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CELEBRATING WORLD COMMUNICATIONS YEAR - HC1JB

By Andrew Steele, HCJB's Director of the English Service

As most ANDEX members will be aware, 1983 has been declared WORLD COMMUNICATIONS YEAR by the International Telecommunications Union. HCJB decided to mark the year by adopting the theme of "Communications in Ecuador" for this year's series of QSL cards. Each card includes the symbol adopted by the I.T.U. to promote the year.

However, several staff members wanted to do something more to celebrate the year and so the idea of **HC1JB** was born.

The callsign, **HC1JB**, was originally assigned to HCJB for use on the amateur bands and later became the personal sign of the late Clarence Moore. It was Clarence Moore who designed the world famous cubical quad antenna to cope with the problem of corona discharges from the end of some of HCJB's broadcast band antennas.

As the plans for **HC1JB** got under way, a decision was made to use the regular broadcast band antennas whenever possible. Not only did these antennas give us excellent reports for the contacts made with other amateur stations, but the results have shown how valuable the steerable antenna is going to be when it is finally completed. The final total of all contacts made by the 15 operators that took part in the event throughout the weekend of 11 and 12 of June was 1619 in some 62 countries.

The organization of the weekend took several weeks. HCJB's engineers provided extra towers and the necessary things to connect the amateur transmitters to the main antennas. On top of that several additional antennas were obtained for use when the main antennas could not be used for amateur band transmissions.

One of the most important tasks during the preparations was the calculation of the best opportunities for the propagation of **HC1JB**'s signals to different parts of the world.

The anticipated conditions were calculated with a computer programme used by HCJB's Frequency Manager, Roger Stubbe, to determine what frequency bands to use for HCJB's daily transmissions. This programme used an average value for the sun spot number of 80. However, this figure can vary widely from day to day so Rick Riggs, one of HCJB's engineers responsible for the construction of the steerable antenna, prepared additional predictions based on the hourly solar flux reports broadcast by WWV at 18 minutes after every hour.

These reports showed a significantly higher value for the sun spot number than the nominal average for this period in the sun spot cycle.

It is possible to calculate the sun spot number from the following formula:

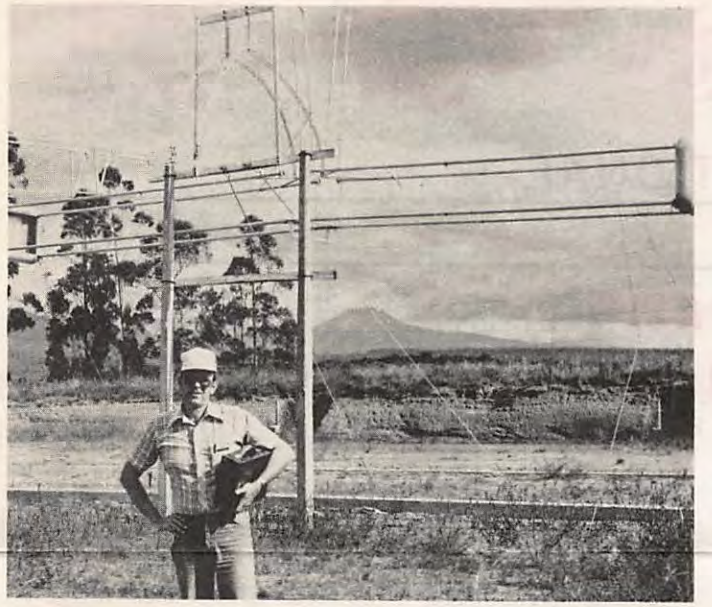
$$SFN = 63.7 + .73R + .0009R^2$$

where R = sun spot number
and SFN = solar flux number announced by WWV

Obviously, for the shortwave listener, the daily sun spot number is much more important than the average. Knowing the number enables the Maximum Usable Frequency to be calculated for reception of a station in any part of the world. Incidentally, the formula comes from the "Shortwave Propagation Handbook" by Jacobs and Cohen and published by the Cowan Publishing Corp. Rick Riggs recommends it as a very practical guide to the "mysteries" of propagation.

