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### **STOP PRESS:**

This month we welcome the following new and re-joining members to the Circle: Rick Robinson, Hendersonville, NC, USA; Bruno Pecolatto, Pont Canavese, Italy; N Adams, Merseyside; D J Goacher, Swindon; Piet Pijpers, Netherlands; and Guy Atkins, Puyallup, WA, USA. Welcome everyone!

**UK**: 1251kHz New BFBS Gurkha low power AM station started broadcasts from Imphal Barracks on Fulford Road, York yesterday afternoon 28th April. *Steve Whitt* 

**ITALY**: A very powerful blank carrier heard in Milano on 26-27<sup>th</sup> April Dario Monferini

Stop Press Deadlines:	26 <sup>th</sup> June for July/August 2005	21 <sup>st</sup> August for Sept	ember 2005		
Cover illustration: First	Day Cover issued December 1st 1966	– see also back page			
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# EDITORIAL

with Steve Whitt

Landsvale, High Catton, Yorkshire YO41 1EH e-mail: editor@mwcircle.org 201759-377311

Did anyone spot the deliberate typo in the heading of this column? I only just spotted my error which has been running for four months! I really don't know what happened to the missing "i". Now everything is in order on with the show.

### No World News

Sadly we have no World News this time even though a lot has been happening. Unfortunately Jeff Weston tells us "In a rather foolhardy moment, I decided tonight to have a game of football with my mates (as we have done every Thursday for the past 15 years or so). A little light relief was in order after the past week.

My leaving comment to my mother and sister was that I wouldn't break a leg tonight as I didn't think that would go down too well. However, I forgot to mention dislocating a finger, which is what I have just done......my typing is rather restricted!"

Get well soon! [The 2 month MWN break should help.]

### Anniversary CD

Last month I introduced the 50th Anniversary CD ROM and I'm pleased to say that this has had widespread publicity in the radio press and on-line. We've provided CDs to numerous members & non-members around the world and it is great to see that some of the latter have decided to join the Circle.

Don't forget that the CD is still available. If you have access to a computer at home, or at work or at a public library you should really take advantage of the CD as it contains masses of material that never will appear in MWN. You will find information for which there just isn't enough space in MWN and you will find audio and video recording which, I, er, haven't figured out how to get in the magazine.

There are many hours of listening, reading and watching on this CD. The cost is £5 in the UK, 10 Euros to Europe and US\$11 anywhere else in the world. Prices include postage & packing. To order the CD, send your money to MWC, 59 Moat Lane, Luton LU3 1UU, England. Conventional payments should be ££ Sterling and payable to "Medium Wave Circle". Alternatively, we accept PayPal payments from outside the UK. The payment should be sent to contact@mwcircle.org

If you have any queries about the CD, or how to order please contact the Circle at the address above or via treasurer@mwcircle.org

### European FM Handbook

With Summer approaching many DXers will be monitoring the FM/VHF bands for unusual signals. Unfortunately it seems that the European FM Handbook will not be available. According to <u>www.efmh.info</u> the 2002-3 Edition has sold out, as has the earlier 2001 Edition. Sadly there is no mention of anything more recent or forthcoming.

73s, Steve

# **IONOSPHERIC REPORT**

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

### Daily Geomagnetic Data

Dully Ocoma			
	Middle Latitude	High Latitude	Estimated
	Fredericksburg	College	Planetary
Date	A K-indices	A K-indices	Ap K-indices
2005 03 27	8 2 1 3 2 2 2 2 2	24 3 2 4 5 5 4 3 2	13 2 1 4 3 3 3 3 2
2005 03 28	2 1 2 1 0 0 0 1 1	1 1 1 1 0 0 0 0 0	4 1 2 1 0 1 1 2 2
2005 03 29	3 0 1 1 0 1 1 1 2	1 0 0 0 0 0 1 1 2	5 0 1 1 0 1 2 2 3
2005 03 30	6 2 2 3 1 2 1 0 1	15 2 2 4 5 3 3 0 0	9 2 3 4 2 1 2 1 1
2005 03 31	5 1 2 2 1 1 1 2 2	5 1 2 3 1 0 1 2 1	9 1 3 3 2 1 2 3 2
2005 04 01	6 1 3 3 1 1 1 1 1	4 1 2 3 0 1 1 0 0	8 1 3 4 2 2 2 1 1
2005 04 02	1 0 0 0 1 1 1 0 0	3 1 0 0 3 0 1 0 0	4 1 0 1 1 1 2 1 1
2005 04 02	4 2 2 1 1 1 1 1 1	4 1 1 1 3 1 1 1 0	6 1 2 1 1 1 2 2 2
2005 04 04	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	17 1 1 2 2 3 5 4 4	17 1 2 2 2 2 4 4 5
2005 04 04	30 6 6 4 2 2 2 2 4	-1 5 $-1$ $-1$ $-1$ $-1$ $-1$ $-1$ $-1$ $-1$	48 7 7 5 3 3 3 3 4
2005 04 05	7 3 2 1 1 2 2 2 2	17 $3$ $2$ $3$ $5$ $3$ $4$ $1$ $2$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
2005 04 08	4 2 2 2 2 1 1 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
2005 04 07 2005 04 08	4 2 2 2 2 1 1 0 0 2 2 1 1 0 1 0 1 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4 2 0 1 1 1 1 2 1
2005 04 09	2 1 1 0 0 0 0 0 2	0 0 0 0 0 0 0 0 0	4 2 1 0 1 1 2 2 1
2005 04 10	2 1 1 0 0 1 1 1 1	2 1 0 0 1 1 0 0 1	4 1 0 0 1 2 2 1 1
2005 04 11	6 1 2 0 0 2 1 3 3	7 2 1 0 3 2 2 2 2	10 1 1 0 1 2 3 4 3
2005 04 12	23 5 5 2 3 3 2 3 4	36 53565333	30 65344344
2005 04 13	18 2 3 3 3 3 3 3 5	53 3 4 6 5 7 6 3 3	26 $2$ $4$ $4$ $4$ $5$ $5$ $4$ $4$
2005 04 14	14 3 4 2 3 3 2 3 2	31 3 4 5 6 5 3 2 2	19 4 5 3 3 3 2 3 2
2005 04 15	7 2 2 2 1 2 2 1 3	26 3 4 4 5 5 4 2 2	13 3 4 2 2 3 3 2 3
2005 04 16	4 3 1 1 0 1 1 1 1	5 2 1 1 2 2 1 1 1	7 3 2 1 1 2 2 2 2
2005 04 17	4 2 2 2 0 1 0 1 1	3 1 1 2 0 1 0 1 1	5 1 2 2 1 1 1 1 1
2005 04 18	5 1 2 2 1 1 1 2 2	14 1 3 3 3 5 2 1 1	8 1 3 2 1 2 2 2 2
2005 04 19	6 1 2 3 1 2 1 1 2	8 2 2 4 1 3 1 0 1	8 2 2 4 1 2 2 2 2
2005 04 20	12 2 4 3 3 3 2 1 2	31 3 4 5 6 5 3 2 2	21 2 5 4 4 4 3 2 2
2005 04 21	2 1 0 1 0 1 1 1 0	2 1 0 1 0 0 0 1 1	4 2 0 1 1 1 2 1 1
2005 04 22	7 3 1 0 1 3 2 2 2	8 2 2 1 1 4 2 2 1	9 2 2 1 1 3 2 3 2
2005 04 23	5 1 0 1 1 2 2 2 2	5 1 1 1 2 1 2 1 2	6 1 1 2 2 2 2 2 2
2005 04 24	5 2 2 1 1 2 1 1 2	9 3 3 2 2 3 1 1 2	10 3 4 2 2 2 2 2 2
2005 04 25	9 2 4 3 1 2 0 1 2	9 2 3 3 3 3 1 0 1	
2005 04 26	2 1 0 0 1 1 0 1 1	1 0 0 0 1 0 0 1 1	5 1 0 1 1 2 2 2 1
2005 04 27	1 0 0 0 1 1 1 0 0	1 0 0 0 1 1 0 0 0	4 1 0 0 1 2 2 2 1
2005 04 27	1 0 0 0 1 1 0 0 0 1 0 1 0	1 0 0 0 1 1 0 0 0 1 0 1 0	4 0 0 1 1 2 1 2 1
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2003 03 01		50 4 4 0 0 4 4 5 2	20 5 0 <del>1</del> 5 5 5 5 2

### Space Weather Outlook Table (based on 27 day forecast)

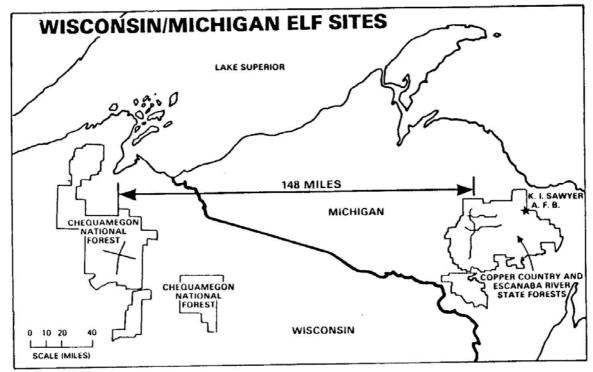
UT	Date	3	10.7cm Flux	Ap Index	Max.	Кр
2005	May	03	95	15	3	
2005	May	04	95	8	3	
2005	May	05	95	5	2	
2005	May	06	95	8	3	
2005	May	07	95	8	3	
2005	May	08	90	8	3	
2005	May	09	80	20	4	
2005	May	10	80	25	5	
2005	May	11	80	18	4	
2005	May	12	80	12	3	
2005	May	13	80	8	3	
2005	May	14	85	8	3	
2005	May	15	85	5	2	
2005	May	16	85	5	2	
2005	May	17	85	15	3	
2005	May	18	85	10	3	
2005	May	19	85	10	3	

# USA NAVY SHORTS ELF

by Matt Vogel

The Catholic Worker, Jan-Feb 2005

On September 30, 2004, the US Navy officially closed Project ELF, setting in motion its plans to dismantle the two extremely low frequency (ELF) radio transmitters located near Clam Lake, WI and Republic, MI. These transmitters had been designed by the Navy during the Cold War to send messages to US submarines without first requiring the submarines to surface. These transmitters blasted electricity through the bedrock of northern Michigan and Wisconsin, effectively turning the region into a giant radio antenna. Such a large antenna allowed the Navy to send its encoded messages deep into the ocean, making it possible for submarines, including the Trident nuclear submarines, to approach targets without detection. The Project ELF transmitters were crucial in turning the Trident submarines into first strike nuclear weapons.



The Navy began testing this "nuclear war trigger," as it has been called, in 1968, as a part of the military dominance and deterrence strategies of the Cold War. Public opposition was steep. There was a statewide referendum in Michigan against the project, and Wisconsin's Attorney General even sued the Navy to stop construction because of health and environmental concerns. A federal judge ruled in favor of the state of Wisconsin, citing a lack of health studies, but the Navy continued to push for the project. Soon, that decision was reversed by a higher court, for national security reasons, and Project ELF began transmitting in 1989, stopping only briefly for maintenance.

Activists who had previously tried to stop Project ELF through legal means began to turn to civil disobedience. According to Nukewatch, an organization which has fought to close Project ELF for many years and chronicled the resistance against it, 639 trespass citations have been issued, on 58 different occasions, over the past 13 years. More than forty people have been sent to jail or federal prison for refusing to pay court-ordered fines stemming from civil disobedience connected with Project ELF. (In 2001, the state of Wisconsin stopped prosecuting Project ELF trespassers and the US government began to do so.) According to Joel Kilgour of the Loaves and Fishes Community in Duluth, MN, who has spent a dozen or so years working against Project ELF, the federal fine

was generally \$150 and, if they refused to pay, activists were sentenced to 30 days in jail. Before 2001, however, activists who refused to pay the fines that the state imposed often had their driver's license suspended for five years, and some were given jail sentences ranging from 7-60 days.

Additionally, activists have cut down Project ELF's antenna poles five times since 1984, and many have endured prison sentences for this resistance. Furthermore, even though Project ELF was closed, the US Attorney in Madison, WI still prosecuted nine resisters in November 2004, for trespassing onto the ELF site in May 2004. Joel Kilgour reports that, while all of them, including two volunteers at the Loaves and Fishes Community, were found guilty, the judge, citing the. closure of Project ELF, basically imposed no sentence. All told, the dedicated activists resisting Project ELF spent roughly nine years in custody for civil disobedience.

The Navy claims Project ELF is being closed because it is out of date and no longer needed. This is puzzling for a couple of reasons. First, the Navy has repeatedly insisted on the importance of Project ELF. Nukewatch reports that, as recently as two years ago, Navy spokesperson Richard Williamson was maintaining that the project would be necessary for another twenty-five Years. The Navy repeatedly insisted on the importance of this Cold War era communications device, despite the fact that the Cold War ended years ago.

Second, the Navy is saying that it is going to replace the Project ELF with a dozen very low frequency (VLF) radio transmitters spread throughout the world. VLF is supposed to be a newer technology that has made ELF technology obsolete, but VLF technology has been around for decades, and is hardly new. Opponents of Project ELF have been making these arguments for years --- why has the Navy decided that they are now valid? Why the Navy decided to finally close Project ELF is a mystery.

One possible reason is the huge potential health risks posed by Project ELF. When Federal District Judge Barbara Crabb's stop work order was reversed by the 7th US Circuit Court of Appeals in 1984, the Navy was basically given the green light to construct the transmitters without conducting the standard health risk assessments. For fifteen years, Project ELF continuously pumped 1.3 million watts of electricity into the area of bedrock in northern Michigan and Wisconsin known as the Laurentian Shield. Several studies have recently linked electromagnetic radiation, which these transmitters generate in huge amounts, to many illnesses, including various cancers. In 2001, the Lac Courte Oreilles tribe of Wisconsin decided to begin independently investigating Project ELF's health effects. The tribe initially received money from the US government to do the study, but the Navy stalled when the tribe requested more to continue and expand it. The Navy may be seeing lawsuits coming from the tribe's health study.

A second reason is the Navy's not-yet-operational, but already quite controversial High Frequency Active Auroral Research Program (project HAARP). Jointly operated by the Air Force Research Lab and the Office of Naval Research and: located about, eight miles north of Gakona, Alaska. Project HAARP, when fully operational, will cover thirty-three acres with equipment enabling it to blast the earth's ionosphere with 3.6 million watts of radio frequency power: While there is much speculation as to exactly what all the applications of such technology are for the military, the Navy has admitted that Project HAARP could be used to send ELF messages to submarines. The Navy, though, says the program, begun officially in 1990, is still in the testing and construction phase. Could it be possible that Project HAARP, while not fully operational, does have the capability to send ELF messages now?

Whatever the reason, though, the closing of Project ELF is something to be celebrated. However, the spectre of the Trident submarine and its twenty-four missiles, each carrying up, to eight nuclear warheads, is still with us. The Trident's nuclear warheads are thirty-eight times more powerful than the atomic bomb dropped on Hiroshima. These submarines can still be used as first strike weapons, now using VLF, or maybe even HAARP, technology instead of ELF technology. The military is

based on technology and the mastery of it, and the Pentagon continues to develop more and more nuclear weapons. Depleted uranium is being used with abandon in Iraq yet again. Now that Project ELF is closed, Nukewatch, which is closely connected with the Anathoth CW Farm in Luck, WI, plans to focus on the manufacture of depleted uranium weapons in Minneapolis by Alliant Tech Systems, says John LaForge, who has worked with Nukewatch for nearly twenty years.

Another concern is the federal government's plans for more nuclear reactors in Wisconsin. While Project ELF will no longer be threatening the people and environment of northern Michigan and Wisconsin, the nuclear danger is still very real: more nuclear reactors, more depleted uranium munitions and other nuclear weapons, and the Trident nuclear submarine, still swimming the seas, still undetected, still ready to attack.

### FALKLANDS TALLEST MAST by Juanita Brock

Falkland Islands News Network

The Falklands' highest structure, a medium wave mast measuring 433 feet – 132 metres – has been successfully painted in record time, despite February's challenging weather.



