

LONGWAVE DX

BY SHAWN AXELROD

INTRODUCTION

Over the last three years I have been listening to the other AM Broadcast band when the conditions are right. The "other" AM band you ask. Where is that located? Well just take a look down way down and it is there hiding amongst the beacons and GWEN stations and other non-voice transmissions between 153 and 279 kHz. In this Long wave area of the radio spectrum you will find AM broadcast stations from Asia, Africa, and Europe. Just as an aside this was the area of the radio spectrum that Marconi used for his first transmissions across the Atlantic. Maybe he knew what he was doing. This band is still well used out side of the Americas and can make for interesting DX. I listened to it quite often on my trip to Europe in the fall of 1995. The first thing you notice is how clear and clean the signals are. There are two good reasons for this.

POWER

The first is power. These are not local stations by any stretch of the imagination. Yes there is a smaller 10,000 Watter on 189 kHz from Italy but all of these Long wave stations are running over 100,000 Watts expect for about 8 stations world wide. One to two million Watts of power is used by at least thirty stations. Yes, Million Watts! This kind of super power station run with strict government regulations on transmission quality makes it is easy to see why the signals are clean. It also means that you have a good chance to hear these stations even if you are like myself in the heart of the continent.

CLEAR FREQUENCIES

The second reason is that many frequencies are occupied by only 3 to 5 stations. Forget the crowded regional frequencies or supposed clears of North America. The Longwave frequencies are Clears in the sense it was intended to mean. There is the odd frequency with 10 stations on it but most are sparsely inhabited. Now these figures are for stations world wide not for just one country or continent. Look at these Long wave stations as the a re-birth of the good old days when super stations such as WLW was the only station you would hear at night on their frequency.

The next thing you notice is that they are spaced in a 9 kHz pattern. This pattern will be familiar to DX'ers who have heard stations from Asia, Africa, Europe and the Pacific before. The frequencies used in the Long wave spectrum are as follows:

153 162 171 177 180 183 189 198 207 216 225 234 243
252 261 270 279 kHz

You will notice two odd frequencies: 177 and 183 kHz which are splits on this band used by Germany, while the other 15 frequencies follow the 9 kHz pattern.

WRTH

These stations do make it to North America on a regular basis especially for the DX'ers on the East or West coasts of the continent. However living in the middle of the continent, as I do, I thought at first that these stations except for the giant million plus watt stations were a no go for we land locked DX'ers. That was a wrong assumption. After becoming more attuned to the stations available by looking at the back of the WRTH (World Radio and TV Handbook) while in Europe I thought I would get serious once I returned home to Canada. The WRTH which many of us own for regular AM band and Shortwave DX is a wealth of information on these stations. The WRTH has an up to date listing of these stations located at the back where they list stations in frequency order. These lists are broken down by region of the world so you will have to look at the Europe/Africa section as well as the Asia/Far East section to note all stations. Once you have located a station more information about it will be found under the country it is located in. This will include sign on and sign off times, languages, programming and verification information.

EASIER FIRST CATCHES

This has been a banner year for Long wave DX here in Manitoba. While concentrating more on these frequencies many new stations have been added to my stations heard from Europe, Africa and the Far East and Siberian regions of Russia.

The main stations that we seem to hear here in Manitoba have always been:

162 RADIO FRANCE INTER. ALLOUIS FRANCE
183 EUROPE 1 FELSBURG GERMANY
198 RADIO 4 UK DROITWICH ENGLAND

These are our regulars so to speak especially France on 162 kHz. This is the station we often use as a beacon to see if the band is open to Europe. They run 2,000,000 Watts of power as does the Europe 1 station on 183. Radio 4 UK only runs 500,000 watts. If you cannot hear at least one of these stations, odds are the others are not there from Europe at sunset and in the evenings.

TIMES TO LISTEN

When to listen is also important. Everyone knows about Sunrise and Sunset enhancement of signals so I will not go into an explanation here. This enhancement seems to be even greater on Long wave DX. For my location in the middle of Canada the best times in the winter to DX Long wave seem to be around:

2200-0100 UTC Our sunset
0300-0600 UTC European sunrise
1200-1400 UTC Our sunrise

The first two times will bring in the stations from Europe and Northern Africa, while the last time slot brings in the stations from Siberia and Asia. From looking back through several issues of DX publications it is clear that you can hear Longwave DX from either coast and from the center of North America. This may well be a great way to log TP's and TA's from your location.

TUNING TIPS

We have found that the best bet to finding these stations is to use either USB or LSB instead of AM to locate them. Most receivers are more sensitive on Single Sideband than they are on AM. Also most receivers have narrower filters for SSB than on AM. It never hurts to get a boost when digging out stations that are quite some distance away. By looking for Hets you will more easily find these stations amongst all of the other non-voice stations that sur-round them here in North America. Zero beat their frequencies to pick up the voice and log a new one. You will also find yourself switching between USB and LSB to dig some of these guys out of the beacons. This technique will help you get rid of the interference on one side or the other of the Long wave broadcast station you are looking for. Take a look through some DX publications such as this one and see what people are hearing and look for those stations you see logged most often.

ANTENNAS

As for antennas you can use a loop with more windings to go lower than you would with a BCB loop cut for 530-1710 kHz. The other option is a Longwave ferrite loop like that available from Radio Plus. However the best is still the beverage antenna. These antennas which are easy to put out do take up space (as they are over 500 feet in length) work better than anything I have used. You are saying but who has a 500 or 1000 foot back yard? Not me but a trip to the country side has always proven to be rewarding for DX. Lay some wire down a ditch on a country road and listen in the car if you want. Nothing fancy needed here just a radio the WRTH and wire. Oh yes patience wouldn't hurt either.

CONCLUSION

I hope that this brief introduction to Long wave DX'ing helps get your appetite for this much forgotten part of the radio spectrum going. For those of you who live on either coast try it out a few times and see what comes in. Obviously what you will hear will depend on conditions and your location. For those of you who live in the middle of the continent, as I do, keep trying and you will be successful. There may be times when nothing comes in but when that time comes when the band opens up I know you will be more than pleased with all of those new stations.