HC1JB operated at times from the tent and the truck near the parabolic reflector antenna

HCJB's Nordic Language Service Director Mats Gunnarsson in front of the folded dipole antenna for 20 meters.



Without taking the time to make the propagation calculations we would not have been able to plan any sensible schedule for **HC1JB** using the antennas available. After all, what point is there in using antennas aimed towards Europe if propagation actually favours broadcasts to North America?!

Equally, for the listener, knowledge of what bands are open when can make the task of when to listen for a particular station much easier.

The other lesson that we were reminded of during the operation of **HC1JB** was the value of a good antenna. Using antennas with some 20dB of gain enabled us to speak to people around the world. If you have trouble pulling in the DX what you probably need is a good antenna. HCJB has a set of antenna designs suitable for the shortwave listener. If you would like a copy, ask next time you write.

The value of understanding and making use of propagation information was underlined for me throughout the operation of **HC1JB**. Why not take the time to learn some of the theory on the subject?

RADIO	DATE	UTC	QRG	2x	RST	24 el Quad
	June 83 11 12		3, 5 7 14 21 28	SSB CW		parabolic reflector 1/4λ vertical

The QSL Card We Used

MANX RADIO

Walter Quasthoff, ANDEX no. 2835, from Chicago, Illinois, wrote that a year ago he and his wife visited Ireland. While doing some DXing there he picked up Manx Radio. He wrote to the station, and in return received a QSL card and information on the Manx Radio Broadcasting House. The following is the history of Manx Radio as sent to Walter.

Manx Radio 219 has a history which must be unique in broadcasting, an industry which is not short of remarkable tales to tell. And even today there cannot be many stations like it in the world.

In the first place, it was a pioneer. It started broadcasting in June 1964, long before commercial radio became part of everyday life in Britain. This was possible because the Isle of Man, where it is based, has internal self-government and is not part of Britain constitutionally.

It was an adventure that did, however, need a licence from Britain's Post Office and this was eventually agreed to with reluctance, suspicion and not a little alarm. After all, these were the heady days of pirate radio ships anchored just outside the three mile limit!

In the beginning, Manx Radio's was frontier broadcasting. The station operated from a caravan parked in a stubble field on a hilltop just outside Douglas, with one cramped studio, a VHF transmitter, a kitchen and toilet. The transmitting mast was just outside the door. High winds set up a rocking motion. The station had a lot of scratched records and occasional staff seasickness!

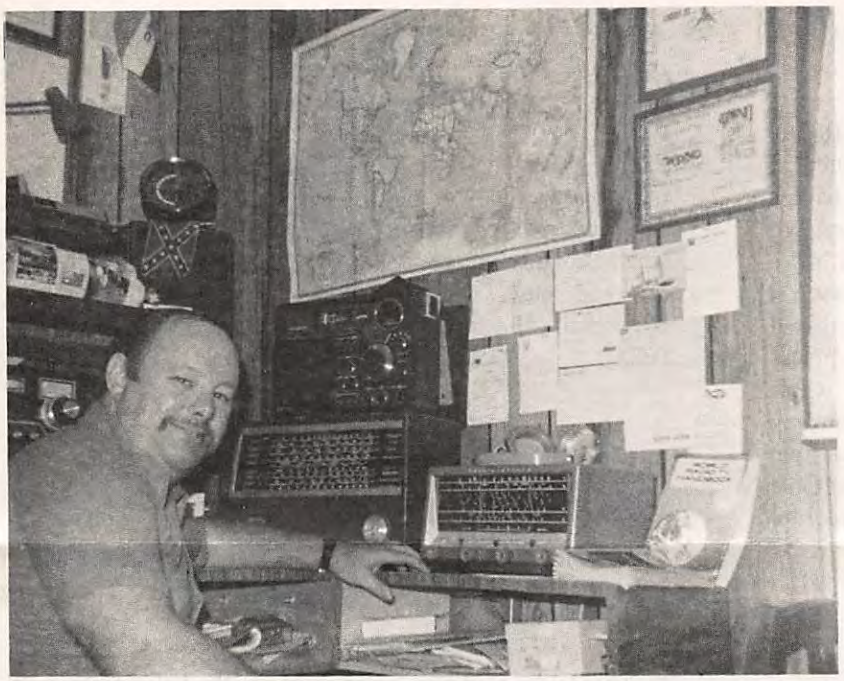
Then in October 1964 two important things happened. The station went on medium wave for the first time, on 188 metres, and it broadcast its first commercial. This was for a Douglas jeweller's shop which, in fact, still advertises. But otherwise the station's sound was muted. Power output was severely restricted and the broadcasting day was short.

