	MC-102	SP-1	ZSC-2-2	Home brew
F	Loss	Loss	Loss	Loss
MHz	-dbm	-dbm	-dbm	-dbm
0.15	3.55	3.53	3.35	3.29
0.25	3.58	3.59	3.32	3.37
0.5	3.84	3.74	3.40	3.50
1.0	4.09	4.10	3.50	3.68
1.5	4.27	4.27	3.59	3.78
2.0	4.23	4.23	3.70	3.91
2.5	4.13	4.14	3.79	4.13
3.0	4.14	4.17	3.88	4.34
5.0	4.56	4.60	4.14	4.68
10.0	5.06	5.08	4.62	6.11
13.0	5.26	5.29	4.88	6.92

Discussion²

One area of some concern was noted in the Signal Isolation tests: the relatively poor performance of the Stridsberg and RF Systems units at the lower end of medium and long wave frequencies. While this would be of little concern to shortwave DXers and most radio amateurs, people with interests in the regions at and below 1 MHz. should take note. We were both also surprised at the impedance mismatches exhibited by both the Stridsberg MC-102 and RF Systems SP-1 in the tests of Antenna Impedance Match, Receiver Impedance Match and Impedance Isolation. In some cases, these mismatches reached 100%. However, the measured signal losses of all three units are very nearly equal, reminding us again how forgiving receiving-only devices are of mismatches.

The last test, Total Loss, is really the bottom line. It indicates that, for most uses, there is really no significant difference between the three commercial products and that a selection could be made based on price and availability. However, for the "extreme DXer" who may be unwilling to give up even half a decibel of signal, or for some technical applications, the Mini-Circuits ZSC-2-2 was clearly the best in each measured characteristic. The home-brew splitter was the second best in most tests below 5 MHz. Its performance encourages us to undertake a second project in the very near future to further develop the homebrew design.

² The measured values of Z were actually complex, not purely resistive. The impedance phase angles were, however, very small in most cases, and we feel that including those angles would have been more confusing than helpful. For instance, the largest impedance phase angle for the Mini-Circuit ZSC-2-2 was less than 2 degrees over the entire frequency range. For all practical purposes, the tabulated values of Z can be considered resistive.

Navtex Broadcast Schedule

Nav	<mark>/te</mark> >	Br	oad	cas	t Sc	he	edule 518 kHz	ı İ		
UTC						ID	NavArea I + Polar	ITU	NavArea II	ITU
0:00	4:00	8:00	12:00	16:00	20:00	Α	Svalbard - LGS	NOR	Corsen - FRC	F
0:10	4:10	8:10	12:10	16:10	20:10	В	Bodø – LGP	NOR		
0:20	4:20	8:20	12:20	16:20	20:20	С	Murmansk - UHY	RUS		
0:30	4:30	8:30	12:30	16:30	20:30	D	Göteborg – SAG	SWE	Corunna - EAR	Е
0:40	4:40	8:40	12:40	16:40	20:40	Ε	Niton – GBR	G		
0:50	4:50	8:50	12:50	16:50	20:50	F	Arkhangelsk – UGE	RUS	Horta - CTH	AZR
1:00	5:00	9:00	13:00	17:00	21:00	G	Cullercoats – GCC	G	Tarifa - EAC	Е
1:10	5:10	9:10	13:10	17:10	21:10	Н	Härnösand – SAH	SWE		
1:20	5:20	9:20	13:20	17:20	21:20	I			Las Palmas - EAL	CNR
1:30	5:30	9:30	13:30	17:30	21:30	J	Karlskrona – SAA	SWE		
1:40	5:40	9:40	13:40	17:40	21:40	K	Niton – GNI (Cherbrg)	G		
1:50	5:50	9:50	13:50	17:50	21:50	L	Rogaland – LGG	NOR		
2:00	6:00	10:00	14:00	18:00	22:00	M	Oostende – OST	BEL		
2:10	6:10	10:10	14:10	18:10	22:10	N	Ørlandet – LGD	NOR		
2:20	6:20	10:20	14:20	18:20	22:20	0	Portpatrick – GPK	G		
2:30	6:30	10:30	14:30	18:30	22:30	Р	Netherlands Cg – PBK	HOL	Porto Santo - CTQ	MDR
2:40	6:40	10:40	14:40	18:40	22:40	Q	Malin Head – EJM	IRL		
2:50	6:50	10:50	14:50	18:50	22:50	R	Reykjavik – TFA	ISL	Monsanto - CTV251	POR
3:00	7:00	11:00	15:00	19:00	23:00	S	Niton – GNI	G		
3:10	7:10	11:10	15:10	19:10	23:10	Т	Oostende – OST	BEL		
3:20	7:20	11:20	15:20	19:20	23:20	U	Tallinn – ESA	EST		
3:30	7:30	11:30	15:30	19:30	23:30	٧	Vardø – LGV	NOR		
3:40	7:40	11:40	15:40	19:40	23:40	W	Valentia – EJK	IRL		
3:50	7:50	11:50	15:50	19:50	23:50	X	Reykjavik - TFA	ISL		

Nav	<mark>/tex</mark>	Bro	oado	cast	Sch	ne	dule 490 kHz			
UTC						ID	NavArea I	ITU	NavArea II	ITU
0:20	4:20	8:20	12:20	16:20	20:20	С	Portpatrick – GPK	G		
0:40	4:40	8:40	12:40	16:40	20:40	Е			Corsen - FRC	F
1:00	5:00	9:00	13:00	17:00	21:00	G			Monsanto- CTV251	POR
1:20	5:20	9:20	13:20	17:20	21:20	I	Niton – GNI	G		
1:30	5:30	9:30	13:30	17:30	21:30	J			Horta - CTH	AZR
1:50	5:50	9:50	13:50	17:50	21:50	L	Constanta (tests only)	ROU		
3:00	7:00	11:00	15:00	19:00	23:00	S				
3:10	7:10	11:10	15:10	19:10	23:10	T	: 18 Reykjavik - TFA	ISL	Niton - GNI	
3:20	7:20	11:20	15:20	19:20	23:20	U	Cullercoats – GCC	G		

5	18 kHz (cont)					
	NavArea III	ITU	NavArea IV	ITU	NavArea IX	ITU
Α			Miami - NMA	USA	Bushehr - EQM	IRN
В			Bermuda - ZBM	BER	Bahrain - A9M	BHR
С	P - Haifa - 4XO	ISR	Rivière-au-Renard - VCK	CAN		
D	Istanbul - TAH	TUR	Rivière-au-Renard - VCK	CAN		
Ε	Samsun - TAF	TUR	Savannah - NMB	USA		
F	Antalya - TAL	TUR	:45 Boston - NMF	USA	Abbas - EQI	IRN
G	B - Mariupol - UTW	UKR				
Н	Heraklion - SVH	GRC	Prescott Wiarton - XMJ329 Curaçao - PJC	CAN ATN	H - Jeddah - HZH	ARS
I	Izmir - TAN	TUR				
J	Varna - LZW	BUL	N - Chesapeake - NMN	USA		
K	Kerkyra - SVK	GRC				
L	Limnos - SVL	GRC				
M	Cyprus - 5BA	CYP	R - San Juan - NMR	PTR	Muscat - A4M	OMA
N	Alexandria - SUH	EGY				
0	Malta - 9HD	MLT	St John's - VON	CAN		
Р	C - Odessa - UTT	UKR	Thunder Bay - XLJ895	CAN	Karachi - ASK	PAK
Q	Split - 9AS	HRV	Sydney - VCO	CAN		
R	Rome - IAR	I	:55 J - Sydney - VCO	CAN		
S	A - Novorossiysk - UDN	RUS	G - New Orleans - NMG	USA		
T	Cagliari - IDC	ı	Iqaluit - VFF	CAN		
U	Trieste - IQX	I	Fundy (Yarmouth) - VAR3	CAN		
٧	Augusta - IQA	I	:35 Fundy (Yarmouth)- VAR3	CAN	Quseir - SUK	EGY
W	La Garde Toulon - FRL Astrakhan - UJB	F RUS	Nuuk - OXI Montreal - VFN3	GRL CAN		
X	Cabo de la Nao - EAV	Е	Labrador - VOK	CAN	Ismailia Serapeum - SUZ	EGY

490 kHz (cont)										
ID	NavArea III	ITU	NavArea IV	ITU	NavArea IX	ITU				
С										
Е										
G										
I										
J										
L										
S	La Garde Toulon - FRL	F	Iqaluit - VFF	CAN						
T										
U										

May/June 2004

Navtex Address List

Compiled by Guido Schotmans (guidoschotmans@skynet.be).

Navtex DX'ing is an interesting part of the hobby for Medium Wave DX'ers. Besides of recording broadcast stations and making spectrum scans of certain frequencies, Navtex DX can give an impression how long distant DX conditions evolve on the lower bands without the need of being present at the receiver at dead of night. All you need is a good receiver, a quite computer and sensitive decoding software that is nowadays available for little money. The time you had to invest in expensive hardware decoders is far behind us. The present software that is working via the soundcard is leaving those old fashioned hardware decoders far behind them. SeaTTY, a small piece of decoding software is doing the job very well. Besides Navtex, it decodes even RTTY and Fax. So it is well worth the investment of 35 US\$. You'll find it at http://www.dxsoft.com/en/products/seatty/.

Writing reception reports was always one of the basics of DX'ing, but the declining response made several members turning away from this part of the hobby. It is however still one of the nicest successes if you can achieve to get a QSL from a station. There is no doubt about it that it needs more effort than in the old days, to persuade stations to send a QSL but it is still possible. Sometimes stations are really pleased with our receptions reports so they can show complaining ships that they are really heard far away.

Below you can find a list of addresses compiled from previous MWNs, contributions from Steve Whitt, Max van Arnhem and my own research. There are also some interesting websites mentioned.

Next to that section follows a table in a handy format that gives an overview at once of the NavAreas that are not too far away from Western Europe and are most likely to be heard. It is, or will of course be possible to hear stations from other areas but that will probably need better conditions than now, and by the time we are getting these conditions, the situation on the band will most probably be changed already.

If you have more information about other stations address, please feel free to contact me. I'm am thinking about putting this info on an internet page after publication in MWNs.

The UK Hydrographic Office publishes the Admiralty List of Radio Signals Volume 5 which can be found in most large UK public libraries. The International Maritime Organisation (IMO) credit it as the definitive document, (it is a mandatory carriage requirement for SOLAS shipping) as it is updated each week. The book is not available electronically but the paper version is published annually (updates ARE available electronically) and probably is available at ships chandlers & other nautical shops in most ports around the world.

ITU Address, e-mail, website

- ARS **Jeddah Radio** HZH Jeddah Sea Port Jeddah Islamic Port Jeddah 21 188 Saudi Arabia
- AZR Horta R Ministerio da Defansa Nacional-Marinha Estaçao RadioNaval da Horta Apartado 23 9901 Horta Codex Azores V/s Daniel Letras Ern.horta@mail.marinha.pt
- BAH **Bahrain Telecommunications Company** Bahrainradio/A9M Salmaniya Telegraph House, 4th Floor, Manama, Kingdom of Bahrain; v/s = Sayed Hussain moc@btc.com.bh
- BEL **Oostende radio OST -** Belgacom, Perronstraat 6 B-8400 Oostende Belgium.

- BER Rescue Co-ordination Centre / **Bermuda Harbour Radio** / ZBM 9 Fort George Hill St. George's Bermuda GE02 <u>operations@rccbermuda.bm</u> <u>http://www.rccbermuda.bm/howto.html</u>
- BUL Varna Radio LZW, Navibulgar, 1 Primorski Blvd., Varna, Bulgaria radio@navbul.com
 http://stevera1.tripod.com/SteveRa1.html and http://stevera1.tripod.com/SteveRa1.html and http://stevera1.tripod.com/SteveRa1.html and http://stevera1.tripod.com/SteveRa1.html and http://stevera1.tripod.com/SteveRa1.html
- CAN **Sydney VCO** Officer in Charge MCTS Operations Sydney MCTS Centre PO Box 8630 Sydney Nova Scotia B1P 6K7 Canada V/s Jean Guevremont OIC.
- CAN Labrador Radio VOK Officer in Change MCTS Operations Labrador MCTS Centre PO Box 720 Station C Goose Bay Labrador A0P 1C0 CANADA e-mail : AndrewsGM@DFO-MPO.GC.CA
- CAN **Rivière-au Renard Radio VCK** Officer in Change MCTS Operations Rivière-au Renard MCTS Centre PO Box 100 Rivière-au Renard Quebec G4X 1S0 Canada
- CAN **St. John's CG VON MCTS** Op. St. John's MCTS Centre P.O.Box 5667 St. John's Newfoundland A1C 5XI Canada
- CAN **Iqaluit CG VFF -** Department of Fisheries and Oceans MCTS Iqaluit Coast Guard P.O.Box 189 Iqaluit NT XOA 0H0 Canada
- CYP Cyprus Radio Maritime Radio Service PO Box 24929 Nicosia Cyprus
- E Las Palmas Radio Cabo De La Nao Radio Corunna Radio Tarifa Radio TELEFONICA Servicio Maritimo c/. Beatriz de Bobadilla 3 Planta 1 ES-28040 Madrid España
- EGY **Serapeum Radio SUZ** 13 Hafez, Ebrahiem Street PoBox 399 Suez Egypt V/s Mohamed Amer, DG Cairo Office Beacon Co.
- EGY Alexandria Radio Alexandria Port Authority, 106 Horreya Street, Alexandria, Egypt
- EST **Tallin Radio** Station Manager Estonian Maritime Communications Centre Hobekuuso 8 Tallinn 12111 Estonia www.riks.ee
 - F CROSS-Corsen, Pointe de Corsen, F-29810 Plouarzel cross-corsen@equipment.gouv.fr
- GRC **Irakleio Radio, Kerkyra Radio & Limnos Radio** Olympia Radio O.T.E. Technical Service Achilleos 14 GR-27100 Pyrgos Greece
- HOL Netherlands Coast Guard PoBox 10000 NL-1780 CA Den Helder Netherlands
- HRV **Split Radio 9AS** C/o Hydrographic Institute of the Republic of Croatia Nautical Department Zrinsko-Frankopanska 161 21000 Split Croatia
 - I **Augusta Radio** C/o Palermo Radio Telecom Italia Via Plauto 27 I-90148 Palermo Italy
 - I V/s Michele AVINO Leutenant IT Coast Guard NAVTEX Coordinator cogecap3@flashnet.it
 - I **Roma Radio** Trieste Radio, Telecom Italia, Via della Cesarina 282, I-00139 Roma or Telecom Italia Direzione Generale Casella Postale AD2420 I- 00100 Roma, Italy
- IRL Malin Head Coast Guard (EJM) Bally-Gaman Lifford County Donegal Ireland
- IRL Valentia Coast Guard Radio (EJK) Valentia Island Co. Kerry Ireland
- ISL **Reykjavik Radio TFA** Gufunes Telecommunications Centre, Station Manager, PO Box 442, IS-Reykjavik, Iceland reyrad@iceradio.is http://www.iceradio.is/html/freq.htm
- ISR **Haifa Radio 4XO** State of Israel Ministry of Transport Administration of Shipping and Ports POBox 33 993 Haifa 31 339 Israel
- MDR **Estação Radionaval do Porto Santo** CTQ Estação Radionaval do Porto Santo Apartado 3 9400-010 Porto Santo Portugal
- MLT Malta Radio Maltacom plc Spencer Hill Marsa HMR12 Malta maltaradio@maltacom.com
- NOR http://www.maritimradio.no/kontakt.htm
 Rogaland Radio P.B. 3070 N-4301 Sandnes Norway
- POR **Monsanto Radio** c/o MRCC Lisboa Comando Naval Reduto Gomes Freire Estrada Da Medrosa 2790 OEIRAS Portugal

