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From Ecuador to the World

Missionary Radio Station Broadcasts the Gospel for Nearly 6 Decades

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Just stepping on the property one knew that it was a special place.

Others declared that it was holy ground.

Whatever a person's viewpoint, these 130 acres of rolling green fields with a spectacular view of the perfect snow-



covered volcanic cone of Mount Cotopaxi to the south were a single point from which shortwave radio programs could be beamed to the four corners of the earth.

Pifo, as the transmitter site for international Christian radio station HCJB, the Voice of the Andes, was known, could only be described in superlatives: one of the largest radio stations in the world; the home of one of the largest broadcast antennas ever built; one of the few places in the world where radio broadcasts could reach around the globe; the place from which the gospel of Jesus Christ could be heard by listeners in each of the world's countries.

Even before entering the property, a visitor approaching the transmitter site from Quito could see red-and-white towers poking up into the sky. Passing through the entry gate just east of the town of Pifo, one saw 31 arrays of steel towers and curtains of wire spread out. Clustered near the transmitter and maintenance buildings were the homes of resident engineers.

Each of those unique structures with their complex web of reflecting curtains was designed to throw a powerful signal to a specific target, be it North or South America,

Europe, the South Pacific, East Asia or West Central Africa. Smaller antennas, configured in a different manner, served to send programs in the Quichua dialects straight up where they would bounce off electronically charged layers far beyond the reach of the highest-flying airliner and bounce back down like an umbrella over the Andes where those descendents of the Inca civilizations still live.

In the large transmitter building, 10 behemoths of electronic genius pumped out hundreds of thousands of watts of signal power, much of it generated in HCJB Global's own hydroelectric plants even higher in those majestic mountains.



The Transmitter building at HCJB's broadcasting site near Pifo, Ecuador. The property was located at 8,600 feet, high in the Andes mountains. —Photos courtesy of Roger Stubbe/HCJB.

Some of those technological marvels were commercial brands known to radio engineers around the world: RCA, Harris, Siemens. Others, including the super-power, 500,000-watt HC500, were built by HCJB Global's own engineers in Ecuador and Elkhart, Indiana, USA.

None of these were ordinary, run-of-the mill transmitters. No, they were specifically built for or adapted to Pifo's extraordinary altitude of 8,600 feet where the air is thin and electrical arcing between components could quickly burn up precious parts and force an expensive and crucial piece of equipment off the air.

Hidden away in the roof of this fascinating building was a switcher unit, or to be more precise, dozens of switchers. These connected the appropriate transmitter to its scheduled antenna to beam the Christian message from Pifo in the morning to missionaries in the Brazilian Amazon or to German settlers in Paraguay and Argentina. In the afternoon they helped send programs to eager listeners in Europe, the Middle East and Africa; in the evening to enthusiastic listeners in the Americas and the Caribbean and in the wee hours of the morning to others in East Asia and the South Pacific.



Huge curtain antennas at HCJB's Pifo transmitter site high in the Andes mountains sent Christian programming around the world via shortwave.

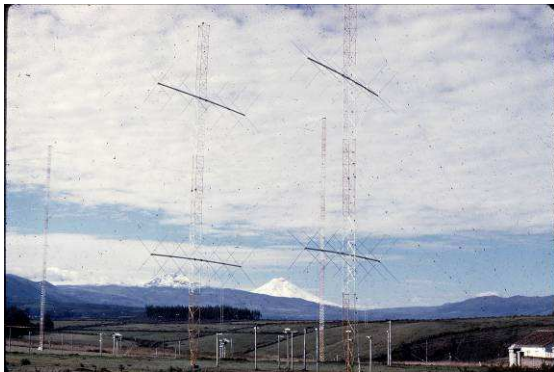
While the transmitters were impressive, it was the antennas that were awe-inspiring. Whether seen against the

backdrop of the setting sun or with Cotopaxi visible through their web-like patterns, these tall towers, reaching as high as 417 feet and holding two or three curtains of wires were fascinating as they invisibly bounced hundreds of thousands of watts of power, carrying the life-giving message of the gospel to people trapped behind the Iron Curtain, confined in the totalitarian state that was the Soviet Union. Also nurtured were those hidden behind the veil of Mideast nations or casually listening in their homes and offices in North America, Europe, Asia and the South Pacific.

It's hard for those without engineering experience to understand how an array of thin wires can bounce an electric signal against another similar curtain and have that signal and its message arrive at a radio receiver 6,000 miles away.

But, the antennas and transmitters of Pifo, Ecuador, did just that, broadcasting at times in up to 18 languages a day, around the clock, around the world.

While the technology was fascinating, even more compelling were the people who made it happen—those men and women who relocated to the beautiful South American country of Ecuador over the years so that they could build a radio station that would carry a message of hope and life to listeners around the world. Those engineers and technicians gave up what could have been lucrative careers back home to make certain that people in Ecuador and El Salvador, Germany and Greece, Russia and Romania could hear the life-giving message of Jesus Christ in their own language on their own radios.



A double Cubical Quad antenna at the Pifo transmitting site of HCJB. Mt. Cotopaxi is visible between the towers.

These people, from a multitude of nationalities, were innovators and geniuses in their own right. They designed the Cubical Quad antenna to prevent electrical arcing at the tips of antenna wires and made that model available for personal, military and commercial use around the world.

They built and operated the “steerable antenna,” said to be one of the largest broadcast antennas ever built and the only one of its design ever constructed. They fabricated transmitters, antennas and components almost out of barbed wire and tin cans when standard supplies were not available. They utilized propagation possibilities (characteristics that allowed the signal to span long distances) that were unknown to others at the time, yet allowed the signal of HCJB to reach the ends of the earth.

Why did they do this? Because they had learned that God, who created the world and everything in it, including the fascinating science of radio broadcasting, cares about His creation and wishes that each and every person, from every tongue and nation, will know His love for them. And, they discovered the truth of God as it is written in the Bible and the love, forgiveness and salvation of God which results in eternal life through God's Son, Jesus Christ, who is the friend of sinners and the Savior of the world.

Today, those fields from which gospel programming was broadcast for almost 60 years are silent and almost empty. Gone are the huge towers and miles of wire that stretched across the green grass. Now gone silent are the transmitters* that labored day in and day out to transform the programs into a signal that would be carried around the world.

The site, which began broadcasting in 1953, signed off for good on Sept. 30, 2009. A changing world and changing methods of mass communication have challenged HCJB to move on to new ways of sharing that same message of hope. Today, satellite television and radio, the ability of local Christians to launch their own stations in communities where such broadcasters were forbidden or impossible in the past, the availability of other shortwave transmitting sites, the Internet, podcasts, social networking sites and Internet radio have become additional means of receiving information, entertainment and inspiration.

Pifo has become silent and the engineers and program producers have moved on. But today in every country of the world there are churches meeting, worshiping and serving because they practice what they heard on HCJB. There are entire communities and nations and people groups that proudly bear the name Christian because listeners heard the message emanating from Pifo. And, there are people, believers in Jesus Christ, who will attest to how their lives were transformed by Him and how today they are followers of Jesus because of what they heard from Pifo, Ecuador.

To God be the glory!

Note: Kenneth D. MacHarg served in Ecuador with HCJB Global from 1990 to 1998. He and his wife, Polly, retired from Latin America Mission in 2006 and now live in Carrollton, Ga. His website is www.missionaryjournalist.net.

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