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# ANDEX INTERNATIONAL

Vol. 16, No. 1  
February-March 1989

## Ecuador's Black Gold

*First of a two - part feature  
by Ralph Kurtenbach*

**T**he mainstay of Ecuador's economy—the oil industry—is experiencing its share of struggles, with significant impact on the nation's economy.

The industry faces lower oil prices, cancellations of long-term contracts and is still recuperating from a severed transport line. Ecuador has grown to depend heavily upon its petroleum industry which is the result of a century of fossil fuel exploration. Some believe that Ecuador's aboriginal tribes used petroleum as early as 1500 B.C. Early tribes are reported to have used oil on pottery, rafts and as fuel for lights in Ecuador's eastern jungle, the Oriente.

The Spanish conquerers also used oil, and periodically exported a related product, asphalt. In 1878 M. G. Meir and Co. was given exclusive rights to extract bituminous products from the Santa Elena peninsula on Ecuador's Pacific coast.

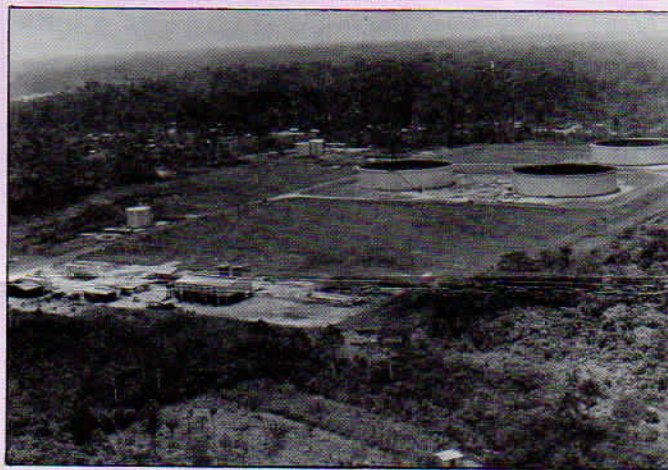
A recurring issue was the ownership of Ecuador's resources. In 1829 South American liberator Simón Bolívar decreed that all mines of whatever type belonged to the republic. That position was reversed by Ecuador's congress in 1847. In 1886 the congress passed its first mining laws and agreed upon state ownership of mines. (Personal ownership was recognized however.)

In the early 20th century, three firms entered Ecuador for oil exploration. Two English companies explored the Santa Elena peninsula, and a U.S. firm explored the jungle region. In 1937 Ecuador's government sold nearly 25 million acres to the firm, Anglo Saxon, for about 1 1/2 cents per acre. A year later, the government began involving itself more closely with the firms exploring for oil.

The same year, Ecuador invited Shell Oil to explore for oil in the jungle, with help from Standard Oil. Workmen entered the jungle previously inhabited only by tribes of Indians: Quechuas, Shuaras, Achuars, Secoyas, Shushuquis and Aucas (or Waodani). The perils of sickness, poisonous snakes and hostile tribesmen were very real, and some lives were lost.

Despite rough terrain and 200-inch annual rainfall, the crews constructed airstrips and a road linking the jungle to the

rest of Ecuador. Shell spent an estimated \$40 million on development during an 11 -year period. A base camp was built near the jungle village of Mera, which later became known as Shell . When the firm left Ecuador in the 1950s, some of its camps and airstrips became strategic mission stations. The airstrip at Shell is now used by the military and by mission pilots bringing patients to HCJB's Hospital Vozandes there. An entrepreneurial endeavor profited those bringing the gospel to obscure jungle tribes.



*Oil storage tanks in Ecuador's jungle*

The 1970s brought higher oil prices and increased development of Ecuador's oil industry. In the early 1980s Conoco Oil entered the exploration scene. In 1986 the government gave Conoco and three other firms a 772-square-mile block for exploration, in an agreement with the nation's state petroleum agency, Corporación Estatal Petrolera Ecuatoriana (CEPE). Other firms later joined the venture.

The industry's biggest blow came on March 5, 1987 when Ecuador was hit by earthquakes measuring 6.0 and 6.8 on the

*continued on page 2*

# Person to Person



by John Beck

**A**t HCJB we believe that education is an important part of any person's life. That's why we bring Ecuadorian young people such as María Rivas into situations where they can develop their skills and we can gain from their expertise. Our missionary and national staff members are encouraged to involve themselves in continuing education.