- PTR San Juan Radio NMR Officer in Charge US Coast Guard Marine Safety office Greater Antilles Section PoBox 71526 San Juan PR00936-8626 Puerto Rico LENegron@Gantsec.uscg.mil -
- ROM Petromina Constanta Radionav Constanta Romania
- RUS **Arkhangelsk Radio** Marine Authority 6 Karl Marks Street Arkhangelsk 163000 Russia V/s Sergey Finodin. Eng.
- RUS Novorossiysk Radio UFN Regional Centre of GMDSS c/o Sea Administration of Port Novorossiysk 1 Serebriakoya Street 353900 Novorossiysk Russia V/s Roman Kruykov radio1@mapn.morflot.ru www.mapn.morflot.ru
- RUS Astrakhan Radio 414016 Astrakhan Captian Krasnov Str 31 Russia
 - S **Stockholmradio** (Augustendalsvagen 7) SE-131 86 NACKA STRAND Sweden maritime@stockholmradio.se http://www.stockholmradio.com/en/
- TUR **Istanbul Turk Radio** Izmir Turk Radio Antalya Turk Radio Samsun Turk Radio C/o Directorate of Coast Stations Türk Telemomünikasyon A.S. Turgut Özal Bulvari 06103 Aydınlikevler Ankara Turkey ttelsiz@ttnet.net.tr
- TUR **Istanbul R -** Türk Telekom Telsiz Isletme Müdürlügü Directory 34630 Sefaköy-Istanbul. Turkey
- UKR **Odessa Radio** Ukrainian coastal warning coordinator 65038 Odessa Mayachnyy lane 5 Ukraine V/s Victor Shamarin cngi@tm.odessa.ua
- USA Boston Coast Guard Radio Station NMF Miami Coast Guard Radio Station NMG New Orleans Coast Guard Radio Station NMA, CWO T.W. Kammerer Communications officer US Coast Guard CAMSLANT 4720 Douglas A Munro Road Chesapeake VA 23322-4399 USA; v/s = QSL Manager: OS3 Christopher M Morrow; CAMSLANT is the control for Boston NMF, Miami and New Orleans remote transmitter sites. Try also marine.weather@noaa.gov
- USA Chesapeake Coast Guard Station NMN C/o Commander Fifth Coast Guard District 431 Crawford Street Portsmouth Virginia 23704-5004 USA
- USA USCG Charleston NMB, SC: 196 Tradd Street Charleston SC 29401-1899

Other useful websites:

Station List Compiled by William Hepburn, LWCA http://www.iprimus.ca/~hepburnw/dx/navtex.htm

South African Hydrographic Office http://www.sanho.co.za/

US Marine and Coastal Weather Services Branch http://weather.noaa.gov/fax/gulf.shtml

Canadian Coast Guard Radio Aids to Marine Navigation http://www.ccg-gcc.gc.ca/mcts-sctm/ramnatl_e.htm



Navarea Co-Ordinators

http://www.amsa.gov.au/imo/public/compauth-navarea.html

Laboratório do Estado da Marinha Portuguesa http://www.hidrografico.pt/hidrografico/

Master Plan Of Shore-Based Facilities For The Global Maritime Distress And Safety System, Amendments/July 2003 http://www.msa.lt/gmdss_aplinkrasciai_lt.htm

Everything about Russian ports (only in Russian). http://www.russianports.ru/

NORTH AMERICAN NEWS

with Barry Davies

20 Ryehill Park, Smithfield, Carlisle CA6 6BH e-mail: na-news@mwcircle.org

Welcome to another round up of what's been happening on the North America AM dial. My grateful thanks to the organisations that provide the news. Thanks this month to: - Michiguide.com, Radio News and Notes, NERW, DX-midAMerica.com, North American Radio Log Book, 100000watts.com. IRCA, Upper Midwest Broadcasting (UMB),

580	CKY	Winnipeg MB. This rocker finally left the band on April 20 th . (Lee Freshwater)
980	KKMS	Richfield MN. This Christian talk station has applied to have its community of
		licence changed to Eagan where its studios and transmitter are located.
1130	KFAN	Minneapolis MN. This sports station lost 4 of its 9 antennas in a recent storm. The
		station is on reduced power and broadcasting an omni directional antenna pattern.
1170	WWVA	Wheeling WV. This station wants to take its news/talk format to the Cleveland
		OH market! They have asked the FCC to change their city of licence to Stow OH
		and reduce their night power to 27kW.
1190	WLIB	NYC NY. This one has put away its reggae music and is now part of the Air
		America Radio talk network.
1360	CKBC	Bathurst NB. This pop music station has now moved to the FM dial.
1400	WIRA	Fort Pierce FL. This station has switched from business talk to black gospel.
1470	WLAM	Lewiston ME. As reported here late last year the WMTW network has been sold.
		The new owners have dropped the "WMTW news/talk" format and are playing
		nostalgia songs.

1520 KGDD Oregon City OR. This was an EE nostalgia station but is now SS. The station is playing regional Mexican music. Their slogan is "La grande D." (Pete Taylor)
 1600 WAAM Ann Arbor MI. This talk station has asked the FCC to agree in a change in the city of licence from Ann Arbor to Oak Park. They also want to increase their power from 5,000 watts to 15,000 watts fulltime! The station says Ann Arbor will still be their main focus. They simply want to increase their power.

Watertown MN. As reported in February, the former oldies station KWOM had been sold. 100000.com reports the first sign of a new owner is a change in call letters. Latest reports from UMB say the station is now off air. The new KZGX is likely to return to the air in July with a SS format.

1630 KKGM Fort Worth TX. Calls changed from KNAX, which had a SS religious format. The station is currently off air.

1660 KTIQ Merced CA. This Northern Californian station dumps sports in favour of SS talk. APPLICATION FOR FM REJECTED! 1450 CHOR has been refused permission to switch to FM by the Canadian authorities reports IRCA man Dan Sys.









That just about clears my "In Tray" this time round. Have a great summer break and I look forward to your company in a couple of months time.

73's from Carlisle.

SOUTH AMERICAN NEWS

Kirkåsveien 15, NO-1850 Mysen, Norway

with Tore B. Vik e-mail: <u>sa-news@mwcircle.org</u> **☎** +47-69891192

Arge 740	entina	R. Onda Latina (WRTH N°212) – moved to 1010 Con	rnachioni via ConDig
<u>1010</u>		Onda Latina AM 1010, Cuyos - Tel +54 4372 5863, 5867 – Web: am1010onda e-mail: am1010ondalatina@fullzero.com.ar – from 740 Cornachioni a	latina.com.ar and Eramo in ConDig
1090 24h.		R. Sintonía – new station – Address José C. Paz, Partido de José C. Paz, Provin	icia de Buenos Aires.
			Slaen in ConDig
1130			ornachioni in Con.Dig
<u>1150</u>		Concepto AM 11-50 – new station - Address Maipu 267, 7° Piso, Capital Feder Tel +54 11 4394 1450/1	ConDig
1460			rnachioni via ConDig
$\frac{1180}{1480}$			rnachioni via ConDig
	imiento I	Litoral – new station - Address Mario Bravo 1284, Villa Fiorito, Banfield, Bueno	
			rnachioni via ConDig
<u>1540</u>		AM 15 Cuarenta - Address Salguero 2745, 6° Piso, (C1425DEL) Buenos Aires	
			ni/Zamora in Con.Dig
<u>1540</u>		R. Tradición, San Martín (189) – moved to 1580	ConDig
1580 1600		R. Tradición, San Martín (189) – from 1540	ConDig
1600 1600			ornachioni in Con.Dig
<u>1600</u> de La		R. Copacabana – new station - Address Calle Valentin Gomea 1762 de Gregori	o de Laierrere, Pdo.
ue La		Matanza Co	ornachioni in Con.Dig
1610			ornachioni in Con.Dig
1630			ornachioni in Con.Dig
1654v		R. Contemporánea - from 1660	Eramo in ConDig
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Braz	il		
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	uction per	rmit supplied by Cláudio Moraes (CRM): R. Tres de Maio, Imbutuva, PR 84430-000 1/0,25	CRM
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Constr	ZYH ZYL249		CRM Grimm via ConDig Lopez via Con.Dig
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Construction 1540	ZYH ZYL249 ZYJ742 ZYK690	R. Tres de Maio, Imbutuva, PR 84430-000 1/0,25 R. Cultura, João Monlevade, MG (MG93) – e-mail: rcultura@robynet.com.br R. Nereu Ramos (SC12) – e.mail: nereuam@terra.com.br OR. Canção Nova – ex. R.Gazeta (SP62) R. Musical – new station with 10 kW - Address Rua México 70 – Sala 811, 285 RJ	Grimm via ConDig Lopez via Con.Dig CRM 500-000 Cantagalo, Hailton Biancardine
Construction 1540	ZYL249 ZYJ742 ZYJ742 ZYJ690 ZYJ499	R. Tres de Maio, Imbutuva, PR 84430-000 1/0,25 R. Cultura, João Monlevade, MG (MG93) – e-mail: rcultura@robynet.com.br R. Nereu Ramos (SC12) – e.mail: nereuam@terra.com.br OR. Canção Nova – ex. R.Gazeta (SP62) R. Musical – new station with 10 kW - Address Rua México 70 – Sala 811, 285 RJ R. Gazeta – ex R.Dif. Gomes (SC103)	Grimm via ConDig Lopez via Con.Dig CRM 500-000 Cantagalo, Hailton Biancardine Cláudio Moraes
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Construction 1540 590 760 890 890 1060 1110 1140	ZYL249 ZYJ742 ZYJ742 ZYK690 ZYJ499 ZYJ752 ZYL248	R. Tres de Maio, Imbutuva, PR 84430-000 1/0,25 R. Cultura, João Monlevade, MG (MG93) – e-mail: rcultura@robynet.com.br R. Nereu Ramos (SC12) – e.mail: nereuam@terra.com.br R. Canção Nova – ex. R.Gazeta (SP62) R. Musical – new station with 10 kW - Address Rua México 70 – Sala 811, 285 RJ R. Gazeta – ex R.Dif. Gomes (SC103) R. Cultura – ex R.Eldorado (SC32) R. Diocesana (ex R.Difusora) (MG63),- Address Rua João Bressane 1, 37400-0 e-mail: radiodio@uaisol.com.br	Grimm via ConDig Lopez via Con.Dig CRM 500-000 Cantagalo, Hailton Biancardine Cláudio Moraes Cláudio Moraes O00 Campanha, MG Lopez via ConDig
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Colombia

730 HJCU "La 730" (Radio Melodía). ID heard: "Desde Bogotá, Colombia, transmite La 730, en canal preferencial, HJCU, La 730, otra potente emisora de la Cadena Melodía de Colombia".

