

ANDEX

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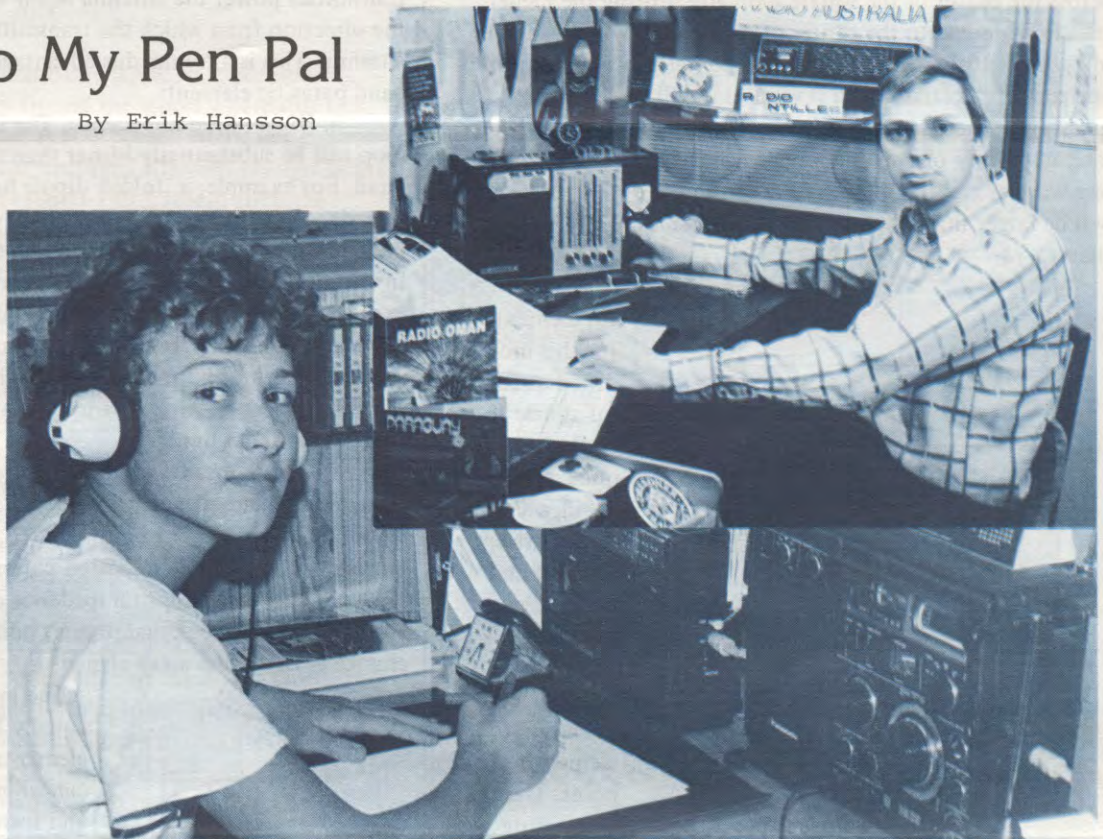
February-March, 1987

A Visit To My Pen Pal

By Erik Hansson

*Wolfgang Kammel, top,
and Erik Hansson
as Special DXers in 1984*

Eric lives at
Bryggaregatan 13,
S. Sandby, 17 S-240,
Sweden



About two and a half years ago, just after being chosen as Dixer of the Month in December-January, 1983-84, I began to correspond with Wolfgang Kammel, an ANDEXer in the German Democratic Republic. His ANDEX number is 4350 and he was chosen as Special DXer in August-September 1984.

After some years of corresponding I decided to visit Wolfgang, and on August 20th I started my trip. After 15 hours on the ferry and train I arrived in Elsterwerda, in the southeast part of the GDR, about 20 kilometers from Pulsen, Wolfgang's residence. In Elsterwerda Wolfgang picked me up with a taxi, and after a ride at a breakneck pace on narrow, dark roads I finally reached Pulsen, the destination of my trip.