The book of Proverbs in the Bible speaks of "...knowing wisdom and instruction in wise behavior, righteousness, justice and equity..." (Proverbs 1:2,3). King Solomon wrote that, "The fear of the Lord is the beginning of knowledge." This "fear" is a sense of awe at His unlimited power—an actual acknowledgement of God as Creator—a realization that as creator, it is God that is literally holding our existence together.

It also is recognizing that in spite of God's awesomeness and our comparative insignificance, He still loved us so much that He sent His only Son to die in our place. The result of this sacrifice is that we can be reconciled to God through Jesus Christ.

With these facts in our head and Jesus Christ living in our heart, the rest of the growing body of knowledge can be placed into proper perspective. Without Christ—in the final analysis—all knowledge and learning is meaningless.



## ALLREDS RETURN

Brent Allred and his wife and family arrived back in Quito on February 18. They have been in New Zealand on Home Ministry Assignment (furlough). Brent will be resuming his responsibilities of producer/presenter of DX PARTYLINE and director of ANDEX.

## Black Gold

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Richter scale. The quakes destroyed 25 miles of the 300-mile Trans-Ecuadorian Pipeline, along with large sections of the accompanying road. The east-west pipeline crossing Ecuador's three geographical regions—jungle, sierra, and coast—had transported crude oil from the jungle to tankers at the coast. Its accompanying road had provided the only access to Ecuador's jungle region.

Despite those hardships, Conoco's supply lines to the jungle continued. Trucks carried supplies to Misahualli, on the Napo River, where they were loaded into motorized canoes and shipped 75 miles downriver. The supplies were unloaded at another town, Coca, and put on trucks for the trip's final leg to the base camp. Workers transported 3,000 gallons of fuel a day this way, plus mud chemicals. This method continued even after the September 1987 completion of road repairs.

*Next month's ANDEX Bulletin, will report on optimism amid the oil industry's struggles as Ecuador's leaders work with foreign investors to further develop the industry. ANDEX will also "explore" other aspects of the petroleum industry.*

## NEW ENGLISH LANGUAGE SCHEDULE

Along with this bulletin you will also receive the new HCJB English schedule. Many changes are in process, and that is why there is an addendum with it. Please keep listening for further changes.



HOW CAN WAITING FOR A RADIO STATION TO IDENTIFY ITSELF MAKE SOMEONE LATE FOR THEIR OWN WEDDING!

via ODXA

# SOLDERING (Part II)

By John Beck

In my previous article, I discussed the dynamics of molten solder and some of the techniques of proper bonding. In this part we will look at some of the tools and aids utilized in soldering.

What type of soldering tool should you purchase? It really depends on the application. If you were trying to connect an RG8/U coaxial cable to a wire antenna in a wind, a 25-watt soldering pencil would be useless. However, a 250-watt soldering gun used on a delicate, 40-pin microprocessing chip would destroy the chip and a portion of the printed circuit board in seconds. Different jobs require different tools.

A soldering pencil of about 25 watts is usually sufficient for most printed circuit board work. Try using a 75- to 100-watt soldering gun for general chassis work. For heavy-duty outside work, a 200- to 250-watt gun is recommended. The goal, especially in printed circuit board work, is to apply enough heat for a short time to get the job done. The time spent on the connection (called dwell time) should be about two to five seconds. This will prevent lifted solder pads and "measling" of the board.

If you are really getting into some sensitive circuitry installation or repair, various other parameters need to be considered in your purchase of a quality soldering instrument. Temperature control becomes more critical with ICs and linear devices. A thermostatically controlled pencil iron is better. One that is also

variable offers flexibility.

Voltage spikes from the tip can destroy some gates. Electronic switching of the soldering pencil eliminates this. Steady state current leakage can also be a problem with some components. Some manufacturers utilize a positive tip grounding scheme to get around this.

Soldering stations using Curie point alloys and strong permanent magnets for switching can damage some circuits. Another specification to look for is thermal working zone. Irons will drop 25° to 70° F or more from their idling temperature when applied to the work.

A pencil with changeable tips offers versatility in not only replacement of worn parts, but also variety in application. There are points, spade, tunnel, slotted, quad, pyramid, chisel, conical and mushroom tips available (not to mention various sizes of each!).

Some miscellaneous tools will also help your work. A wet sponge to periodically clean the tip off is useful. Some commercial models even rotate! Pencil holders with guards are a must to avoid serious burns. To reverse the connection, desoldering braid (or wick) can be used to soak up the heated solder. Solder suckers from simple bulbs to spring-loaded devices are also available.