J Berg, Dxplorer via RNM

910	НЈТТ	Ondas del Porvenir, Samacá, ex 1450 according to a spur heard on 1889.89 kHz	
980	HJJV	Björn Malm, Mark Mohrmann La Vallenata, Cucutá is a station with 95% of music. ID: "La Vallenata - con sentimiento".	
1010	HJCN	Exact frequency 979.98 kHz Björn Malm R. Reloj, Santafé de Bogotá has answered by e-mail. V/s is Lily Plaza, directora and Edgardo	
1140	HJDL	Noguera Noriega Dan Olsson via Eter-Aktuellt R. Paisa, Medellín, local programs in the evenings as "La Cariñosa de Antioquia" Björn Malm	
1230	HJIL	R. Minuto de Dois, Medellín, web-site: www.1230amradio.com Producción, webmaster is	
<u>1290</u>	НЈМС	Santiago Pareja. Catholic Radio Update R. Viva 12-90, Cali v/s Clarena Quintero, e-mail: clareq88@hotmail.com	
<u>1350</u>	HJDS	Gert Nilsson via Eter-Aktuellt R. Ondas de la Montaña, Medellín v/s Natalia Ospina Y. E-mail: ondasm@cis.net.co	
<u>1450</u>	HJNL	Stefan Nilsson via Eter-Aktuellt RCN "La Cariñosa", Manizales heard for several hours a Saturday. Close down at 0500 with "RCN	
<u>1520</u>	HJLI	Manizales"-ID. Exact frequency 1450.03 kHz Ecos del Palmar, Santafé de Bogotá heard with a new slogan and a new religious program format, "Estación Latina". Björn Malm, Rafael Rodríguez	
Ecua	dor		
<u>530</u>		R. Iris, Quito. slogan "La Voz de la Comunidad" Björn Malm	
<u>670</u>		R. Jesús del Gran Poder. Sometimes relay of the FM-station "Francisco Estéreo" Björn Malm	
<u>890</u>	HCVAI	R. Sucre. Sometimes relay of sport programs from "Cupido FM" in Guayaquil Björn Malm	
n			
Para 1000	guay ZP36	R. Mil – Web: www.radio1000.com.py Adán Mur	
1190 1190		LV de la Libertad, Hernandarias - cfr MV-Eko 21 - the right credit for this new station is as follows:	
		Jim Solatie, Henrik Klemetz, Samuel Cássio Martins, DXing.info, DXLD and others.	
		Henrik Klemetz made me aware of this. Henrik Klemetz Address to LV de la Libertad: Juan E. O'Leary 152, 1a piso, Oficina 5, Hernandarias	
		Solatie in DXing.info	
<u>1330</u>		R. Chaco Boreal, Asunción is back – after testing as "AM 1330" – identification has changed back	
		to the old traditional name R Chaco Boreal. This is a new station as the old call ZP4 is used by R. Uno (650 kHz) Adán Mur	
1480	ZP20	R. América is now on the air with $5 \text{ kW} - 24\text{h}$ – from an omnidirectional antenna Adán Mur	
<u>1610</u>		R. Colégio Técnico Municipal, Santa Rosa de Lima – new station – with the help of Radio América	
		students of the technical college is transmitting with 100 watts. Reports to ctmsrl@hotmail.com or Orlando Torres, RCTMSRL, Santa Rosa de Lima, Ñemby, Paraguay Adán Mur	
Vene	zuela		
1070		R. Mundial Zulia, Maracaibo. The antenna knocked down on Tuesday 24.2.2004. Blamed for this	
		were members of the Red del Pueblo which had been making anti-Chávez broadcasts.	
1190	YVZD	José Elías Díaz Gómez, Venezuela via DXLD R. Dif. De Cultural del Táchira, San Cristóbal, slogan: "La Emisora de la Paz Vital 11-90"	
		Björn Malm	
<u>1200</u>	YVOZ	R. Tiempo, Caracas, Address: Av. Los Mangos N° 49, La Florida, Caracas 1050-A. Rudolf W Grimm via Con Dig	
1300	YVNS	R. Reloj, Maracaibo, v/s Gisela Villalobos Roland Åkesson via Eter-Aktuellt	
1380 1390	YVTL YVZD	R. Triunfo 13-80, Caja Seca, ex R Mundial José Elías Diaz G via ConDig R. Fé y Alegría, Caracas. Web: www.feyalegria.org - click on "Instituto Radiofónico".	
1070		E-mail: radiofyanacional@cantv.net or: radiofya@telcel.net.ve	
<u>1470</u>	YVSY	R. Vibración, Carúpano has answered to a Swedish DX-er, Kjell Eriksson, via e-mail. V/s is	
		Yraima Benitez Eter-Aktuellt	

WORLD NEWS

[Europe, Asia, Africa] with Jeff Weston

16, Whitmore Ct, Little London, Silverstone, Northants, NN12 8UP e-mail:world-news@mwcircle.org ☎ 01327 858472

Afghanistan

The 400kW BBG/IBB relay tx in Kabul on 1296 (for BBG's Radio Free Afghanistan) now carries a special programme in English at 1930-2330 since the start of the A04 season. (Source: IBB online schedule published 28 March on http://sds.his.com:4000/fmds_w/schedules/freqsked.txt, currently not available, via Bernd Trutenau). N B not listed on RFE/RL/R Free Afghanistan websites.

Albania

According to the Web site of China Radio International, the morning mediumwave broadcast in EE to Eastern Europe originally advertised for 1395 kHz is now on 1215 kHz. It was scheduled at 0700-0900 UTC, but may have moved to 0600-0800 UTC with the start of summer time in Europe. This transmission is via a relay station in Albania. (*Media Network, 29 Mar*).

Australia

2NTC on 1701 in Sydney back on air. (Regards Tony Magon VK2IC, Sydney via Australian Mediumwave group (11/4-2004), via Ydun Ritz Medium Wave News).

Thought this may interest a few: On the way to Anglesea this week I drove past the Leopold (Geelong site) 1341 kHz. This station is the Chinese one that puts out a wonderful signal into most parts of oz. I even heard it in Perth & Dampier WA last year. Its on an old swamp not far from Corio Bay & Salt works.. It's the old 3GL site and puts out 5kw. I'm about to embark on a project of doing photos of transmitter sites. Next one is 1566 3NE which is nearby. I'll whack them up on my dx web site which is currently underway again. They are hard buggers to take pics of. (David Onley, Australian Mediumwave Group (31/3-2004), via Ydun Ritz Medium Wave News).

Belarus

Voice of Russia has expanded the lease of the transmitter in Sasnovy on 1170 from 9 to 15 hours/daily. Most of the additional time was assigned to VOR's Russian-language channel "Russkoye Mezhdunarodnoye Radio". The transmitter is leased with a power of 700kW and a directional antenna with a beam of 244 degrees. For maintenance, the transmitter is off every 1st, 3rd and 4th Wednesday of the month from 0600-1300. (Bernd Trutenau-LTU, via mwdx).

Cyprus

Radio Sawa sched: 990 600kW Cape Greco-CYP (beam: SE) 0000-2400 Radio Sawa Egypt-Levant stream. (Bernd Trutenau-LTU).

Djibouti

Radio Sawa from Djibouti on 1431 was picked up around 20.00 UTC after the sign off of VOR in Arabic on the same frequency. Reception was SIO 333 but at around 20.45 UTC it faded a bit to 232 as usual. A new stream (Sudan stream) which is not // any other Sawa freq. (ie. 990, 1260, or 1548 kHz).

(More to come soon. Tarek Zeidan via Steve Whitt).

Last night (03 April-ed), I noticed R Sawa Djibouti 1431 in // with R Sawa Kuwait 1548. This was at 2315 UTC during the hourly news which starts at H+15. Tarek Zeidan confirms that Sawa streams join up in parallel for the news. Otherwise they are separate. At present Djibouti has no other on-air parallel signal (apart, I presume, from its satellite feed). (Steve Whitt).

Acc. to a Radio Sawa source, the MW relay station in Djibouti on 1431 is now operating 24h and with a directional beam towards the northwest (325 degrees). Sched: 1431 600kW Arta-DJI (beam: NW) 0000-2400 Radio Sawa Sudan stream.

(Bernd Trutenau-LTU).

Finland

"Hi from Sweden; have to correct your info about Radio Scandinavia having financing problem. No such problem, but it takes time to get transmitters, antennas and studio equipment in right place. Will start up with 1000 watt, and then we have to find a place for the big mast of 60m. The 25 kW transmitter is on it way to England to be adjusted from 1143 kHz to 603 kHz. The parts are coming from Canada. An antenna has to be mounted on the ship and adjusted for 603 kHz and 1000 watt." (Roy Sandgren in an e-mail 8 April to Ydun's MW News via DXLD).

France

Prospect of DRM attracts French broadcasters to AM French newspaper Libération reports today on the revival of the AM band in France due to renewed interest from broadcasters who are attracted by the prospect of digital broadcasting using DRM. Two stations in the Paris area are already broadcasting: **Superloustic** on 999 kHz, and **Radio Nouveaux Talents**, a sort of Star Academy of the air, on 1575 kHz. They will soon be joined by others such as la **Radio de la Mer**, **Ciel AM** and **Radio Livres Télérama**. The national regulator CSA has also allowed three existing stations - **Beur FM**, **Radio Orient and RMC Info** - to expand their coverage to include mediumwave. The big question is whether they will be able to attract enough listeners to their AM transmissions to survive until DRM is a commercially viable option, which is still several years away. (*Media Network 1 April*).

Today 17-04-2004, I received the new **Loisir AM**, France on 1314 kHz here in Haarlem in the Netherlands at 06:50 UTC. Reception was difficult with a longwire antenna of 30 metres and a DX-10 from RF Systems together with an MFJ 1025. With this I can null Norway on 1314 kHz. The program was with music, one which I recognized: at 07:15 UTC Elvis Presley with Jailhouse Rock, others mostly from France. (*Ge Huijbens Haarlem, Netherlands, via emwg*).

Third in a new wave of Parisian mediumwave stations, **Loisirs AM** began regular broadcasting on March 31. The station is however unlucky to be operating on 1314 kHz along with a very strong Norwegian transmitter, which overpowers the French newcomer even in parts of its small target area. Cyril Grouin in France reports to DXing.info that Loisirs AM is probably using only 1 kW of power at the moment, although the station is authorized to use 5 kW from the TDF center in Villebon-sur-Yvette (Southwest of Paris), the same location that is used by FIP 585 kHz, RFI 738 kHz, la City Radio 864 kHz, and Superloustic 999 kHz. Programming consists of contemporary hit music with brief news headlines. Reception reports can be sent to: Air Productions, Bâtiment 113, 50, avenue du Président Wilson, F-93210 La Plaine Saint Denis, France. Telephone: +33 (0)1 49 17 84 00, Fax: +33 (0)1 49 17 84 01. (*DXing.info, April 13, 2004, updated on April 14*)

Finland

Westdeutscher Rundfunk 2 on 774 kHz from Bonn has been off air from 12 April through to 03 May due to antenna maintenance. (emwg via Mike Terry, BDXC).

Greece

Radio Sawa sched: 1260 500kW Rhodos-GRC (beam: SE) 0000-0800 Radio Sawa Egypt-Levant stream, 1500-2400 Radio Sawa Egypt-Levant stream. (*Bernd Trutenau-LTU*).

Hungary

RFE/RL and VOA retimed the services in Belarusian and Ukrainian via the leased transmitter Marcali 1188 (500kW ND), the current, complete relay schedule is announced as follows:

A. Mon-Fri	B. Saturday	C. Sunday
03-0400 RFE/RL Ukrainian	03-0400 RFE/RL Ukrainian	04-0500 RFE/RL Belarusian
00 0 100 14 = 11= 0 111 4111 411	00 0 100 111 2/112 0 111 1111111111	0.0000112/12/2011/05/11/
A. Mon-Fri	B. Saturday	C. Sunday
04-0500 RFE/RL Belarusian	04-0500 RFE/RL Belarusian	** transmitter break **
** transmitter break **	** transmitter break **	15-1700 RFE/RL Belarusian
15-1700 RFE/RL Belarusian	15-1700 RFE/RL Belarusian	17-1900 RFE/RL Ukrainian
17-1900 RFE/RL Ukrainian	17-1900 RFE/RL Ukrainian	19-2100 RFE/RL Belarusian
19-2100 RFE/RL Belarusian	**transmitter break**	** transmitter break **
21-2130 VOA Serbian	20-2100 RFE/RL Belarusian	22-2230 RFE/RL Serbian
** transmitter break **	** transmitter break **	
22-2230 RFE/RL Serbian	22-2230 RFE/RL Serbian	(Bernd Trutenau-LTU, via mwdx).

Iraq

I am very glad to tell you that I now have an extremely reliable source in Iraq (Baghdad) who is able to give me accurate information on the stations broadcasting in this country. So far, I have received this information on active stations:

<u>Station</u>	<u>Frequency</u>	Power (kHz) (W)	
Dar-es-Salam	1152	2000	
Sawt-el-Iraq	1179	1000	
Sawt-el-Fadhila	999	1000	(Herman Boel, via MWC E-Mail list).

BBCM continues to list 1314 for Radio Free Iraq (RFI) with the incorrect location "Abu Dhabi". In IBB schedules, Radio Free Iraq on 1314 has always appeared as "ERV" = Gavar in Armenia, with two daily transmissions with 1000 kW ND; the Al Dhabbaya ("Abu Dhabi") transmitter in the United Arab Emirates on 1314 has not been used for this purpose, it fully used by BBC. In addition, since the start of the A04 season, 1314 is no longer listed on the RFI website http://www.rferl.org/listen/shortwave/shortwave-iq.asp and also did not appear in the IBB A04 schedule published on 28 March. (*Bernd Trutenau*-LTU via *DXLD*, via Ydun Ritz Medium Wave News).