In May 1965 the caravan was finally abandoned, and the station moved into its first permanent studios in the basement of a billiard saloon on Douglas seafront, with an aquarium next door. It also took over 232 metres medium wave as its main channel and stayed on this for 13 years.

Just over four years were spent in the billiard saloon, which is now a Chinese restaurant, until October 1969, when the station moved to its permanent home on top of Douglas Head, overlooking the Island's capital. Its five main studios now have stunning views across Douglas Bay from Broadcasting House, a square white concrete building built by the Navy during the Second World War to train radar operatives.

Continued on next page

SPECIAL DXer FROM THE USA



Our special DXer from the United States is Charles Campbell, ANDEX No. 4361, who lives at 22 Garris Drive, Hudson, Florida 33567. Charles is married and has a five year old boy. He has been interested in shortwave listening for about two years and is already a member of the North American Shortwave Association as well as ANDEX.

Charles works in construction as a quality control inspector and at times as a draftsman. He has a number of interesting hobbies including gun collecting, camping, scuba diving and working with his C.B. sideband transmitter.

His radios are a Panasonic 2600 and a couple of older Hallicrafters, and he uses a long wire antenna with them. He listens about 3-4 hours a week usually between 0100 - 0400 UCT, trying to pull in as many countries as possible. Charles says he especially enjoys the DX programs that many stations broadcast as well as programs that tell about the country in which the station is located.

We extend our congratulations to Charles Campbell upon being chosen special DXer and wish him many more years of good listening and successful DXing.

SPECIAL DXer FROM HOLLAND

In 1980 Robert F.R. Schardijn had just returned home from the hospital after treatment for a heart attack. Although he did not know a thing about shortwave, he started listening, and has since verified hearing more than 132 stations from about 90 countries.

His main receivers are a Yaesu FRG-7700 and a Kenwood R.600. Sometimes he uses them at the same time to listen to two different stations. He also has a Trio-59R to listen to medium wave. In addition his equipment includes a cassette recorder, a Yaesu FRT-7700 antenna tuner, and an Autek Research QF-1A filter for listening to the tropical bands.

Robert says he expecially likes to listen to HCJB and other Christian stations when he feels depressed. His best shortwave friend is HCJB's Roger Brown (his photo is in the lower right of the picture above DE BIJBEL) with whom he corresponds from time to time.

Robert has another interesting hobby that must take much time and skill - he processes color photographs and slides.

Our congratulations go to Robert Schardijn, special ANDEX DXer living at Giraffeweide 5, 3437 EA Nieuwegein, Netherlands.

ANTENNA CORNER

By Charles H. Miele, Santee, California, ANDEX No. 3929.

Your article in the April/May issue (**A DXING IDEA** by Bob Harrington) reminds me of a similar thing I do to get away from QRM at my apartment. I have a telescoping mast that can be stored in the trunk of my car and quickly assembled to form one end of a long-wire antenna that I string from trees wherever I find a branch over which I can throw a nylon thread taped to an old D-battery. The antennas are precut and have insulators already installed. I pull the whole thing up to the tree, and the mast is erected on my rear bumper. Carefully driving a few feet, I then tension the antenna and hook the lead-in to my portable radio. (SONY ICF 2001). A simple tape recorder saves the program for later study.