## 1989 EDXC CONFERENCE

Each year DXers across Europe meet for the EDXC Conference. This year's conference will be held in Sweden, June 16-18.

The actual location of the conference will be in Morokulien which is on the border between Sweden and Norway. The weekend will include the Swedish DX Parliament and the Norwegian DX Listeners Club Meeting. This will be preceded by a four-day DX camp at the same venue.

The conference weekend will include workshops, films, a banquet and the chance for listeners to DX with other conference attendees.

There are various types of accommodation available, including camping, a cottage and motels.

Further details on the 1989 EDXC Conference can be obtained from the European DX Council, P.O. Box 4, St. Ives, Huntingdon, Cambridgeshire PE17 4FE, England. Please enclose return postage with your enquiry. Closing date for reservations is May 1, 1989.

# Special DXers



## Sheryl Paszkiewicz

**S**heryl Paszkiewicz finds that letter writing is a big part of her shortwave hobby as she corresponds with fellow DXers. She writes, "Since this is a solitary hobby, I think it is very helpful and fun when you can make friends who share your interest via the various clubs."

The young DXer from Manitowoc, Wisconsin, U.S.A. edits a mailbag column for the Chicago Area DX Club, and edits a loggings column for the NASWA. She belongs to other shortwave clubs as well, including Fine Tuning, Numero Uno and ODXA.

"I use a JRC NRD-515 receiver with an Eavesdropper dipole antenna and am interested in logging new countries, especially Africa and Asia," Sheryl writes. "My current country totals are 199 heard (with a tentative logging on my 200th) and 175 verified." She especially enjoys verifying various Soviet transmitter sites.

Sheryl initially began DXing on the medium wave band. "In 1975 I received a radio for Christmas which had a shortwave band on it and was fascinated to pick up HCJB, the BBC and later Radio RSA and Kol Israel," she writes. In 1982 she began collecting QSL cards and got involved in radio clubs. Her ANDEX number is 4421.

Sheryl works with orders, traffic and exports at a local firm. Her other interests include record and CD collecting, coin collecting and learning languages. "I especially like to hear music programs from around the world on shortwave, as well as local news items," she writes.

Congratulations, Sheryl, on your selection as a Special DXer. For those of you who would like to send Sheryl congratulations just write her at 1015 Green St., Manitowoc, WI 54220, U.S.A.

## Raymond Greet

**F**ortunately, when he moved to a rest home, Australian Raymond Greet was not forced to drop his hobby of 30 years in shortwave radio. The DXer from Semaphore, South Australia, writes that his "tendency to do my own thing" was recognized at the rest home. "First they allowed me to have a VHF/UHF discone antenna for my scanner, and then provided another cupboard after the purchase of the FRG8800," he says. "More recently they permitted the erection of a long wire antenna."

A DXer named John sparked Raymond's interest in shortwave. "Though John is 20 years older than I am it did not stop a close friendship from blooming," he writes. He still monitors John's net, although "we rarely have an eyeball."

"DXing has provided me with a challenge. But my results have far exceeded my expectations—184 QSLs, 132 stations, 82 countries," he writes. The QSL count does not include multiple, same-frequency station verifications.

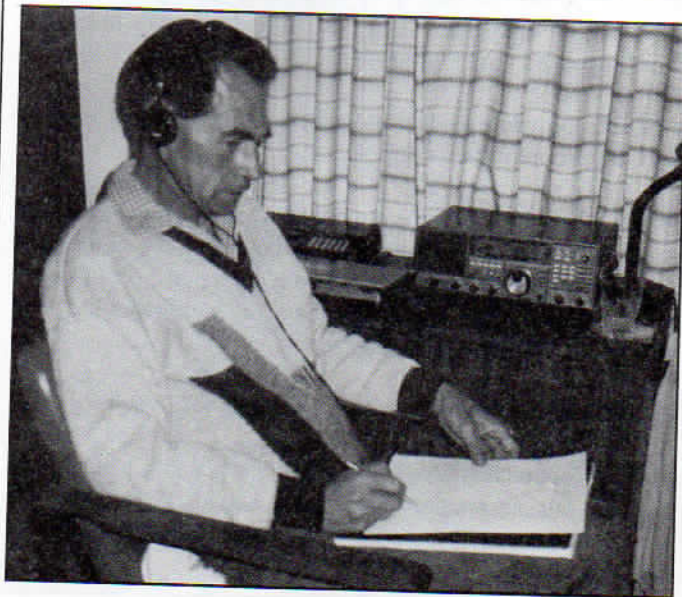
"Along the way, much has been learned technically and many hours of satisfaction gained," Raymond says. "Of course, DX programs are favored, but travelogues and jazz music are enjoyed. I also listen regularly to Ken MacHarg's 'Saludos Amigos.'"