During my week in the GDR we saw lots of things. One day we visited Dresden which has many invaluable paintings by famous Dutch artists. The town also contains many old

churches, although many of them were damaged during World War II and are still under reconstruction.

We also visited some castles, which in earlier times were residences of princes, since this area once was divided into many small principalities. The southeastern part of East Germany is a mixture of flat country and mountain areas. One day we saw the so called "Sachsische Schweiz," which is the "Saxon Switzerland" with impressive canyons and rocks. The Germans often call beautiful places "Switzerland."

My last day in the GDR we visited Berlin and saw many interesting things, including the TV Tower, Brandenburger Tor and Unter den Linden, a famous central street.

The week in East Germany was very interesting, and I'll probably go back there in a few years in spite of all the bureaucracy with visa and such.

Finally, I'd like to thank ANDEX, which partly made this trip possible.



ANTENNA CORNER: QUAD MODIFICATION

By Don Hastings

A recent visitor to HCJB told of an improvement he has made on the Quad antenna that is widely used by hams and also makes a very effective SW antenna. This improvement is so good that I want to pass it on to all our ANDEX members.

The modification to the quad consists of adding a wire across the center of the square loop and shifting the feeder transmission line to the center of this center wire as shown in figure 1. If the added wire is horizontal the antenna will be horizontally polarized and if vertical it will be vertically polarized. The quad now has two rectangular loops of wire, instead of only one square loop. Each loop should be about one wavelength in perimeter. Therefore the outer perimeter will be larger than a standard Quad, i.e. sides of $\lambda/3$ rather than $\lambda/4$.

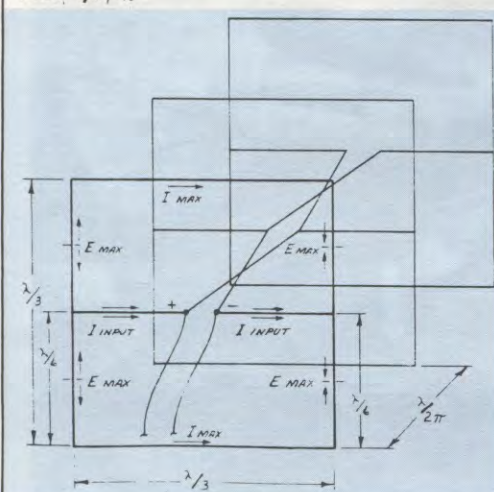


Fig. 1 Improved antenna derived from the well known Quad

Drawings by Cary Hansen, Design Draftsman

The reflector element for this modified quad -of course it really isn't a quad any longer - is identical to the driven element and driven by an open wire transmission line connected to the first element feed point. The connecting line must have the propagation velocity of free space (essentially free of dielectric) and contain a 180 degree twist to feed the reflector 180 degrees out of phase with the first element. As many as five elements can be added beyond the second as long as the connecting transmission line is rotated 180 degrees between each. The optimum spacing of the elements is one radian or $.159 \lambda$. The addition of extra elements will narrow the radiation pattern and increase the gain of the antenna.

This new antenna has a number of advantages over a standard quad, which is itself a very good antenna. These include:

1. Larger loop size. The 1/3 larger loop couples better to the propagating fields in space and therefore has a higher radiation resistance than a standard quad. The wider-space high-current elements give a higher forward gain and lower side radiation.

2. Better loop symmetry. Since the maximum current point of a loop always occurs at the center of the leg opposite the connection point of the feed cable, the standard quad only has symmetrical current at the design frequency. This antenna has equal current maximum points in both outside legs, retaining its symmetry and pattern shape over at least a 2:1 frequency band. Such an element will operate over the 13, 16, 19 and 25 meter SW bands, for example. The currents in the center leg have a relatively small effect on the radiation.

