ANDEX INTERNATIONAL

Vol. 11, No. 4 August-September, 1984

DX PARTY LINE

NEW HOST

In our last bulletin we said good-bye to the Howards, and here we want to welcome the couple who will take their place, John and Kathy Beck.

John comes to HCJB with a strong background in radio and DXing. While in junior high school his parents gave him a shortwave radio, and DXing quickly became a hobby that occupies him to this day. With a vision of integrating radio and the Christian ministry, John earned a B.S. in Biblical Studies from Manhattan Christian College in Kansas and in Radio/TV Management and Production at Kansas State University. From there he went to KOBC FM in Joplin, Missouri, a station affiliated with Ozark Bible College. Under John's management the power of KOBC increased from 10,000 to 30,000 watts. Wanting to learn more about mass communications motivated him to proceed to Central Missouri State University in Warrensburg, Missouri, to earn an M.A. in Public Radio and International Broadcasting, at the same time gaining practical experience at the university's FM station, KCMW.

John grew up in a Christian family in Wood River, Illinois and at about 11 years old was challenged by a youth minister to make his relationship with Christ a personal matter. Kathy was raised on a wheat farm in Stockton, Kansas, met John at Manhattan Christian College, and the two were married in 1973. Kathy is a registered nurse and her major hobby is baking and cooking. They have three children - Nathan is 6, Amy 4, and Amber 2, and another is expected to arrive in September. With this young and growing family to care for Kathy will not be heard on DX PARTY LINE.

The Becks listen to shortwave radio two to three hours a day, about half the time DXing and the other half listening to program content. They use a Sony ICF 2001 and 2002 and for CW and RTTY a Commodore 64 computer. Son Nathan uses a Heathkit GR 78, and they have a Heathkit Mohican for standby. John is an amateur radio operator with the call letters WBO RXL for which he uses a Heathkit SB 102. All three Heathkits John assembled himself.

John says he counts it a privilege to host one of the most popular programs on shortwave and although he may add some features he plans no major changes for DX PARTY LINE. HCJB listeners will also hear him at times on PASSPORT and the news, plus filling in on other programs occasionally.

ANDEX MILESTONE MEMBER 5000

Congratulations to Tom Kennedy from Mason, Michigan, on becoming ANDEX member 5000! We are too close to press time to get the information we want about Tom, so you will hear more about him in the next ANDEX International. Meanwhile, Arthur Cushen has donated to Tom an autographed copy of his book THE WORLD IN MY EARS, the hardcover edition which is now out of print.

THIS 'N THAT

There are ANDEX members in 63 places: Canada, United States, Costa Rica, Panama, Belize, Anguilla, St. Vincent, Turks and Caicos Islands, Jamaica, Trinidad, Tobago, Barbados, Cuba, Chile, Argentina, Bolivia, Colombia, Ecuador, Guyana, Brazil, Scotland, Ireland, Sweden, Denmark, Norway, Wales, Finland, England, Channel Islands, The Netherlands, Luxembourg, Switzerland, Italy, Belgium, Austria, France, Malta, Mauritius, Isle of Man, East Germany, West Germany, Poland, USSR, Romania, Hungary, Yugoslavia, Ghana, Sierra Leone, Republic of South Africa, Kenya, Nigeria, Saudi Arabia, Pakistan, India, Indonesia, Korea, Malaysia, Singapore, Japan, Philippines, New Zealand, and Australia.

FEARLESS FORECAST: SSB

By John Stanley

In 1979, officials from most of the world's countries met in Geneva, Switzerland, for WARC '79 (World Administrative Radio Conference). The purpose of this conference was a re-examination of the radio frequency allocations as well as the rules governing their use.

The ham bands were expanded at that time with the addition of three new bands. One of these, the 30-meter band, is now in use. Hams from many countries can be heard on the frequencies between 10.1 and 10.15 MHz using CW and RTTY modes of transmission. Other frequencies near 18 and 24 MHz will eventually become available.

WARC '79 also agreed to add some 780 kHz worth of new frequencies to the international shortwave broadcast bands subject to implementation at another conference set for early 1984 and a third in 1986.

January of this year saw the convening of a five-week conference on shortwave broadcasting to continue the discussion of issues not resolved in 1979. One of the issues discussed was the use of single sideband in the broadcast bands. One of the countries promoting use of SSB sooner rather than later is Mexico. However, most of the Latin American countries prefer a delay in going to single sideband. As a compromise, WARC '84 proposed a changeover to SSB over a 20-year period beginning in 1986, assuming the 1986 WARC agrees.