MAIN AM STATIONS INTENDED FOR IRAQ (kHz)

- 657 IMN Baghdad FM Radio in Arabic
- 720 Voice of the Mujahidin in Arabic
- 756 Information Radio in Arabic
- 909 Radio Nahrain in Arabic
- 1000 Voice of the Worker Communist Party of Iraq
- 1026 Iraqi Media Network Radio Baghdad in Arabic
- 1152 Dar al-Salam Radio (Iraqi Islamic Party)
- 1161 IRIB Arabic Service
- 1179 Voice of Iraq in Arabic (English 1200-1300 gmt)
- 1206 Voice of the People of Kurdistan in Arabic & Kurdish
- 1206 Voice of Iraqi Turkmen Radio in Turkmen
- 1224 IRIB Arabic Service
- 1233 Radio Monte Carlo Middle East, Cyprus, in Arabic
- 1260 (US-run) Radio Sawa, Rhodes, Greece, in Arabic
- 1305 Radio Al-Mustagbal in Arabic

- 1314 (US-run) Radio Free Iraq via Abu Dhabi
- 1323 BBC World Service, Cyprus, in English
- 1548 (US-run) Radio Sawa in Arabic
- 1566 Radio of the Land of the Two Rivers in Arabic
- 1575 Continuous pop music no announcements observed
- 1593 VoA English/Kurdish/Persian + Radio Free Iraq in Arabic

Iraqi Media Network, Voice of New Iraq - operated by the Coalition Provisional Authority. Has also identified as Republic of Iraq Radio from Baghdad and Voice of Free Iraq (Sawt al-Iraq al-Hurr). Broadcasts on 98.3 MHz FM in Baghdad, identifying as Iraqi Media Network, Baghdad FM Radio, with a different service on 1026 kHz identifying as Iraqi Media Network-Radio Baghdad. Syrian Arab Republic Radio is the Syrian state-owned radio. It broadcasts on shortwave on 12085 and 13610 kHz. It has also been heard in Iraq on the MW frequency of 819 kHz between 1100 and 1145 gmt. Radio Kuwait is the state-owned Kuwaiti radio. It can be received in Iraq on the MW frequency of 540 kHz 24 hours. (Source: BBC Monitoring research 7 Apr 04 via DX Listening Digest 4-065 (8/4-2004), via Ydun Ritz Medium Wave News).

Kuwait

Radio Sawa sched: 1548 600kW Kuwait-KWT (beam: NW) 0000-2400 Radio Sawa Iraq stream. (*Bernd Trutenau-LTU*).

Libya

Libya starts on 1053 and 1251 kHz at 0530 UTC (different data in EMWG). Heard on 17 APR 04. Test tone before 0530, then a parallel program started. (*Karel Honzik*,).

Lithuania

The language segments for the new CRI relay starting 17 April on 1386 have been defined and are included in the schedule below. The Czech program will start at 1902; the 500kW transmitter in Sitkunai is used by Lietuvos Radijas on 666 until 1900 and it needs 2 minutes to re-tune it to 1386. There is also a slight adjustment of the Voice of Russia relays on 612 in Vilnius: VOR provides now 1h of Russian International Radio and 7h of Sodruzhestvo (instead of earlier 2h:6h). The complete relay schedule provided by Radio Baltic Waves (*) and Radio Baltic Waves International (**) is as follows: #) = changes

A) Vilnius 612 kHz 100 kW ND (*)

0300-0500 RFE/RL Belarusian

0700-0800 VOR "Russian International Radio" in Russian (#)

0800-1500 VOR "Sodruzhestvo" in Russian (#)

1500-2100 RFE/RL Belarusian

2100-2130 R. Polonia in Belarusian

B) Sitkunai 1386 kHz 500 kW ND (**) - From 17 April

1902-2000 CRI Czech (#)

2000-2100 CRI English (#)

2100-2200 CRI German (#)

=CRI adjusted the language segments for the relay on 1557 in the time sequence 2000-2100. There is now a one hour transmission in Polish instead of 30min Polish and 30min English (since English is already carried on 1386 at 2000-2100).

C) Sitkunai 1557 kHz 150 kW ND 1800-2000 CRI Russian

2000-2100 CRI Polish 2100-2200 CRI Chinese

Address for Radio Baltic Waves/Radio Baltic Waves International: P.d. 3245, LT-02002 Vilnius, Lithuania. Email: radio@balticwaves.cjb.net (Bernd Trutenau-LTU via mwdx).

Netherlands

The signing of the covenant concerning the mediumwave transmissions from Lopik-IJsselstein may be further delayed. **Quality Radio** by has once again taken out a court injunction preventing the signing of the document, and the hearing is due to take place on Tuesday.

The municipalities of IJsselstein, Lopik and Montfoort, Nozema, the province and the Ministry of Economic Affairs agreed the covenant in January. Under it, the total power transmitted on mediumwave from Lopik will be reduced 240 to 100 kW. The 100 kW will be allocated to **Arrow Classic Rock** on 675 kHz, meaning no other broadcaster can use the Lopik site. The reduction in output is necessary to avoid RF interference problems in a nearby residential district. Quality Radio has a valid licence to broadcast from Lopik with 500 kW.

In a previous court ruling in January, the judge found that the parties to the covenant had not given a sufficient explanation to Quality Radio as to why it could no longer transmit from Lopik. Quality Radio has since been in consultation with the authorities and transmitter operator Nozema. But according to director Ruud Poeze, they have still not given a satisfactory explanation. Poeze says Quality Radio would accept 20 kW, a major concession. As the consultation has stalled, Quality Radio has decided to refer the matter back to the court. A spokesman for the municipality of IJsselstein says "We believe that we have established a balanced covenant, which has taken into account the views of all parties. We hope that the judge is sensitive to that." (Media Network).

Haagstadradio (1485 kHz) increases transmitter power The transmitter power of Dutch broadcaster Haagstadradio in The Hague was increased at the weekend after the installation of new antenna tuner. The input power to the transmitter is now 800 watts. Haagstadradio is operated by the Hindostaanse Omroep Stichting, and broadcasts 24 hours a day in Dutch and Hindustani primarily for the Surinamese community. Due to earlier technical problems it had been operating on lower power. (# posted by Andy @ 11:54 UTC Media Network weblog (8/4-2004).

New Zealand

The Maori radio service Ruia Mai in Auckland, New Zealand, will close in June after having its contract ended by broadcasting funding agency Te Mangai Paho. The station, the first to have 100 per cent Maori language programming, began broadcasting seven days a week on 1179 kHz in May 1996. Fifteen jobs will be lost when the station's news and current affairs contract is given to Radio Waatea, which broadcasts on 603 kHz, on June 30.

Te Mangai Paho chairman Wira Gardiner said it was decided that Radio Waatea's proposal was likely to attract more Maori listeners and was a better match with the agency's guiding philosophy than that of Ruia Mai. Mai Media managing director Graham Pryor said the company was extremely sad over the decision, but preferred to focus on the achievements Ruia Mai had made for broadcasting. He said the station's success showed Maori language and culture could be retained and enhanced. (# posted by Andy @ 08:33 UTC Media Network weblog (8/4-2004), via Ydun Ritz Medium Wave News).

According to a personal note from Pere Matai, GM of Ruia Mai this morning, no decision to close 1179 AM has yet been made. This is one of several issues yet to be decided on by the board and executive of Mai Media, and an announcement will be made fairly soon.

Ruia Mai is a wholly owned subsidiary of Mai Media (owned by Auckland Maori tribe Ngati Whatua) who also operate highly successful Mai FM (88.6 FM in Auckland, 96.7 FM in Rotorua, 97.8 FM in Northland), Mai Music, Mai Publishing and Mai TV. Mai Media are also a key shareholder in former micro-FM George FM who now use a Mai Media mainstream FM frequency in Auckland. Ruia Mai produces 40 hours of news and information programs weekly for national kiwi network stations under contract to Te Mangai Paho (Maori broadcasting funding agency) and has lost only this specific contract to the owners of Radio Waatea (603 AM) from July 1. The broadcasts on 1179 AM give Mai Media a third (after Mai FM/George FM) radio outlet in Auckland and draw on Mai FM and Mai Music resources as well as those of Ruia Mai. Mai FM website (www.maifm.xo.nz) carries statement End of Era for Maori Radio Pioneer detailing history of the contract (which gave impetus to acquiring 1179 AM) and effect on staff.

There's also a link to a separate Ruia Mai website which includes audio streaming for those interested in listening. They're been playing extended versions of 'Ruia Mai' station ID's, some of which run for several minutes and explain (in Maori and through music) their tribal heritage. A subtle challenge to the funding decision which has favoured a non-tribal broadcaster (Waatea) on Ngati Whatua's home ground. (*David Ricquish*, *Wellington NZ via Australian Mediumwave Group 00:16 (8/4-2004)*, via Ydun Ritz Medium Wave News).

Switzerland

The federal broadcasting council (Ofcom) has proposed a new directive on the future use of Swiss MW frequencies. Four of the five frequencies (531, 558, 765 and 1485) are currently used by SSR-SRG, but would be offered to competition if the public broadcaster does not wish to use any of these channels. The fourth frequency, 1566 kHz, which is not currently in use, may be put out to tender for a regional broadcaster in the German-speaking part of the country. (*Translated from RadioActu AM 18 Apr*).

Tajikistan

VOA's Radio Aap Ki Dunyaa program in Urdu is now carried on 972 (Orzu, 500kW) from 1400-0200, replacing BBG's Radio Free Afghanistan. (VOA's Urdu Service, via Bernd Trutenau).

Tunisia

No more regional service. from Tunisia on MW: Radio Sfax (720 kHz) is inactive since last year, now Radio Monastir is too (603 kHz). (Roberto Scaglione via mwdx).

Tunis International Radio starts on 963 kHz at 0500 UTC (no data in EMWG) on Saturday. Heard today 24 April 2004. The programme is in French. (*Karel Honzik, the Czech Republic (Czechia*).

Vatican City

1611 MW, Vatican Radio started DRM experiments on Mar 28, according to the English page http://portale.italradio.org (*Luigi Cobisi, Italy, DSWCI DX Window April 7 via DX Listening Digest 4-066 (9/4-2004), via Ydun Ritz Medium Wave News*).

Fr. Dan, technical director of Vatican Radio, confirmed Apr 13 in an interview for the Vatican Radio Italian Programme ("www.ok") that the Vatican Radio is very happy about its first DRM experiments, going on 1611 MW with 28 kW at 0645-1500 and 2100-2205 daily.

Monitors confirmed very good listening conditions from such far places like Munich in Germany at night (over 1,000 km North of Rome). Analog signal with same power is not audible even by night. Vatican Radio hopes to extend their DRM operations to SW and counting on DRM to overcome the power reductions imposed to MW txs. (*Cobisi-I and Morandotti-I, dswci Apr 25*)

THE HOME FRONT

[British & Irish News] with John Williams

BBC News

Pirate Radio Essex 16 April, 2004

A group of original pirate radio presenters were celebrating the 40th anniversary of offshore pirate radio by taking to the waves once again and broadcasting ... Forty years ago they were



broadcasting pirates on the open sea, pitched in battle against the BBC. This week the old foes joined forces to commemorate the radical radio days that began on Good Friday 1964, with test transmissions for Radio Caroline. All week, on 729, 765 and 1530 MW and at www.bbc.co.uk/essex/pirate, former pirate DJs (including Dave Cash, Ray Clark, Mike Ahern and Roger "Twiggy" Day) have been broadcasting from a vessel, the LV18, half a mile out to sea from the

Essex coastline, with most of the crew living on board. These special programmes continue until tomorrow. It has been a week of indulgent nostalgia, with playlists taken from the pirate radio heyday between 1964 and 1967, along with news headlines, weather forecasts and jingles from the time.

All this does rather take you back and not always in a good way. Tuning in, things have been quite startling. How cosy and hoary these once challenging broadcasters sound: this is the kind of the radio demonised as Smashey and Nicey, and relegated from Radio 1 to local stations. How beloved and welcome this week of radio swashbuckling has been for those who heard 60s pirate radio the first time around. "We turned on the radio and thought we'd gone to heaven," one listener emailed,



and there have been many calls for the BBC to keep the temporary station permanently afloat. It plays the tunes Radio 2 hardly plays these days, and with considerably more verve than stations such as Saga, which target older listeners. Though the station's style may leave a younger audience cold, it's hard not to warm to the audience's affection for it. "Oh the ambience, the echo, it takes me back 40 years," said one listener, relishing the special pirate sound created by a reverb unit on board." (www.guardian.co.uk)

BBC stations on Internet 16 April, 2004

The BBC confirmed today that it would begin streaming all forty of its local radio stations on the Internet later this year. Andy Griffee, Controller of the BBC English Regions, said: "More and more people are listening to radio through the internet, especially on their office desk tops.(*Digital Spy via Steve Whitt*)

Steve Whitt writes: "BBC R Humberside have moved into new studios & offices in Hull. Fantastic new studio complex overlooking Queens Gardens in central Hull. All digital radio production system with capability to split programmes between AM, FM AND DAB." Address: BBC Radio Humberside, Queen's Court, Queen's Gardens, Hull, HU1 3RH 01482 323232 humber.online@bbc.co.uk

UK Commercial Radio News

SBH Upbeat on revenues

26 March, 2004

Radio Clyde owner Scottish Radio Holdings added to the upbeat sentiment in the radio industry today, as it said it expected revenues over the six months to the end of March would rise by 10%.

SRH, which is the largest commercial radio operator in Scotland and Northern Ireland, said radio revenues would be up by 12% between October and March, compared with a year before. The figures mean performance in the second quarter of the year was ahead of the first three months, when radio revenues lifted by 10.5%. SRH said the six-month rise would reflect an 11% increase in national advertising revenue, a 13% rise in local advertising revenues and 12% growth in sponsorship and promotions income.(www.guardian.co.uk)

Wireless Group posts first ever profit

31 March, 2004

Kelvin MacKenzie's Wireless Group today announced it had made its first-ever operating profit, although it still reported an overall loss last year of almost £11m.