← Winds aloft could be dangerous but there were very nice days in February to do the high painting.

The Falklands' highest structure, a medium wave mast measuring 433 feet – 132 metres – has been successfully painted in record time, despite February's challenging weather. Mario Zuvic and Luis Salazar of KTV Limited, along with three professional riggers, Hernan Corvilan, Juan Perez and Juan Ramirez, subcontracted from the Chilean company that manufactured, supplied and erected

the FIBS Medium Wave mast and antenna in 1999 did the massive paint job. Other repair work and the replacement of some parts were also carried out on the structure.

At the same time, KTV and their riggers also carried out painting works on two Cable & Wireless masts one at MPA and the other at Sapper Hill.

The 530 kHz medium wave mast is the highest structure ever built in the Islands and, according to Mario Zuvic, "The view from the top of the mast is breath- taking and so is the climb."

In 2000 - 2001 2000-2001 riggers carried out extensive repairs to the mast after a Tornado Aircraft collided with it causing extensive, thankfully not fatal damage.

The KTV Team  $\rightarrow$ 



# BATTLE ON FOR NEW RADIO GROUP

with John Williams

#### from www.thetimes.co.uk 28 March, 2005

Britain's biggest commercial radio group doesn't quite exist yet, but strategic planning at the combined Capital Radio-GWR has already begun. GCap, the sonic warehouse behind Capital Radio and Classic FM, will be more than double the size of its nearest commercial rival. It will have a 40 per cent share of radio advertising, 156 stations and 18 million weekly listeners when the merger goes through on May 9. But despite its greater size compared with Chrysalis, Scottish Radio Holdings, and Emap's radio business, GCap's problem is that it is small.



GCap is worth £660 million at today's prices. Clear Channel, the US giant, with 1,200 radio stations, is worth \$18.6 billion. Profits for GCap are likely to be about £60 million in the first year after the merger, although they will grow with the help of £7.5 million of post-merger savings, already identified. Yet the commercial media rivals are not the real enemy — GCap's real problem is the BBC. Commercial radio has long suffered from a miserly allocation of spectrum compared

with the Beeb and, until recently, a regulatory system that balkanised the industry, preventing it from competing financially.

Today the BBC dominates radio listening: its share hovers around 54 per cent. Radio 1 reaches 9.9 million listeners a week; Radio 2 reaches 13.3 million. GCap's most successful station, Classic FM, reaches 6.2 million listeners, while the rest of its network, including Capital, is essentially local.

Ralph Bernard, executive chairman-designate of GCap, says: "It's very clear to us that the BBC is the principal competitor for audiences in the UK and that they have had their own way for a very long time. We now have two of the biggest brands in commercial radio, Capital and Classic, and we need to work with our brands to take on the BBC."

The job of developing GCap's strategy will fall to Bernard, while running the business will be left to David Mansfield, the chief executive. The duo have already been thinking about how to develop their stations and brands to challenge the BBC's core radio formats, the idea being that GCap Media is able to engage in toe-to-toe competition with the Corporation in a way that was simply not possible before. In some respects, GCap has good cards to play. Classic FM is already ahead of Radio 3, and Bernard argues that it is a refuge for Radio 4 listeners after The Archers; while Capital and the group's other local brands remain in direct competition to Radio 1.

The problem is the staggeringly successful Radio 2. However, GCap gets help from digital radio, which gives the commercial sector access to national radio spectrum on a par with the BBC. GCap will inherit three national stations, Core, Planet Rock, and Life, which could be considered potential competitors to Radio 2, although listening figures for all three are tiny.

But GCap is already working another plan — developing one or more new stations. Bernard hints at this saying that "it is quite possible that we will review these brands and do a rebrand". Life, an adult-oriented rock station, is already called "Capital Life" on air, and Bernard says that extending the Capital and Classic brands is one other way forward — although it will probably be a stretch to presume that Capital, still not well known out of London, can take on Radio 1 and 2 in slightly different guises.

Nevertheless, digital makes it possible to be creative. Three weeks ago, GWR quietly introduced a new low-budget digital station called Chill, devoted to ambient "chill-out" music. Chill required minimal regulatory approval; to do something similar in the analogue world would have required Ofcom, the communications regulator, to approve a format change. But if the BBC is the main problem today, changes in technology present the problem for tomorrow. GCap's fortunes will be pretty closely tied to the growth of digital radio — the company owns the national commercial "multiplex" and Bernard hopes that 30 per cent of households will have digital by 2008.

Radio also has to grapple with the relationship between the growing instant, get-whatyou-want download culture and the serendipity of tuning in to a favourite station. Although Bernard argues that the iPod, Apple's music-player, "is no more of a threat than a radio cassette player," it is far easier to assemble a playlist of favourite music on an iPod than on a fiddly audio tape — making the iPod far more likely to eat into listening time than any recordable device that went before.



GCap hopes to have it both ways; it may have to invest more in talent to keep listeners loyal, with DJs who can credibly — as Bernard puts it — "say to audiences, 'listen to this, it's fantastic,' like John Peel did", while at the same time trying to make money directly from downloading.

There are other possibilities to extend the business, though, and the clue to doing so is in the name: GCap Media. "It is not just a radio company," Bernard says, although he does not mean to herald a grand acquisition plan. Instead there are products to be developed — "we have already successfully extended Classic FM into a television channel and a magazine" — and there are technologies to be exploited, such as high-speed broadcast transmission capabilities that come as part of the digital radio multiplex.

Radio as we knew it, a cottage industry working in a simple standalone medium, is fast disappearing, just as GCap Media arrives. Messrs Bernard and Mansfield have to complete the merger integration and at the same time be able to take on both the BBC and the iPod without falling out among themselves. Plenty to be getting on with.

#### History according to GWR

The company that is now GWR Group plc started in 1982 as a single commercial radio station -Wiltshire Radio, based just outside Swindon. Broadcasting to a potential audience of 630,000 people, the station cost (coincidentally) £630,000 to set up. From that small beginning the station's management built the company into the GWR Group, a listed plc with a market value of more than £850 million and a coverage area of more than 10 million people. From the original 28 employees, the Group now has more than 900 staff: despite this exponential growth, many of the senior management of the Group date back to the original Wiltshire Radio.

The growth of GWR has been achieved both by organic expansion of existing businesses and by acquisition, the Group often doubling in size as new stations were acquired. Indeed, the first "acquisition" was, in fact, a partnership: Wiltshire Radio joined with Radio West in Bristol to form GWR in 1985. Then, in 1989 GWR - by then comprising stations in Bristol, Swindon and Plymouth - merged with Consolidated Radio Holdings, a group of similar size to GWR, covering stations in Reading and Bournemouth.

In the following years, intense activity was associated with the licence application for Classic FM, which saw GWR Group running the consortium, which won the licence. In December 1996 GWR took control of Classic FM by buying the 83% it did not already own.

In 1994 local radio acquisitions were in the Midlands, with stations in Wolverhampton, Nottingham, Derby, Leicester and Coventry joining the Group in January, and Mid Anglia: Peterborough, Cambridge and King's Lynn were acquired in June. In March 1997, King's Lynn was sold and in 1995 an addition to the Group was the former Chiltern Group, with stations in Gloucester, Luton, St. Albans, Bedford, Milton Keynes and Northampton.

This took the Group up to 28 licences (the then limit was 35). St. Albans was sold in June 1997, and the next local radio acquisition was East Anglian Radio, with stations in Norwich, Bury St. Edmunds, Ipswich and Colchester. Radio Wyvern in Hereford and Worcester completed the Group's coverage of the M5 corridor. In January 1999, GWR acquired Orchard Media, based in the West of England, with four independent radio licences: Orchard FM, Gemini FM, Westward Radio (now Classic Gold 666/954), and Lantern FM, serving a total population of over one million people in the counties of Devon, Somerset and Dorset.

In June 1999, GWR acquired Plymouth Sound from the Local Radio Company, a company in which GWR has a 20% holding. Plymouth Sound consists of one FM and one AM station, and also owns 45% of South Hams Radio in Kingsbridge, Devon.

The Group began the new Millennium by acquiring DMG Radio from Daily Mail & General Trust, adding six more stations in Southend-on-Sea, Harlow, St Albans, Rochester, Tonbridge and Crawley to the company's portfolio.

The most recent addition to the Group has been Marcher Radio with stations in Birkenhead, Colwyn Bay, Bangor and Wrexham.

With partners ITN, Daily Mail and Reuters, GWR is a shareholder in the joint venture company set up to revitalise London News Radio.

GWR continues to construct consortia to bid for local regional licences, most recently The Storm in the West Midlands.

Parallel with UK developments has been the Group's policy of developing overseas. The Group owns 48% of FM Plus, the most successful station in Sofia and the other major cities of Bulgaria: the Group is also a joint venture partner with the BBC in a news and talk station covering the major cities of Poland. GWR first ventured into Austria in June 1996. In March 1998 the Group acquired 24% of Radio Melody in Salzburg and it holds 39 per cent of Antenne Wien in Vienna. Classic FM is available in a number of overseas locations, with versions of the station broadcasting in Holland, Finland and South Africa.

#### History according to Capital Radio

Capital Radio first took to London's airwaves on 16 October 1973, as the country's second commercial radio station (the first being LBC which was launched a week previously).

Barclay Barclay-White was a founding member of Capital Radio and he pulled together a group of people, including Bryan Forbes and Richard Attenborough, to apply for the "Radio Capital" licence. Richard Attenborough, now Lord Attenborough and lifetime President of Capital Radio, was the first broadcaster.

Since the late 1920s radio had been controlled in the UK by the BBC using licence fees for funding. In 1972 the IBA (Independent Broadcasting Authority) offered the first commercial radio franchises whereby funding would come from advertising revenue rather than licence fees.

Capital Radio's remit was to provide 'general entertainment' whilst LBC was designated a 'news and information' station. The industry quickly expanded and by 1976 there were 19 stations covering most major cities in the UK. The government put a hold on further franchises until 1980, since when the number of commercial stations in the UK has grown to well over 200 (19 of which broadcast in London).

In the late 1980s all stations, independent and BBC, were forced to end the practice of simultaneous broadcasting on FM and AM in order to make way for the creation of more local radio services. As a result, between 1988 and 1990, all the larger independent stations and a number of smaller ones began broadcasting two services where previously there was one. Given FM's improved quality over AM, the majority of the mass market stations were given FM frequencies whilst more niche stations such as Gold were launched on AM.

At this time, Capital Radio changed its on-air identities to 95.8 Capital FM, playing contemporary hit music, and 1548 AM Capital Gold, playing classic golden hits. Today 95.8 Capital FM is London's most successful to radio station with over 2.4 million people tuning in every week. 95.8 Capital FM provides a mix of hit music, competitions, news, celebrity interviews and weather and travel information, 24 hours a day, 7 days a week.

London's great entertainment station 1548 AM Capital Gold features hits from the 60s, 70s, 80s and 90s, presented by passionate, knowledgeable DJs. 1548am Capital Gold is also the home of great live football commentary. Despite being on the AM frequency, 1548am Capital Gold reached more people in London than many other commercial radio stations

Over the last 11 years Capital has added a further 19 stations to its original two.

In 1993 BRMB FM and Xtra AM in Birmingham were added, and in 1994 Capital acquired seven stations across the South Coast. In 1996 Capital took control of Fox FM in Oxford, and then, in 1998, Red Dragon FM and Touch Radio in South Wales became part of the group, along with the new music station 104.9 XFM in London. Xtra AM and Touch Radio have since been rebranded Capital Gold, forming part of the Capital Gold network.

In May 2000, Capital finalised its aquisition of Border Television Plc, which added three new radio stations to the company's portfolio - the Century group of stations, in the North West, the North East and the East Midlands. Capital Radio subsequently sold the Border Television ITV licence to Granada in July 2001. In June 2000 Capital acquired Beat 106 based in Glasgow. In October 2001 we took steps to stengthen our position in the London market place by buying a 19% share in the urban contemporary music station Choice FM.

In March 2004 we announced that we had completed our deal to acquire the remaining 81% stake in Choice. We now wholly own Choice. Choice has two FM radio licences. In February 2002 Capital purchased 'Big AM' in Manchester. This station was immediately rebranded to form part of the Capital Gold network.

In December 1996 Capital acquired My Kinda Town, which was renamed Capital Radio Restaurants and focused on two concepts, the Radio Cafe and the Latin American chain Havana. This venture was not as good a strategic fit with Capital as had been hoped, and in October 1999 the Havana chain was sold and the Radio Cafes integrated into the radio business.

A new record label, Wildstar, was launched in 1996 in a joint venture with Telstar Records, and at around the same time Capital set up its Capital Interactive business to create a commercially viable network of websites to support its radio stations. Capital Interactive has since been integrated into our analogue radio business.

In 1999 Capital became a leading player in UK digital radio, winning licences for a national service 'Life' which launched in January 2000. Capital now has 57 local services across the UK. Many of these local services will be provided by Xfm, which Capital is building into a national digital network.

# MEMBERS' SURVEY

with Clive Rooms

Thank you to the 49 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	Antenna & Receiver articles	4	9		9
2	Home Front	3	9	2	7
3	DX Loggings	1	9	3	6
3	All/Most	5	6	-	6
5	World News	1	6	1	5
6	DXpedition Reports	13	3	-	3
7	Station Profiles	13	2	-	2
7	Historical features	8	2	-	2
7	General MW News	10	2	-	2
7	Verification Section	13	2	-	2
7	Feature Articles	10	2	-	2
12	Eurolog	5	2	1	1
12	Mailbag	-	1	-	1
12	Pirate news	-	1	-	1
12	Editorial	10	1	-	1
16	Technical Articles	7	4	4	-
16	North American Desk	8	1	1	-
16	Beacons & Utes	20	1	1	-
19	Ionospheric Report	18	-	1	-1
20	Central American Desk	19	-	3	-3
21	South American Desk	13	-	4	-4
22	Nothing**	21	-	14	-14

\*\* actually is a positive comment as 14 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? Several members commented that they thought the magazine had improved over the year with one member thinking that the quality of the photographs had improved. That's down to our printer! One member thought that the World News had improved whilst another thought that we had better articles concerning radio history. On the debit side, one member thought that there had been fewer articles on radio history and receivers, and another complained that there were too many mentions of websites as "we haven't all got computers". Two members complained about the lack of a Beacons & Utility column. Since it disappeared, Steve has asked on several occasions for somebody to step forward and take on the task. As usual, there have been no takers.

Another question we asked was how many years they had spent in the radio hobby. Two members had spent 11-20 years, 11 members 21-30 years, 17 members 31-40 years, 8 members 41-50 years, 4 members 51-60 years.

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 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 +]	10	Eddystone 730	1
Sony ICF 2001D	6	Eddystone 940	1
NRD 545	5	DX 160	1
Lowe HF 150	4	ICR 70	1
Icom R75	3	Collins R390A	1

Sangean ATS 909	3		Sony 7600	)D	1	
NRD 535D	3		Marconi N	Aercury 1017	' 1	
Racal 1792	2		Hitachi W	orld Band	1	
Drake R8E	2		Yaesu FR	G 7700	1	
Grundig YB 400	2		Plessey PH	R 1556	1	
Sony ICF-SW 77	2		CR100		1	
Win Radio G313	2		Sony Tran	sworld	1	
Home Brew	2		AOR A50	00	1	
ICOM 9000	1		FT 817		1	
R 3030	1		Racal 177	2	1	
IC 718	1		Hammarlu	und SP600JX	1	
Lowe HF225 (+ Europa)	1		Yaesu FT	101B	1	
Lowe HF125	1		Alinco DX	K70TH	1	
Grundig YB210	1		Palstar R3	0	1	
Grundig Satellit 3400	1		Racal RA	17L	1	
FT 2800	1		Sony SW1	100	1	
Trio R5000	1		Sony SW(	)7	1	
TS 2000	1		Yaesu FR	G 7	1	
Trio R1000	1	Drake R7		1		
Now for the aerial surve	ey.					
Outdoor longwire	17	Datong AD 3	370	2	G5RV	1
Indoor Loop	12	Inverted L		2	KAZ Loop	1
Wellbrook ALA 1530	6	Whip		1	RT Systems DX 7	1
Wellbrook ALA 100	3	Inductive Lo	op	1	Gratin 653	1
Beverages	3	Dressler AR	A 60	1	Maynard ATL 3	1
Kiwa Loop	2	Trap Dipole		1	Wellbrook LFL 1010	1
K9AY	2					

As usual, we asked the question; "What would you like to see in MW News." Several members stated that they would like to see more receiver and antenna reviews and articles. A couple of members would like to see the return of the Beacons & Utes page. Please see my comments above, would either of you gents consider taking on the mantle of Editor of that section? Quite a few of our members are interested in this side of our hobby, so I'm sure you would not have too much trouble in getting contributions.