Those favoring SSB usually cite the spectrum-saving aspect. Experience with SSB on the ham bands has shown that two or three stations can occupy the same bandwidth that would be taken by a single AM station. Hence, conversion to SSB would allow twice as many stations to broadcast simultaneously.

A second factor is the power savings since the carrier power which makes up perhaps 75 percent of a typical AM signal is not transmitted and neither is one sideband (a useful, but redundant portion). Hence, 87 percent or so of the power is saved. With rising power costs, the savings looks good to the broadcaster.

Put another way, the station could have an effective increase in power output of eight times for the same power cost. It is this second factor, incidentally, that motivated most hams to convert to SSB. After all, when it comes to saving money for myself or spectrum for someone else, most of us are more interested in the former.

Perhaps this factor explains why the NBVM system (Narrow Band Voice Modulation) which was developed for ham use some six years ago has not proven popular. It saved bandwidth, but that helps the other guy, not the one using the system. In other words, successful adoption of such a system assumes that most people are unselfish. This has not been observed to be the case. Many who praise the unselfishness of Jesus or Mahatma Ghandi are not too willing to practice it themselves.

On the broadcast bands, SSB has a third advantage. It eliminates the envelope distortion that accompanies selective fading. Selective fading was an aggravation on the hambands, but usually a request for a repeat got the message through even on AM.

A listener, on the other hand, can't say, "How was that?" or "Please repeat." when an important word is destroyed in a newscast. And what selective fading does to music is really a pity. SSB could do a lot to solve this problem...could...I said, not necessarily will. SSB can introduce a distortion of its own that makes selective fading seem mild by comparison.

Which brings us to the problems with SSB...and it has some. In the first place, although it saves power at the transmitter, it does so at the expense of complexity. An SSB transmitter requires considerably more complex circuitry than AM, and that circuitry must be maintained. For vast numbers of transmitters located in remote locations and far from knowledgeable technicians, that could be a problem.

SSB transmitters ARE expensive, but that is really a small part of the problem. For every broadcast transmitter in the world, there are many thousands of receivers, and SSB RECEIVERS are expensive. Considering how many of them there are, this is the really costly part of going to SSB.

Yes, it is relatively simple to add a beat frequency oscillator or BFO to a cheap receiver, but this approach to SSB won't do. To get the advantages that SSB really offers, we must have frequency stability which means a synthesized receiver or a phase-locked detector which automatically follows a drifting signal, sort of like AFC or FM, or better, both frequency synthesis and the phase-locked detector.

With that we would have a receiver that is as easy to tune as AM and provides better fidelity. But we also have a receiver in the $500 (USA dollars) price class. And we have just lost 98 percent of our audience.

With over one billion receivers in the world, most of them in the under $100 class and many in the under $20 class, we just can't afford to go to SSB, until someone gets the above mentioned $500 receiver down to about $50. This may not be as difficult as it sounds. The $1000 calculator watch has dropped below $30 in five years. Some of the same technology is applicable to radios.

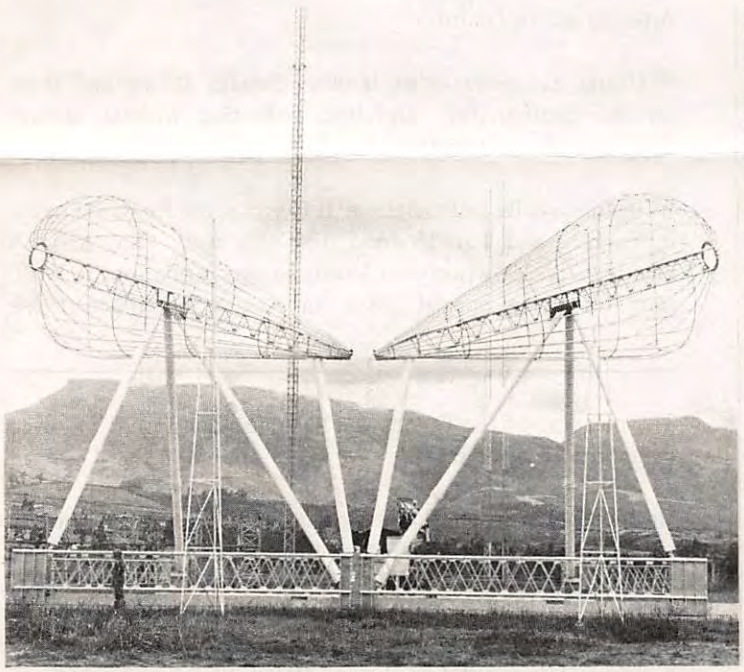
It will happen. However, it is my judgment that very little was done at WARC '84 to make it happen. Let us see what happens at WARC '86.