The group, which owns TalkSport and a host of local radio stations, said it made an operating profit of £2.3m in the year to December 31 compared with a loss of £2.3m the year before. TalkSport moved into the red for the year, turning a loss of almost £3m into a £1m-plus profit, with the company's local radio stations nearly £2m more profitable than in 2002. Turnover rose to £32.6m, up from £28.5m last year, boosted by a near 30% rise in local radio sales and second half improvements in TalkSport revenues.

Capital radio 2 April, 2004

Investors in Capital Radio have been cheered by a decent trading update that showed revenues rising 3% year-on-year in the six months to March. The last time Capital pronounced was back in February when it said advertising sales had risen just 1% in January. However, today the group revealed that sales had recovered sufficiently to be up 2% in the first three months of the year while bookings indicate that April should 'continue to show modest growth.'

Hopes that US radio giant Clear Channel might bid for Capital took a knock earlier this week when Clear Channel's board approved a \$1 billion (£600 million) share buyback programme.

Talksport presenter sleeps in

6April 2004

Alan Brazil had better invest in a new alarm clock. The TalkSport breakfast show presenter, axed last month has been reinstated - but only after giving "certain legal undertakings" to the station. Brazil, the former Scottish football international turned presenter and betting pundit, will rejoin his TalkSport breakfast show co-presenter Mike Parry from next Monday. His return will end a three-week hiatus. He was dismissed following his failure to show up for the breakfast programme on Friday March 19 after spending three days at the Cheltenham Festival. Brazil joined TalkSport breakfast four years ago, when owner Kelvin MacKenzie relaunched the station from the ashes of Talk Radio.(guardian.co.uk)

RSL & LPAM News

Emerald City Radio 1350 kHz- Newcastle was on air on 1-2 May 2004 celebrating the 10th anniversary of the Newcastle `Green` festival; Contact: Christo Wallers. Telephone: 07836 684 220

Email:cineside@hotmail.com.

Details of other RSL stations (and mentioned last month) are now broadcasting their race meetings. These are held at weekends and Bank Holidays. **Radio Knockhill 1602 kHz** is on air until 24 October, 2004.Contact: Garry Stag Contact Number: 01796 473074 Email :aardvark@pitlochtry.org; **Radio Thruxton 1602 kHz.** Broadcasting from their circuit until 10 October, 2004.Contact: Diane Smith Contact Number: 01280 820438 (www.ofcom.gov.uk)

Radio Coombeshead. This station was launched on 24 March and is now on 1287 kHz. Station address: Coombeshead College, Coombeshead Road Newton Abbot TQ12 1PT.(*Dave Kenny BDXC-UK*)

Radio Newbold 1350 kHz reactivated. This station from Newbold College Binfield Berks has been off air for about 12 months. Dave Kenny heard the station on 29 February for about 3 weeks with continuous Christian music – same tracks no ID. He says that it was very weak well below the normal 1 watt. (*From Dave Kenny's column Communication April 2004 (BDXC-UK)*

Long Wave News

Isle of Man - Long wave radio must post bond

30 March, 2004

The company planning to set up a Long Wave radio station in the north of the Island must have a bond in place, with the Manx Government, before work can start on the offshore transmitting facilities it intends to build. However, he couldn't say how much money was involved. (http://www.manxradio.com/)

Paul Rusling sent me these comments: "I don't have any difficulty with this, especially as it was our suggestion. When we first went to IOM there was a huge former ITV mast just outside Douglas that NTL (the owners, taking over from old IBA) had refused to take down even though it was no longer in use. This was a thorn in the side of IOM Government, etc, so I offered that we would place a bond to cover cost of removal of our mast if it ever became abandoned. It's like an insurance payment to ensure it doesn't become abandoned, like the old Army forts in the Thames Estuary. As ours is a jack up rig, it is simply re-jacked into its 'floating' condition and towed away. And it certainly would be, costing £6m, and containing valuable transmitters and generators, even as scrap it would be worth around £1 million. As we are confident that the bond wouldn't be called, we are happy to escrow the amount needed." Mr Rusling hopes the station will be launched by next Easter. (from Mike Terry BDXC-UK)

IOM - Radio campaigner admits defeat

9 April, 2004

A campaigner fighting to overturn the granting of a licence for a long-wave radio station has admitted defeat after a two-year court battle. Bride man Nick Cussons won't appeal against a high court judgement to reject his petition of doleance against the Communications Commission's granting of a licence to Isle of Man International Broadcasting.

(http://www.iomonline.co.im/ViewArticle2.aspx?SectionID=870&ArticleID=771998)

Irish News

Since 12 April, 2004 612kHz is a clear channel in NW Europe. RTE Ireland has left the channel and the German station at Kiel is still silent. (*Steve Whitt*)

Received this reply from email sent to **Energy Power 1593 kHz:** "Thank you for taking the trouble to email us with your reception report. We broadcast from Dublin Ireland on a weekend basis only at the moment with our own program or that received from satellite. Our sender system is composed of a Marconi T shaped grounded antenna driven by a 0.25 kw State PWM series modulated transmitter. Maybe you'll hear us again in the future, at least you will be able to put a name to the signal you hear on 1593. Best regards, John Power."

EUROLOG

with John Williams

kHz	Station, location; details heard etc	SIO	UTC	Date	Who
612	RNE; multi sites, Spain; RNE ID // 639 good groundwave; RTE gone	good	1231	23/4	SW
	from 612kHz; 612 dominated by Spain & Morocco at night				
945	"Derbyshire's Classic Gold Gem 9-45" purely local ads for Derbyshire	exc	1238	24/4	SW
981	R Star, Emyvale, Ireland; call 00353 4787988	fair	1110	17/4	SW

kHz	Station, location; details heard etc	SIO	UTC	Date	Who
999	"Nottinghamshire's Classic Gold Gem 9-99"	exc	1235	24/4	SW
1134	BFBS Bramcote; IRN news in English then back to Indian music & Hindi (?) presenter	fair	0805	6/4	SW
1278	Trust AM, Worksop; Full ID; apologising for lack of normal programme due to maintenance work	good	1100	21/3	SW
1278	Trust AM, Worksop; "1278 Medium Wave Trust AM" vg on a N-S Beverage	vg	0800	6/4	SW
1287	Garrison R programme with an echo to the SE due to Catterick $+ 2^{nd}$ tx behind	good	0844	3/4	SW
1287	R Gwendolen, Leicester; jingle ID; Catterick nulled.	fair	1435	8/4	SW
1350	URY York; off air for Easter vacation back on air around 27 th April		0700	25/3	SW
1350	Kingstown Radio, Hull; daily with URY off air	good	0700	25/3	SW
1350	R Nightingale, Rotherham; ID with Kingstown R nulled	fair	0845	8/4	SW
1386	Carillon Radio Loughborough "Broadcasting on 1386 AM this is Carillon Radio" Blast nulled.	W	0800	22/4	JW
1386	Carillon R Loughborough; daily regular; sometimes excellent	exc	1229	23/4	SW
1386	Blast 1386, Reading; programme promo & ID	fair	1908	3/04	SW
1404	R Rovers, Blackburn;	poor	1115	17/4	SW
1575	RNT, Paris; "RNT quinz soixante quinze kilohertz en ondes moyennes"	good '	0727	18/4	SW
1575	Jam 1575, Hull; blank carrier during Easter college vacation; back air around 30 th April	good	1036	17/4	SW
1575	Oakwell 1575, Barnsley; "Oakwell 15-75AM Matchday Radio for the Reds" ID; also good 0910 12/4	good	1036	17/4	SW
1593	Energy Power Irish pirate Mention of Wicklow. Phone number 086 191 0685.			11/4	PC
1593	Energy Power pop music "All new Energy Power AM 1593"	G	2215	11/4	JW
1593	UNID (likely new Irish station) with complete Queen album played back to back; heard frequently but no announcements; though apparently I kept missing these; mixing VOA Kuwait	fair	2326	2/4	SW
1593	R Cluj, Romania news, ID excellent S9+20	exc	1850	8/4	SW
1593	R Britannia, Yorkshire; Ken Crescendo; and weaker than usual on 18/4	fair	0912	12/4	SW
1611	R Skeleton, London area; ID presenter Oscar;	fair	2302	27/3	SW
1611	Radio Vatican (pres) with regular DRM broadcasts	loud	2205	31/3	SW
1620	R Titanic, Dutch pirate; announcing location in East of Netherlands 0031-6250 32372	good	2136	10/4	SW
1638.18	Radio Nordsee; DD pirate ID - unusual broadcast time	vg	0446	31/3	SW
1645	R Utopia, Dutch Pirate; partial phone number	good	2140	10/4	SW

Many thanks to the following reporters:

JW John Williams Hemel Hempstead AOR7030 + 40m long wire, Sony ICF2001D Sooper Loop

PC Paul Crankshaw Troon Ayrshire AOR 7030, ALA 1530

SW Steve Whitt High Catton AOR7030 + dual crossed K9AY antenna (Wellbrook)

+ 200m unterminated Beverage roughly -N_S

There is a new web site if you require the word document to send me logs; it is as follows: http://www.members.mwcircle.org. Please note the early deadline for the next issue is 19 June, 2004.

73's **John**

DX LOGGINGS

_ Glackin, 199 Clashmore, Lochinver, Lairg, Sutherland IV27 4JQ, Scotland with Martin Hall e-mail: dxlogs@mwcircle.org☎ 01571-855360

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
530		RVCI, South Caicos; SS jingles, full EE ID "This is WWRV 530 AM Caicos Islands and British West Indies"	Exc	0601	15/4	mah
555	ZIZ	Basseterre, St Kitts; programme of calypso-style mx, promos " on ZIZ Radio every Monday night", local phone no's	W/F/ Gpks	0601	3/4	mah
560	CHVO	Carbonear NL; "CHVO Country" ID local programme NOT // 590, or 620 or 650; at 0237 560 was in // with VOCM	F	0226	16/4	SW
570	CMDC	R Reloj, Santa Clara; SS news, IDs, ticks, pips, "RR" in CW	W	0537	14/4	mah
580	ZYI776	R Boas Novas, Recife; Brazilian mx, PP anns, ID "Rádio Boas Novas kHz" (last reported in the UK in 1994)	F	0604	1/4	mah
590	LS4	R Continental, Buenos Aires; "Servicio Informativo Continental"	W	0601	4/4	mah
590	VOCM	St John's NL; Iraq politic-news talk, further phone-in talk on VOCM 5-90 ID from the speaker "This is VOCM"	W/F	0130	16/4	Rha
590	VOCM	St John's NL; local ID & promo dropped into network programme "5-90 VOCM"	G	0252	16/4	SW
590	VOCM	St John's NL; "The VOCM All Newfoundland Night Show" (also Gpk 0632 8/4)	Exc	0449	19/4	mah
600	CBNA	St Anthony NL; CBC overnight feature //1140	W	0420	16/4	BD
600	CMKV	R Rebelde, Urbano Noris; LA mx // 710, 1180, 670	W/F	0613	14/4	mah
610	WIOD	Miami FL; local nx, "2.03 on News Radio 6-10 WIOD" (also W 0600 13/4, W 0606 15/4)	F/G	0603	19/4	mah
609.98	HJKL	La Cariñosa, SF de Bogotá (tentative); LA mx, possible SS ID in mix	W/F	0602	15/4	mah
620	CKCM	Grand Falls NL; VOCM ID	322	0335	24/4	chm
620	CM	R Rebelde (2 possible locations); SS ID "Radio Rebelde" and "A Esta Hora"	W	0619	17/4	mah
640	CBN	St John's NL; CBC nx	W	0700	29/3	BD
650	НЈКН	Antena 2, SF de Bogotá; LA mx, ID "Antena Dos Colombia, la mejor radio deportiva", jingles, RCN promo (also F 0607 3/4)	W/F	0602	13/4	mah
670	CMBA	R Rebelde, Arroyo Arenas; SS ID, website URL, "A Esta Hora", LA mx // 1180	F/G	0610	14/4	mah
700	LV3	R Córdoba; full SS ID "Transmite LV3 Radio Córdoba AM 70 de la Cadena Tres Argentina", noticias (also W/Fpks, 0530 21/4, W/F 0655 29/4)	W/F	0501	30/3	mah
700	ZYK686	R Eldorado Estadão, São Paulo; PP anns, mx, TS, ID " La Rádio Eldorado Estadão", xf LV3 (also W/F 0601 6/4)	W/F	0530	29/4	mah
710	CKVO	Clarenville NL; country mx show	W	0655	29/3	BD
710	CM	R Rebelde (4 sites listed); Cuban music and good clear ID // 5025	P	0722	22/3	SW
710	CM	R Rebelde (4 sites listed); LA mx // 1180, 670	F	0612	14/4	mah
710	LRL202	R Diez, Buenos Aires; SS tlk, "Radio Diez" mentioned in passing (also F/Gpk 0650 31/3, Fpks 0537 9/4)	F	0517	21/4	mah
740	CHCM	Marystown NL; "VOCM First News" - only there briefly	vW	0733	12/4	mah
740	CHCM	Marystown NL; VOCM ID and nx	F	0430	16/4	BD