3. Additional driven elements. Driving the "reflector" element of the antenna in the way described puts it into the class called "backward wave antennas," which are frequency independant. No matter what the frequency of the incoming transmitter power the antenna beam will be radiated back in the direction from which the transmitter power is entering the antenna. This is a tremendous advantage over ordinary narrow band parasitic elements.

4. Higher loop impedance. The impedance of the double loop will be substantially higher than that of the single loop quad. For example, a folded dipole has a driving point impedance four times that of a single wire dipole while the impedance of the double-fold dipole is nine times higher. In addition, the larger loop has a higher initial impedance as explained above. For these reasons if an ordinary quad has an impedance of nearly 100 ohms, this antenna should have around 300 ohms impedance. The high impedance makes inexpensive, open-wire, balanced transmission line practical to use as a feeder line.

The main disadvantage of this new antenna is its variation of input impedance with frequency. The impedance would be very different on the 13, 16, 19 and 25 meter bands even though the radiation patterns remain nearly the same. Of course the input impedance can be corrected with an antenna tuner, but that doesn't correct for impedance change between the array elements.

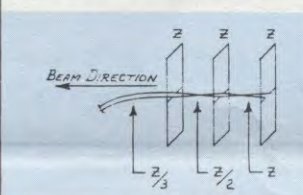


Fig. 2

Required feed line impedance to distribute equal power to three array elements

The input power must divide equally between the array elements if the radiation is to cancel in the back direction and form the sharpest beam in the forward direction. Figure 2 shows the relationship between the element impedance Z and the impedance of the interconnecting feed lines of a three-element array required to achieve equal power distribution. Obviously

if the element Z is variable the fixed Z of the feeder lines will not provide equal power division over the full range of frequencies. Frequency independant couplers of the transformer type can be used to achieve nearly correct power division at the expense of additional complexity. A simpler solution exists if five or six elements are used in the array. A feeder line of constant impedance which is near the average of the variable element impedance provides fairly equal power division. This is the solution used for the common log periodic dipole array.

HOLIDAY IN CHINA

by Don Rhodes, ANDEX 3314, 7 Yarraview Road,
Yarra Glen, Victoria 3775, Australia

My wife Christine and I have just completed a visit to the People's Republic of China as guests of the English language section of Radio Beijing. I received an invitation from Ye Zhimei, a lady who writes out many of the QSL cards from this station, to visit China as their guests. This came about mainly because I managed to tune in to Radio Peking, as it was called then, one cold night in 1958.

We flew on Quantas from Melbourne and landed in Beijing after midnight local time. After the usual customs formalities we were met outside the airport by a Radio Beijing reporter, Mr. Sun Changqing, who together with a Mr. Chen drove us to our hotel in the center of the Chinese capital.

The next morning we discovered that there were also two Americans on the trip, Glen Hauser, publisher of *Review of International Broadcasting*, and Larry Miller of *Radio Database*. We met over breakfast before being picked up by our guide for the first visit to the Radio Beijing building, where we were met by the deputy director of the station and the head of the English section. We were also reunited with Ye Zhimei, the lady who had invited us to visit China. We were thrilled to meet Wei Lin, the announcer of the very first broadcast with the PLA from a cave back in 1941. Over a pot of green tea we were asked our opinions of the programs and how reception was. Then a quick look at the tape equipment, and it was time to visit Beijing Zoo.

On the second night we were given a banquet at a local restaurant and made our first real attempt to master chop sticks, which we eventually did. The visit to the Great Wall of China was indeed memorable. It was a nice sunny day and the crowds trying to walk up the very steep walkway on top of the wall were intense.

Before we left Beijing we again spent an evening at the studios where we met Wei Hua, the lady who introduces the Australian service as "for Radio Beijing, I'm Wei Hua." It was very strange talking to her after hearing her rather American accent over my radio so many times. We also got to visit the newsroom, where we met Chen, the guide who had taken ARDXC member Dick Greenwood on his trip two years ago.