Another DXING IDEA I came across by accident should be shared with other DXers. Some stations broadcast simultaneously on several bands. Severe fading often makes reception of any one band difficult if not impossible. But for those who have the luxury of more than one receiver, it may be possible to receive two different frequencies at the same time. Many times, the signals seem to arrive by different routes and when one fades, the other may be OK for that moment. Dual signals like that fed to a single tape appear to complement each other and reduce the fading. Especially music seems to improve this way, and speech becomes more intelligible. I plan to try this on HCJB's frequencies of 6095 and 9745. It works very well for Deutsche Welle on 6085 and 9735.

PS: I have HCJB on 9745 right now with the 10 p.m. news (your time, 4 May). But the 6095 wave is dead. I'll have to experiment with your 15 MH_z frequency when conditions are more favorable. 15155 is not too bad now. Proper antenna matching did wonders. It works! Both come in well and cancel each other's fading!

MORE DXING IDEAS

Thanks to John S. McDowell, ANDEX no. 4434, from Crestwood, Illinois, for the following letter concerning antennas:

"I would like to make a comment on the letter from A. W. Henderson as published in ANDEX INTERNATIONAL, February-March 1983 edition. It is fine and dandy to have an antenna high off the ground, etc. as he described, but some of us have limitations whether they be monetary or building regulations. In my case, it is the latter. Living in an apartment I am forbidden by my lease to have outdoor antennas. However I have 3 shortwave antennas I can use and one of them is outdoors. My first antenna is a longwire which is stretched from NW to SE near the ceiling of the room. It is 17 feet long and made of white covered wire. My next antenna is a long-wire attached to one lead-in to the apartment's master television antenna. This works fairly well, but I do get some intermod at times. My last antenna is approximately 30-35 gauge copper wire stretched from my patio railing to an evergreen tree in the back of the apartment - approximate length - 80-90 feet. The antenna is 4 feet off the ground and runs along the side of the building. I have found that at different times I can get the best results off one of the antennas. By switching, one of them usually brings a better signal than the others. Most of my listening is now off the outside antenna."

"I did plan my antenna system as I went and may eventually further try to improve on it. If I had a Kenwood R-1000 as Mr. Henderson has, I would not be ashamed to put the antennas to it."

"I am sure that there are many more stations that I haven't heard, but someday... My receiver is a Hallicrafters S-120A or a portable Panasonic RF-085. On occasion I will use my Tempo One to see if I can catch some SW stations on it."

"There are many reasons for putting an antenna on the floor etc. but let us not forget that the materials we take for granted (including good books on antenna systems) are not available everywhere."

MARRIED ON SHORTWAVE RADIO !

PART 1

We thought you'd enjoy this article written by Dolores Baklenko, hostess of HCJB's HAPPINESS IS program, and published in BACK UP DATA for HCJB "Alumni." Clayton and Helen Howard are hosts of HCJB's DX PARTY LINE.

Is the "Fountain of Youth" located in Quito? So it seems as we take a look at Helen and Clayton Howard's photos and compare them with the facts. Would you believe the Howards have served with HCJB in Quito for over 40 years? Of what kind of "fabric" are people like Helen and Clayton made?

Clayton was influenced by godly parents serving in China for many years as missionary educators. The deep Chinese "roots" can still be detected in the delectable Cantonese dishes Clayton turns out every now and then. Clayton's early interests turned to missions in the area of electrical engineering.

Helen was raised in a pastor's home in Illinois and was often exposed to visiting missionaries in the home, including Dr. Clarence Jones, co-founder of HCJB. Helen struggled with her personal response to God about becoming a missionary. What peace she experienced as she told God her willingness to let Him direct her life! "But, Lord," she prayed, "I'd rather not go alone."

While at Wheaton College, Helen caught glimpses of this serious, rather shy, graduate engineer, Clayton Howard. In the few encounters the two had, a tiny spark of interest and love was ignited, even though most of the conversations centered on physics or chemistry. But how could this spark grow with Helen still a student in college and Clayton preparing to leave for far-off Quito, Ecuador, to become one of HCJB's first engineers? What more appropriate going-away gift could Clayton give Helen than five airmail stamps, which at that time seemed to cost a fortune. Consequently, in a few short months of correspondence, that primary spark of love was fanned into a bright flame with Helen and Clayton becoming unofficially engaged.