ANTENNA CORNER: HCJB'S STEERABLE ANTENNA

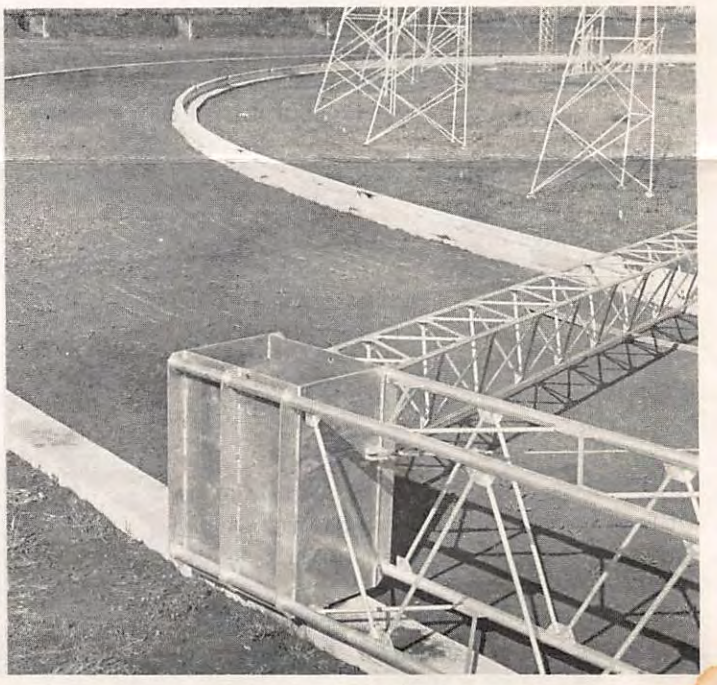
Used in a fixed beam to Europe for five years, we expect the steerable antenna will be ready in 1985 for use on five bands with a steerable beam.

- Total area of antenna including anchors for guy cables: 15 acres.
- Main support tower: 417 feet (127 meters) (40 stories tall).
- Each of the 7 back support towers: 156 feet (48 meters).
- Base diameter of reflector: 558 feet (170 meters) (almost 2 football fields).
- Reflector height: 246 feet (75 meters).
- Total length of reflector wire: about 18 miles (29 km).
- Total length of cables: about 6 miles (10 km.).
- Total length of copper ground system: about 8 miles (13 km.).
- Ground anchors: about 40.
- Wire wraps tying structure together: about 5,000.
- Will increase a given signal 150 to 300 times by concentrating the beam in a desired area.

The stringing of wires for the corner reflector in which the bi-conical dipole is located.



Bi-conical dipole radiator for the steerable antenna.



The concrete track on which the bi-conical dipole will travel.

SPECIAL DXer FROM THE GERMAN DEMOCRATIC REPUBLIC

"It was a Sunday and I was looking for music on my radio. But on medium wave and on FM, I could not find any. Then I tuned in on shortwave and heard the following words...Hier ist Radio HCJB, aus Quito, Ecuador... It was the German Language Service of HCJB."

That is how our Special DXer for this issue began his shortwave DXing experiences. His name is Wolfgang Kammel. He lives on Ernst-Thälmann-Strasse 17, DDR 8401 Pulsen, German Democratic Republic.

Wolfgang is 30 years old and is a metallurgist by trade. He joined ANDEX in April of 1982 and is ANDEX No. 4350. The town of Pulsen in which he lives is an old town, around 750 years old and is a small town with a population of around 2,000 people. Because it has several small lakes around it and some wooded areas, one of Wolfgang's special interests is wandering through nature.

Wolfgang tries to listen to the radio about three hours a day. Since his first experience with HCJB, he has received at least 80 QSL cards, just from the German Language Service alone. He also has over 75 countries verified and arm badges from 26 stations.

His receivers are a REMA 2001 (made in GDR), and a RIGA 105 and a SPIDOLA 240 (both made in USSR). As antennas, he uses different long wires and dipoles and for FM, he uses a quad antenna.