The following morning we were taken to the airport to fly to Xian to see the many ancient relics there, as well as the famous terracotta warriors. It was interesting to note the dais and red carpet still in place from the Queen's visit only a few days before. In the evening we went to an acrobatic display by local teenagers. From Xian we flew to Shanghai and were taken to see the Shanghai Symphony Orchestra play Tchaikovsky. The following day we had a trip down the Hang Pu River to its meeting with the Yangtsee River, China's longest.

Our next stop was Hangzhou, which is a lake resort and very peaceful after the bustle of Shanghai. This is a major silk producing area, and we were taken to see silk being spun, with the opportunity to buy it at very cheap prices compared to Melbourne. At each city we were met by representatives of

the local radio station. While walking about the streets and markets one could often hear the familiar Radio Beijing tuning signal on the hour from radios in the houses, shops, etc.

Our final city was Guangzhou or Canton, as it was, where we spent three days and were interviewed in our hotel rooms about our impressions of China. This tape was broadcast over Radio Beijing on the 21st of November. During our trip we had many opportunities to discuss radio and DXing with Glen and Larry. When the time came to say good-bye to our guide, who had been with us for the whole 13 days, it was like saying good-bye to an old friend.

I would like to say how well we were treated in China. Walking out at night was a pleasure. We did not feel under any threat at any time, the Chinese people being so friendly even with the obvious language difficulty. I would recommend a trip to China for anyone wanting a different kind of holiday. I'm sure any listeners would be made welcome at the Radio Beijing building.

Christine and I then spent six days in Hong Kong, the highlight of which was a visit to the Trans World Radio office. I had hoped to meet Gary Whitmore, the ex producer of KTWR's "DX Listener Log". I did ring him but only a few minutes before he was to leave on a trip into China. We did visit the office and saw the studios there. Peter Nash, the frequency manager, signed me up as a monitor on the spot and gave me the latest frequency changes.

It really was a holiday with a difference.



Glen Hauser, Don and Christine Rhodes on the Great Wall

Prayer Answered

I asked for strength that I might achieve;
He made me weak that I might obey.
I asked for health that I might do greater things;
I was given grace that I might do better things.
I asked for riches that I might be happy;
I was given poverty that I might be wise.
I asked for power that I might have the praise of men;
I was given weakness that I might feel the need of God.
I asked for all things that I might enjoy life;
I was given life that I might enjoy all things.
I received nothing that I asked for, all that I hoped for,
My prayer was answered.

Special DXers



ANDEX 5714 Paul H. Lee, our Special DXer from the U.S., is a retired U.S. Navy Captain who lives at 830 Berkshire Drive, Rockledge, Florida 32955.

Captain Lee says he enjoys listening to HCJB and other SW stations regularly. He has had a strong interest in amateur radio since he was 14 years old and has over 150 QSLs from two-way contacts, one of them being JY1, King Hussein of Jordan. If any ANDEXers want to look for Captain Lee on the ham bands, his call is N6PL.

While in the Navy, Captain Lee was in communications and electronics, and now in retirement he is into marine surveys and engineering as a business. He has written many articles for the magazine *CQ*, and is the author of *CQ's* "Vertical Antenna Handbook" which is now in its second edition as a best seller. Captain Lee says he will send an autographed copy to anyone interested.

As you can see in the photo he has an impressive array of equipment. His receivers on the desk are Collins military models, now available in surplus at a fraction of the original cost. He says they are superior to present-day solid state sets in sensitivity, dynamic range, selectivity and audio quality. Tubes are available in surplus by the 1000s. "Some will say 'horrors! Tube sets!' They don't know how good they are," he says. Among the articles on the left rack are an R-389/URR receiver for VLF/LF/MF receptions and an R-390/URR for ham use. On the right rack is a 2 kw transmitter, completely home brew.

ANDEX is happy to honor this one who has been so intensely involved in radio and communications for so long. May you enjoy many more years of successful DXing, Captain Lee.