One member, tongue in cheek possibly, wants to see a photo montage of the Officers. There are only three of us and it's not a pretty sight! As usual, there's quite a wide selection of items that members would like to see in the magazine including the following; articles on combating electrical noise, history of MW News itself, UK offshore radio history and reminiscences, DRM discussion/history, more radio history e.g. Luxembourg 208, more technical articles, more free radio news, history of radio in different countries, extracts from pre-war frequency listings. A couple of members would like to see coverage of the Top Band (160m) and the 120 metre Tropical Band. As I have said before, this is hardly Medium Wave and it would require a volunteer editor.

Steve, our Editor, states that he would like to see "more contributions from a wider selection of members." I would certainly like to second that. I'm afraid that too many of our members are "silent" never contributing any thing at all. If every "silent" member made a pledge to make just one contribution to Medium Wave News each year, then not only would each issue be around 60 pages in size, but the diversity and quality would be much better. I'm sure Martin and/or John would love to see a few loggings from <u>you</u>, Herman would be only too pleased to get a contribution for Mailbag from <u>you</u>, Jeff wouldn't refuse <u>your</u> World News news and I would be only too pleased to accept <u>your</u> contributions to the Verifications Section.

# OLIVER WHITLEY; 1912-2005

Oliver Whitley, a former Managing Director of External Broadcasting and Chief Assistant to the Director-General, was regarded by many as the keeper of the BBC's conscience.

Oliver John Whitley, broadcasting administrator: born Halifax, Yorkshire 12 February 1912; Head of General Overseas Service, BBC 1950-54, Assistant Controller, Overseas Services 1955-57, Appointments Officer 1957-60, Controller, Staff Training and Appointments 1960-64, Chief Assistant to the Director-General 1964-68, Managing Director, External Broadcasting 1969-72; married 1939 Elspeth Forrester-Paton (four sons, one daughter); died Benderloch, Argyll 22 March 2005.

He was born in 1912 in Halifax, where his father was the Liberal MP, and educated at Clifton and New College, Oxford, and after qualifying as a barrister, and shortly after his father's death, in 1935 he joined the BBC.

At the outbreak of the Second World War the Monitoring Service was established at Wood Norton, near Evesham, with Richard Marriott as Director and Oliver Whitley as the Chief Monitoring Supervisor. Together they managed a well-knit polyglot team whose reporting and analysis of foreign broadcasts and the Nazis' internal communications were making an important contribution to the war effort.

In 1941 Marriott and Whitley, both dedicated and efficient men, considered that a plan to move the Monitoring Service from Wood Norton to Caversham Park near Reading would be unwise. Invaluable members of the specialised staff would be lost, thus breaking up the esprit de corps, and reception conditions would be technically worse. The Director-General, F.W. Ogilvie, Sir John Reith's sadly inadequate successor, was adamant that the move must take place, despite misgivings expressed by his deputy, Sir Cecil Graves, and other senior staff. Marriott and Whitley both felt the decision was insensitive, whatever reasons Ogilvie might have had for it, and decided to resign and enlist in the forces.

The situation was aggravated when Ogilvie went to Wood Norton to justify the decision and tell the monitoring staff they must obey orders, but excluded both Whitley and Marriott from the staff meeting. Moreover his address, according to the monitors (who were notably expert at accurate reporting), was such a travesty of the managers' reasons for resignation that Whitley, before departing, gave vent to his indignation in a confidential note to each of the Governors telling them what he thought of Ogilvie's conduct.

Oliver Whitley forgot that (under a system ironically devised by his father) the Director-General's secretary doubled as clerk to the Governors. She intercepted his complaints and passed them to Ogilvie. A dispatch rider straightway drove to Wood Norton with instructions to Whitley to return his pass and bicycle immediately, and to leave without working out his notice.

However the Governors were not prepared to support Ogilvie in the enforcement of his discipline and two of them - Lady Violet Bonham Carter and Harold Nicolson - wrote Whitley friendly letters hoping that he would return after the war. A few months later the Governors decided it was time for Ogilvie himself to resign.

In fairness to Ogilvie there were good but secret reasons for the decision to move to Caversham, though whether he was fully privy to them at the time is not clear. Winston Churchill had learnt through Otto John, later a notorious double agent, of the German manufacture of heavy water at Peenemunde, and was contemplating moving the Government to Evesham if London should be

subjected to atomic bombardment. Accordingly the BBC had been warned it must be ready to vacate the area. In fact the Monitoring Service moved to Caversham, where it still is, in April 1943.

Whitley joined the RNVR, served first with the Coastal Forces in Scotland and later with Combined Operations in both Europe and the Far East. He had volunteered for one of the most hazardous roles - the command of a landing-craft rocket launcher. Marriott joined Fighter Command and won the DFC and Bar. After the war Whitley, like Marriott, had no trouble in rejoining the BBC, although the former Director- General had summarily dismissed him.

The BBC seconded Whitley to the Colonial Office Information Department to facilitate the establishment of radio in many colonies still awaiting independence. At that time the BBC had an unrivalled world reputation and the Government called on the corporation to lend staff to help set up broadcasting organisations modelled on BBC rather than on American commercial radio lines. The snag was that it was virtually impossible to collect licence fees in developing countries. The colonial administrators were unkeen to spend money on what some regarded as a frivolous optional extra, and in the event many colonial broadcasters had to depend on advertising for their revenue.

In 1949 Whitley returned to the BBC as Assistant Head of the Colonial Service and then rose steadily through a succession of posts in the External Services, as the World Service was then called. After nine years he moved to Broadcasting House to take charge of staff recruitment, training and promotion. His rectitude and fund of common sense helped to ensure that good people were appointed and promotions were fair.

In 1964 Oliver Whitley became the Chief Assistant to the Director- General, Sir Hugh Greene. One of his duties was to handle the relations between the BBC and the political parties, never an easy operation, for each is inclined to believe the BBC is secretly in league with its opponents. He soon earned the respect of both the Government Chief Whip, John Silkin, and the Opposition Chief Whip, William Whitelaw. But not all political problems could be resolved by his tact and patent integrity. External events exacted their toll. "The nation divided always has the BBC on the rack" was a phrase coined by Whitley at this time and frequently quoted by others since.

Whitley had long experience of Bush House problems, the main one of which is the recurring instinct of governments under economic pressure to slash the Grant-in-Aid that funds it, preferably with the support of an official review body. Such a one was the small committee headed by the financier Sir Val Duncan which reported in July 1969 with the élitist recommendation that the BBC's broadcasts abroad should be directed merely to English-speaking listeners of the educated and professional classes, in support of British diplomatic or commercial activities. Whitley's verdict on the Duncan Report in a note to the Foreign Office encapsulated both the Bush House ethos and his own philosophy:

"The main value of the External Services is not that they may help to sell tractors or nuclear reactors, nor even that they may so influence people in other countries, nobs or mobs, as to be more amenable to British diplomacy or foreign policy. Their main value is that, because they effectively represent and communicate this British propensity to truthfulness or the adherence to individual right to the perception of reality, they help to increase the inherent instability of political systems based on a total inversion of morality and reality for ideological purposes."

The Duncan Report recommendation was quietly shelved.

In 1972 Oliver Whitley and his wife, Elspeth, retired to Oban, where he enjoyed gardening and wrote many perceptive reviews of books about broadcasting.

# 

with Steve Whitt

When tuning the MW band no doubt you will have heard heterodyne whistles at night. Or perhaps you've noticed the audible distortion due to a sub-audible het (SAH) generated when two stations are close enough in frequency to generate a heterodyne below about 10Hz which would normally be inaudible.

Recently with increasing access to high precision methods of frequency measurement (such as the software Spectrum Lab) and an active on-line community exchanging information it is now possible to record the precise frequency of thousands of stations around the globe. In particular it is easy to spot those stations that are operating (or drifting!) on frequencies well off their nominated channel.

### But why the fuss?

Firstly stations well off channel are often easy to spot; or hear, if the signal is strong enough. Even a weak signal can create an audible tone long before modulation can be heard.

Secondly off channel signals degrade reception. When two stations, nominally on the same frequency, are not synchronised with each other interference degrades reception. The greater the separation the worse the degradation becomes. For this reason most broadcasters try to maintain their carrier frequency within +/-10Hz of nominal. However for best reception and coverage it is best if transmitters have synchronised carrier frequencies – like the multi-transmitter national networks in the UK.

### The culprits

The list compiled by Gunter Lorenz as part of the Yahoo Group dedicated to precision frequency measurement contained over 1000 measurements at the end of March. In the interests of space I have only listed stations operating more than 50Hz off channel. This should be apparent and easily audible on any receiver with digital frequency tuning using SSB reception of the AM signal. So the following list contains 220 of the worst offenders. As you will see, a rich economy, modern technology and a strong radio regulatory body is no guarantee that a country will not have off channel transmitters; viz USA and the UK (listed as "G" in ITU-speak).

Nominal kHz	Measured kHz	Het. Hz	Country (ITU) station		
171	171.877	877	_		
209	208.935	65	MNG Choibalsan/Dalanzadgad/Ulgii (Mongoliin Radio 1)		
216	216.25	250	(unid)		
234	234.37	370	(unid)		
540	540.19	190	NCG Managua (YNOW Radio Corporación)		
549	548.53	470	RUS Novocherkassk (Radio Mayak)		
558	557.8	200	CHN Urumqi (Xinjiang) (Xinjiang RGD)		
570	570.05	50	GRL Nuuk (KNR)		
594	592.82	1180	(arabic ?)		
612	613.33	1330	AZE Baku ()		
612	613.23	1230	(unid)		
620	620.05	50	B Fortaleza (ZYH590 Radio Assuncao Cearense)		
630	629.93	70	(unid)		
666	666.05	50	ALG Tindouf (Radio Tindouf + Alger Chaîne 1)		
700	699.6	400	PRG Pilar (ZP12 Radio Carlos Antonio Lopez LV del Neembuco)		

700	699.95	50	VEN Puerto Ordaz (YVPQ Radio Sur)
720	720.1	100	NCG Managua (YNRC Radio Catolica)
729	729.1	100	(unid)
730	729.9	100	MEX Mexico City (XEX ???)
738	738.14	140	(unid)
783	783.0736	73.6	IRN Iranshahr (IRIB Sarasarye + reg.)
783	783.07	70	(unid)
790	789.95	50	BRB Bridgetown (Gospel 7-90 Starcom)
790	791.88	120	IRN Zanjan (IRIB Sarasarye + reg.)
801	803.8	2800	KRE Hwadae Hamgyong Pukdo (Pyongyang Bangsong)
828	825.23	2770	SYR Deir el Zawr (Radio of Syrian Arab Republic (1st px))
830	830.07	70	EQA Guayaquil (HCRM2 Radio Huancavilca)
837	836.82	180	(unid, very variable frequency)
837	836.82	180	YEM San'a (Radio Aden)
840	835	5000	PRG Villarrica (ZP6 Radio Guaira)
870	874	4000	BOL Sipe Sipe (LV del Campesino)
890	885	5000	PRG Ita (ZP33 Radio Tres de Febrero)
900	902	2000	BOL Cochabamba (CP28 Radio Central Misionera)
900	899.8	2000	MEX Col.Ex-Hacienda DF (XEW)
900		60	DOM Bonao (HILB Radio 91 "La Grande")
	909.94 920.55		CLM Cartagena (HJAA Emisora Fuentes)
920		550	
920	920.05	50	CLM Pasto (HJJN Ondas del Mayo)
930	929.93	70	EQA Guayaquil (HCVI2 Canal Tropical)
936	937	1000	PHL Calapan Mindoro (DWIM Insular Bctg. System, Radio Mindoro)
940	941	1000	BOL Colcapirhua (Radio San Lorenzo)
990	990.2	200	ARG Buenos Aires (LR4 Radio Splendid AM 990)
999	998.8493	150.7	MLT Bizbizja (Radju Malta)
1007	1006.6	400	INS (Unknown)
1008	1006	2000	INS Madiun Jawa Timur (RRI Regional 2 (Prog 1))
1008	1006.78	1220	BLR Jasnyles (Babruisk) (Kanal Kultura)
1010	1010.09	90	CLM Montería (HJZD Radio Panzenú)
1020	1020.1	100	PRG Asunción (ZP14 Radio Ñandutí)
1020	1019.92	80	(unid South America)
1026	1025.94	60	AUS Mackay Queensland (4AA East Listening 1026)
1035	1035.1	100	PHL Baguio Benguet (DZWX Consolidated Bctg. Sys., Bombo Radyo)
1040	1039.6	400	VEN Valencia (YVLB La Voz de Carabobo)
1044	1043.8	200	PHL Cagayan de Oro Misamis Oriental (DXCO Radyo Pilipino)
1044	1044.1	100	PHL Naga City Camarinas Sur (DZNG Bombo R, Newsounds Bctg.)
1053	1055	2000	INS Surakarta Jawa Tengah (RRI Regional 1 (Prog 3))
1060	1060.5	500	PRG Alberdi (ZP13 Radio Boqueron)
1060	1060.3	300	CLM ()
1060	1060.28	280	VEN (unid, probably VEN)
1060	1060.27	270	ARG Llavallol (Radio Restauración)
1062	1061	1000	INS Jakarta DKI Jakarta (R Cendrawasih Pusat)
1070	1069.95	50	CUB (unid, tent.)
1098	1097.66	340	RUS (Radio Rossii)
1100	1100.057	57	CLM Planeta Rica (HJMK Emisora Ideal)
1107	1106.74	260	EGY Batrah (ERTU VO Arabs/Radio Wady El Nile/VO Palestine)
1116	1116.28	280	(Voice of Iraqi Kurdistan)
1130	1129.8	200	ARG Buenos Aires (Radio Contemporánea)
1134	1131	3000	INS Delanggu Jawa Tengah (Radio Swara Delanggu)
1140	1141	1000	PRU Otuzco, Departemento La Libertad (Chami Radio)
1140	1139.86	140	(unid)