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
740	CHCM	Marystown NL; OLD	333	0340	18/4	chm
740	WIAC	San Juan PR; LA mx, SS anns, TCs, "Radio Puerto Rico" IDs	W/F	0736	28/3	mah
740	YVNC	CNB Radio, Maracaibo; LA mx, ID "Tres un minuto hora CNB", dom/xf CHCM (last heard in UK in 1993)	F	0700	16/4	mah
750	WSB	Atlanta GA; "News Talk 7-50 WSB", xd CBGY, best on 315 degree bev!	W/F	0548	3/4	mah
760	ZYH588	R Uirapuru, Fortaleza; ID "Rádio Uirapuru AM 760 kHz, Fortaleza, "	W/F	0606	29/4	mah
770	WABC	New York NY; talk show	W	0433	16/4	BD
780	CFDR	Dartmouth NS; classic country mx	W/F	0650	29/3	BD
780	CFDR	Dartmouth NS; country mx, ID "40 years later CFDR is still the	Exc	0449	30/4	mah
		sound of good music in metro, only now it's Classic Country 7-80 KIXX" (also F/G 0452 19/4)				
780	YVMN	R Coro; LA mx, TCs, jingle, ID "Radio Coro 7-80 AM, la auténtica emisora del pueblo" dom over presumed CFDR	F/G	0657	16/4	mah
783		Nouakchott, Mauritania; AA mx, occasionally noted under MDR and R Miramar, // 4845	Wpks	2224	5/4	mah
789.98	3	Starcom, Bridgetown, Barbados (presumed); rlgs px, faded by the toth	W	0456	31/3	mah
790	CMAQ	R Reloj, Pinar del Río; SS rolling news, IDs, ticks, pips, "RR" in Morse	W	0513	14/4	mah
800	VOWR	St John's NL; light orchestral mx	G	0513	29/3	BD
820		TBN Charlestown Nevis; US preacher "shouting" about Jesus	F	0517	29/3	BD
830	CM	R Reloj, Holguín; SS nx, IDs etc	W	0700	15/4	mah
850	WFTL	West Palm Beach FL; nx, Florida wx, ID	W	0805	2/4	mah
850	WEEI	Boston MA; sports talk	F	0435	16/4	BD
850	НЈКС	R@dionet, SF de Bogota; SS anns, IDs "Doce, y cuarenta y cinco minutos en Radionet", and at 0549 "En Radionet en	W/F	0545	28/3	mah
950	VUZC	Colombia y el mundo" (first time heard in Clashmore)	W/E	0710	16/4	mah
850	YVZC	la 8-50"	W/F	0710	16/4	mah
850	UNID	LA mx, ID " por La Melodía 8-50" - one of the Venezuelans?		0716	2/4	mah
870	WQBS	San Juan PR; LA mx, SS anns, IDs "8-70 La Cadena QBS"	W/F	0454	19/4	mah
870	LRA1	R Nacional, Buenos Aires; SS tlk, IDs "AM 8-70" and "Radio Nacional, Buenos Aires"	F	0527	21/4	mah
880	WCBS	New York NY; ID & news; bad Euro splatter	F	0219	16/4	SW
880	WCBS	New York NY; news report	F	0437	16/4	BD
880	WCBS	New York NY; "WCBS News time 2.33" (also F/G 0515 3/4)	F/G	0633	28/4	mah
880	YVYM	R Venezuela, Puerto Ordaz; LA mx "Venezuela 8-80" ID (also F 0618 3/4)	W	0621	13/4	mah
890	НЈСЕ	R Continental, SF de Bogotá; light SS songs (románticos), TC "Las dos de la madrugada, dos minutos" and ID "Desde Bogotá la capital de la república, esta es la programación national de Todelar, toda una radio, toda una vida" - thanks to Henrik Klemetz for clarifying what I had heard here.		s 0702	17/4	mah
900	YVMD	Mara Ritmo, Maracaibo; tuned in to full SS ID " transmitiendo desde Maracaibo, capital de l'estado Zulia con las 25,000 watios de potencia - Venezuela Mara Ritmo 900 Radio Venezuela AM Digital", jingle (often hrd this month)	F/G	0700	15/4	mah

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
920	CJCH	Halifax NS; oldies, ID "This is AM 9-20 CJCH yesterday's	Exc	0450	30/4	mah
		favourites for Halifax" (also F/G 0517 14/4, vW 0615 21/4)				
920	YVQX	R Nueva Esparta, Porlamar; light mx, SS ID " Nueva Esparta	W/F	0607	7/4	mah
020	MDEM	9-20 AM desde Margarita para el Mundo" (also W 0619 31/3)	XX / / / / / / / / / / / / / / / / / /	0200	07/0	DD
930	WBEN	Buffalo NY; ice hockey game, time tone and tx check & ID	W/F	0300	27/3	BD
930	CFBC	Saint John NB; oldies	W	2254	23/3	JW
930	CFBC	Saint John NB; "Greatest hits of all time on good time oldies 93-CFBC"	F	0248	16/4	SW
930	CFBC	Saint John NB; ID, CW	343	0330	19/4	chm
930	CFBC	Saint John NB; pop oldies	F	0155	29/4	BD
930	CYJQ	St John's NL; Irish music	W	2255	23/3	JW
930	CJYQ	St John's NL; "Radio Newfoundland" promos, xd mx	F	0650	28/4	mah
930	CJYQ	St John's NL; folk mx & Radio Newfoundland IDs	F	0201	29/4	BD
950	CM	R Reloj (2 sites listed); SS ID, "RR" in Morse code	W	0701	15/4	mah
950	LR3	R Belgrano, Buenos Aires; IDs, ads, full ID "Desde la capital	F	0603	6/4	mah
		de la república Argentina, transmite LR3 Radio Belgrano de				
		Buenos Aires" (also F 0701 30/3, F/G 0533 21/4)				
960	CHNS	Halifax NS; promo " on oldies 96 CHNS" (also F 0519 3/4, G 0552 22/4)	F	0454	30/4	mah
960	YV	R Venezuela, Acarigua; LA mx, ID "Radio Venezuela, para	W	0724	10/4	mah
		todo el país" (also F 0643 9/4)				
970	WZAN	Tampa FL; ID, wx, xd presumed CBZ	W/Fpk	0624	22/4	mah
970	CBZ	Fredericton NB; "You're listening to CBC Radio 1", promo,	F	0459	2/4	mah
		"CBC Hourly News"				
970	CBZ	Fredericton NB; CBC overnight feature	W	0450	16/4	BD
970	LV2	R AM 9-70, Córdoba; SS tlk xf ZP9, ID "Transmite LV2, AM	W/Fpks	0704	29/4	mah
		9-70, desde Córdoba, república Argentina", jingle				
970	ZP9	R 9-70, Asunción; National Anthem, ID "Desde Asunción,	W/Fpks	0657	29/4	mah
		república del Paraguay, transmite, para todo el país, AM 9-70", Paraguayan mx				
980	ZYH707	R Nacional, Brasilia; EE pop song, PP anns, IDs	F/G	0458	29/4	mah
980	UNID	Coast to Coast AM, mixing with RCN; CNN Radio News at	W	0519	14/4	mah
		0529				
1000	ZYK522	R Record, São Paulo; PP anns, IDs	W/F	0501	29/4	mah
1000	HJAQ	RCN Cartagena; SS anns/tlk, "RCN" IDs	W	0520	3/4	mah
1010	WINS	New York NY; money-market & business news ID "WINS world news service" at 0500	W/F	0440	25/3	Rha
1010	WINS	New York NY; ad break in rolling nx format	G	0525	29/3	BD
1010	WINS	New York NY; EE, adv, news	322	0250	6/4	chm
1010	WINS	New York NY; "WINS news-talk on 10-10" with news talks	W/F	0425	14/4	Rha
1010	WINS	New York NY; "Wins news time 12.51"	F	0451	16/4	DMS
1010	WINS	New York NY; "News coverage continues now on 10-10 Wins"	'F/G	0520	19/4	mah
1010	WINS	New York NY; YL with lottery numbers for New Jersey ID "WINS newstime 10.59"	F	0259	20/4	JW
1010	CFRB	Toronto ON; "Newstalk 10-10 CFRB" cfrb.com	G	0245	16/4	SW
1010	CFRB	Toronto ON; OM "CFRB Toronto weather7 degrees"	G	0359	20/4	JW
1010	HJCN	R Reloj, SF de Bogotá; LA mx, SS anns, TC, ID, over SS	W	0728	10/4	mah
1010	110 (11	station with tlk	* *	5,20	10/T	mun

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1020	CM	R Reloj, Bahía Honda (?); SS speech just audible, clear "RR"	W	0734	10/4	mah
		in Morse code each minute, but no other IDs caught; is this a change from R Guamá? UK FIRST?				
1020	YVMX	R Continente, Maracaibo; LA songs, SS ID (also F/G 0740 2/4)	W/F	0520	9/4	mah
1030	WBZ	Boston MA; news-talk ID "world news on 10-30 WBZ Boston"		0502	25/3	Rha
		subsequent the address				
1030	WBZ	Boston MA; "The Voice of New England, WBZ News Radio 10-30" (also F 0506 3/4)	F/G	0631	3/4	mah
1030	WBZ	Boston MA; football sport announces ID "country sport on WBZ 10-30"	W	0428	14/4	Rha
1030	WBZ	Boston MA; OM, news	242	0325	22/4	chm
1030	LS10	R del Plata, Buenos Aires; SS anns, mentions of "del Plata" and	W/F	0612	6/4	mah
		"Buenos Aires", promo " en el 10-30", LA songs				
1040	ZYK537	R Capital, São Paulo; Brazilian mx, some nice PP jingles and IDs " madrugada na Rádio Capital" etc	F/G	0551	11/4	mah
1040.03	HJAI	R Tropical, Barranquilla; varied LA mx, IDs "Esta es Radio Tropical" etc , heard from 0715, mixing with another LA	W/Fpks	0726	9/4	mah
		station (last reported in the UK in 1985)				_
1050	WEPN	New York NY; EE, sports	232	0340	22/4	chm
1050	YVKZ	R Nacional, Caracas (tentative); serious SS tlk hrd between 0546 and 0645, tentative "6-30 AM" copied at 0605	Wpks	0546	31/3	mah
1070	CBA	Moncton NB; news report ending "Julia Martin(?) CBC News Ottawa"	W/F	2301	23/3	JW
1070	CBA	Moncton NB; EE, jazz mx	333	0345	19/4	chm
1070	HJCG	R Santa Fé, SF de Bogotá; light songs, SS IDs " Radio Santa Fé HJCG 1,070 kHz, en Santafé de Bogotá, Colombia" etc	W/F	0601	9/4	mah
1080	WTIC	Hartford CT; "News Talk 10-80 WTIC"	F/G	0458	19/4	mah
1100	WTAM	Cleveland OH; wx, "News Radio WTAM 11 hundred", nx	F	0530	3/4	mah
1110	WBT	Charlotte NC; Charlotte's news with news reports	W	0508	25/3	Rha
1110	WBT	Charlotte NC; ads, ID "News Talk 11-10 WBT" (+ F 0531 3/4)	W/F	0405	21/4	mah
1130	WBBR	New York NY; "Bloomberg 11-3-0" ID & weather	F	0714	23/3	SW
1130	WBBR	New York NY; Business reports	F	0528	29/3	BD
1130	WBBR	New York NY; EE, Bloomberg	322	0330	18/4	chm
1130	WBBR	New York NY; "From the financial capital of the world this is WBBR New York, Bloomberg 11-3-0"	G	0700	28/4	mah
1130	YVRL	R Ideal, Maiquetia; LA mx, ID/TC "Radio Ideal, la emisora romántica de Venezuela, dando la hora las dos de la madrugada	W/F	0615	7/4	mah
		y catorce minutos" (also F 0653 8/4, W 0624 13/4, F/G 0732 29/4)				
1140	CBI	Sydney NS; Canada overnight from Sweden	W/F	0606	1/4	BD
1150	CMKX	R Bayamo, Entronque Bueycito; SS nx, full ID at 0703, "Esta	W/F	0702	15/4	mah
		es CMKX Radio [Bayamo], Cadena Provincial en Granma,				
		transmitiendo por los 1140, 1150 y 1160 kHz en amplitud				
		modulada y los 95.3 en frecuencia modulada y sonido estereo" -	-			
		tnx to Henrik Klemetz for picking out the details on this one UK FIRST				
	CMBA	R Rebelde, Villa María; Cuban music and good clear ID // 5025		0722	22/3	SW
	CMBA	R Rebelde, Villa María; LA rhythms	W/F	0643	29/3	BD
1190	WLIB	New York NY; seemed to be religious tlk, then ID "You're listening to 11-90 AM WLIB New York" new format	W/F	0500	19/4	mah