Our Special DXers illustrate the wide variety and great contrast that exists in the world of DXing in age, experience, location, vocation and equipment.

Chris Wright is ANDEX 5704 and lives at 1 Tanglewood Close, Blackwell, Bromsgrove B60 1BU, Worcs., England.

He writes, "I am 19 years old, a student of French, German and politics, and have only been a SWL for a year or so, so to date my QSL tally is only six. I first heard HCJB in May 1986.

I hope very much that people of limited financial resources will be encouraged to know that my equipment for shortwave radio is merely that shown in the photograph - a Vega Selena communications receiver for only 50 dollars or so. It is Russian made.

I normally listen to HCJB, VOFC (Taiwan), Deutsche Welle, Radio Canada International and Radio Vilnius in Lithuania.

My hobbies are languages, sports and music. I play bass guitar and like the Canadian group "Rush." I would be glad to correspond with any shortwave listeners in English, French or German."

With Chris' interest in languages and politics, SWL must be an excellent hobby for him. No doubt his QSL collection will grow quickly and may the hobby of SWL/DXing be beneficial and enjoyable for the rest of his life.

We encourage ANDEXers to write their congratulations to Chris and express their appreciation for his sharing about himself with fellow ANDEXERS.



Solution to Word Search

L O Y S S E R D D A Y M
 E T I C A S L I A T E D
 H I N A N R T M O R B C
 D E D A T E A A F G L M
 I C J K O R U P T Q R P
 N T S A G T U Q V I M H
 W U T O P N I S E P O I
 Z A R H S L V O K R A N
 R P F M Y N A M E G F P

MY ADDRESS
 DETAILS
 SINPO
 STATION
 FREQUENCY
 MY NAME
 UTC
 DATE

andexing

THE RUMOR MILL: Not long ago a respected SW publication reported that "HCJB is secretly making plans to diversify its facilities out of Ecuador." The facts are as follows: HCJB has made a commitment, in cooperation with other Christian organizations that operate radio stations, to give every person the opportunity to hear the gospel of Jesus Christ via radio in a language they can understand by the year 2000.

As a part of this commitment, HCJB is considering expanding to other sites around the world where this task can best be accomplished. It is expected HCJB in Ecuador will become a stabilized operational site with no significant additional development around 1992. It will continue to be a major part of the total outreach.

Also as part of this commitment HCJB is providing technical help to other organizations, helping them to improve their broadcasting capabilities. This is provided with no obligations to HCJB in return.

There is nothing secret about it, it is just that nothing definite has been decided about new sites at this time. Guerilla activity, etc., is not a factor in these plans. It is true that Hawaii is being considered, but only as one possibility among several.

ANDEX will keep members informed when definite decisions and plans are made.

ANDEX ITEMS THAT WERE FOR SALE: ANDEX can no longer offer T-shirts or rubber stamps since the companies providing them have discontinued their service. When in the U.S. next summer, your editor hopes to make arrangements for both, and perhaps other articles. Keep watch in *ANDEX International* for news of this. In the meantime, ANDEX patches for use on blazer, jacket or cap are still available at \$1.50 each.

ANDEX DIRECTOR DORIS HASTINGS and husband, Don, *Antenna Corner* editor, are schedule to leave Ecuador for Home Ministry Assignment in the U.S.A. the end of April. Tentative plans are to return in January 1988.

They plan to be in the New York City, Long Island, and Northern New Jersey areas during May and June. From July through December they will be in the Los Angeles, California, area. If any SWL clubs would like them to visit for a presentation about ANDEX, HCJB, antennas, transmitters, etc., write to them in care of HCJB, P.O. Box 553000, Opa Locka (Miami) FL 33055-0401.

BRENT ALLRED, no stranger to DXers since his interim stint as host of DX PARTYLINE, will cut back on some of his programming duties to fill in as Director of ANDEX while Doris is away.