His special interests are the 60 and 75 meter bands and FM stations. Radio Tunis (Tunisia) on 96.5 MHz is the most distant station for him on FM. In the tropical band, it is Radio Chinchaycocha (Peru) on 4860 kHz. Stations from South America are his favorites.

Wolfgang has some other hobbies besides DXing and these include photography, bicycling, collecting stickers, stamps and postcards, and listening to pop and folk music.

Wolfgang says his only language is German, but he wrote to me in English, and I understood him very well. So, ANDEX members, please write your letters of congratulations to Wolfgang for being Special DXer for August-September, 1984.

Q CODES, continued

QSO	I am in communication with...
QSP	I will retransmit the message to...
QSR	The distress call received from...has been cleared
QSU	Send on...kilocycles
QSV	Send a series of VVV...
QSW	I am going to send on...kilocycles
QSX	I am listening for...on...
QSY	Change to...kc/s
QSZ	Send each word twice
QTA	Cancel message
QTB	I do not agree with your number of words
QTC	I have...telegrams for you
QTE	Your true bearing is...degrees
QTF	The position of your station is...
QTG	I will send signals in order that you may take my bearing
QTH	My position is...
QTI	My true course is...
QTJ	My speed is...
QTM	I will send radio signals and submarine sound signals
QTQ	I am going to communicate with your station by means of the International Code of Signals
QTR	The exact time is...
QTU	My station is open from...to...
QUA	Here is some news of...
QUB	Here is the information requested...
QUC	The last message received by me from...is...
QUD	I have received the urgency signal sent by...
QUF	I have received the distress signal sent by...
QUG	I am forced to land
QUH	The present barometric pressure at sea level is...
QUJ	The true course for you to follow, with no wind, to make for me is...degrees
QUK	The sea at...is...
QUM	The distress traffic is ended

The meaning of the Q code can become a question if followed by an interrogation mark.

On the light side, as I looked over these codes, it occurred to me that we could use some of them in our family. For instance, it would be nice to say QRL when my son hollers across the yard at me. Or, I would love to say QSG when I am visiting with my in-laws who all talk at the same time. My husband, John, and I could use QUJ when we are at a large shopping center and on hectic Mondays, we could go to sleep by issuing a QUM!

SPECIAL DXer FROM THE USA

Our Special DXer for this issue from the USA is a traveling man! Listen to where he has been. He has attended the EDXC conferences in England, Holland, France, Austria, Switzerland and Sweden. He went to New Zealand to attend the New Zealand Radio DX League Convention in 1982 and he follows the ANARC conventions throughout the USA and Canada wherever they are held.

This year he plans to go to Stockholm, Sweden, to attend the EDXC (European DX Council) meeting as well as travel to Toronto, Canada, for the ANARC convention.

Our traveling man is ANDEX member Larry McKinney. Larry joined ANDEX in 1978 and is number 2747. He is 32 years old and lives in a farming community in Pennsylvania called Adamstown. It is the area of the Pennsylvania Dutch people as well as the Amish and Mennonite groups.

Larry started SWLing in November, 1973, when he picked up the "Happy Station" show. He says he doesn't have many verified countries in South America or Africa, but has many, many European and Pacific-Asian countries.

His main interest in SWL is program content. Larry learns about other ways of life in other parts of the world as well as learning about art, music and culture. I am sure all your travels have taught you a lot also.

As for his equipment, Larry has the DX160 and the DX200, both by Radio Shack. He also owns the RF2800 and RF085, plus a Sony 2001. He uses the whip antenna, a long wire, and cage dipole antennas.

Larry became an amateur radio operator in 1976 with the call sign WB3FJO. For this hobby, he uses the Heathkit SB104A, the Heathkit HW16 and an Icom 215 2-meter FM. He has a 40-meter dipole, 20-, 15-, and 10-meter quad antennas and a 10-meter trick stick antenna.

He also uses a Kantronic Rockhound QRP transmitter on 40 meters and, finally, uses his Kantronics RTTY/CW reader for both ham and SWL.

With all that good equipment, Larry, why do you ever leave home?

Larry works as a water filtration plant operator and in his spare time, when not at his rigs, he enjoys electronic music, dancing and roller skating.

Congratulations, Larry McKinney, 424 Grant Road, Adamstown, Pennsylvania 19501, USA. ANDEX members, if you write letters, write one to Larry. If you travel, arrange to meet him at the next convention. He'll be there.