Besides DXing, Raymond enjoys reading novels and listening to good orchestral, brass and military bands and jazz music. "Watching sports of all types on TV is always intruding on potential monitoring time."

Raymond, a single man, is a member of ANDEX (No. 6479), ARDXC and the RBI-DX Club.

His home city of Semaphore was named for "a signal station built on the foreshore to communicate with the sailing ships approaching the Semaphore Anchorage." On rare occasions, the anchorage is used today by vessels awaiting berths in the port of Adelaide.

ANDEX congratulates Raymond on being selected as a Special DXer. His address is "Sunnydale", 247 Military Road, Semaphore, S.A. 5019, Australia.



# HCJB'S FIRST FEMALE, LATIN ENGINEER

by Marian Houghton

*ANDEX recently spoke with María Augusta Rivas, who works in HCJB's Technical Services Division as an engineer:*

**ANDEX:** What exactly is your assignment in HCJB's Technical Services Division?

**María:** I am doing maintenance in the studios and also design layouts for circuits. Most of my work is in the audio shop where I repair tape recorders, cables, amplifiers, microphones and test equipment.

**ANDEX:** Isn't it unusual for a woman to be working as an engineer, especially in a Latin culture?

**María:** The university in Quito was very open about letting women enter this field of study. In my class of 30, six of us were women. However, our professor didn't think too much of us as engineers and didn't give us much help with our projects. When it came time to get a job, I discovered that companies in Ecuador were not willing to hire girls.

**ANDEX:** Would you encourage other Ecuadorian women to do what you are doing?

**María:** Certainly. Electronics is a growing field and many women should be able to get into it. Computers are also a growing business, and that would be another possibility for us.

**ANDEX:** How did you get your job at HCJB?

**María:** Four years ago I heard through a good friend of mine who works for HCJB that they were looking for a technician. I filled out an application and Bill Dufendach gave me a test which I passed. They hired me!

**ANDEX:** Do you ever feel pressure when equipment is down and the programs are not going out?

**María:** When the programs are not going out because of equipment failure we run to see what we can do. Most of the time we have spare machines in our audio shop that we can switch with the faulty one in the studio. Then we can look at it to see what is the matter and usually repair it.

**ANDEX:** What do you do in design layout for circuits?

**María:** Frequently the engineers that are building a system to improve our automation give me the schematic and I will do the circuit boards. It is perhaps the most enjoyable aspect of my work here.



**ANDEX:** What is the most satisfying aspect of your job?

**María:** Well, I am a Christian, and I like the idea that what I'm doing helps to broadcast the good news that Jesus came to save all people. I feel like I'm part of a team that is spreading the gospel.

## ANSWER TO LAST MONTH'S PUZZLE

Hammarlund	HQ180
Drake	SSR-1
Kenwood	R-11
National	HRO 500
Heath	GR 78
Icom	1C-R70
Hallicrafters	SX-111
Uniden	CR-202
Realistic	DX-150A
Yeasu	FR-101D
Panasonic	RF-2600
Toshiba	RP-F11
McKay-Dymek	DR-22
Sony	ICF-5900
Collins	R-388

# Pen Pals

**ERVIN NEMETH** - Szegedi str. 1/A, H-6900 Mako, Hungary - ANDEX 5595 - Twenty seven years old - Interested in collecting and exchanging coins and low-value notes. Also enjoys reading, writing, collecting stamps and view cards, corresponding about religious things and Bible courses.

**ALTAF ANJUM CHOUDHARY** - P.O. 11/BC, Bahawal pur 63101, Pakistan - ANDEX 6609 - Interests are DXing, collecting stamps and post cards, music and literature.

**JASON CHUDY** - 2410 Chipewa Court, Lisle, IL 60532, U.S.A. - ANDEX 6402 - 18 years old - A journalism student who enjoys DXing and rock and reggae music - Will write to any and all.

**MD NAZMUL HUDA NAZIM** - P.O. Khalisha Kundu, Dist. Kustia 7030, Bangladesh - ANDEX 6461 - 21-year-old student.

**HAMID R. RAHI** - 23 Kalantari-Savar Alley, Mazandaran Ave., Teheran, 11538, Iran - ANDEX 6490 - Would especially like pen pals from South America, Greece or Italy - Hobbies are reading, philately, movies and photography - Has studied cinematography in New York.