DON'T MISS IT! Glen Volkhardt, HCJB's English Language Service Director, says that the next few months could be the last great opportunity for low frequency DXing in a long long time, and the last opportunity to witness the phenomenal equinox swings in the MUF (maximum usable frequency) for another 8-10 years.

During times of low sunspot numbers and near the vernal and autumnal equinoxes, March 21 and September 21, we can expect wide swings in the MUF, making for very interesting DXing in the ham and broadcast bands. These wide swings are not as noticable during the high activity years of the sunspot cycle, because ionization remains too high for the low frequencies to propagate, even at night. Many of us have been bemoaning the "dry" years of the low end of the sunspot cycle, but for the true DXer, the low frequency "finds" of the down years make up for the "arm chair" copy that is possible on the higher frequencies during the active years.

FRANZ SCHWARTZ JR., 414 Sabra Drive, Wilmington, NC 28405, has for sale to people in the U.S. and Canada the LP records "Traditional Flute Music of the Andes" and "Harp Music of the Andes" and cassettes of "National Anthems of the World" played by the Vienna State Opera Orchestra. Each one is \$5.00 plus \$1.50 for postage and handling. He also has QSL card albums which hold 136 cards, costing \$17.50 postage paid. All of the above items are mint and factory sealed.

Q X

Send your questions about Ecuador, HCJB, technical matters, DXing, etc. to be answered in QX.

Q. "How do I become DXer of the month?" David Sommerford - ANDEX 5690 - England.

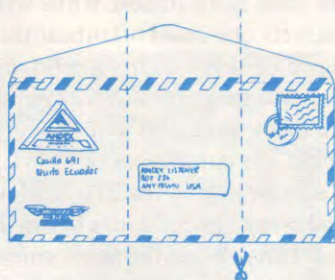
A. Send a good-quality photo of yourself with your listening equipment and lots of information about yourself such as your listening habits, how SW has influenced you, your hobbies, you personally, anything unusual about where you live, etc. We receive many entries, but usually the information given is very brief. The more information you send about yourself the more likely you'll be chosen Special DXer. If you have not sent your information recently, but sent it years ago and were not chosen, try again. After a year or so passes we have to reject entries because they are not current. *Doris Hastings, ANDEX Director.*

Q. "Do the people of Ecuador still keep guinea pigs for food? One of my hobbies is breeding these delightful little animals for showing. I am the show manager for our local club." D.J. Nuttridge - ANDEX 4848 - New Zealand.

A. Yes, guinea pigs are used for food in Ecuador, especially by the country people. It is a delicacy and often served at bus stops. They are stretched on a stick and roasted whole. The meat is similar in taste to rabbit -- good.

The guinea pigs often live in the family's one room hut but may have their own small house in the yard. They eat greens or weeds their owners pick from the roadside or garden. *Marian Houghton, ANDEX Secretary.*

NEW RENEWAL PROCEDURES



New renewal procedures for ANDEX membership will go into effect immediately. The address label on the envelope in which you receive your bimonthly mailing will tell you if your renewal date is coming near. The fee and address to send it to will be printed in the bulletins.

When it is time to renew, please cut the envelope with the label as shown above. Send it and the fee according to the listing in the bulletin. Be sure to check your address on the label and correct it if necessary.

If your label has only your name, address and ANDEX number your membership is in the first six months of your membership year. After that the labels on your next three mailings (over a six-month period) will read "Renew early! Last issue (date).", "Your subscription expires next issue.", and "This is your last issue! Renew now."

If you have paid for more than one year the computer makes the adjustment automatically.

This new procedure will greatly simplify the renewal process for us. It will also cut down on the weight and bulk of the mailings.

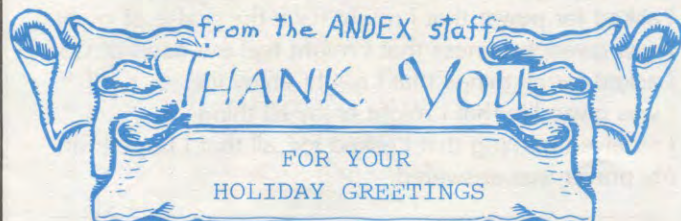
You will need to check your label to know when to renew. We encourage you to renew at the first or second notice. Later renewals are more complicated, causing more office work and possible errors. Thank you, ANDEXERS!