Q CODES

In the February-March issue of ANDEX, we listed a few Q codes that are commonly heard on the air. Malcolm Bell, ANDEX No. 4444, who lives at 61, Oldbury Orchard, Churchdown, Glos., GL32PU, England, sent us a complete list of Q codes which we include below. Thanks, Malcolm, for sending us the information.

QRA The name of my station is...
QRB The distance between our stations is...
QRC My station is controlled by...
QRD I am bound for...from...
QRG Your exact frequency is...
QRH Your frequency varies
QRI Your note varies
QRJ Your signals are too weak to read
QRK The readability of your signals is...
QRL I am busy; please do not interfere
QRM Interference is bad
QRN Atmospherics are bad
QRO Increase power
QRP Decrease power
QRQ Send faster
QRS Send more slowly
QRT Stop sending
QRU I have nothing for you
QRV I am ready
QRW Please tell...that I am calling him on...
QRX Wait until I call you
QRY Your turn is No. ...
QRZ You are being called by...
QSA The strength of your signals is...
QSB The strength of your signals varies
QSD Your keying is bad
QSG Send one message at a time
QSJ The charge per word is...
QSK Continue transmitting
QSL I have received your message
QSM Repeat the last message

WHY ? ... GOD !

The more we learn, the more we discover we don't know. Thousands of years of human investigation seem only to have scratched the surface. And much of the phenomena about nature and the human body is still a mystery.

Here is some research from various studies and sources:

Nature is fascinating. Beans grow up a pole from left to right; the morning glory grows up a pole from right to left. Seeds may be dropped into the ground upside down, or sideways, and yet the plant comes up to the surface. A bumper crop of wheat will produce about 100 grains on each stalk, and there will always be an even number of grains. Ordinary watermelons will have 10 stripes, larger ones may have 12 to 16 stripes, but always an even number.

The potato bug hatches in seven days, the sparrow egg in 14 days, the hen egg in 21 days, the duck egg in 28 days, the eagle egg in 35 days, the parrot egg in 42 days and the snake egg in 49 days. Notice that each egg hatches in a multiple of seven days.

Water will travel from the roots of a tree (against gravity) to the topmost leaf of a tree 264 feet high, and no one knows why.

The human body is even more amazing...far more intricate than a computer, satellite, or television. In the course of a day, blinking causes the eyes to close about 30 minutes. The average human circulatory system is 60,000 to 100,000 miles long. Blood serum is almost identical in chemical content to sea water. Every day your body manufactures about one billion red blood cells. In an average lifetime the hair on the head grows about 25 feet. When we touch something, the impulse travels along our nerve network to the brain at about 350 feet per second.

Your eye can distinguish nearly eight million differences in color. Your ear can discriminate among more than 300,000 tones. If all 600 muscles in your body pulled in one direction, you could lift 25 tons. Your heart pumps more than five quarts of blood per minute, 2,000 gallons a day. Your digestive tract is about 30 feet long. The surface of your lungs is about 1,000 square feet, 20 times greater than the area of your skin.

The psalmist said, "I am fearfully and wonderfully made."

PEN PALS INTERNATIONAL

Want to travel to a different country by means of a letter? Pick out a friend below and start writing.

PETER COBBINAH ANKOMAH is ANDEX No. 4809. His address is St. Mary's Secondary School, Box 271, Takoradi, Western Region, Ghana, West Africa. He enjoys all sports, especially football.

LEONARD WILLIAMS lives at 4A Addington Drive, Kingston 19, Jamaica, West Indies. Leonard is in his mid-twenties and works as a radio technician. He would like penfriends in Ecuador, Canada and in the USA, especially from Nashville, Tennessee and Atlanta, Georgia. DXing, Christian films and Bible study are some of his favorite activities. Leonard is ANDEX No. 4849.

CARL G. VROMAN is ANDEX No. 4847 and lives on Route 2, Box 256, Monett, Missouri 65708, USA. Carl would like to correspond with people in Central and South America. He says that his Spanish is ungrammatical, but he muddles through. His hobbies include cars, boats, books, photography, guns, hunting knives and bayonets, radios and much more! Carl is 58 and retired from his own business.

ANDREAS REDEL lives at DDR-6551 Moschlitz Nr. 120, GDR - East Germany. He is a building worker, in his early twenties, and is ANDEX No. 3718. His hobbies include traveling and collecting stamps and postcards. Andreas would especially like to hear from members in Central and South America and from the Caribbean area.

ANDEX International

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