In those summer days of 1941, perhaps the most avid shortwave listener was Helen. On one of the famous PARTY LINE programs, Clayton made his intentions known to the entire world with the directions, "Mother, will you please place the engagement ring on Helen's finger as a symbol of my love for her and our united commitment to finalize our love in marriage."

Helen's final year at college plus World War II delayed their marriage plans for more than a year. But with the confidence that it was God drawing them together, the two persevered.

Because of the war, Helen's plane seat was taken by someone else, and she was to travel to Ecuador by ship. There was no way that any of Clayton and Helen's family or friends could join them for the wedding. However, ingenuitive Helen and Clayton solved that problem. They would be married on shortwave radio at HCJB. Further, Helen would bring with her a pre-recorded disc complete with wedding music done by family and friends and their beloved pastor conducting the ceremony with pauses for the proper responses.

To be continued in the October-November issue of ANDEX International.

That move signalled the end of the bohemian days. Manx Radio 219 has since developed its programming to the position of strength whereby in some areas its weekly penetration of the potential audience is as high as 90% . Figures unheard of in any other British radio station.

Its music policy is very much Easy Listening, with slight drifts in the evenings and weekends, and caters for listening demands identified by extensive research. News is also an important part of the station's output, as is current affairs and feature coverage. All comprising a winning package of entertainment and information.

There have been other changes as well. In November 1978 medium wave transmissions moved to 219 metres, and at the same time power output increases were sanctioned so that the station now broadcasts efficiently to all the coastal regions surrounding the Irish Sea.

Manx Radio 219 is a Regional commercial radio station, serving the Irish Sea area, which, after 18 stubbornly nonconformist years, remains the first and only one of its kind.

WELCOME BACK, STANLEYS

ANDEX director Ruth Stanley along with her husband John and son Andy were in the United States for a few months and returned to Ecuador the beginning of August, after this issue of ANDEX International went to press. We're happy to have Ruth back and ANDEX members can look forward to reading about the highlights of the "Stanleys' Stay in the States" in the next issue.

MAIL PROBLEMS

Mail to HCJB in Quito has not been getting through well. Some letters have taken an extra long time to arrive and thousands of others have not arrived at all. If we have not responded to your letters, that's probably the reason why and we do apologise. We expect the situation to improve, so DO KEEP WRITING. Post cards and air letter forms are most likely to reach us.

PEN PALS INTERNATIONAL

We have received only one entry for Pen Pals International, no doubt due to the mail problems mentioned above.

KURT BRAUER (ANDEX No. 4679) Nordstr. 24-A, CH-9450 Altstaetten, Switzerland, is 40 years old. His wife is from Thailand and he spent many years there. His ham call is HS1AMX 80/81. DXing, stamp collecting, and travel in Asia are his hobbies. He would especially like a pen pal in Asia-Oceania.

It looks like he's really running away this time.

HOW I GOT STARTED IN SWL

By Peter Yarsley, ANDEX No. 4037 from Lincoln, Lincolnshire, Great Britain

It all started for me one summer holiday in 1979 on a day when I had nothing to do. I turned my radio on - to shortwave for a change. I soon found myself listening to radio stations like Radio Moscow, Swiss Radio International, The Voice of America, and many more. I began to get more involved and spent more time listening to the radio, and heard some more faraway stations such as HCJB, Radio Japan, and U.A.E. Radio in Dubai. In many cases it was the first time that I had heard so much about those countries, and what a pleasure to be taken on tours of them via my radio.

I first wrote to Radio Sofia and I got my first QSL from there also. I soon wrote to others - HCJB in 1980 - and started getting a collection of QSL cards. I now have QSL's from 14 countries and I look forward to hopefully receiving one from the Voice of Nigeria soon.

Besides being a member of ANDEX, I am also a member of Radio Berlin International's DX Club and Radio Bucharest's Listener's Club. Shortwave listening has been the best and most rewarding hobby that I have chosen and I look forward to many more years of listening.

And the most important item - it was HCJB that first introduced me to God!

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HCJB

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