Pen Pals

BRIAN TANSEY - 12 Clonmult Terrace, Midleton, Co. Cork, Ireland - ANDEX 4484 - 39 years old and married - Hobbies are SW and ham radio, deep sea fishing, pop music, exchange of post cards and letters - wants letters in English from people in Quito, Japan, and the Philippines.

CHRISTOPHER THOMPSON - 3607 E. Andrews, Ozark, Alabama 36360 - ANDEX 5364 - Would like pen pals in Russia, Germany, or Korea.

HENRY HARMON - 1700 3rd Avenue South, 133 Pierce Trailer Court, Moorhead, Minnesota 56560 U.S.A. - ANDEX 3829 - Would like pen pals from anywhere in the world.



FEEES FOR ANDEX MEMBERSHIP MAY BE PAID IN THE CURRENCY OF THE COUNTRIES BELOW BY SENDING TO THE ADDRESS GIVEN:

AUSTRALIA	\$7.00	HCJB-ANDEX, GPO Box 691, Melbourne, Vic 3001, Australia
CANADA	\$8.00	HCJB-ANDEX, 2110 Argenta Rd., Mississauga, Ontario, Canada L5N 2K7
FINLAND	FIM 35	Send fee to: Radio HCJB, Helsingin Sp/Helsingfors Sb, 405506-09630716. bank Send application form to: Radio HCJB, PL-101, 15111 Lahti, Finland
ITALY	L8.500	HCJB-ANDEX, Via Cavallotti, 16, 41043 Formigine (Modena), Italy
JAMAICA	J\$25	HCJB-ANDEX, Jamaica Office, P.O. Box 31, Kingston 6, Jamaica
NEW ZEALAND	\$12.50	HCJB-ANDEX, P.O. Box 82-296, Highland Park, Auckland, New Zealand
SWEDEN	Equivalent of \$5.50 USA dollars	Fees to: Postgiro 68 06 80-6 OR to Bank giro 332-4407. Send application form to: Radio HCJB, Box 110, 542 01 Mariestad. Check the current exchange at your bank to determine the fee
SWITZERLAND	Fr. 15	Send Fees through the postal system to: Radio HCJB-Schweizer Arbeitszweig, Mannedorf, P.C. Glarus 87-3468. Send application form to: Radio HCJB-Schweizer Arbeitszweig, Postf. 119, 8708 Mannedorf
UNITED KINGDOM	4 pounds 50 pence	HCJB-ANDEX, 131 Grattan Rd., Bradford, West Yorkshire, England, BD1 2HS. OR send to Post Office giro account 64 472 4404 by using a transfer form from a members Girobank account or using the "Transcash" service available at all post offices in the U.K.
U.S.A.	\$5.50	HCJB-ANDEX, P.O. Box 553000, Opa Locka (Miami), Florida 33055-0401
WEST GERMANY	DM 15	Margot Stegmiller, Hebelstr. 32, D-6908 Wiesloch, Federal Republic of Germany

AFRICAN COUNTRIES: The applicant must send something ANDEX can redeem for at least \$3.00 (U.S.A.), such as stamps or currency of the country

If you live anywhere else, remit \$5.50 (U.S.A. dollars) to: HCJB-ANDEX, P.O. Box 553000, Opa Locka (Miami) Florida 33055-0401.

European members who do not have a local office can use the United Kingdom post office giro account by sending the equivalent of four pounds and fifty pence.



ANDEX International



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ANDEX Director - Doris Hastings

DX Partyline Host - John Beck

ADDRESS MAIL (NO funds) to: ANDEX International, Casilla 691, Quito, Ecuador