1143	1144	1000	INS Malang Jawa Timur (R Senaputra)
1150	1149.923	77	EQA Riobamba (HCGB5 La Voz de Riobamba)
1170	1166	4000	INS Palu Barat Sulawesi Tengah (PM9DEV Radio Gema Angkasa)
1170	1169	1000	IRN Abadan (IRIB Sarasarye)
1170	1170.5	500	CLM Cartagena (HJNW)
1180	1180.17	170	(unid)
1188	1189	1000	INS Bekasi Jawa Barat (DSP (Duta Swara Parahyangan))
1188	1188.4	400	PHL Cagayan de Oro Misamis Oriental (DXIF Newsound Bctg)
1188	1187.8462	153.8	MRC Casablanca (RTM C)
1190	1189.92	80	ARG San Miguel de Tucumán (LRA15 Radio Nacional)
1197	1196.7	300	AGL Malange (EP de Malange)
1200	1200.18	180	(unid)
1200	1200.14	140	EQA Santa Rosa (Radio U)
1200	1199.93	70	CLM Cali (HJNF Radio Super)
1210	1209.54	460	
1215	1214.8399	160.1	ALB Fllakë (Radio Tirana/Voice of America/TWR)
1230	1229.92	80	EQA Ibarra (HCRI1 Centro Radiofónico de Imbabura)
1242	1247	5000	PHL Ozamis Mindanao Occ (DXSY Times Bctg. Corp.)
1242	1246.2	4200	CHN Qianjiang Hebei (Qianjiang RGD)
1242	1242.41	410	CHN (unid)
1242	1241.93	70	OMA Seeb (Radio Sultanate of Oman)
1250	1249.913	87	DOM San Francisco de Macorís (HIBC LV del Progreso)
1250	1249.95	50	CLM Pasto (HJFV Radio Viva)
1251	1254.9	3900	CHN Shaoxing Zhejiang (Shaoxing JGD)
1260	1261	1000	INS Kaliwangu Jawa Tengah (Radio PTDI, Suara Kaliwungu
1269	1269.3	300	PHL Daet Camarines Norte (DZVX Bombo R, Newsounds Bcing Ntwk)
1278	1276.41	1590	AGL Tenda (EP de Cabinda)
1278	1277	1000	INS Cibinong Jawa Barat (RPDK (Radio Tegar Beriman))
1280	1279	1000	PRU Chiclayo (Radio Uno)
1280	1280.13	130	CLM Pitalito (HJCM Radio Sur)
1280	1279.88	120	CLM San Juan del Cesar (HJHO Impacto Popular)
1290	1290.28	280	Salvador (ZYH450 Radio Clube)
1290	1289.88	120	USA (unid)
1296	1295.024	976	AZE Pirsaat (Foreign Service/Radio Liberty)
1296	1295.9	100	PHL Dagupan Pangasinan (DWPR Allied Bctg. Center, Inc.)
1300	1299.74	260	EQA Guayaquil (HCDC2 Radio Cenit 1-300)
1310	1310.37	370	(unid spanish South America)
1310	1310.205	205	VEN Barcelona (YVSM Radio Nacional)
1310	1310.12	120	CLM Palermo, Huila (HJWD Micrófono Civico)
1314	1313	1000	INS Bandung Jawa Barat (Radio Mutiara Gegana)
1323	1322.93	70	CHN (CRI)
1330	1330.88	880	PRU (Radio Libertad - Ondas del Norte)
1330	1329.75	250	CLM (RCN)
1330	1330.1	100	DOM Santo Domingo (HIVC Radio Vision Cristiana)
1332	1333.3	1300	INS Batusangkar Sumatera Barat (PM5CHC Radio Carano)
1340	1340.07	70	BER Hamilton (ZBM2 1340 AM)
1341	1340.94	60	PAK Bahawalpur (Pakistan Bcing Corp P)
1350	1350.21	210	G Rotherham (Radio Nightingale (LPAM))
1358	1358.4	400	CHN (CNR1)
1359	1360.6	1600	PHL La Union La Union (DZYR Philippine Radio Corp.)
1360	1359.71	290	USA Cypress Gardens FL (WHNR)
1368	1368.1	100	PHL Cagayan de Oro Misamis Oriental (DXKO Radio Philippines)
T 200			

1386         1385.911         89         GUI Labe (Radio Rurale)           1390         1390.26         260         (unid)           1391         1390.26         260         (unid Latin)           1395         1394.8116         188.4         ALE Flakk (R Tirana/VoA/Trans World Radio/Chin           1395         1394.91         100         PHL San Jose Mindoro Occ. (DZVT Catholic Welfare Organi           1400         1399.82         180         CLM (unid, ?)           1400         1399.82         180         CLM (unid, ?)           1400         1399.82         180         CLM (unid)           1404         1403.67         330         AGL Kuito (EP do Bié)           1410         1413.225         225         CHN (unid)           1412         1413.225         225         CHN (unid)           1420         1417         3000         PRG Horqueta (ZP42 Radio Guyra Campana)           1421         1422.14         140         PRU Cutervo (Radio Ilucan)           1422         1422.2         200         PHL Ubay Bohol (DYZB Bohol Chronicle Radio Corp)           1430         1429.92         80         VEM Guacara (YVME Radio Satelite 14-30)           1431         1429.92         80         VEM Guac	
1390         1390.26         260         (unid Latin)           1395         1394.8116         188.4         ALB Fllakč (R Tirana/VoA/Trans World Radio/Chin           1395         1394.9         100         PHL San Jose Mindoro Occ. (DZVT Catholic Welfare Organi           1400         1399.81         190         (unid spanish LA (Andes?))           1400         1399.82         180         CLM (unid, ?)           1400         1399.89         110         (unid LA)           1401         1413.22         200         PRU Lambayeque (Radio Olmos)           1413         1413.25         225         CEN (unid)           1420         1417         3000         PEG Horgueta (ZP42 Radio Guyra Campana)           1422         1420.14         140         PRU Cutervo (Radio Ilucan)           1422         1422.2         200         PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)           1430         1429.9         100         (unid)         1420           1431         1435.4         5400         CHN Huangshan Anhui (Huangshan RGD)           1431         1429.94         60         (unid OTC-4 spanish)           1431         1429.998         1002         IRN Esfahan=Isfahan (IRIE Sarasarye)           1441	
1390         1390.26         260         (unid Latin)           1395         1394.8116         188.4         ALB Fllakč (R Tirana/VoA/Trans World Radio/Chin           1395         1394.9         100         PHL San Jose Mindoro Occ. (DZVT Catholic Welfare Organi           1400         1399.81         190         (unid spanish LA (Andes?))           1400         1399.82         180         CLM (unid, ?)           1400         1399.89         110         (unid LA)           1401         1403.67         330         ACL Kuito (EP do Bié)           1411         1413.22         225         CHN (unid)           1413         1413.22         225         CHN (unid)           1420         1417         3000         PKG Horqueta (ZP42 Radio Guyra Campana)           1422         1442.14         PKU Cutervo (Radio Ilucan)         1422           1420         1417         3000         PKG Horqueta (ZP42 Radio Satelite 14-30)           1431         1429.9         100         (unid)           1422         1422.2         200         PHL Ubay Bohol (PXD Bohol Chronicle Radio Corp)           1430         1429.92         80         VEN Guacara (YVNE Radio Satelite 14-30)           1431         1436.4         5400<	
1395         1394.8116         188.4         ALB Fllakě (R Tirana/VoA/Trans World Radio/Chin           1395         1394.9         100         PEL San Jose Mindoro Occ. (DZVT Catholic Welfare Organi           1400         1399.81         190         (unid spanish LA (Andes?))           1400         1399.82         180         CLM (unid, ?)           1400         1399.89         110         (unid LA)           1401         1403.67         330         AGL Kuito (EP do Bié)           1411         1413.225         225         CHN (unid)           1413         1413.225         225         CHN (unid)           1420         1417         3000         PRG Horqueta (ZP42 Radio Guyra Campana)           1422         1422.1         200         PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)           1430         1429.9         100         (unid)           1430         1429.92         80         VEN Guacara (YVNB Radio Satelite 14-30)           1431         1436.4         5400         CHN Huangshan Anhui (Huangshan RGD)           1431         1429.94         60         (unid UTC-4 spanish)           1431         1427         4000         PHL San Carlos Megros Occidental (DYRS Radio Mindanao N           1431	
1395         1394.9         100         PHL San Jose Mindoro Occ. (DZVT Catholic Welfare Organi           1400         1399.81         190         (unid spanish LA (Andes?))           1400         1399.82         180         CLM (unid, ?)           1400         1399.89         110         (unid LA)           1404         1403.67         330         AGL Kuito (EP do Bié)           1410         1410.2         200         PRU Lambayeque (Radio Olmos)           1413         1413.225         225         CHN (unid)           1420         1420.14         140         PRG Horqueta (ZP42 Radio Guyra Campana)           1420         1420.14         140         PRU Cutervo (Radio Ilucan)           1422         1422.2         200         PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)           1430         1429.9         100         (unid)         1430           1429.9         100         (unid UTC-4 spanish)         1431           1431         1436.4         5400         CHN Huangshan Anhui (Huangshan RGD)           1431         1427         4000         PHL San Carlos Negros Occidental (DYRS Radio Mindano N           1431         1427         4000         PHL San Carlos Negros Occidental (DYRS Radio Mindano N	
1400         1399.81         190         (unid spanish LA (Andes?))           1400         1399.82         180         CLM (unid, ?)           1400         1399.89         110         (unid LA)           1404         1403.67         330         AGL Kuito (EP do Bié)           1410         1410.2         200         PRU Lambayeque (Radio Olmos)           1413         1413.225         225         CHN (unid)           1420         1417         3000         PRG Horqueta (ZP42 Radio Guyra Campana)           1420         1421         1422.2         200         PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)           1430         1429.9         100         (unid)         1430         1429.9           1430         1429.9         100         (unid UTC-4 spanish)         1431         1436.4           1431         1436.4         5400         CHN Huangshan Anhui (Huangshan RGD)         1431         1427           1440         1441         1000         PRU Celendin (OAUZO Radio Frecuencia VH)         1440           1441         1000         PRU Celendin (OAUZO Radio Maranatha)         1440           1440         1440         1400         90         6 ()           1440         1440.09	atior
1400       1399.82       180       CLM (unid, ?)         1400       1399.89       110       (unid LA)         1404       1403.67       330       AGL Kuito (EP do Bié)         1410       1410.2       200       PRU Lambayeque (Radio Olmos)         1413       1413.225       2255       CHM (unid)         1413       1413.18       180       CHM (unid)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1420.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.92       100       (unid)         1431       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1425.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.98       1002       IRN Esfahan-Isfahan (IRIB Sarasarye)         1	
1400       1399.89       110       (unid LA)         1404       1403.67       330       AGL Kuito (EP do Bié)         1410       1410.2       200       PRU Lambayeque (Radio Olmos)         1413       1413.225       225       CHN (unid)         1413       1413.18       180       CHN (unid)         1420       1420.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1431       1429.9       80       VEN Guacara (YVNB Radio Satelite 14-30)         1440       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1429.94       60       (unid) UTC-4 spanish)         1431       1429.94       60       CHN Huangshan Anhui (Huangshan RGD)         1431       1429.94       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAUZO Radio Frecuencia VH)         1440       1440       143       1000       PRU Causara (YNRM Radio Maranatha)         1440	
1404       1403.67       330       AGL Kuito (EP do Bié)         1410       1410.2       200       PRU Lambayeque (Radio Olmos)         1413       1413.225       225       CHN (unid)         1413       1413.18       180       CHN (unid)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1421       3000       PRG Uctervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNE Radio Satelite 14-30)         1431       1429.94       60       (unid UTC-4 spanish)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1441       1000       PRU Celendin (OAUZO Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAUZO Radio Maranatha)         1440       1440.09       90       B ()         1440       1440.019       90       B ()         14458       1457.61       390	
1410       1410.2       200       PRU Lambayeque (Radio Olmos)         1413       1413.225       225       CHN (unid)         1413       1413.18       180       CHN (unid)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1420.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1426.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHU Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       RRU Celendin (OAUZO Radio Frecuencia VH)         1440       1443       1000       RU Companya Jawa Timur (R Khusus Informasi Pertanian (1467         1440       1440.09       90       B ()       1460         1458       1457.61       390       AGL Luena (EP do Moxi	
1413       1413.225       225       CHN (unid)         1413       1413.18       180       CHN (unid)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1422.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PRU Celendin (OAU20 Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAU20 Radio Maranatha)         1440       1441       1000       PRU Celendin (OAU20 Radio Uirapuru)         1440       1441.       1000       PRU Celendin (OAU20 Radio Uirapuru)         1440       1440.09       90       B ()       1440         1440       1440.09       90 (D INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()	
1413       1413.18       180       CHN (unid)         1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1420.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1429.94       60       (unid UTC-4 spanish)         1431       1424       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAU2O Radio Maranatha)         1440       1441.9       1000       PRU Celendin (OAU2O Radio Maranatha)         1440       1441.9       1000       PRU Celendin (OAU2O Radio Maranatha)         1440       1440.09       9       B ()         1445       1457.61       390       AGL Luena (EP do Moxico) <t< td=""><td></td></t<>	
1420       1417       3000       PRG Horqueta (ZP42 Radio Guyra Campana)         1420       1420.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1430       1429.94       60       (unid UTC-4 spanish)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PRU Celendin (OAU20 Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAU20 Radio Maranatha)         1440       1441       1000       PRU Celendin (OAU20 Radio Maranatha)         1440       1440.09       90       6 ()         1445       1457.61       390       AGL Luena (EP do Moxico)         1446       1440.09       90       6 ()         1445       1457.61       390       AGL Luena (EP do Moxico)         1446       1469.20       1NS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470 </td <td></td>	
1420       1420.14       140       PRU Cutervo (Radio Ilucan)         1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1430       1429.94       60       (unid UTC-4 spanish)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHL Celendin (OAU2O Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       1443       1000       PRU Celendin (OAU2O Radio Irrecuencia VH)         1440       1443.78       220       NCG Managua (YNRM Radio Maranatha)         1440       1440.09       90       B ()         1445       1457.61       390       AGL Luena (EP do Moxico)         1446       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.308       308       (unid) </td <td></td>	
1422       1422.2       200       PHL Ubay Bohol (DYZD Bohol Chronicle Radio Corp)         1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1431       1429.94       60       (unid UTC-4 spanish)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHU Celendin (OAU20 Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAU20 Radio Maranatha)         1440       1441       1000       PRU Celendin (OAU20 Radio Maranatha)         1440       1440.09       90       B ()         1448       1457.61       390       AGL Luena (EP do Moxico)         1446       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1470.308       308       (uni	
1430       1429.9       100       (unid)         1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1430       1429.94       60       (unid UTC-4 spanish)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU20 Radio Frecuencia VH)         1440       1441       1000       PRU Celendin (OAU20 Radio Maranatha)         1440       1440.09       90       B ()         1448       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1470.308       308       (unid)         1470       1469.82       180       PNR Panamá (Radio La Prime	
1430       1429.92       80       VEN Guacara (YVNB Radio Satelite 14-30)         1430       1429.94       60       (unid UTC-4 spanish)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU20 Radio Frecuencia VH)         1440       14439.78       220       NCG Managua (YNRM Radio Maranatha)         1440       1440.09       90       B ()         1458       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Luis Beltran (Radio Municipal)         1470       1470.308       308       (unid)         1470       1469.82       180       PNR Panamá (Radio La Primerísima "LV de China")         1476       1459.995       16	
1430       1429.94       60       (unid UTC-4 spanish)         1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       14439.78       220       NCG Managua (YNRM Radio Maranatha)         1440       1440.09       90       B ()         1458       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Luis Beltran (Radio Municipal)         1470       1470.308       308       (unid)         1470       1469.82       180       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1469.82       180       PNR Panamá (Radio La Primerísima "LV de China")         1475       1475.288       288       (unid)         1476       1476.5       500       INS Semarang Jawa Tengah (RHK, bia	
1431       1436.4       5400       CHN Huangshan Anhui (Huangshan RGD)         1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       1443       1440       1441         1440       1440.09       90       B ()         1458       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Luis Beltran (Radio Municipal)         1470       1470.308       308       (unid)         1470       1469.82       180       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1469.82       180       PNR Panamá (Radio La Primerísima "LV de China")         1476       1459.995       16005       AZE Pirsaat (Radio Araz)         1476       1476.5       500       INS Semarang Jawa Tengah (RHK, biangnya dangdut AM, R S         1476       1476.264       264       IRN Mariva	
1431       1427       4000       PHL San Carlos Negros Occidental (DYRS Radio Mindanao N         1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       14439.78       220       NCG Managua (YNRM Radio Maranatha)         1440       1440.09       90       B ()         1458       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Luis Beltran (Radio Municipal)         1470       1470.308       308       (unid)         1470       1469.82       180       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1469.82       180       PNR Panamá (Radio La Primerísima "LV de China")         1475       1475.288       288       (unid)         1476       1476.5       500       INS Semarang Jawa Tengah (RHK, biangnya dangdut AM, R S         1476       1476.264       264       IRN Marivan (Sanandaj) (IRIB Sarasarye)         1476       1476.1       100	
1431       1429.998       1002       IRN Esfahan=Isfahan (IRIB Sarasarye)         1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       1439.78       220       NCG Managua (YNRM Radio Maranatha)         1440       1440.09       90       B ()         1458       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ())         1470       1470.32       320       ARG Luis Beltran (Radio Municipal)         1470       1470.308       308       (unid)         1470       1469.82       180       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1469.82       180       PNR Panamá (Radio La Primerísima "LV de China")         1475       1475.288       288 (unid)       1476         1476       1476.5       500       INS Semarang Jawa Tengah (RHK, biangnya dangdut AM, R S         1476       1476.264       264       IRN Marivan (Sanandaj) (IRIB Sarasarye)         1476       1476.1       100       PHL Iligan City Lanao del N (DXRJ Radyo Asencion, R Ase         1480       1480.11       110 <td>twork</td>	twork
1440       1441       1000       PRU Celendin (OAU2O Radio Frecuencia VH)         1440       1439.78       220       NCG Managua (YNRM Radio Maranatha)         1440       1440.09       90       B ()         1458       1457.61       390       AGL Luena (EP do Moxico)         1460       1460.06       60       B Morada Nova (ZYH616 Radio Uirapuru)         1467       1469       2000       INS Surabaya Jawa Timur (R Khusus Informasi Pertanian ()         1470       1470.32       320       ARG Luis Beltran (Radio Municipal)         1470       1470.308       308       (unid)         1470       1469.82       180       ARG Rafaela SF (LT28 Radio Rafaela)         1470       1469.82       180       PNR Panamá (Radio La Primerísima "LV de China")         1475       1475.288       288       (unid)         1476       1476.5       500       INS Semarang Jawa Tengah (RHK, biangnya dangdut AM, R S         1476       1476.264       264       IRN Marivan (Sanandaj) (IRIB Sarasarye)         1476       1476.1       100       PHL Iligan City Lanao del N (DXRJ Radyo Asencion, R Ase         1480       1480.11       110       EQA Alausí (HCWP5 Radio Atlántida)	CWOII
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1485 1485.164 164 TWN Kaohsiung (Fenlin Diantai (unlicensed stn.))	
1485 1485.15 150 -	
1485 1485.09 90 (unid)	
1490 1489.95 50 (unid LA)	
1490 1489.95 50 (ulita LA) 1494 1493.9 100 CHN (CNR1)	
1494 1494.1 100 PHL Ozamis Mindanao Occ (DXOC Radio, Inc.)	
1494 1493.94 60 (unid)	
1500 1499.913 87 PRU Santa Rosa (OBX41 Radio Santa Rosa)	
1500 1500.055 55 (unid spanish, tent CLM?)	
1503 1503.7 700 CHN Fuyang Anhui (Fuyang JGD)	
1503 1502.64 360 (unid)	
1503 1502.04 Stor (unid) 1503 1502.932 68 BIH Zavidovici (Radio Zavidovici / RTV Bosne i Hercegov	ne 1
1303 1302.332 00 Din Zavidovici (Kauto Zavidovici / Kiv Boshe i hercegov	LIIC I)