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1190	LR9	R América, Buenos Aires; light piano mx, ID "Radio América -	F	0600	29/4	mah
1107	LINIID	Informa" (also W 0528 4/4, W 0702 6/4, W/F 0503 21/4)	222	1701	11/4	
1197	UNID	Arabic, tentative Koran, Egypt??	222	1721	11/4	GLV
1205 1210.01	VOAD	Reshet Dalet, Haifa, Israel; AA OM telephone talk, // 5915 kHz Mount Pearl NL; EE, ID	333	2003 0340	29/3 17/4	GLF chm
1210.01	VOAR	Mount Pearl NL; light songs, anns/ID "In Corner Brook you're		0629	30/4	mah
		listening to VOAR 105.7 FM"				
1250	HJCA	R Capital, SF de Bogotá; SS ID	322	0355	17/4	chm
1250	YVPZ	R Puerto Ordaz; LA mx, ID/TC " la hora Latina, dos cuarenta y ocho en Latina, dos cuarenta y ocho minutos"	W/F	0651	12/4	mah
1270	CM	R Reloj, Camagüey; rolling SS nx, "RR" in Morse code, xf presumed CJCB (also vW 0746 17/4)	W	0716	20/4	mah
1280	VSB2	Hamilton (presumed); EE rlgs programme promos, light rlgs mx, briefly dominant	W/Fpk	0727	15/4	mah
1280	WCMN	Arecibo PR; "NotiUno" IDs (also F 0808 9/4)	F	0616	15/4	mah
1290	WJNO	West Palm Beach FL; anns, ads, caught partial ID " West	W/Fpks		19/4	mah
1200	,,,,,,	Palm Beach" in mix at toth, xf YVLF	, z piis	0000	177 .	
1290	WKNE	Keene NH; promo clips/jingles ID 0400 "news talk on WKNE 12-90" then world daily-news	W	0358	15/4	Rha
1290	YVLF	R Puerto Cabello; SS talks	W	0332	30/3	Rha
1290	YVLF	R Puerto Cabello; "ID "Radio Puerto Cabello, primer lugar del sintonía" (also F/Gpk 0512 31/3)	vW	0746	12/4	mah
1290	UNID	serious SS political tlk, dom over R Puerto Cabello until 0726	W/F	0721	5/4	mah
1320	CKEC	New Glasgow NS; CW	422	0345	18/4	chm
1323		BBC Zyyi, Cyprus; BBC WS in // with 648kHz	G	2243	23/4	SW
1330	WWRV	New York NY; tuned in to catch "Radio Vision Cristiana" ID;	W	0652	22/4	mah
		first time hrd here, only spotted on tape check				
1330	UNID	African FF or Creole tlk - probably WRCA, kept checking the channel, mixing with RVCI and then a PP station around 0652	W/F	0614	22/4	mah
1350		TWR, Gavar, Armenia; TWR-IS	422	1828	29/3	GLF
1350		R Cairo, Egypt; Arab m tx	242	2011	29/3	GLF
1350.01		ERTU, Quseir, Egypt; Arab px, // 819, s/off at 0000	242	2227	23/4	GLF
1350.01	CKDO	Oshawa ON; oldie song/music programme & ID "CKDO 13-	W/F	0620	26/3	Rha
1330		50"	VV /1	0020	20/3	Kiia
1350	LS6	Buenos Aires; SS, cultural & reli-talk prog	W	0339	30/3	Rha
1350	LS6	Buenos Aires; "AM 1,350 Buenos Aires" ID, xd PP rlgs px (also F/G 0704 28/3, Fpk 0507 4/4, Fpks 0531 9/4)	F/G	0600	11/4	mah
1350	LS6	Buenos Aires (presumed); SS, LA mx, no ID	W	0600	14/4	Rha
1349.99	ZYH520	R Cristal, Salvador; PP, px of Emisoras Red da Boa, adv (sometimes, this had been heard as early as 2130)	243	2242	9/4	GLV
1349.9	ZYH520	R Cristal, Salvador; PP OM/YL tx, sounds like "A Voz do Brasil", at 2308 religious px	343	2218	16/4	GLF
1350	HCPU1	LV de Santo Domingo (tentative); SS anns " Santo Domingo", mentioned several times.	O=2-3	2333	9/4	GLV
1350	HCVP2	Teleradio, Guayaquil; LA mx, ID "Teleradio 13-50 24 horas",	W	0625	13/4	mah
		still there at 0703 (also W/F 0604 9/4)				
1350	YVTJ	R Falcón, Puerto Cumarebo; SS, jingle, LA mx, at 0000 clear ID, QRG, " alternativa"	O=3-4	2330	8/4	GLV
1359		CNR, China; CC discussion, 2300 TS, ID, at 2315 still audible	333	2241	5/4	GLF

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1360	WKAT	North Miami FL; "Classical 13-60" anns, ads, promos, classical	W/Fpks	0654	26/3	mah
		mx				
1360	WDRC	Hartford CT; talk-programme format	W	0712	25/3	Rha
1360	ZYJ464	R Bandeirantes, Rio de Janeiro; PP rlgs px, promos, mention of "Bandeirantes", mixing with another PP station		0702	5/4	mah
1370	WDEA	Ellsworth ME; songs, "AM 13-70 WDEA"	W/F	0613	3/4	mah
1380	CB138	R Corporación, Santiago; anns, ID "Transmite Radio Corporación 1,380 AM"	F/G	0656	1/4	mah
1385.92		R Rurale, Labé, Guinea; African music	G	2028	3/4	SW
1385.95		R Rurale, Labé, Guinea; FF tlk, anns, ID "Radio Rural la Guinée station Regionale Moyenne Guinée"	F/Gpks	2035	4/4	mah
1385.91		R Rurale, Labé, Guinea; VV OM tx and singing, Conakry mentioned often	344	2103	4/4	GLF
1386		KBC Maralal, Kenya; time check 27 minutes past 11; time pips and ID at 2100 5/4;	G	2026	3/4	SW
1390.2	WEGP	Presque Isle ME; "newstalk on WGEP" and phone-in calls	W	0700	25/3	Rha
1390	YVZO	R Lumen 2000, Maracaibo; SS rlgs px, "Radio Católica Mundial" ID	W	0726	12/4	mah
1390	YVZA	R Fé y Alegría, Caracas; LA mx, IDs	W	0716	13/4	mah
1410	WPOP	Hartford CT; "ESPN Radio 14-10"	W/F	0558	22/4	mah
1420	YVNZ	R Marabina Maracaibo; LA rhythms, IDs & time checks	F	0545	29/3	BD
1420	YVNZ	R Marabina, Maracaibo; "Marabina 14-20" IDs (also F 0700 10/4, W/F 0657 12/4)	W/F	0525	14/4	mah
1422		Radio Culture, Alger; Arab, OM tx, FF word, instr. pop mx	444	1714	11/4	GLV
1430	WENE	Endicott NY; Fox sports talk	F	0500	1/4	BD
1430	WENE	Endicott,NY; ads; slogan "Sports Radio 14-30 The Team"	F	0241	16/4	SW
1430	WNEL	Caguas PR; "NotiUno" ID, SS news tlk	W/Fpk	0702	12/4	mah
1429.9	YVTM	R Satelite Guacara; LA rhythms, IDs & time checks with YL	W/F	0547	29/3	BD
1431		R Sawa, Djibouti ; showbiz programme promo; unique audio stream but // 1548 for the news at H+15 UK FIRST?	F	2037	3/4	SW
1431		R Sawa, Djibouti ; Arab-pop, jingle ID, QRM RAI, but Sawa is stronger for some time	3443	0030	25/4	GLF
1440	WJAE	Westbrook ME; sports ID	P	2320	2/4	SW
1440	WJAE	Westbrook ME; "Sports Radio WJAB" mixing/equal Luxie	W/F	0657	28/4	mah
1466		BSKSA, ARS, Arab Gesänge, anns, OM tx	343	2231	5/4	GLF
1466	UNID	traditional Arab singing, s/off 2300	243	2234	16/4	GLF
1467.03	}	IRIB Sarasay, Qom, Iran; middle eastern music // 1503, 531	Exc	2348	21/3	SW
1467.06)	IRIB, Qom, Iran; Farsi m tx	O=2	2231	5/4	GLF
1467.05	;	Qom, Iran; Farsi OM/YL tx	243	2309	23/4	GLF
1467		BSKSA, unknown site, Saudi Arabia; // 1521	F	2250	23/4	SW
1470		Pompano Beach FL; woman health info talk	W	0439	26/3	Rha
1470	WWNN	Pompano Beach FL; usual toh interlude mx, Spot for Boca Raton area medical centre	F	0300	30/3	BD
1470		Lewiston ME; news talk/country tlk on WMTW 8-70	W/F	0434	26/3	Rha
1470	WLAM	Lewiston ME; new format of back to back nostalgia from	W/F	0300	15/4	BD
		singers like Dean Martin, Nat King Cole and Dionne Warwick (also F 0300 29/4)				
1470	ZYIB27	R Papacaca, Bom Conselho; PP OM clear ID! (ID sounds like "papakakka")	O=2-3	0101	10/4	GLV

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1470	OAU4B	CPN Radio, Lima; several "CPN Radio" IDs (also G 0502 2/4, G 0430 19/4)	F	0000	22/3	SW
1470	OAU4B	CPN Radio, Lima; news reports & promos	W	0402	27/3	BD
1470	OAU4B	CPN Radio, Lima (presumed); SS with the Christian talk progr (not Vibración programme style)	W	0338	1/4	Rha
1469	OAU4B	CPN Radio, Lima SS, news	333	0425	5/4	chm
1470	CX147	R Cristal del Uruguay, Las Piedras; nice ID, songs, xf YVSY	Fpk	0633	9/4	mah
1470	YVSY	R Vibración, Carúpano; SS, popular mx, TC "En Vibración, son las 7 y 4 minutos" (also 243 0121 10/4, 242 2312 12/4)	243	2304	8/4	GLV
1470	YVSY	R Vibración, Carúpano; ID & Latin music; time check	G	0100	22/3	SW
1470	YVSY	Vibración, Carúpano; SS, salsa mx progr, ID "en mundo en Vibración la música esperanza" announcements and spots	W/F	0330	13/4	Rha
1470	YVSY	R Vibración, Carúpano; LA mx, ID/TC "En Vibración tres y	F/G	0716	29/4	mah
		doce minutos" (often hrd this month)	_, _		_,,,	
1470	UNID	Spanish, listeners phoning in, ciao ciao, vale, mentioned tel. 992438, Vilanueva, Tropicanos, at 0109 adv, tel. 0332 area code [I did find this only in URG??]	333	0059	10/4	GLV
1476	UNID	Asiatic language station; discussion	F	2245	23/4	SW
1476.26		Marivan, Iran; Farsi tx	322	0130	10/4	GLV
1480	WZRC	New York NY (presumed); CC YL/OM tlk alternating quickly with mx; possible mention of "WDNW" (or "WZNW") at 0416 mixing with an EE station, soon gone		0414	21/4	mah
1480	WMDD	R Tropical 14-80, Fajardo PR; SS, ID	222	0400	6/4	chm
1480	WMDD	Fajardo PR; SS anns, tropical mx, weak ID "Tropical 14-80"	W	0340	13/4	Rha
1500	WTOP	Washington DC; with rolling news-time talks	233	0447	26/3	Rha
1500	WTOP	Washington DC; rolling nx	F	0540	29/3	BD
1500	WTOP	Washington DC; adverts; "WTOP 24hr weather centre"	F	0529	2/4	SW
1500	WTOP	Washington DC; news talk on WTOP 15-00	W/F	0350	13/4	Rha
1500	WTOP	Washington DC; "WTOP forecast" and many "WTOP" mentions	F	0359	14/4	JW
1500	WTOP	Washington DC; EE, news	222	0355	18/4	chm
1500	WTOP	Washington DC; "WTOP News Time 12.08"	G	0408	21/4	mah
	OXB4I	R Santa Rosa, Lima; SS, many references to Lima, ID "Radio	322	0405	18/4	chm
		Santa Rosa"				
1510	WWZN	Boston MA; sports talk	W	0635	29/3	BD
1510	WWZN	Boston MA; OM with sports news on the hour	F	0359	9/4	JW
1510	WWZN	Boston MA; "world leader's sports desk"	F	0353	13/4	Rha
1510	WWZN	Boston MA; ID "The Zone, Boston's sports station"	W/F	0639	15/4	mah
	WWZN	Boston MA; EE, adv, "The Zone"	333	0345	17/4	chm
1520	WWKB	Buffalo NY; WWKB sport call news 15-20 talk	W	0626	25/3	Rha
1520	WWKB	Buffalo NY; now on oldies format	F	0526	1/4	BD
1520	WWKB	Buffalo NY; ads, ID "This is Buffalo's 50,000 watt KB Radio 15-20" (also F 0652 20/4)	F	0520	29/4	mah
1520.07	HJLQ	R Minuto, Barranquilla (presumed); SS, OM	232	0404	17/4	chm
1521		CRI Urumqi, China; Chinese & Russian ID & Int Sig at 1900; dominant over Saudi // 9795 prior to 1900	Exc	1852	3/4	SW
1540	WDCD	Albany NY; religious talk show	F	0536	16/4	BD
1540	WDCD	Albany NY; ads/promos, " on WDCD"	W/F	0642	30/4	mah
1540	ZNS1	Nassau, Bahamas; ID "ZNS Radio network news", anns, TC "28 minutes now before 4 o'clock", light songs	W	0733	20/4	mah