**CHRIS C. SYAMPUTRA** - P.O. Box 14/JKSGU, Jakarta 12140, Indonesia - ANDEX 6595 - Chris is a teacher and has a list of about 20 students who would like to correspond with friends all over the world. Anybody that would like to correspond may write to Chris, and he will send you a list of the names of these young people between the ages of 9 and 22. They are trying to improve their English.

## ANDEX PEN PALS MEET

Malcolm J. Bell of Gloucestershire, England, writes that he answered a request for pen pals in the ANDEX pen pal column and wrote to Tom Adamo ANDEX 4493 in April of 1983. The two men have been writing and "tape-sponding" ever since. Recently, Malcolm was able to visit the U.S. and meet Tom and his family at the Chicago Museum of Science and Industry. Malcom was then taken for a ride to see the countryside and for a meal at Tom's home. "That ended a day I will never forget," adds Malcolm.

John Vockeroth of Atco, New Jersey has met several pen pals through the years. One was Dario Monferine of Milano, Italy, while the latter was visiting in the U.S.A. John also met Lowell McManus five years ago in New Orleans. Both these pen pals were members of ANDEX at one time.

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

<b>AUSTRALIA</b>	A \$6.50	HCJB—ANDEX, GPO Box 691, Melbourne, Vic 3001, Australia
<b>CANADA</b>	C \$6.50	HCJB—ANDEX, 2110 Argenta Rd., Mississauga, Ontario, Canada L5N 2K7
<b>FINLAND</b>	FIM 25 to the bank	Send fee to: Radio HCJB, Helsingin Sp/Helsingfors Sb, 405506-09630716. Send application form to: Radio HCJB, PL-101, 15111 Lahti, Finland
<b>ITALY</b>	L 7.000	HCJB—ANDEX, Via Cavallotti, 16, 41043 Formigine (Modena), Italy
<b>JAMAICA</b>	J \$25	HCJB—ANDEX, Jamaica Office, P.O. Box 31, Kingston 6, Jamaica
<b>NEW ZEALAND</b>	NZ \$10	HCJB—ANDEX, P.O. Box 82-296, Highland Park, Auckland, New Zealand
<b>SWEDEN</b>	Equivalent of \$5.00 USA dollars	Fees to: Postgiro 68 06 80-6 OR to bank giro 332-4407. Send application form to: Radio HCJB, Box 110, 54201 Mariestad. Check the current exchange at your bank to determine the fee.
<b>SWITZERLAND</b>	Sfr. 10	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
<b>UNITED KINGDOM</b>	3 pounds 75 pence	HCJB—ANDEX, 131 Gratton Rd., Bradford, West Yorkshire, England, BD 1 2HS OR send to Post Office giro account 625 2311 by using a transfer form from a members Girobank account or using the "Transcash" service available at all post offices in the U.K.
<b>U.S.A.</b>	US \$5.00	HCJB—ANDEX, P.O. Box 553000, Opa Locka (Miami), Florida 33055-0401
<b>WEST GERMANY</b>	DM 12	Margot Stegmüller, Hebelstr. 32, D-6908 Wiesloch, Federal Republic of Germany Account Nr. 2074 15-675 Postgiro Ludwigshafen

### EUROPEAN COUNTRIES WHERE THERE IS NOT A LOCAL OFFICE:

Applicants may use the United Kingdom post office giro account by sending the equivalent of three pounds and 75 pence.

IF YOU LIVE ANYWHERE ELSE, REMIT \$5.00 (U.S.A. dollars) to: HCJB-ANDEX, P.O. Box 553000, Opa Locka (Miami), Florida 33055-0401.

APPLICANTS WHO HAVE DIFFICULTY PAYING THE MEMBERSHIP FEE MAY APPLY FOR OUR SPONSORSHIP PROGRAM. THE AMOUNTS LISTED ARE THE FEES FOR A FULL YEAR OF AIRMAIL SERVICE. MAKE CHECKS/MONEY ORDERS PAYABLE TO HCJB-ANDEX. INTERNATIONAL REPLY COUPONS MAY BE USED TO PAY THE FEE. WE REQUIRE TEN (10) IRCs PER MEMBERSHIP. UNUSED POSTAGE STAMPS ARE NOT ACCEPTED AS PAYMENT.



ANDEX International



is the official bi-monthly publication of Andes DXers International, a DX Club operated in conjunction with DX Partyline broadcast over Radio Station HCJB and sponsored by the World Radio Missionary Fellowship, Inc.

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