1510	1509.805	195	EQA Ambato (Radio Net)
1510	1509.89	110	CLM Armenia (HJZA Radio Cristal)
1512	1514	2000	THA Khlong Hoi Khong Songkhla (Thor.Or. 011, Thahaan Aakaat)
1512	1510.88	1120	(unid)
1512	1512.12	120	(unid)
1517	1517.4	400	CHN Unknown Henan (Henan RGD)
1517	1517.08	80	PRU Baños del Inca (OCX2Q Radio Inca)
1520	1520.07	70	CLM Barranquilla (HJLQ Radio Minuto)
1520	1519.937	63	EQA Naranjal (HCRN2 LV de Naranjal)
1530	1530.7	700	AZE Baku (RFE/RL)
1530	1529.55	450	URG Montevideo (CX50 Radio Independencia)
1539	1540	1000	PHL San Jose Mindoro Occ. (DZYM Philippine Radio Corp.)
1539	1539.08	80	UAE Al Dhabbaya (United Arab Emirates Radio)
1550	1555	5000	CHL San Fernando (CC155 Radio Manuel Rodriguez)
1557	1556.76	240	AZE Guba=Quba (Radio Araz)
1557	1556.87	130	(unid)
1584	1585.7	1700	CHN Xinjiang (Xinjiang RGD)
1584	1583.9	100	PHL Talavera Nueva Ecija (DWBR Radyo Batay (Bahay?))
1584	1584.08	80	GRC Serres (NET/ERA 2/ERA SPORT + Regional)
1590	1590.05	50	B Ituporanga (ZYJ801 Radio Correio do Vale)
1590	1590.05	50	MEX Iztacalco DF (XEVOZ Radio Reloj)
1593	1593.9	900	CHN Urumqi, Taxkorgan, Habahe Xinjiang (Xinjiang RGD)
1593	1593.2	200	NZL Auckland (1XCB Radio Asia Pacific / Radio Samoa)
1600	1600.27	270	EQA Caluma (Ondas de Caluma)
1600	1600.15	150	EQA Quito (Ilusión AM)
1602	1600.7	1300	GRC Kavala (NET/ERA 2/ERA SPORT + ERA Kavala)
1602	1602.2	200	SCG Leskovac (Radio Leskovac)
1602	1601.9	100	(unid)
1610	1609.15	850	PRU Distrito de Carabamba (Radio Carabamba)
1610	1610.4	400	PRU (Radio Haquira)
1610	1610.32	320	PRU Arequipa (OAU60 Radio El Sabor)
1610	1610.11	110	CAN Montreal QC (CJWI)
1610	1609.92	80	CAN Toronto (CHSL)
1611	1611.13	130	AUS (unid)
1620	1620.65	650	AUS Cairns Queensland (Radio Two)
1620	1620.3	300	ARG Villa Martelli BA (Radio Italia)
1620	1620.06	60	ARG (Cadena Vida)
1647	1647.05	50	AUS Canberra (Kaleen) ACT (NTC Radio)
1683	1683.24	240	AUS Sydney (Lakemba) NSW (Radio Club AM)
1701	1701.078	78	AUS Silverwater NSW (Vision Radio Network)

If you are interested in precision frequency measurement then I'd recommend the Yahoo Group that Mauno Ritola set up at: <u>http://groups.yahoo.com/group/mwoffsets/</u>. As a contributing member of this group you will find other DXers around the world swapping information about spectral monitoring as reported in last month's MWN. You will also have access to the full list of precision frequency measurements, of which the above is a mere 20%. {The list also includes operating times of the stations and the range of drift of those that wander around the dial.

If you are not sure what to listen for, in Europe, tune your radio in USB or LSB mode to 1395kHz after dark and listen to the high power off channel signal from Albania.

# SA MINI DX-PEDITION

#### with Vince Stevens

Myself and Graham Bell (who was here on holiday) made the trip to our newly-found coastal site, Millers Point on the Cape Peninsula for a few hours of early evening listening last Friday (8<sup>th</sup> April). We rigged up a 150m longwire across some sand-dunes, pointing roughly in the direction of Perth WA. Rigs were a Drake R8 and a R8A.

Despite a howling gale which nearly lifted the Land Rover 'mobile shack' up in the air and some nasty clouds rolling in across the bay we managed a few hours listening and some reasonable catches. Of particular interest might be the X band Aussies we heard (with audio on one no less!!). Graham has some more catches to add but as he's just returned to London I guess he'll need a day or 2 to sort himself out.

All times are UTC.

- 531 16h36 UNID in EE w report of Pope's funeral. Possibly AIR, fair.
- 612 17h30 6RN Dalwallinu w ABC news ID as R.National and prog on Asia/Pacific, fair.
- 675 17h39 6BE Broome, in // with 720 and 828. Phone ins, fair.
- 720 16h51 6WF Perth w phone in caller, fair.
- 828 16h05 6GN Geraldton Wx for perth & ABC nx, fair-good steady signal.
- 999 16h09 UNID w Eastern style music, poor.
- 1053 17h45 Japan JOAR w ID as CBC then on in JJ. poor-fair
- 1323 16h14 CRI China. EE nx, fair
- 1449 16h13 6TAB Racing Radio Mandurah w usual horse racing results, poor, under (pres) Maldives.
- 1449 16h13 UNID but poss Maldives as they've been heard here before, with 'Salaam Aleukum' and talks in unid lingo, fair.
- 1494 17h07 UNID w blues rock guitar music, fair sig.
- 1512 16h18 6BAY (TENT) w eezy listening pops (Willie Nelson) etc..fair w slight 'fluttering'. 6BAY heard quite often on this fqy, but no ID this time.
- 1602v 16h25 Two stations, one slightly off fqy, both UNID's. One had talk & far eastern sounding music. Both very weak. No ideas what these were..
- 1611 16h22 UNID AUSSIE w pops incl 'All time high'and ad for a monthly magazine "get at your newsagent". Generally very weak but quite steady with occasional peaks. R2 WA presumed as its been logged here before. No other Aussie X-banders heard but there was a fat carrier on 1620 and a very weak one on 1629. Nothing on 1638 tho'...

Interesting to note your observations of the UK-Australia propagation in the latest MWN, Steve. You question why these stations can be heard in Scandinavia but not the UK. Well I can't hear anything at my home either, and I'm only 60Km away from the Miller's Point site. 6WF and 6GN on 720 and 828 can on a good night sound like local stations at our DX locations but at home I've only ever heard very weak signals from 6WF and only a few times in the past 5 years. My problem is related to sea path I think, I'm 20 km inland but for signals to reach me from WA they have to travel hundreds of kilo's overland to get here, plus a mountain range or two in the way too..

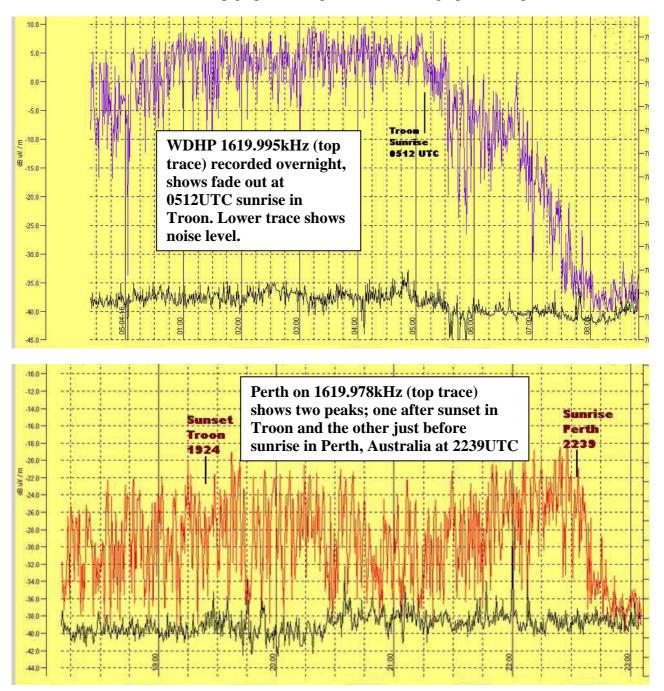
Have now borrowed Graham's ALA1530 antenna so will see how that performs at home where the electrical noise levels are very high on my long-wire. Already noticed a big improvement in s/n level.. I'm also interested in the LFL1010 from Wellbrook too. Anybody using one?

# STAY TUNED TO 1620kHz

### with Steve Whitt

Last month we carried a feature on using software tools like Spectrum Lab to monitor for Aussie signals. Unfortunately the so-called waterfall traces we published last month suffered slightly due to the monochrome printing; the images were in full colour because the colour gives third dimension to the graph representing the signal strength. The full colour pictures are in the on-line edition of MWN. The subject continues to be actively debated on the on-line Yahoo group but I thought I'd bring an illustration of how signal strength varies as one monitors over a long period.

Paul Crankshaw has configured his Spectrum Lab to record signal and noise levels much like a traditional pen & paper chart recorder. The results of his endeavours on 1620kHz are shown below. [Left hand scale measures dB; top graph is 5dB per mark; bottom graph is 2dB per mark.]



# NORTH AMERICAN NEWS

#### with Barry Davies

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

Welcome to a spring time round up of what's been happening across "The Pond" on the North America AM dial. My grateful thanks to the organisations which make this column possible. Thanks this month to: - NRC, ABDX (American Broadcast DXers), Radio News and Notes, NRC, IRCA, NERW and IRCA.









690	WOKV	Jacksonville FL. This "Coast to Coast am" talk station has requested a night power
		increase from 10,000watts to 25,000watts.
1010	WINS	New York City NY. Congratulations to WINS which celebrated 40 years of an all
		news format on April 19 <sup>th</sup> 2005.
1160	WYLL	Chicago IL. "Chicago's word" religious station has lifted its night power from
		5,000 watts to <b>50,000</b> watts with a beam towards the North.
1220	CFVM	Amqui QC. This FF pop station bids farewell and moves to 99.9 FM.
1220	WHKW	Cleveland OH. New calls (ex WHK). Format is religious.
1250	WKBR	Manchester NH. The station dumps its talk and over night ESPN sports format and
		switches to oldies. The station slogan is "oldies 12-50."
1270	WBFK	Rock Island IL. The country music favourites are replaced by "Progressive Talk"
		from the Air America network.
1420	WHK	Cleveland OH. Heritage calls return officially. Format is news talk.
1440	WHKZ	Warren OH. New calls here. (ex WHKW) No news on format.
1480	WSAR	Fall River MA. Correction to previous report. The station only runs Fox Sports
		radio on Sunday nights/Monday mornings. The rest of the week they are still on a
		news talk format.(ed.)
1520	WWKB	Buffalo NY. Rumours are spreading about the struggling oldies format at "KB
		Radio." Look out for changes reports NERW.
	WEAM	Columbus GA. Black gospel is replaced by ESPN sports radio.
1630	KRND	Fox Farm WY. New calls (ex KKWY) here to go with new SS pops format. (ex
		classic country and western)
	KFXY	Enid OK. New call letters (ex KFNY) to go with Fox sports format.
1650	KHRO	El Paso TX. This ex country music station has returned to the air. The format is
		now modern rock. The station slogan is "16-50 AM Hero Rocks." The station's
		website is at http://www.herorocks.com/
1660	WCNZ	Marco Island FL. The station dumps overnight talk shows in favour of rolling
		news from the AP Radio Network. The station is being sold and will carry
		Catholic talk from the "Relevant Radio" network in June. (Tony Simon ABDX)

That just about clears my "In Tray" for another month so I'll sign off with best wishes for some good weather to do all those jobs you have been promising to do hi!