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1548		R Sawa, Kuwait; AA pop music, ID	G	2201	31/3	SW
1550		R Nacional Saharaui, Algeria (presumed); AA mx // 7460	F	0642	2/4	mah
1560	WQEW	New York NY; Radio Disney pop mx	W	0638	29/3	BD
1560	WQEW	New York NY; Disney	333	0440	2/4	chm
1560	WQEW	New York NY; Disney, "AM 15-60 New York"	G	0537	3/4	mah
1560	WQEW	New York NY; with Radio Disney pop music programme	W/F	0358	13/4	Rha
1566		AIR Nagpur, India; EE YL nx	333	2133	11/4	GLV
1566		AIR Nagpur, India; Indian instrumental mx	232	2242	12/4	GLV
1590	WPSL	Port Saint Lucie FL; ID "This is WPSL Port Saint Lucie, the talk of the treasure coast" & CBS nx	W	0500	18/4	BD
1590	WSMN	Nashua NH; ESPN sports news on "Tiger 15-90"	W/F	0508	26/3	Rha
1590	WSMN	Nashua NH; sports talk, spots, ID & CBS nx	W	0455	11/4	BD
1590	WSMN	Nashua NH; "Tiger 15-90" ID, sports (also W/Fpks 0627 26/3)	W	0648	20/4	mah
1590	WARV	Warwick RI; promo "lifechangingradio.com"	Fpks	0628	26/3	mah
1590	WARV	Warwick RI; studio talk about beliefs	G	0557	27/3	BD
1590	CMBQ	R Progreso, Manzanillo; SS tlks (muffled audio), ID "Radio	W/F	0629	13/4	mah
		Progreso, Cadena Nacional, La Onda del Alegría transmitiendo desde La Habana Cuba", TC				
1590	CMBQ	R Progreso Manzanillo; SS studio talk, YL with "Radio Progreso cadena nacional" ID; later talk with mx clips	F/G	0500	15/4	BD
1590	CMBQ	R Progreso Manzanillo; YL with reports & OM with ID	W/F	0404	29/4	BD
1590	HJIP	R Nuevo Continente, Envigado; OM with studio talk (religious?), ID and more talk with incidental MX	F	0455	14/4	BD
1590	CX159	R Real, Colonia; LA mx, SS anns, ID "Radio Real de Colonia" (also W/F 0546-0640 6/4)	W	0712	1/4	mah
1593		VOA Kuwait; news reports "From The VOA news centre Washington"	F	2215	31/3	JW
1593		VOA, Kuwait; EE nx (also 343 2212 5/4)	333	2304	16/4	GLF
1593		VOA, Kuwait; English prog about Elvis	Exc	2229	23/4	SW
1593		CNR-1 (presumed) //4800 Chinese mx?	F	1915	21/4	CW
1600	WKWF	Key West FL; ads, promo/ID " on Sports Radio 16 hundred WKWF", Sporting News Radio, xf pops	W/F	0657	20/4	mah
1600	WMNE	Riviera Beach FL; R Disney pop music progr	F	0515	26/3	Rha
1600	WMNE	Riviera Beach FL; Radio Disney pops //1650	F	0538	1/4	BD
1600	WMNE	Riviera Beach FL; "Radio Disney AM 16 hundred"	W	0733	15/4	mah
1600	WUNR	Brookline MA; ads, ID "This is WUNR Brookline" (also W/F 0613 26/3)	Fpk	0721	20/4	mah
1600	WLUZ	Bayamon PR; SS, música romántica programa	W/F	0310	13/4	Rha
1600	ZYJ779	R 9 de Julho, São Paulo; PP anns, list of network stations "En São Paulo Rádio Nove de Julho"	F	0601	5/4	mah
1600	UNID	Back to back oldies not // with Radio Disney	F	0515	16/4	BD
1620	WTAW	College Station TX; news on the day's oil prices then ID by OM "WTAW time 12.34"	F	0534	2/4	JW
1620	WDHP	Frederiksted, USVI; slightly mx "the power of love"	G	0512	25/3	Rha
1620	WDHP	Frederiksted, USVI; YL with ID "16-20AM in the United States Virgin Islands"	F	0359	31/3	JW
1620	WDHP	Christiansted, St. Croix, USVI; full ID & BBC WS nx	W/F	0400	6/4	BD
1620	WDHP	Frederiksted, USVI; EE relig px, ID, wx, Midnight, Good Night, ID	243	0139	10/4	GLV
1620	WDHP	Frederiksted, USVI; "You are listening to WDHP 16-20 AM"	F	0452	14/4	DMS

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1620	WDHP	Frederiksted, USVI; EE, car. mx	342	0350	17/4	chm
1620	WDHP	Frederiksted, USVI; PSAs, WRRA ID/web address (regular)	Gpks	0621	19/4	mah
1620	WDHP	Frederiksted, USVI; Radio Marti px in SS to fade-out 0425		0400	25/4	GB
1620	UNID	Back to back elevator mx & no toh ID. (Changes at WDHP or a test?)	F	0600	1/4	BD
1620	UNID	Country and Western music with no announcements. Mixing with WDHP. Who is this? (Also heard with continuous music W/F 0558 26/3)	W/F	0300	23/4	JW
1630	WRDW	Augusta GA; sports talk, ID & ABC nx	W	0355	21/4	BD
1630	KCJJ	Iowa City IA; pop music & announcements	W	0522	26/3	Rha
1630		R Buen Ayres, La Plata ; SS presumed light SS music & progrannouncements , publicidades and jingles "AM 16-30 R Buen Ayre" in mix with KCJJ	W	0345	30/3	Rha
1640	WTNI	Biloxi MS; OM talk then into ID "South Mississippi's choice for talk, news, information and sport 16-40 WTNI Biloxi, Southport(etc)"	W/f	0359	30/3	JW
1640	WTNI	Biloxi MS; Mississippi ads, tones where I would have expected an ID, into C2C; caught an ID at 0700	F/Gpks	0635	29/4	mah
1650	WKHT	Portsmouth VA; R Disney pop music charts	G	0515	25/3	Rha
1650	WHKT	Portsmouth VA; Radio Disney pop mx	G	0541	29/3	BD
1650	WHKT	Portsmouth VA; "Radio Disney sets you up"	F	0531	2/4	JW
1650	WHKT	Portsmouth VA; Radio Disney pop music	W	0441	14/4	Rha
1650	WHKT	Portsmouth VA; Radio Disney	W/Fpks	0646	28/4	mah
1660	WCNZ	Marco Island FL; news talk on "news radio 16-60"	G	0518	25/3	Rha
1660	WCNZ	Marco Island FL; discussion on Nazi Germany	F	0512	1/4	BD
1660	WCNZ	Marco Island FL; "News Radio 16-60 weather" for North Naples etc	F	0548	14/4	mah
1660	WWRU	Jersey City NJ; ETH	242	0430	2/4	chm
1660	WWRU	Jersey City NJ; programme in Asiatic language (Korean?)	G	2326	2/4	SW
1660	WWRU	Jersey City NJ; ID "This is multi-cultural radio Jersey City, New York WWRU 16-60 AM" Short break "AM740 WGSM New York"	G	0459	11/4	JW
1660	WWRU	Jersey City NJ; ID "WWRU Jersey City New York 16-60 AM WWRU & Korean studio talk	W/F	0200	26/4	BD
1660	WFNA	Charlotte NC; Sporting News Radio, "WFNA Charlotte" ID	F/G	0558	3/4	mah
1660	WFNA	Charlotte NC; sports talk, jingle sung "Sporting News radio" Golf news on Masters	F	0359	11/4	JW
1660	WGIT	Canovanas PR (tentative); Sports commentary	F	0200	25/4	BD
1680	WLAA	Winter Garden FL; new Mexican style music	W/Fpk	0528	26/3	Rha
1680	WLAA	Winter Garden FL; SS ads, ID "Que Buena 16-80 AM"; dominating presumed WTTM, which had been on top at 0409	F/G	0437	21/4	mah
1680	WDSS	Ada MI; Radio Disney promos xf presumed WTTM	Fpks	0622	29/4	mah
1680	WTTM	Princeton NJ; OM with EE ID "WTTM Princeton New Jersey, 16-80 EBC for radio" then into Indian music	F	0500	23/3	JW
1680	WTTM	Princeton NJ; Indian music sounds/mix with WLAA	W/F	0520	25/3	Rha
1680	WTTM	Princeton NJ; Indian film mx, commercial spots	W	0357	28/3	BD
1690	WRLL	Berwyn IL; oldies, " we're Real Oldies 16-90"	Fpks	0615	29/4	mah
1690	WPTX	Lexington Park MD; CNN-news/terrorism & hamas	W/F	0523	25/3	Rha

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1690	WPTX	Lexington Park MD; local announcements then ID by OM	G	0528	2/4	JW
		"You are listening to Newstalk 16-90AM WPTX Lexington				
		Park"				
1690	WPTX	Lexington Park MD; nx, ID "16-90 AM WPTX Lexington	Fpks	0630	29/4	mah
		Park"				
1700	WEUV	Huntsville AL; light mx, ID "WEUP (including?) the music of	Fpks	0529	29/4	mah
		your life" (plus another ID at 0551), xd C2C AM (this one not				
		heard in Clashmore for a while)				
1700	WJCC	Miami Springs FL; SS contemporary Christian songs	G	0541	1/4	BD
1700	WJCC	Miami Springs FL; SS talk then ID OM "WJJC" then YL	W	0359	12/4	JW
		"Miami Springs"				
1700	KQXX	Brownsville TX; "Oldie programme on 105.5"	W	0528	25/3	Rha
1700	KVNS	Brownsville TX; EE talk show format	G	0415	16/4	BD
1700	KVNS	Brownsville TX (presumed); OM EE talk "Newstalk 17	W/F	0403	25/4	JW
		hundred"; more talk, mention of CBS and "news channel 5"				
1700	KVNS	Brownsville TX; promo " from News Talk 17 hundred	Fpks	0630	29/4	mah
		KVNS" in the mix				
1700	KTBK	Sherman TX; "The Ticket" ID noted under UNID carrying	W	0408	21/4	mah
		Coast-to-Coast AM				

Many thanks to the following reporters:

- BD Barry Davies, Carlisle, Cumbria. AOR AR 7030, 100m longwire.
- chm Christoph Mayer; Jena, Germany; AR7030, 4.4 m² tuned indoor loop
- CW Cyril Willis, Kings Lynn. Lowe HF 125, Wellbrook ALA 1530.
- DMS Dave Smith, Dartford, Kent. AOR AR7030, AOR LA350 MW bar element.
- GB Giampiero Bernardini, Tuscany, Italy.
- GLF Günter Lorenz, Freising, Germany. Drake R8B, Grahn GS3 ML1. Frequencies measured w Spectrum Lab, using a RFT EKD 500 (only shown to nearest 0.01 kHz in DX Log mah)
- GLV Günter Lorenz, Volastra (La Spezia), Italy, Drake R8B, Grahn GS3 ML2; Frequencies measured with Spectrum Lab Software (only shown to nearest 0.01 kHz in DX Log mah)
- JW John Williams Hemel Hempstead. AOR 7030 and 40m long wire.
- mah Martin Hall, Clashmore, Sutherland. NRD-545, beverages: 513m at 240°, terminated; 506m at 290°, terminated; 588m at 315°, unterminated; 362m at 360°, unterminated.
- Rha Ronald Hagensen, Ottersberg. AOR 7030plus, WiMo QRM-Eliminator, 22m and 28m longwire antennas direction 315°& 280°/290° and a 143m longest beverage antenna in direction 345°/360°.
- SW Steve Whitt, High Catton near York. AOR7030+ and HF225 Europa with dual loop K9AY.

A warm welcome to **Günter**, who makes a first contribution to DX Loggings; also to **Brent Taylor**, VE1JH, from Doaktown, New Brunswick, Canada who sent in some fine loggings of European and Middle Eastern stations heard between 2330 UTC on 14 April and 0110 on 15 April - unfortunately insufficient space to include them this time. **Ira Elbert New III**, Watkinsville GA, USA has also kept me posted via e-mail with some of his domestic loggings - many thanks.

The **deadline** for the July/August DX Loggings is **Sunday 20th June**, and I look forward to receiving your logs by then, preferably using the pro-forma on the members-only website. If you don't use the pro-forma but send in your logs via e-mail, please keep the format as close as possible to that used above, since it saves me from having to re-type your contributions. Summer is a good time to catch those Argentinian and Uruguayan stations, so get those timers set up for some overnight recordings!

VERIFICATIONS SECTION

with Clive Rooms

Station		kHz	A	В	\mathbf{C}	who	Station		kHz	\mathbf{A}	B	C	who
China							Norway						
Anhui PBS		1395	cd	no	170	SW	STT Bodo/Stott	<u>1</u>	317	cd		94	LR
							OPA Oppaker/Oslo 4	<u>1</u>	334	cd		94	LR
Moldova							SAD Leknes/Sandsund	4	348	cd		94	LR
Vof Russia		1548	lt	no	63	MvA	ZO Stavanger/Sola	<u>1</u>	352	cd		94	LR
							STG Sandane/Stegen 4	<u>1</u>	369	cd		94	LR
<u>Spain</u>							MR Myra/Skien	<u>1</u>	389	cd		94	LR
SER Lleida	1	1287	lt		63	MvA		<u>1</u>	396	cd		94	LR
								<u>1</u>	400	cd		94	LR
BEACONS & UTES							Poland						
Finland								5	383	lt		83	LR
VS Tampere/Pirkkala	2	365	lt		12	LR	-	_					
1	_						<u>UK</u>						
France								<u>5</u>	320	ppc	sae	5	LR
CSM Castelsarrasin	<u>3</u>	372	lt		8	LR	BOU Bourn	7	391.5	lt	ms	9	LR

A= what was received; B= what return postage was sent; C= days to get a reply

Notes:

- c/Vila Antonia 5, 25007 Lleida. V/s Santos Barquero Caceres, Tecnico. They sent several letters in Spanish, Catalan and English, plus photos and station information.
- 2 C.A.A., Air Navigation Services Dept., PO Box 50, FI-01531 Vantaa. V/s J Suominen.
- 3 ACMC, Aerodrome de Gandalou, 82100 Castelsarrasin. ac.moissac.castel@wanadoo.fr
- 4 C.A.A. Luftfartsverket, Hovedadministrasjonen, Teknisk Afdeling, Postboks 8124 Dep, N-0033 Oslo. V/s Asbjorn Ursin.
- 5 Radionavigation Systems Service, Air Traffic Agency, Gdansk u.L.Slowackiego 200. V/s Dariusz Zawiski.
- 6 Caernarfon Airport, Dinas, Llandwrog, Caernarfon, Gwynedd LL54 5TP.
- Rural Flying Corps Ltd., Bourn Aerodrome, Bourn, Cambridgeshire CB3 7TQ. V/s Brian Clark, Airfield Manager.

Contributors

It's a big thank you to the following: LR-Lionel Roithmeir, MvA-Max van Arnhem, SW-Steve Whitt

It would be nice if one or two more members made the effort to send me their latest QSLs received for the column. Without members contributions, this column, along with all the other columns in MWN, would not exist. I'll be back when I have enough material for another VS.

73s - Clive.