Barry

# CENTRAL AMERICAN NEWS

➢ Frejagatan 14A, SE-521 43 Falköping, Sweden e-mail: ca-news@mwcircle.org ≠ +46-515-13702

#### with Tore Larsson

#### **Puerto Rico**

- 740 WI2XAC Ponce, application is U1 0.5/0.1 kW for this "experimental synchronous" station for WIAC
- 850WAPAAguadilla. CP for U1 5/1 kW and the stn is on the air!1200WGDLLares. Application for U1 1/1 kW reinstated
- 1590 W... San Juan, new. Application for 0.25/0.25 kW
- 1660 W... New Mayagüez, application for U1 5/0.185 kW
- 1660 W... New Ponce, application for U1 5/0.185 kW
  - /Synchronized to WGIT? -ed/

NRC DX News 4.4.2005 NRC DX News 21.3.2005 NRC DX News 21.3.2005 NRC DX News 21.3.2005 NRC DX News 4.4.2005 NRC DX News 4.4.2005

#### **Turks & Caicos**

<u>1020</u> Super Power 10-20 ran a rare test transmission and DX test on April 16th. Running Morse code the signal was heard as far away as Colorado and New Brunswick. Les Rayburn

#### **US Virgin Islands**

 1690
 W...
 Charlotte Amalie. Originally dismissed, applicant has asked for reinstatement of application for U1 10/1 kW

 NRC DX News 21.3.2005

## SOUTH AMERICAN NEWS

🖂 Kirkåsveien 15, NO-1850 Mysen, Norway

e-mail: sa-news@mwcircle.org a +47-69891192

#### Argentina

with Tore B. Vik

Ingo	nina		
<u>930</u>		R. Ilusiónes – new station - 🖃 Calle José Ignacio Rucci – Calle 21 N° 5959, Ber	
			chioni in DXing.info
<u>980</u>		R. General Pico, La Pampa – web: www.radiolu37.com.ar/	amplitudmodulada
<u>1380</u>		R. Redentor – new station – from Claypole, Prov. de Buenos Aires - 🖀 011 423	8 8427
		Cornac	chioni in DXing.info
1540		R. Cotidiana – new station - 🖃 Calle San Martin 1337, Merlo, Prov. de Buenos	Aires
			chioni in DXing.info
1700		AM Mil Setecientos new station from Buenos Aires – web: www.am1700.com.a	0
1700		The first becelences new station from Duchos Thres web. www.unit/ob.com.c	
Brazi	il		
<u>680</u>		R. Difusora (MG173) - 🖃 Rua Silviano Brandão 795, 37750-000 Ouro Fino	R. Grimm
1210	ZYL305	R. Itatiaia do Triãngulo (MG70) - E Av. Brasil 4460, Bairro Umuarama, 38405	-312 Uberlãndia,
		MG	Cardoso in ConDig
1260		R. Blumenau (SC46) - 🖃 Rua Indaial 208, 89012-060 Bluemenau	R. Grimm
1270		R. Brasil, Campinas (SP136) - web: www.brasilcampinas.com	Pedroso in ConDig
1290		R. Camboriú (SC49) - 🖃 Av.Alvin Bauer 585, 88330-000 Balneário Camboriú	R. Grimm
	<b>7VI210</b>		K. Orinini
<u>1290</u>	Z1J510	R. Brasil Sul (PR73) - 🖃 Rua Euclides da Cunha 297, 86070-500 Londrina -	
		e-mail: brasilsu@sercontel.com.br	Pedroso in ConDig
Perú			
<u>900</u>	OBX4X	Ke Buena, Lima (ref.:SAND 13.12.04) - 🖃 Av. Paseo de la Republica 3866, Sa	n Isidro, Líma.
		Web: www.kebuena.com.pe – e-mail: kebuena@kebuena.com.pe	

#### Uruguay

The country returned to UT -3 on March 27. Now DST with UT -2

Horacio A. Nigro, dxldyg via DXLD

# THE HOME FRONT

[British & Irish News] with John Williams

100 Gravel Lane, Hemel Hempstead, Herts HP1 1SB, UK e-mail: homefront@mwcircle.org 2 01442 408567

### Commercial Radio

### **National Commercial station for Wales?**

Welsh political parties favour national commercial radio station. A report in today's edition of the Western Mail says that politicians from all parties in Wales want UK media regulator Ofcom to assess whether Wales is ready for its first nationwide commercial radio station. The paper quotes Plaid Cymru's broadcasting spokesman Simon Thomas as saying that a bilingual station covering the whole of the country would help strengthen Welsh national identity.

Managing director of Real Radio, Andy Carter, told the newspaper that "it would be a fine idea and we would welcome any opportunity to explore it further. It would bridge the media gap between North and South Wales and would benefit listeners who would have improved choice with another source for news, information and entertainment." Real Radio currently runs commercial stations that cover the south of the country. Welsh Liberal Democrat leader Lembit Opik said "As far as I am concerned it's thumbs-up to the idea of a commercial station for Wales. If some company is prepared to take the commercial risk then Ofcom should stump up the licence."

The proposal also won the backing of Conservative Assembly broadcasting spokeswoman Lisa Francis but she stressed any such service would have to be bilingual, which would prove more costly. "I think it would give listeners greater choice and could put the focus on national issues with a different style and a different perspective to the BBC. Choice is crucial when you consider how many people listen to the radio now."(via Steve Whitt)

#### Radio grabs more advertising

#### 5 April, 2005 Radio's share of the advertising market increased last year despite tough trading conditions, new figures have shown.Commercial radio commanded a 6.8% slice of the display advertising market, according to new figures from the Advertising Association, up from 6.7% in 2003.

Advertisers including the government, Sainsbury's and household goods giant Procter & Gamble spent a total of £637.6m on radio commercials last year, up 5.6% year-on-year. The total display advertising market increased by 5.1% across the year to £9.413bn, with television up 5.4% increase and newspaper advertising up by 4.3%.

The figures may cheer radio groups, who almost unanimously experienced difficult trading in 2004. Capital Radio is expecting a "modest" increase in revenue for the full year, while GWR believes its revenue figures will be flat. Chrysalis issued its third profits warning in five months in March, citing "volatility in the national advertising market" between October and December. However, Chrysalis said its radio advertising sales during January and February had put revenues back on track.(www.mediaguardian.co.uk)

#### **New Virgin Chief**

18 April, 2005 Scottish Media Group has poached Fru Hazlitt from Yahoo! to be its new radio chief, taking over its national station, Virgin Radio. Ms Hazlitt, who is on maternity leave from her job as managing director of Yahoo! UK and Ireland, will join SMG in the late summer as chief executive of radio, responsible for Virgin and its spin-off digital stations, Virgin Radio Classic Rock and Virgin Radio Groove.

Ms Hazlitt has worked at online service provider Yahoo! since 2000. But she has a background in radio, media sales and marketing, having worked at Capital Radio between 1994 and 1997, most

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30 March, 2005

recently as sales director, and before that at Guardian Media Group and publisher Centaur. But she arrives at a difficult time for SMG and the station, which saw operating profits fall 40% to £4.3m last year - and has potential buyers circling. Lord Alli's recent £100m bid for Virgin was rejected by SMG, which said the offer undervalued the station. (*www.mediaguardian.co.uk*)

### **RSL & LPAM News**

The student radio group has a new web site : www.studentradio.org.uk

### **Irish News**

Steve Whitt reports that he heard the Irish pirate "Energy Power 1395kHz Phone 0876 77 95 85 at 2215UTC 10 April. Email:



<u>energypowerAM@hotmail.com</u>. Station signed off at 2300UTC 10 April (midnight local time). They appear to be a purely weekend operation from Dublin.

### Long Wave Radio

Isle of Man International Broadcasting Plc (IMIB) is preparing to launch an international radio station from the Isle of Man in this coming year. Our station will be heard across the entire UK and Ireland as well as parts of the periphery of Western Europe on 279 KHz Long Wave. The station will also be heard around the world by satellite, via the internet and on selected digital radio and TV platforms.

This site, like the rest of our operation, is currently under construction and finally evolving into our aspirations. We are building a radio station and marketing operation targeting adults across the UK and Ireland, with coverage into Europe on long wave and by satellite and around the world on the internet.

The company is deliberately maintaining a low profile during the construction (of the transmission facility) stages and does not wish to issue progress bulletins until it is ready to broadcast, probably in June 2005. This is entirely for commercial reasons - to avoid unnecessary dilution of the impact of our launch publicity campaign. (*www.iomib.com*)

# EUROLOG

100 Gravel Lane Hemel Hempstead, Herts HP1 1SB, UK e-mail: <u>eurolog@mwcircle</u>.org 201442 408567

kHz	Station, location; details heard etc	SIO	UTC	Date Who
594	R Renascenca, Muge, Portugal. Mainly English pop songs, //981kHz	232	0513	16/04 CH
630	VoR, via Cremlingen, Germany. English program either side of 0500,	333	0500	17/04 CH
	Good reception when 3CR in Luton nulled to min.			
981	R Renascenca, Coimbra, Portugal. News in PP at 0500, //594kHz.	333	0500	16/04 CH
Ma	any thanks to the following reporter:			

CH Charles Hendry, Amersham, Bucks. Sony ICF-M400L, internal ferrite rod.

Only one reporter this month – why not let me know what you are listening to? The **deadline** for the next issue is 22 June, 2005.

73's John

with John Williams

# **DX LOGGINGS**

. Glackin, 199 Clashmore, Lochinver, Lairg, Sutherland IV27 4JQ, Scotland with Martin Hall

e-mail: dxlogs@mwcircle.org 2 01571-855360

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
530		RVCI, South Caicos; SS ID "Tomos Radio Visión Cristiana	F	0409	4/4	mah
		Internacional"				
531		IRIB Sarasarye, Iranshahr, Iran; middle eastern music // 1503	Huge	0000	26/3	SW
590	LS9	R Continental, Buenos Aires; SS studio chat, tangos, TS, ID "Servicio Informativo Continental", TC	F/G	0700	6/4	mah
590	VOCM	St John's NL; country mx, ID "These are the classic songs of all time - 5-90 VOCM"; notable since few other NA's audible	F/G	0411	8/4	mah
610	CHNC	New Carlisle QC; FF studio talk	W/F	0528	30/3	BD
610	CX4	R Rural, Montevideo; SS tlk, ID "Transmite Rural"	W/Fpks	\$0532	8/4	mah
620	WDAE	Saint Petersburgh FL; hrd from 0612 with sports talk, not trace of CKCM, later xf Cuba; finally caught an ID at 0700 "WDAE Saint Petersburgh"	W/Fpks	\$0700	31/3	mah
620	CKCM	Grand Falls NL; // 590 etc	F	2325	31/3	SW
650	HJKH	RCN Antena 2, SF de Bogotá; "Antena Dos Colombia", LA mx	F	0745	1/4	mah
650	ZP4	R Uno, Asunción; "Radio Uno", Paraguayan mx; good at 0658, weak by 0701, gone by 0710; (also W/F 0504 12/4)	G/W	0701	10/4	mah
650	CX6	SODRE, Montevideo (tentative); classical mx, SS anns; have been hearing this on the 240 degree beverage for the past few days (with light mx on other occasions), and despite spending lots of time on the channel I haven't caught a positive ID yet	W/Fpks	\$0501	9/4	mah
660	WFAN	New York NY; sports talk and "WFAN New York" ID	F	0533	30/3	BD
680	WRKO	Boston MA; ID, just getting through the QRM	W/F	0536	31/3	mah
680	CFTR	Toronto ON; "This is 6-80 News" in QRM	W/F/P	0430	3/4	mah
680	LV6	R Nihuil, Mendoza; SS anns, ID " de Radio Nihuil", EE pops	W/Fpk	0716	11/4	mah
690	CINF	Montréal QC; FF tlk, ID "Info quatre-vingts dix" noted twice; not an easy channel here, and the first time I've actually caught an ID on this one!	W/F/P	0442	3/4	mah
700	LV3	R Córdoba; tangos, SS ID heard in fade "Transmite LV3 Radio Córdoba" (also W/F 0703 28/3)	W/G	0602	6/4	mah
700	ZYK686	R Eldorado Estadão, São Paulo; PP tlk, ID, website; xd presumed Argentina (also Fpks 0656 28/3)	F/Gpks	0603	9/4	mah
710	WOR	New York NY; ads, ID "That's WOR News. Next news is at 3", over CKVO; then Joey Reynolds Show"	F	0706	31/3	mah
710	CKVO	Clarenville NL; VOCM country	W/F	0524	30/3	BD
710	CMW	Radio Rebelde, La Julia; Música Cubana // 5025 kHz	W/F	0608	26/3	BD
710	LRL202	R Diez, Buenos Aires; SS pops, ID "Radio Diez para todo el país"	W/G	0604	6/4	mah
730	HJCU	R Lider, SF de Bogotá; full SS ID ID "Desde Bogotá, Colombia, transmite Radio Lider" etc	W/F	0600	29/3	mah
740	ZYH446	RS da Bahia, Salvador; PP anns, IDs (also G/F 0730 1/4)	F	0700	19/4	mah
750		R Jovem Pan, Brasília; PP tlk, ID "Jovem Pan madrugada do São Paulo", TC		0558	5/4	mah
760	WJR	Detroit MI; wx, ID "AM 7-60 WJR News Centre"	W/F	0501	31/3	mah

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
770	WABC	New York NY; still talking	W	0545	30/3	BD
770	CX12	R Oriental, Montevideo; SS tlk, ID "Transmite CX12 Radio	W/F	0544	9/4	mah
		Oriental, 770 AM, Montevideo, Uruguay"				
780	WBBM	Chicago IL; "News Radio 7-80 WBBM", xf CFDR	W/F	0538	1/4	mah
780	CFDR	Dartmouth NS; still playing country	F	0612	26/3	BD
780	YVMN	R Coro; LA mx, SS ID, TC	W/F	0648	24/4	mah
780	UNID	LA songs, then weak SS ID that sounded like "Radio Nueva	W/F	0659	14/4	mah
		York"				
790	WAXY	South Miami FL; sports talk from Fox	F	0528	29/3	BD
800	VOWR	St John's NL; nostalgia mx	F	0531	29/3	BD
800	VOWR	St John's NL; "Folk Favourites on VOWR, 800"	F	0445	4/4	mah
820		TBN Charlestown, Nevis; Contemporary Christian songs	W/F	0544	28/3	BD
820	WBAP	Fort Worth TX; "ads, promo/ID " 9 to midnight on News	W/F	0527	2/4	mah
		Talk 8-20 WBAP"			_, .	
830	WCRN	Worcester MA; "8-30 WCRN", True Oldies jingle	W/F	0538	31/3	mah
830	YVLT	R Sensación, Caracas (presumed); tuned in to SS anns, light	F	0433	13/4	mah
		mx, Venezuelan NA and then off (though might have				
		disappeared into a fade)				
840	WHAS	Louisville KY; just caught "84 WHAS", then Art Bell	F	0534	3/4	mah
840	CMHW	Doblevé, Santa Clara; SS tlk, ID "Esta es Doblevé"	W/F	0459	31/3	mah
850	WEEI	Boston MA; Fox sports talk	F	0542	29/3	BD
850	YVZC	R Fé y Alegría, Maracaibo; LA mx, SS ID "Fé y Alegría la 8-	W/F	0653	24/4	mah
		50"				
870	WQBS	San Juan PR; LA mx, SS "QBS" ID; xf others	W/F	0718	31/3	mah
880	WCBS	New York NY; rolling news	G	0544	29/3	BD
890	WLS	Chicago IL; "News Talk 8-90 WLS"	F/P	0533	3/4	mah
890	CMDZ	Radio Progreso, Chambas; serious SS studio talk	F	0553	28/3	BD
890	ZYH706	R Planalto, Brasília; US pops, PP jingle ID "Rádio Planalto"	F/G	0530	9/4	mah
900	YVMD	Mara Ritmo, Maracaibo; tuned in to catch "Radio Venezuela	W/F	0726	12/4	mah
		AM digital" SS ID				
910	LR5	La Red, Buenos Aires; SS anns, ID "La Red Informativa -	W/F	0401	15/4	mah
		noticias", and at 0404 "Transmite La Red" (+ W/Fpks 0609 9/4)	)			
920	CJCH	Halifax NS; still playing oldies	F	0617	26/3	BD
920	CJCH	Halifax NS; "AM9-20 CJCH Yesterday's Favorites"	F	2349	2/4	SW
920	YVQX	R Nueva Esparta, Porlamar; mx, SS anns, ID, TC; xd	W/F	0521	12/4	mah
930	CFCB	Saint John NB; "Good Time Oldies 93 CFCB", xf pres CJYQ	W	0916	29/3	mah
930	CJYQ	St John's NL; Irish music	W/F	2338	25/3	JW
930	CJYQ	St John's NL; folk songs	F	0255	11/4	BD
930	CJYQ	St John's NL; ID & promo of National Volunteer Week	G	2324	18/4	SW
930	CX20	R Monte Carlo, Montevideo; LA mx, SS ID "Transmite CX20	W/F	0500	9/4	mah
		Radio Monte Carlo, Montevideo, república oriental del				
		Uruguay", promos				
930	UNID	Three way mix between Maple Leaves Hockey (CJYQ), Oldies		0010	3/4	SW
		(CFBC) and another talk station (UNID!)				
940	CINW	Montreal QC; "9-40 News Sports Centre"	W/F/G	0515	1/4	mah
950	CKNB	Campbellton NB; contemporary hits	F	0640	30/3	BD

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
950	LR3	R Belgrano, Buenos Aires; "Belgrano AM 950 la más popular y	'F	0733	1/4	mah
		para todo el mundo por internet www.ambelgrano.com" and				
		"Desde la capital de la república Argentina transmite LR3				
		Radio Belgrano de Buenos Aires y la primera cadena con todo				
		el mundo via internet www.ambelgrano.com" (also F/G 0703 6/4)				
960	CHNS	Halifax NS; playing oldies but not // 920 kHz	W/F	0618	26/3	BD
960	WEAV	Plattsburgh NY; Fox sports talk, "The Zone 96.7 FM 9-60 AM			3/4	mah
		The Zone" IDs, muffled audio; xf CHNS				
970	WFLA	Tampa FL; "News Radio 9-70 WFLA", C2C (also W 0732 2/4)		0732	26/3	mah
970	WZAN	Portland ME; WZAN Marketing Dept promo	W	0533	2/4	mah
970	LV2	AM 970, Córdoba; tangos, SS IDs "Transmite LV2 AM 970, estudios LV2 tomos de Córdoba"	W/F	0631	6/4	mah
970	HJCI	R Super, SF de Bogotá; SS IDs "La música en la Cadena Super"	'W	0809	26/3	mah
970 970	YV	Mundial Oriente, Barcelona; LA mx, SS ID "Mundial 9-70	W/F	0332	20/3 9/4	mah
210	1 1	once treinta y tres minutos"; mixing		0002	27.	man
970	UNID	SS tlk, xd another LA, ID sounded like "Radio Nanda";	W/Fpks	0448	8/4	mah
		probably Argentina, possibly Uruguay				
980	CKRU	Peterborough ON; tuned in to catch "Peterborough's 9-80	Fpk	0520	3/4	mah
980	711707	Cruise", in brief peak above the mix	E/C	0425	15/4	mah
980 980	ZYH707 HJES	RN, Brasília; PP anns, ID "Rádio Nacional - Brasília" RCN Cali; "RCN" IDs noted in the mix	F/G W	0425 0559	15/4 27/3	mah mah
980 1000	NJES WMVP	Chicago IL; "ESPN 1000, first for sports, WMVP Chicago"	w W/F	0559	27/3 4/4	mah
1000	vv IvI v F	(also xf KOMO W/F/P 0455 3/4)	<b>vv</b> /1	0341	4/4	man
1000	KOMO	Seattle WA; rolling news, death of the Pope, "Komo 1000	W/F/P	0504	3/4	mah
1020	KDKA	News time", traffic, xf WMVP	F	0510	1 / /	mah
1020 1020	KDKA CM	Pittsburgh PA; "News Talk 10-20 KDKA" R Reloj, Bahía Honda; usual SS rolling news, IDs, TCs etc	г F	0518 0826	1/4 26/3	mah mah
1020	WBZ	Boston MA; talk show break for spots	r W/F	0652	20/3	BD
1030	LS10	R del Plata, Buenos Aires; SS phone talk, " de Radio del	F	0032	1/4	mah
1050	LSIU	Plata de Buenos Aires, Argentina" and "10-30 del Plata" IDs;	1	0754	1/4	man
		regular during April				
1040	WHO	Des Moines IA; "News Radio 10-40 WHO" in background of	W/Fpks	0453	2/4	mah
1010		CKST; Radio America Radio Network		0.4.7.0	• • •	
1040	CKST	<b>Vancouver BC</b> ; sports commentary, ID "This is Vancouver's	W/F	0459	2/4	mah
		major league baseball station, The Team 10-40", dominant / mixing WHO; checked all the other usual west coast channels,				
		but nothing else noted from BC/WA/CA				
1070	CBA	Moncton NB; YL with news programme // 1400 kHz	W	2304	22/3	JW
1070	CBA	Moncton NB; CBC o/n feature	F	0619	26/3	BD
1070	CBA	Moncton NB; relay R Netherlands programming	F	0525	3/4	SW
1070	LR1	R El Mundo, Buenos Aires; serious SS tlk; ID "1,070 Mundo	F/G	0701	5/4	mah
1070	HJCG	"; "La Voz de la Liberación" programme; regular in April R Santa Fé, SF de Bogotá; SS ID noted in the mix	W	0816	1/4	mah
1070	YVMA	Mundial Zulia, Maracaibo; SS TC/ID "En Mundial Zulia,	w/F	0820	1/4	mah
1070	I 4 1417 I	primer lugar del sintonía, cuatro veinte minutos"; on top for the ID	**/1	0020	1/ 7	man
1080	WTIC	Hartford CT; talk show format	F	0550	29/3	BD
1100	WTAM	Cleveland OH; ABC News, "WTAM News Radio 1100"	W/F	0503	31/3	mah
1100	· · • • • • • • •			50 50	0110	

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1100	ZYK694	R Globo, São Paulo; PP TC, IDs, eg "Rádio Globo Brasíl",	F/G	0705	5/4	mah
		jingles etc (also W/F 0558 21/4)				
1110	WBT	Charlotte NC; WBT ID/promo "Now WBT and Diamond"	W/F	0504	31/3	mah
1130	KFAN	Minneapolis MN; sports talk noted under/over WBBR from	W/Fpk	as 0541	2/4	mah
		0507; finally caught an ID "Talk Purple AM 11-30 KFAN"; I				
		note that ESPN stations no longer seem to ID at h+27-30 and h+44-47, but now do so at h+40-41 (and maybe h+20-21?)				
1130	ZYJ460	R Nacional, Rio de Janeiro; PP promos, ID "Rádio Nacional"; regular in April	F/G	0717	7/4	mah
1130	CX30	R Nacional, Montevideo; SS ID, anns "Desde Montevideo 11-30 AM por internetradionacional.com.uy" etc; xd	W/F	0602	21/4	mah
1130	YVRL	R Ideal, Caracas; SS IDs, xf WBBR	W/F	0714	26/3	mah
1150	LT9	R Brigadier López, Santa Fé (presumed); SS songs, anns mentioning Argentina	F	0609	5/4	mah
1160	WSKW	Skowhegan NY; "ESPN Radio 24/7 AM 11-60 The Score"; ESPN Radio Sports Centre (also W/Fpk 0641 3/4)	F	0540	1/4	mah
1170		Radio Farda, Dhabbayaabiya, UAE; // 1575; over UK stations	G	0004	26/3	SW
1170	WWVA	Wheeling WV; "The Big One News Radio 11-70 WWVA", dom over Euros	F/G	0734	2/4	mah
1180	WHAM	Rochester NY; C2C talk show // 1700 KVNS	W/F	0649	29/3	BD
1180	WHAM	Rochester NY; promo for "The Wham Garden Show on News Radio 11-80 WHAM"	F/G	0705	2/4	mah
1180	WHAM	Rochester NY; local advert for Rochester car dealer then into Coast2Coast AM; best DX on the band!	F	0635	19/4	SW
1180	CMBA	R Rebelde, Villa María; still there at 0909	F	0909	26/3	mah
1180	CMBA	Radio Rebelde, Villa María; discos romanticos // 5025 kHz	F	0649	29/3	BD
1180	CMBA	R Rebelde, Villa Maria; // 5025 kHz music show	F	0535	3/4	SW
1180	CB118	<b>R Portales, Santiago</b> ; SS tlk, mx, several IDs between 0658 and 0703, e.g. "Radio Portales, la primera"; seemed to have	Fpks	0626	8/4	mah
		mains hum on the signal, barely a trace of Cuba; last reported in the UK in 1978; (also vW 0802 11/4, F/G/W 0659 12/4)	1			
1190	WOWO	Fort Wayne IN; mx, promo, "News Talk 11-90 Wowo", Fox News Radio; dom over WLIB	F/G	0530	31/3	mah
1190	WLIB	New York NY; TC, ID "11-30 AM WLIB you're listening to the sound of"	W	0602	27/3	mah
1190	LR9	R América, Buenos Aires; classical mx, then "Radio América Informa"; regular in April	F/G	0701	1/4	mah
1190	UNID	EE promo for "openlineradio.org"	W	0728	18/4	mah
1200	CFGO	Ottawa ON; sports talk	W/F	0555	29/3	BD
1200	YVOZ	R Tiempo, Caracas; SS TC, ID " por Radio Tiempo"	F/G	0703	1/4	mah
1220	ZYJ458	R Globo, Rio de Janeiro; PP tlk, "Globo" IDs	F/G	0708	1/4	mah
1250	WEAE	Pittsburgh PA; promo " only on Pittsburgh's ESPN Radio 12-50"	W/F	0521	31/3	mah
1250	HJHS	R Reloj, Cúcuta; LA mx, SS anns, ID "Radio Reloj, la emisora de", LA mx	W/F	0758	9/4	mah
1250	UNID	Spanish religious preacher	W	0530	30/3	JWe
1270	LS11	R Provincia de Buenos Aires, La Plata; SS tlk, ID " de la Provincia AM 12-70 Buenos Aires"	W/G	0720	6/4	mah
1280	WFAU	Gardiner ME; Fox Sports. "12-80 WFAU Gardiner" ID at toh	F	0100	3/4	JF
1287		Galei Zahal, Israel; techno music; // 6973 kHz	G	0007	26/3	SW

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1290	YVLF	Radio Puerto Cabello; spots, ID & LA rhythms	F	0621	26/3	BD
1300	WOOD	Grand Rapids MI; C2C, "News Radio Wood 1300"	W/F	0730	2/4	mah
1300	YVKH	Tu AM Center, Caracas; "SS anns "Tu AM Center música"	W	0625	30/3	mah
1323		BBC World Service, Zygi, Cyprus; EE programme. ID at 2300	232	2300	15/4	CH
1330		R Visión Cristiana, 3 possible locations; EE ID "This is	W	0801	9/4	mah
		WWRV 13-30 AM New York"; unlikely to be New York,				
		maybe Dominican Republic or the new location (have forgotten where this is)	l			
1350	WGPL	Portsmouth VA; "WGPL PortsmouthYour Gospel	W/F	0800	4/4	mah
1250	LS6	Connection" P. Buenes Airest SS ID "Badie Buenes Aires AM 1 250"	F/G	0500	16/4	mah
1350		R Buenos Aires; SS ID "Radio Buenos Aires AM 1,350"			16/4	mah
1360	WDRC	Hartford CT; "WDRC AM 13-60"	W E	0622	29/3	mah
1360	WDRC	Hartford CT; "You're listening to the talk of Connecticut AM 13-60 WDRC Hartford"	F	0800	4/4	mah
1370	WDEA	,	F	0015	2/4	JF
1000	<b>CD</b> 100	lengthy sports talk	<b>XX</b> / <b>F</b>	0000	11/4	
1380	CB138	R Corporación, Santiago; "Esta es la Cadena Portales	W/F	0800	11/4	mah
		Corporación, Radio Corporación de Santiago 1,380 AM' and network; regular in April				
1390	WEGP	Presque Isle ME; OM ID 'WEGP' then into "USA Radio	W	0500	23/3	JW
		News"				
1390	WEGP	Presque Isle ME; WEGP/WREM programme promo then back	W	0404	29/3	BD
1200	WEOD	to USA Radio Network News	***	0.422	4 / 4	1
1390	WEGP	Presque Isle ME; "Your only constant source for news and information in northern Maine is WEGP 13-90 and WREM 7-	W	0432	4/4	mah
		$10^{"}$ - on top of the mix				
1390	WFBL	Syracuse NY; "Talk Radio 13-90 WFBL Syracuse" ID in mush	W	0400	29/3	BD
1390	WFBL	Syracuse NY; "Talk Radio 13-90 WFBL Syracuse"	F	0605	3/4	SW
1390	WZHF	Arlington VA; "Esta es Continental WZHF" and "Continental		0300	26/3	mah
1070	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	trece noventa"; a new one for me	•	0200	20,0	1110011
1390	YVZA	Radio Fé y Alegría, Caracas; serious mx programme, "Fé y	W/F	0358	6/4	BD
		Alegría" ID and announcements about "Papa"				
1395.92	~- ~	R Rurale, Labé, Guinea; discussion in local language	Exc	2314	9/4	SW
1400	CBG	Gander NL; YL with news programme // 1070 kHz	W	2304	22/3	JW
1400	CBG	Gander NL; CBC o/n feature	W	0625	26/3	BD
1400		Harbour Light of The Windward Islands, Carriacou (presumed) gospel, reaching good levels at times	;F/G	0045	7/4	JF
1410	WPOP	Hartford CT (presumed); ESPN sports	W	0509	30/3	JWe
1420	YVNZ	Radio Marabina, Maracaibo; LA rhythms & "Marabina" ID	W	0629	26/3	BD
1429.91	YVTM	•	F	0429	18/4	JF
1 127.71	1 / 11/1	varied Latin music; also presumed with Spanish OM and	1	0122	10/1	51
		romantic music - F 0158 29/03				
1430	WLKF	Lakeland FL; promo " Christian Science here on Talk 14-	Fpk	0131	4/4	mah
1400		30 WLKF, brought to you by the Christian Science Church"	117	0157	00/2	15
1430	WXKS	Everett MA; ID heard in pile-up. "sports WXKS"	W	0157	29/3	JF
1430	WXKS	Everett MA (presumed); promo " on Air America Radio" (this is the AA station listed for 1430 kHz) in brief peak out of the	грк	0758	3/4	mah
		is the AA station listed for 1430 kHz) in brief peak out of the mix				

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1430	WNSW	Newark NJ (presumed); fiery preacher, mention of service at 12	-	0746	3/4	mah
		noon in Brooklyn today, and a service audible on the internet at				
		10 am on www.wnjc1360.com; at 0756 "Good morning New				
		Jersey, good morning New York"; this was the dominant station	1			
1420		this morning, xf/xd presumed CHKT, WXKS and WENE	<b>F</b> 1	0.400	4 / 4	1
1430	WNSW	Newark NJ; "We're WNSW Newark New York City"	Fpk	0400	4/4	mah
1430	WNJR	Newark NJ; ID noted in the mix on WENE fade. Brief.	W	05:05	10/4	JF
1430	WENE	Endicott NY; sports talk	W/F	0630	26/3	BD
1430	WENE	Endicott NY; "Sportsradio 14-30 The Team" then with WENE local ID. Sports!	W	0157	29/3	JF
1430	WENE	Endicott NY; "Sports Radio 14-30 The Team"; xf pres CHKT and others	W/Fpk	s 0557	2/4	mah
1430	CHKT	Toronto ON (presumed); with wailing, sounded like Holy	G	0130	29/3	JF
		Koran	-			
1430	CHKT	Toronto ON; Tamil service news and information	W/F	0605	29/3	BD
1430	CHKT	Toronto ON; "Now the Afghan programme on AM 14-30	Fpk	0100	4/4	mah
		CHKT Fairchild Radio"	1			
1430	UNID	toth ID, which sounded very much like "30 WSNH"; xf	W/P	0600	31/3	mah
		presumed CHKT and others; SW checked the clip, and writes:				
		On this clip there are 2 references to "14-30"; one after the first				
		tone burst at about 1.5sec - obviously from another station at				
		7sec OM with callsign sounds like 14-30 WSNP then short				
		word where I'd expect city of licence (2 syllables like "Eden")				
		Same word crops up in what seems to be a slogan before the "14-30 WSNP".				
1431		R Sawa, Djibouti; news & ID	G	2215	7/4	SW
1450	WKXW	Atlantic City NJ; ESPN sports talk	W/F	0631	26/3	BD
1450	WKXW	Atlantic City NJ; ID at toh, "ESPN radio for South Jersey,	F	0500	27/3	JF
		WKXW fourteen fifty Atlantic City and www.wkxw.com"			/-	
1450	CFAB	Windsor NS (presumed); with "Today's Best Country" ID and C&W format	W/F	0451	25/3	JF
1450	VSB1	Hamilton; VSB ID and oldies/crooning music, fighting WKXW	W	0603	27/3	JF
1450	VSB1	Hamilton; easy listening nostalgia songs & "VSB Radio" TOH	vW	0457	8/4	BD
1150	(SD1	ID	• • • •	0107	0/ 1	DD
1460	WDDY	Albany NY; Radio Disney ID, // 1560 & 1650 kHz	F	0400	24/3	JF
1470	WLAM	Lewiston ME; Mr Sandman, ID, fair	233	0445	27/3	GSc
1470	WLAM	Lewiston ME; nostalgic oldies	W/F	0455	29/3	BD
1470	WLAM	Lewiston ME; ABC news then "Maine's Memory station 14-70	F	0428	23/4	SW
		WLAM" heard most nights; Glen Campbell with Wichita				
		Lineman seems a regular tune. Heard again tonite				
1470	WKCK	, , , , , , , , , , , , , , , , , , ,	W/F	0030	7/4	JF
		primera emisora del centro" and lots more mentions of Radio				
		Cumbre and Puerto Rico on the tape. Thanks to Henrik				
<b>.</b>		Klemetz for the help with this		0.5.5		-
1470	LT28	R Rafaela; SS pops, IDs, at 0803 "En Rafaela Argentina";	W/Fpk	s 0724	6/4	mah
1 4 7 9		under/over presumed CX147, with one appearance by YVSY		010-	0.11	
1470	LT28	R Rafaela; rapid fire IDs in promotion; several "Rafaela" IDs noted	W	0136	9/4	JF

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1470	<b>ZYJ616</b>	R Rural de Parelhas, Parelhas; ID before and after promo or	W	2330	6/4	JF
		news report "Rádio Rural, a rádio da familia seridoense"; listed				
		250 watts night. Noted on Vibración fade. Also at 2334 on				
1.470		07/04 with "Aqui Brasilia, Rural de Parelhas" ID, weak.		0050	07/0	1
1470	HJTB	Ondas de Ibagué; SS ID "Ondas de Ibagué HJTB"; poor	W	0059	27/3	mah
		ID, but close agreement with audio clip on malm-ecuador wesite				
1470	OAU4B	CPN, Lima; suddenly swamped other stations on channel!	G	0530	30/3	JF
		Mentions of "CPN" in promo, news report then more "CPN"	-			
		IDs. Jingle ID!				
1470	OAU4B	Lima, Peru; ID as CPN Radio; several IDs	F	0503	10/4	SW
1470	OAX6M	R Tacna, Tacna (tentative); seemingly full ID at top of hour on	vW	0200	31/3	JF
		YVSY fade; ID sounded convincing enough but Henrik				
1.470	01147	Klemetz says context is wrong.	***	0007	17/4	1117
1470	CX147	Radio Cristal del Uruguay, Las Piedras; with jingle ID at 2332	W	2327	17/4	JWe
1470	CX147	R Cristal del Uruguay, Las Piedras; ID "Radio Cristal" and time check in middle of speech. Further "Radio Cristal del	W	0131	7/4	JF
		Uruguay" IDs heard beyond this. Regularly heard after				
		disturbances around the 12th				
1470	CX147	R Cristal del Uruguay, Las Piedras (pres); SS talk but playing	F	0110	17/4	SW
		Queen, Stevie Wonder, Bonnie Tyler records				
1470	CX147	Radio Cristal del Uruguay, Las Piedras; rapid sports	F	0200	17/4	BD
		commentary "en la ciudad de Las Piedras"				
1470	YVSY	R Vibración, Carúpano; LA rhythms, "en Vibración" IDs & TC		0258	28/3	BD
1470	YVSY	R Vibración, Carúpano; Radionoticias slogan and list of	F	0500	21/4	SW
1470	VUCV	stations in news network	Enla	0552	24/4	mah
1470	YVSY	R Vibración, Carúpano; Venezuelan NA played almost continuously from 0540 to past 0553, with SS IDs between	Fpks	0553	24/4	mah
		"Esta es Radio Vibración 14-70 AM Union Radio Noticias";				
		strange!; regular				
1480	WSAR	Fall River MA; Red Sox sports phone-in, local ads, including	F	2357	3/4	JF
		"Fall River Ford! ID				
1480	WMDD	Fajardo PR; "Tropical" IDs galore, full WMDD ID at toh,	F	0057	7/4	JF
		taken over by US station with ABC News a few minutes later,				
		though generally remained dominant until 0300 with good peaks.				
1500	WTOP	Washington DC; OM with weather report "WTOP weather	W	0458	24/3	JW
1500	WIOI	today light rain, mid 50's"	••	0-100	27/3	J **
1500	WTOP	Washington DC; "WTOP"	F	0608	24/3	CW
1500	WTOP	Washington DC; rolling news	W	0655	30/3	BD
1500	YVRZ	Radio Dos Míl, Cumaná; LA rhythms & "Dos Míl" ID	F	0528	26/3	BD
1510	WWZN	Boston MA; OM "Your NFL news is next on Boston's Sports	F	2311	23/3	JW
		station 15-10 AM with JB sash and doors"; then big promo for				
		JB sash and Doors in Chelsea.				
1510	WWZN	Boston MA; The Zone, ID's, sports (also 333 0450 27/3)	333	0430	3/4	GSc
1520	WKKB	Buffalo NY; OM "The record that has made No 1 by WKB	F	2329	22/3	JW
1500	MANIZO	Radio Help Me Rhonda" by the Beach Boys	<b>W</b> 7	0645	26/2	חח
1520	WWKB	Buffalo NY; talk show	W	0645	26/3	BD
1520	HJLI	Vida AM Música, SF de Bogotá; LA mx, SS ID " en la nueva Vida AM Música 1,520"	ι νν	0808	8/4	mah
		v 10u z 11vi 1viuoleu 1,520				

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1521	0	CRI Urumqi, China; CRI in Russian dominant; CRI website	Fpks	1739	4/4	SW
1521		CRI Urumqi, China; in Russian with "C.R.I" ID at 1856	433	1830	19/4	СН
1521		BSKSA, Duba, Saudi Arabia; news summary and sign off	333	2303	19/4	CH
1530		VOA, Pinheira, São Tomé; "This is the VOA in Washington signing off"	444	2159	19/4	CH
1540	WDCD	Albany NY; YLs with religious studio discussion // 1590 kHz WARV	W/F	0545	26/3	BD
1540	CHIN	Toronto ON; ethnic phone-in but in English! Phone number, etc.	G	0016	4?04	JF
1540	CHIN	Toronto ON (pres); Chinese dialogue	F	0037	2/4	SW
1540	ZNS1	Nassau; EZL, ID "11 minutes now past the hour of 4 o'clock on		0812	11/4	mah
1540	21101	the ZNS Radio Network"; the last to go at 0825; regular	1/0	0012	11/7	man
1548		R Sawa, Kuwait; usual music; ID	Exc	0003	26/3	SW
1560	WQEW	New York NY; Radio Disney pops	F	0542	26/3	BD
1560	WQEW	New York NY; Radio Disney pops	G	0537	30/3	JWe
1566		IRIB Sarasarye, Bandar Abbas, Iran; // 1503, 531 kHz	Exc	0000	26/3	SW
1575		R Farda, UAE; IDs giving full list of frequencies & satellite tuning information	Exc	2313	10/4	SW
1590	WPSL	Port Saint Lucie FL; Popped up with "WPSL Port Saint Lucie" ID	vW	0600	30/3	BD
1590	WRXB	St Pete Beach FL; R&B/soul MX & "The best R&B 15-90 WRXB" (suspect day power)	F/G	0559	30/3	BD
1590	WAKR	Akron OH; nostalgia mx, "15-90 WAKR" ID & ABC News	W	0600	28/3	BD
1590	WAKR	Akron OH; "Akron's home for Cavaliers basketball 15-90	F	0736	4/4	mah
1570	W THER	WAKR Akron"	1	0750	1/ 1	man
1590	WARV	Warwick RI; YLs with religious studio talk // 1540 kHz	W/F	0550	26/3	BD
1590	WARV	Warwick RI; ID noted in the mix	W/P	0702	31/3	mah
1590	WARV	Warwick RI; "WARV Weather Update" then ID "Life Changing Radio, 15-90 am WARV Warwick / Providence."	F	0100	2/4	JF
1590	CMBQ	Radio Progreso, Manzanillo; OM & YL with light hearted chat show & "Radio Progreso de la Habana" ID	W/F	0459	17/4	BD
1590	UNID	Chile?; SS easy listening MOR songs & YL presenter	W	0401	16/4	BD
1593		VOA Kuwait; YL "VOA.news.com"; then YL/OM with EE talk	F	2215	1/4	JW
1593		VOA Kuwait; news in English at 0000	343	2353	12/4	CH
1593		VOA Kuwait; English programming audible most nights;	G	2330	18/4	SW
1600	WMNE	Riviera Beach FL; Radio Disney pops and promos	W/F	0556	30/3	BD
1600	WLUZ	Bayamón PR; SS station playing Mexican style songs, ID; tnks to Jan-Erik Osterholm for help on this one		0600	27/3	BD
1600	WLUZ	Bayamón PR; back to back LA songs hrd from 0611, eventually an SS ID "WLUZ1,600 AM"	/F/W	0634	27/3	mah
1600	UNID	station playing back to back rock oldies. Not Radio Disney	W	0615	29/3	BD
1620	WDHP	Frederiksted, USVI; YL with ID "You are listening to WDHP 1620 AM in the United States Virgin Isles" followed by address details	F	0459	26/3	JW
1620	WDHP	Frederiksted, USVI; "Elevator" mx	F	0517	28/3	BD
1619.97	WDHP	Frederiksted, USVI; enjoyable back to back country mx, finally		0335	28/3 8/4	mah
		ID'd at 0403 "WDHP 16-20 AM and on the web"; regular	TYU			
1620	WDHP	Frederiksted, USVI; relaying BBC WS news 2300-2306UTC	G	2300	11/4	SW
1620	WDHP	Frederiksted, USVI; Caribbean mx, full ID at excellent strength	444	0400	17/4	GSc

kHz	Callsign	Station, location; details heard etc	SIO	UTC	Date	Who
1630	KCJJ	Iowa City IA; wx, promo " on 16-30 KCJJ", jingle	W/F	0523	4/4	mah
1630	WRDW	Augusta GA; sports news, IDs at 0445	F	0440	30/3	JWe
1630	WRDW	Augusta GA; sports talk from Sporting News Radio	F	0521	30/3	BD
1640	HI	R Juventus Don Bosco, Santo Domingo. Fanfare ID "Radio	F	0200	25/3	JF
		Juventus Don Bosco, en la frecuencia de 1640 kilohertz"				
1640	HI	Radio Juventus Don Bosco, Sto.Domingo; discos romanticos	F	0518	28/3	BD
1640	HI	R Juventus Don Bosco, Santo Domingo; SS ID "Radio Juventus	sW/F	0650	19/4	mah
		Don Bosco, en la frecuencia de 1,640 kHz, una voz" (also F 0514 28/3)				
1650	KCNZ	Cedar Falls IA (presumed); with Fox Sports, baseball	vW	0427	10/4	JF
		commentary and discussion, mostly over WHKT, Fox Sports				
1 ( 7 0		ID. Possible KCNZ ID in noise	G	0.500	<b>a</b> 4 /a	au
1650	WHKT	Portsmouth VA; R Disney	G	0530	24/3	CW
1650	WHKT	Portsmouth VA; Radio Disney pops	W/F	0551	26/3	BD
1660	WCNZ	Marco Island FL; many 'Newsradio 16-60' ID's in the mix with	232	0500	28/3	GSc
		other station probably WWRU; weak with some breakthroughs at fair level; gone at 0545				
1660	WCNZ	Marco Island FL; now running AP rolling news	F	0525	28/3	BD
1660	WCNZ	Marco Island FL; "News Radio 16-60 WCNZ"	F	0534	31/3	mah
1660	WRRU	Jersey City NJ; ID as "AM 16-60, Jersey City and New York	243	0500	26/3	GSc
		City"; fair; Korean px (also 344 0500 27/3)				
1660	WWRU	Jersey City NJ; Korean talk then OM with ID "16-60 WWRU	W	0459	27/3	JW
		Jersey City, New York WWRU"; then back to Korean prog				
1660	WFNA	ESPN promos "The Herd on ESPN Radio" then legal ID	F	2357	2/4	SW
1660	WFNA	Charlotte NC; "Charlotte's sports station 16-60 AM W-F-N-A",	F	0740	3/4	mah
		ESPN Radio Sports Centre; separated from others on the 315				
1000		degree beverage but weaker than on the 290 degree beverage	C	0525	24/2	CW
1660	UNID	ESPN Radio.com sport	vG	0535	24/3	CW
1670	WMWR	Dry Branch GA; "Talk Radio 16-70 WMWR" ID and back to talk show	F	0519	30/3	BD
1680	WDSS	Ada MI; Radio Disney, ID by kid " 16-80 WDSS"; dominant	W/F	0520	2/4	mah
1 (00)	NID GG	on 315 degree beverage	-	0.500	214	ant
1680	WDSS	Ada MI (pres); 2 stations here one with Radio Disney promo	Fpks	0538	3/4	SW
1680	WTTM	Princeton NJ; subcontinental mx, station's promo's and ads,	343	0452	26/3	GSc
1680	WTTM	kept fair strength; EE ID at 0500 (also 444 0502 27/3)	Ē	0450	20/2	JW
1080	<b>VV I I IVI</b>	Princeton NJ; numerous EE ads for ethnic restaurants then back to Indian music	Г	0459	28/3	JVV
1680	WTTM	Princeton NJ; usual Indian film music	W	0647	29/3	BD
1690	WWAA		G	0600	24/3	CW
1070		Radio News" GA	C	0000	2.70	011
1690	WPTX	Lexington Park MD; CNN rolling news	F	0528	28/3	BD
1690	WPTX	Lexington Park MD; legal ID	Fpk	0600	3/4	SW
1700	WEUV	Huntsville AL; "Word Of Wisdom from your WEUV"	F	0543	24/3	CW
1700	WJCC	Miami Springs FL; Creole/FF rel talk at fair strength but soon	243	0450	26/3	GSc
		weakening				
1700	KVNS	Brownsville TX; C2C talk show // 1180 kHz	W	0650	29/3	BD
M	any thanks	to the following reporters:				

Many thanks to the following reporters:

BD Barry Davies, Carlisle, Cumbria. AOR AR 7030, 100m longwire.

CH Charles Hendry, Amersham, Bucks. Sony ICF-M400L, internal ferrite rod.

- CW Cyril Willis, Kings Lynn, Norfolk. Wellbrook ALA 1530 Lowe HF-125.
- GSc Guido Schotmans, Antwerp Belgium. AOR AR7030, ALA1530.
- JF John Faulkner, Sutton-in-Ashfield, Notts. AOR AR7030, Wellbrook ALA1530 loop, 150ft longwire, homebrew antenna phaser; extraplay hi-fi VHS recorder.
- JW John Williams, Hemel Hempstead. AOR 7030 and 40m long wire.
- JWe Jack Weber, Hertfordshire. WINRADIO G313i, Wellbrook ALA1530.
- mah Martin Hall, Clashmore, Sutherland. NRD-545, beverages: 513m at 240°, unterminated; 506m at 290°, terminated; 588m at 315°, terminated; TotalRecorder, Technics RS-BX404 cassette deck.
- SW Steve Whitt, High Catton near York. AOR7030+ and HF225 Europa with dual loop K9AY.

**Charles** writes: "Not much again, but the BBC in Cyprus is a new one for me. The other stations were all giving good reception, particularly on signal strength peaks".

Correction to dates on my last month's loggings. The date for my loggings of 1130 CKWX, 1350 WOYK and 1470 CJVB should, of course, have been 24/3 and not as shown - mah.

**Propagation** conditions have been interesting during the reporting period, as noted here in Clashmore. The first few days of April provided some weak morning openings to the mid-west and west coast of North America, but a geomagnetic storm on 5 April shifted the good conditions south, and the next 10 days of gradually deteriorating conditions brought in some less common stations from the southern half of South America. Since mid-month conditions have been rather patchy.

The **deadline** for the July/August DX Loggings is **Tuesday 21<sup>st</sup> June**. I look forward to receiving your logs by then, preferably electronically/via e-mail using the Word pro-forma, which I can supply on request. If you don't use the pro-forma, please keep the format as close as possible to that used above, since it saves me from having to re-type your contributions. Those without access to a PC and the internet should note that I am still willing to accept contributions via the regular postal service, or by fax to the telephone number at the head of the column (but please phone before faxing). Please note that logs posted to the e-List are not automatically included in DX Loggings. I'm also interested in learning what equipment/software you use for recording your DX, and will include it in the contributors list next time.

73's Martin

